Photo Printer MH250

User's Manual

Blue words are the items to be confirmed

Precaution Symbols for safety use

To ensure the safe use of the printer, the operation must be followed by this user manual.

This user manual explains as follows.
- which part of the printer is dangerous
- how dangerous it is without following the instruction
- how the user can avoid the danger
In addition, the warning labels are attached at or near the place inside the printer where it is assumed as danger.

"Warning" and "Caution"

Terms indicating risks and warning levels in this manual and caution labels are "Warning" and "Caution"

The meaning of each of the two terms is as follows:

⚠️	Warning	Failure to follow the instructions could result in **death or serious injury**.
⚠️	Caution	Failure to follow the instructions could cause **burns or injury, and property damage**.

Other Symbols

For the specific contents of risk, the three symbols of "Attention", "Prohibition", "Mandatory Acts" are used. Each symbol is defined as following meanings.

Mark	Meanings	Definition	E.g.
	Attention	Indicates a potentially dangerous situation. The figure at the center of the symbol indicates the potential danger.	(Attention of electrical shock)
	Prohibition	Indicates a prohibition against the action. The figure at the center and surrounding of the symbol indicates the prohibited actions.	(Prohibition of Touch)
	Mandatory Acts	Indicates mandatory actions. The figure at the center of the symbol indicates the required actions. To avoid the occurrence of risk, the actions must be done.	(Unplugging)

Attention

⚠️	It shows that there are fears of smoking and the ignition.	⚠️	It shows that there is a fear that the finger gets caught.
⚠️	It shows that there is a fear of the electrical shock.	⚠️	It shows that there is a fear that the finger gets injured.
⚠️	It shows that there is a fear of the injury due to the high temperature.	⚠️	It shows unspecified general caution and warning.
⚠️	It shows that there is a fear of the injury due to rolling.		

Prohibition

🚫	Do not disassemble, repair or modify the printer. It may cause the electrical shock or fire.	🚫	Do not touch with wet hands. It may cause electrical shock.
🚫	Do not touch other than the specified place. There are an electric shock and a fear of the injury such as burns.	🚫	It shows unspecified general danger.
🚫	Do not use it in the place where water and the liquid splash. It may cause the electrical shock and the ignition when wetting it to water.		

Mandatory Acts

ℹ️	Disconnect the power plug from the outlet. It may cause a fire or the electrical shock.	ℹ️	It shows unspecified general user action. Please follow the explanation during the operation.
ℹ️	Must be grounded. It may cause the electrical shock or a fire.		

Definitions of terms used in this manual.

 In this user manual, two types of following terms are used in the text other than the symbols of Safety Precautions. Each term is explained here.

Term	Definition
[Important]	If this precaution and instruction are not followed, the printer might break down. Or, the system operation might be influenced.
[Check]	If this precautions and instruction are not followed, the printer might not work properly. Or, it describes the matter which should be an additional point to be noted.

Introduction

Dear users

First of all, we would like to express our sincere gratitude to you for purchasing our products.

This manual is to guide users for the proper use of Multi-head-type dye-sublimation digital photo printer MH250 (hereinafter referred to as "the machine").

This manual contains the description of the machine installation, operation, maintenance and other related information, please read through this manual carefully before using the product.

Before using the machine, please make sure you have read "Safety Precautions."

Notice
1. No authorization for the reproduction of this manual in whole or in part without written permission.
2. Contents of this manual may change in the future without notice.
3. Without the permission of ALTECH, copying or modifying the manual is prohibited.
4. In the production of this manual, we make every effort to ensure the accuracy of the contents. If there are any inadequacy or errors and omissions, please contact the dealer where you purchased this printer.
5. We assume no liability arising from the use of this product, nor any liability for incidental or consequential damages arising from the use of this manual regardless of Item(4).
6. On the occasion of selling or transferring the machine to a third party, be sure to attach this manual.

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Contents

Safety Precautions

Before using this machine, make sure to carefully read the following safety precautions.

Warning Labels

 The warning labels are attached at or near the place where there are the possibilities of danger inside the printer. The purpose of these labels is for users to aware an assumable danger in the course of the printing operation.

 Followings are the place where the warning labels are attached. If the label is not attached, or is about to be peeled off, or too dirty to be readable, please contact the dealer where you purchased this product.

It shows that there is a fear of the injury due to the high temperature.

Safety Precautions

The following precautions are very important when using this printer safely. Please read carefully and understand the contents of precautions for safety use. Regarding the explanations of symbols, please refer to " Precaution Symbols for safety use" (Page 1).

 Warning

	Do not disassemble, repair or modify the printer Unless it is instructed in the User Manual, do not attempt to disassemble, repair or modify the printer. Otherwise, not only it causes the printer can not work properly but also may cause electric shock or a fire.
	In case of smoke, unusual smell or abnormal sound, immediately turn off the power If you detect a smoke, unusual smell or abnormal sound, immediately turn off the printer and pull out the power from the outlet. Then, contact your dealer. If you continue to use the printer under such circumstances, it may cause electric shock or a fire
	Do not insert wire or metal sheet Do not insert a piece of metal, wire or other foreign objects into the space inside the printer. Otherwise, it may cause electric shock or malfunction.
	Do not touch the power plug with wet hands Do not touch the power plug with wet hands. Do not touch inside of the printer with wet hands while it is energized. Otherwise, it could cause electric shock.
	Keep the bags which come with the product away from the children Do not place the bags in areas accessible to children. If covering the nose and mouth of children, it may cause children to choke.
	Keep the implanted medical devices away from the printer The person who has the implanted medical devices must be away more than 22cm from the printer.

⚠️🚫	**Do not use the printer at the prohibited area**	
	Do not use the printer in areas where there is a chance that the person who has the medical devices (heart pacer, acoustic aid and etc.) is approachable.	
	Especially, do not use the printer near the place where the medical institution prohibits using the devices to generate the radio wave.	
	Even if the area is permitted to use the radio wave by the medical institution, the printer must be switched off in case of using the medical devices near it.	
	When operating the printer, please follow the instruction of the medical institute. Details must be asked for the medical institute.	
⚠️🚫	**Avoid the printer being used for life-related or high reliability required purposes**	
	This product is not intended for or designed to be used as an embedding or control purpose for life-related or high reliability required devices, such as medical devices, nuclear paraphernalia/devices, aviation equipments/facilities, etc. As a result of using this printer in the above facilities, devices or control systems, we Altech, are not responsible for any damages when the bodily injury or property damages are occurred.	

Caution

	Do not use non-designated outlet Grounded outlet with the specified voltage must be used. If using a non-specified one, it may cause a fire or electrical leakage.
	Use the attached power cord The use of non-attached power cord might cause a fire.
	Do not twist or bend power cord Do not twist or bend the power cord excessively, place objects onto it or stuff foreign objects inside it. Do not use with bundling the power cord together. Otherwise, it may cause a fire or electric shock.
	Do not apply drugs to the power cord Do not apply pesticides or other objects to the power cord. Otherwise, it may make the power cord cover deteriorate, which may cause electric shock or a fire.
	Do not use damaged power cord If the power cord is damaged, do not use it by getting it repaired with vinyl adhesive tape. Otherwise, the repaired parts can be overheated, which may cause a fire or electric shock. If the power cord is damaged, please contact the dealer where you purchased this product for repair service.
	Do not plug the power cord half-way Plug the power plug firmly. If the power plug is plugged half-way, the exposing part will easily get accumulation of dust and the plug will be heated due to loose contact, which could cause a fire. In addition, the plug should be pulled out from time to time to wipe off the dirt and dust with a dry cloth. If the plug gets dirt and dust build up, the plug will get heated once water droplets or other liquid drops on it, which may cause a fire.
	Do not use power extension cord Do not install the printer in a location where the attached power cord cannot reach to an outlet. The use of other cable sources which do not meet the specifications, it may cause the cable to overheat and lead to fire.

Caution

⚠️🔥 ⚠️⚡ 🚫	**Do not pull on the power cord** When pulling out the power cord, ensure to hold the connector and pull out straight. If the power cord is pulled on with holding the cord or the excessive power is added on the connector part, the cord part will be damaged.
⚠️🔥 ⚠️⚡ 🚫	**Do not use power cord for other purposes** The attached power cord is designed to use specifically for this printer with its safety confirmed and must not be used for other devices, or other purposes. Otherwise, it may cause a fire or electric shock. In addition, the power outlet with specified voltage and current range should be used.
⏚	**Must be grounded** If the electric leakage occurs, it may cause a fire or electric shock. However, the gas pipes, water pipes, taps, lightning rod, etc. should not be grounded.
🔌	**Put the power plug at a reachable place** Even though the power of the printer is turned off, the inside of the printer is still electrified until the power cord is pulled from the outlet. As a precaution, the power plug connected to the outlet should be located at a reachable place to hands.
⚠️🔥 ⚠️⚡ 🔌	**Unplug the power cord and other cables when moving the printer** If the printer is moved while the power cord or other cables is in the state of connection, it will damage the cables, which may cause a fire or electric shock.
⚠️⚡ 🔌	**Disconnect the power plug from the outlet for maintenance of the printer** Otherwise, it may cause electric shock.
⚠️🔥 🔌	**Unplug the power plug when not using the printer for long periods** When not using the printer for any reasons such as continuous consecutive holidays, to ensure safety, unplug the main power plug and power cord of the printer. Otherwise, it may cause a fire (Until the power cord is unplugged from the outlet, the inside of the printer is still electrified)

⚠ Caution

⚠🔥 ⚠ 🚫	**Do not use or store the printer in an environment containing corrosive gases, dust, in the air containing corrosion-accelerating components or in the environment of metal and electrical conductivity** Do not install, store or use the printer in the presence of corrosive gases (sulfur dioxide, hydrogen sulfate, nitrogen dioxide, ammonia chloride, ozone, etc.) and in the environment containing corrosion-accelerating components (sodium chloride and sulfur, etc.). Under such circumstances it may cause corrosion to the circuit board inside the printer and result in malfunction, smoke or fire.
⚠🔥 ⚠ 🚫	**Keep the printer away from direct sunlight and extreme temperature changes** Do not place or store the printer such as by the windows that are exposed to direct sunlight, or in a location where drastically temperature/humidity changes (heating equipment, air conditioner, refrigerators and other electrical facilities), and avoid any location where there is a presence of moisture. Due to the changes of temperature/humidity, it may result in raising the temperature inside the printer or causing the form of condensation that could lead to printer failure, malfunction and fire.
⚠🔥 ⚠⚡ 🚫	**Keep the printer away from the kitchen counter, humidifier, heater or any place filled with smoke and heat** The printer can not be placed in the kitchen counter, humidifier or heater and avoid anywhere near smoke and heated place. Failure to do so could create the risk of fire or electric shock due to poor insulation or melting of power cord cover and skin.
⚠🔥 ⚠	**Do not place the printer in a place with severe dirt or moisture** Do not install or store the printer in a severely dirty place or nearby the humid place where the water boiler is located. Otherwise, it may cause a fire.
⚠	**Do not place the printer in an unstable place** Do not place or store the printer in an unstable place. Not only it causes damage to the printer, but also may result in accidental injury or damage to surrounding items.
⚠🔥 🚫	**Do not block any air vents** The printer has vents in the backside. Do not place the printer against the wall or place objects close to the ventilation opening without space between them. Otherwise, it may make the temperature inside the printer increase and cause the printer not to work properly or lead to fire.
⚠ ❗	**If the printer is placed on the cabinet with pulley, be sure to fix the pulley not to move and be stable** Otherwise, the printer may move or fall, which may lead to human injury.

 Caution

	When moving the printer, lift the printer in the form of no excessive physical strain to your body The printer weighs about 60kg. When moving, carrying the printer or taking it out from the box, more than 3 people are needed for the careful operation. If the printer is lifted by force or with rough handling, it may result in human injury.
	Do not place heavy objects on the printer If the objects on the printer tip over or fall due to the loss of its balance, it may result in personal injury.
	Do not drop the printer or subject it to strong impact. Otherwise, it would damage the cover and may cause a fire or electric shock.
	If the printer drops or the cover is damaged, please disconnect the power plug from the outlets, and contact the dealer where you purchased this product. If you continue to use it, it may cause a fire or electric shock.
	Do not put foreign objects into the printer Do not fill with liquids such as water or foreign objects such as pins and clips, foreign objects thrown into the printer. Otherwise, it may cause a fire or electric shock, leading to the failure of the printer. If you accidentally get any of the above items fall into the printer, the printer must be immediately cut off the power and the power plug pulled out from the outlet, and get in touch with the dealer.
	Do not clean the printer with lacquer thinner or volatile oil Otherwise, it may cause a fire.
	Do not touch the printer when a thunder or lightning storm occurs When a thunder is approaching, do not touch the printer unit including the wires. Also, do not connect or disconnect the unit. There is a fear of the electric shock by lightning.
	Do not touch the damaged LCD screen Do not touch the damaged LCD screen because the LCD screen of control panel contains harmful liquids to human being. If you accidentally swallow the liquid from the damaged LCD screen, please immediately rinse your mouth and receive the medical treatment. In addition, if the liquid comes into direct contact with skin or eyes, please immediately rinse with water for 15 minutes or more, and receive the medical treatment.

 Caution

	Be careful of high temperature Some components inside the printer will become high temperature in the course of usage, so when opening the cover, wait for the parts to cool down before operating. If touching the hot parts during the usage of the printer, it may cause burns.
	Be careful not to get fingers caught in the printer Be very careful when opening the cover to prevent the fingers from getting caught in the printer. Otherwise, it may cause injury.
	Be careful not to get fingers touch the edges or bumps Be careful to prevent the fingers from touching the edges or any bumping area of the printer. Otherwise, it may cause injury.
	Do not lick ribbon Please keep the ribbon away from the children. If ink comes into direct contact with skin, wash the area thoroughly with soap and water. If ink accidentally comes into direct contact with eyes, flush them immediately with water and receive the treatment of ophthalmologist.
	Prevent hair and other things from getting caught in the printer When replacing paper, ribbon or other consumables while the printer is working, keep the hair, scarf or tie and other objects away from the printer gear. Otherwise, it may cause hair to be caught in or fingers caught in the machine, resulting in injuries.
	Do not touch the paper ejection slot. Do not touch the paper ejection slot. The paper cutting blade is built in the printer. If touching it with hand, that may lead to injury.

Disposing of your used product

In the European Union

 EU-wide legislation as implemented in each Member State requires that used electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. When disposing of used products, you should comply with applicable legislation or agreements you may have. The mark on the electrical and electronic products only applies to the current European Union Member States.

Outside the European Union

 If you wish to dispose of used electrical and electronic products outside the European Union, please contact your local authority and ask for the correct method of disposal.

Regulatory compliance statements

American Users

FCC Part15

NOTE: 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.

CAUTION:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

European Users

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Japanese Users

JIS C 61000-3-2

JIS C 61000-3-2

Declaration of Conformity

European Users

We:

ALTECH CO., LTD.

declare under own responsibility that the below mentioned product:

MH250

is in compliance with essential requirements and other relevant provision of Directive 1999/5/EC.

Harmonized standards applied:

Article 3.1 (a)   Safety   EN 60950-1: 2006 + A11: 2009

Article 3.1 (b)   EMC   EN 55022: 2006 + A1: 2007 Class A
                            EN 55024: 1998 + A1: 2001 + A2: 2003
                            EN 61000-3-2: 2006 + A2: 2009
                            EN 61000-3-3: 2008
                            EN 301 489-1 V1.8.1
                            EN 301 489-3 V1.4.1

Article 3.2   Radio   EN 300 330-2 V1.5.1

1. Printer Setting

1.1 Confirmation of Printer Unit and Package Contents

⚠️ Caution

    When moving, carrying the printer or taking it out from the box, more than 3 people are needed for the careful operation. Failure to do so could lead to human injury or harm other objects if the printer falls.

Printer unit and Package contents

Printer

Ribbon Cassette　*1
cyan, magenta, yellow overprint, one of each)

Paper Holder　*1, *2

Spacers for 5-inch

Ribbon Spools 15pcs　*3

Stacker

Scrap Box

Power Cord

Startup Guide

Software CD-ROM

*1　Those are installed inside the printer.

*2　Please use them after taking off the paper core.

*3　These are the attachment parts for each ribbon core (Yellow, Magenta, Cyan, and Overprint)
    16 spools in total are necessary (2pcs for each ribbon of Supply side and Take-up side)
    The only one spool for the supply side (Left) of the magenta ribbon is attached to 6 inch media set or
    5 inch media set.

Consumables

6-inch Media Set
(Yellow, Magenta, Cyan, Over Print, One piece of Ribbon Spool (For Magenta Ribbon Supply Side (Left)), 6-inch paper)

Yellow Ribbon

6 inch paper

Magenta Ribbon

Cyan Ribbon

Overprint Ribbon

Ribbon Spool
(For Magenta Ribbon Supply Side (Left))
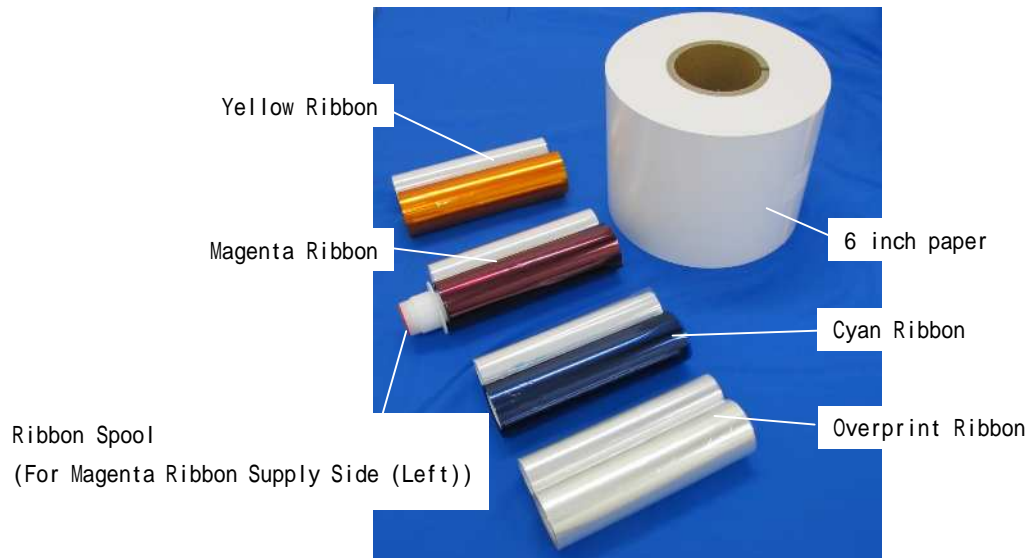
5-inch Media Set
(Yellow, Magenta, Cyan, Over Print, One piece of Ribbon Spool (For Magenta Ribbon Supply Side (Left)), 5-inch paper)

Yellow Ribbon

5 inch paper

Magenta Ribbon

Cyan Ribbon

Overprint Ribbon

Ribbon Spool
(For Magenta Ribbon Supply Side (Left))
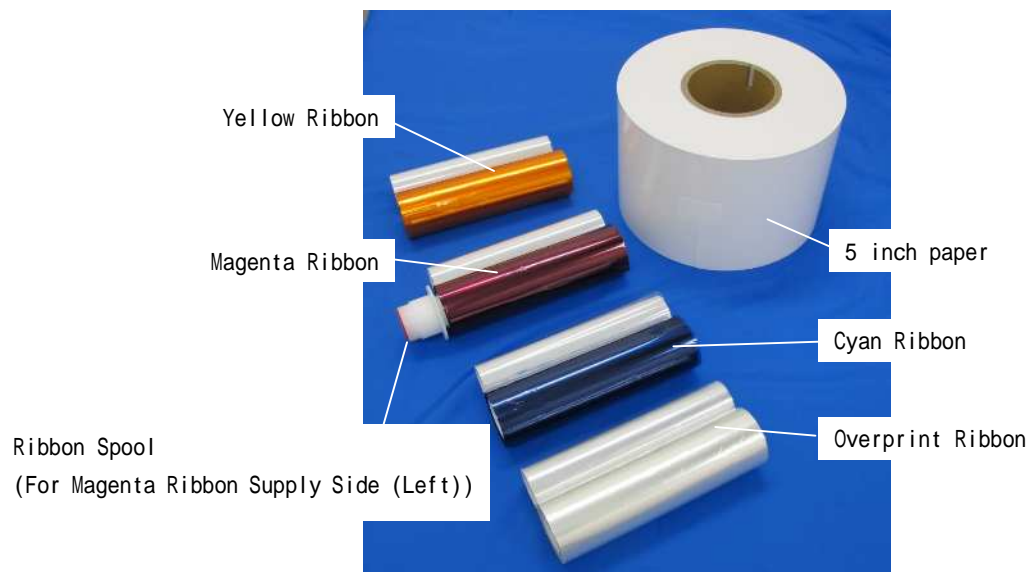
1.2 Part Names

Front side of Printer

Right Lateral

Left Lateral

USB Interface

Vents

Power Switch

Power Cord Inlet
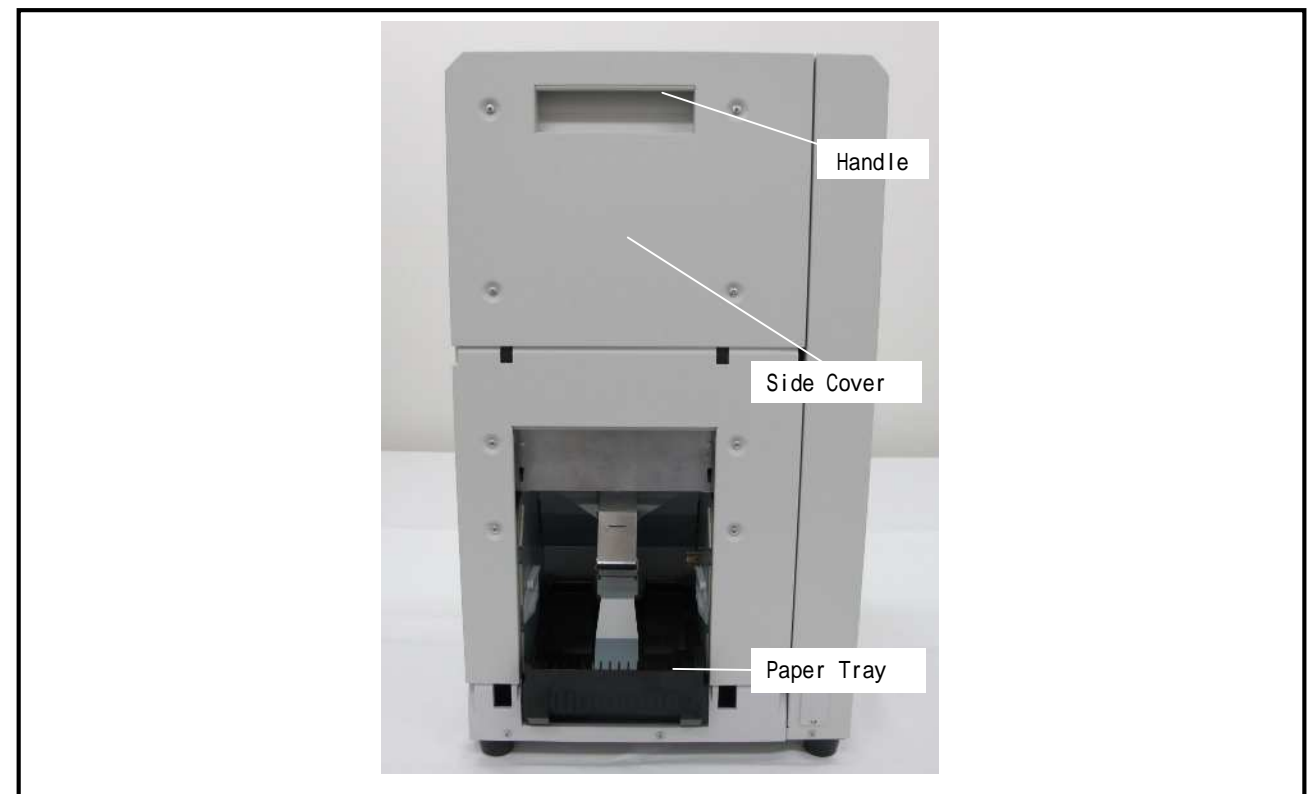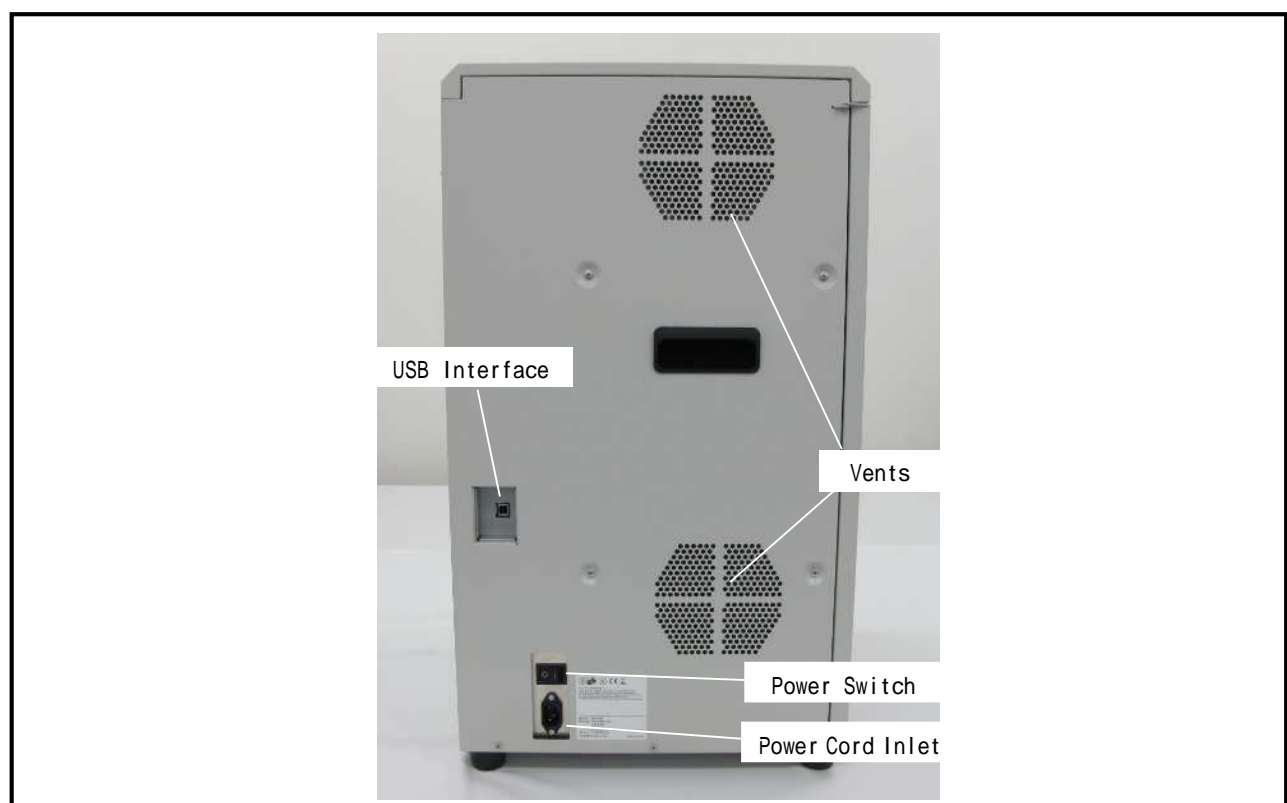
Inside of Printer (Front)

Ribbon Cassette (Cyan)

Side Cover Lever

Ribbon Cassette (overprint)

Ribbon Cassette Lever

Ribbon Cassette (magenta)

Ribbon Cassette (yellow)

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MH250

Inside of Printer (Right Lateral)

Thermal Print Head

Platen
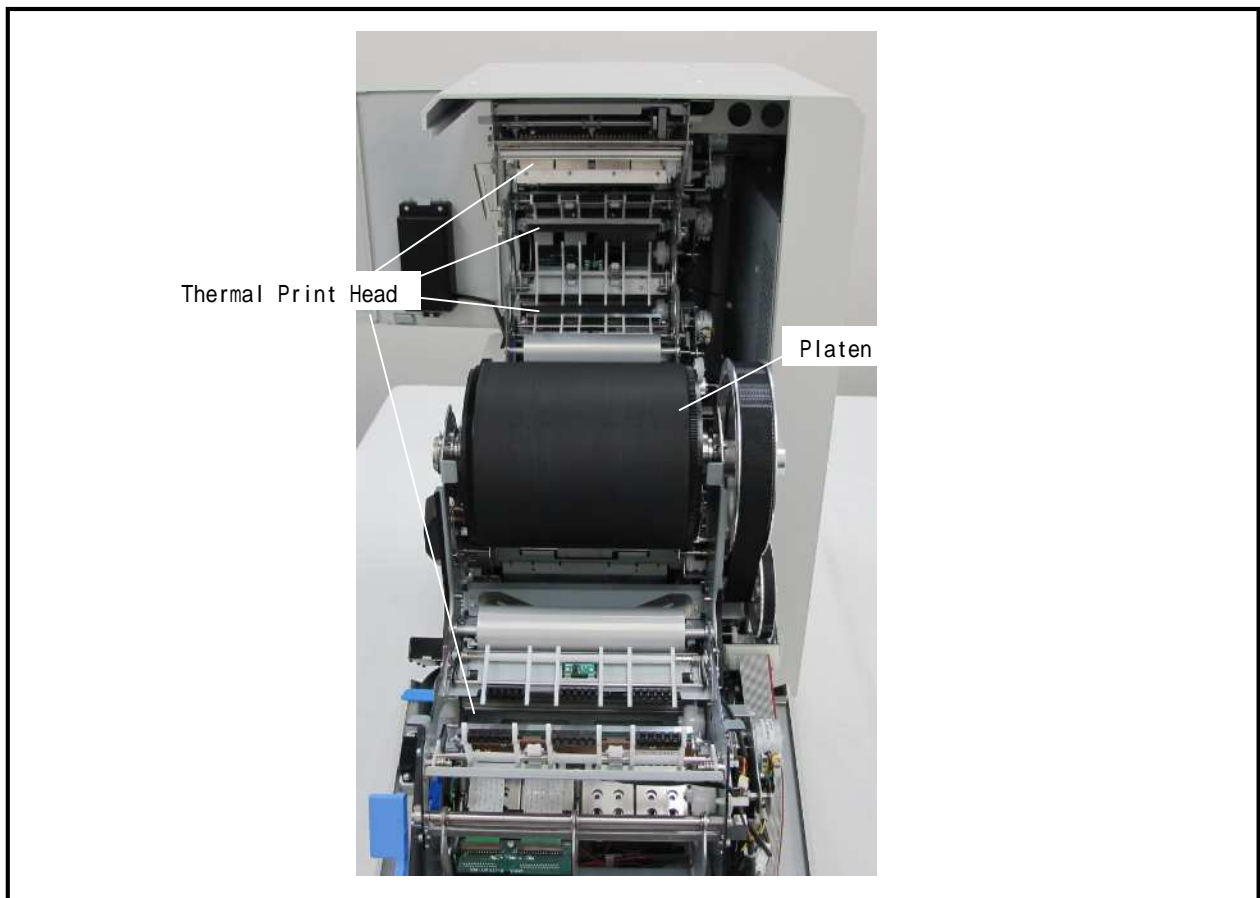
Control Panel
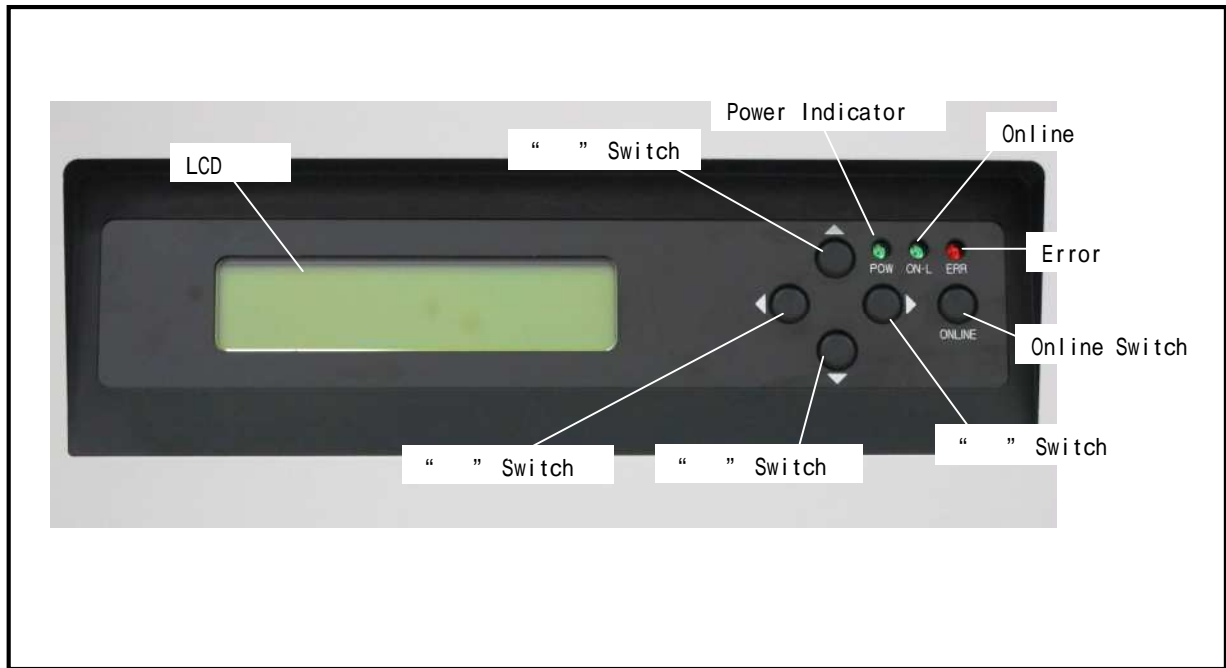
Switch Function

Name	Display	Function
Online Switch	Online	Every time you press, online and offline alternately-switched. When pushing during the print, a paper in the process of printing will be withdrawn and the printer will be placed in a pause status.
		In menu mode, determine the selection items and settings/adjustment values
" " Switch	▲	In menu mode, scroll forward the menus and settings
" " Switch	▼	In menu mode, scroll backward the menus and settings
" " Switch	◀	In menu mode, Navigate from the selected submenu to main menu.
" " Switch	▶	In menu mode, Navigate from the selected main menu to submenu.

Indicator Display

Name	Display	Color	Display Indication
Power Indicator	POW	Green	Light on: indicates power on Light off: indicates power off
Online Indicator	ON-L	Green	Light on: online (printable status) Flash: print data remains in off-line status. Light off: indicates the following status 　- offline (not start printing operation) 　- occurrence of recoverable error / non-recoverable error 　- menu mode
Error Indicator	ERR	Red	Light on: indicates the occurrence of non-recoverable error Flash: indicates the detections of recoverable error or warning Light off: indicates no error

LCD Display

Status	LCD Display 1234567891011121314151617181920	Indication
Online	Online	Indicates online status (printable status)
Offline	Offline	Indicates offline status (non-printable status)
Initializing	Initializing	Indicates in-process of initializing
Printing	Printing	Indicates in-process of printing
Print Head Self-Check	Head Testing	Indicates in-process of checking the print head damage.

1.3 Printer Installation

Required footprint for Installation

to be confirmed

550mm

???mm

120mm

415mm

???mm

???mm

???mm
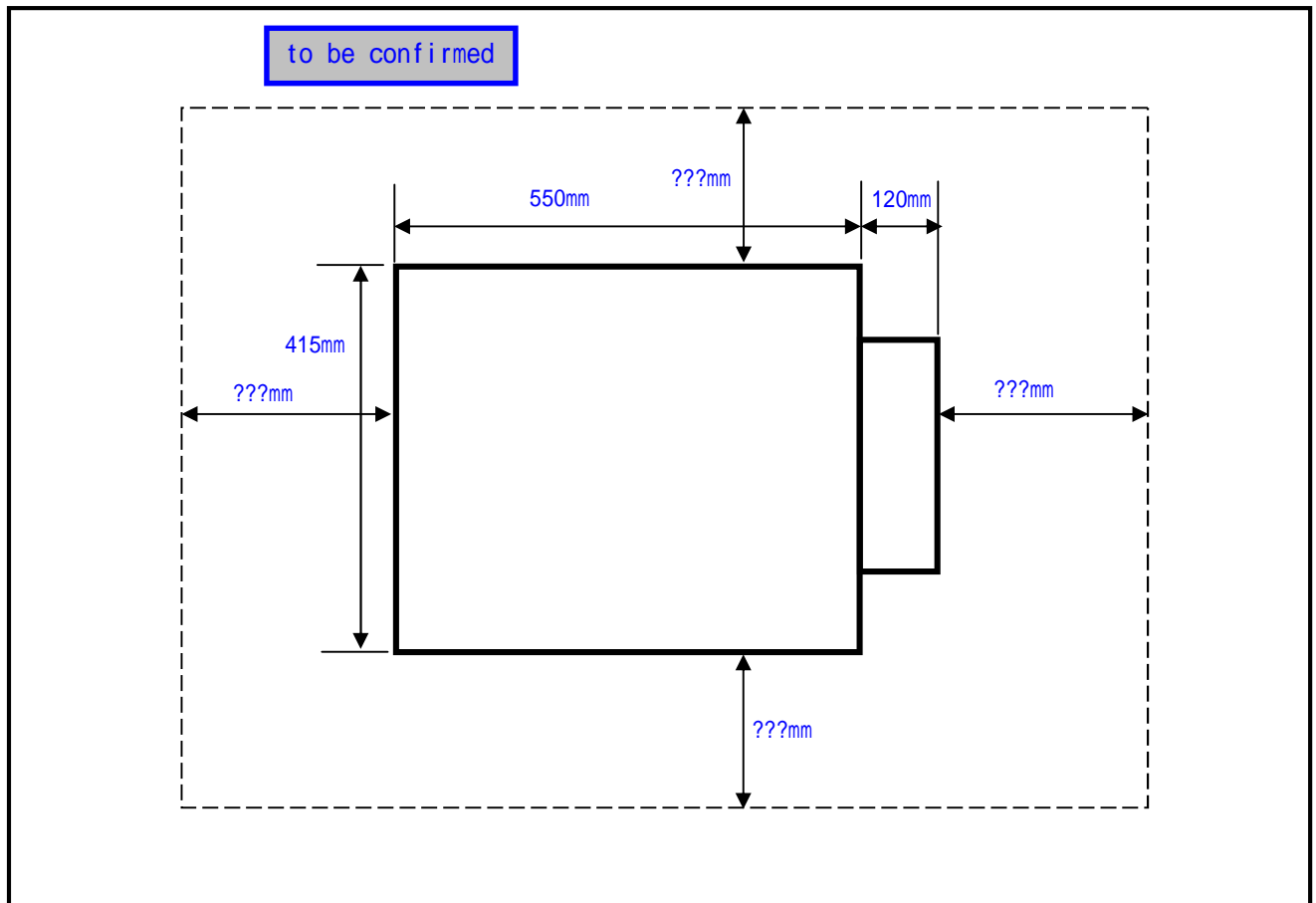
Space required for installation and maintenance (top view)

This device is not intended for use in the direct field of view at visual display workplaces.
To avoid incommoding reflections at visual display workplaces this device must not be placed in the direct field of view

1.4 Connecting the Power Cord

1. Make sure the printer power is OFF
2. Plug the power cord into the power cord inlet on the printer
3. Plug the power cord into the outlet

1.5 Connecting to a Computer

1. Make sure the power to the printer and the computer is OFF
2. Connect USB cable to the USB port on the printer.
3. Connect the other end of USB cable to the USB port on a computer
4. Turn on the printer first and then turn on the computer

1.6 Setting the Media (Paper and Ribbons)

[Important]

The paper and ribbons must be replaced at the same time. If not replacing the paper and ribbons at the same time, the printer recognizes a media set as invalid paper and ribbons and it might not be able to use them anymore.

Types of Paper

6-inch paper

5-inch paper

Types of Ribbon

5

ink ribbon

<Identification of Ribbon Cartridge>
- Prevention hole of wrong insertion
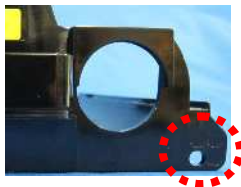
Yellow

Magenta
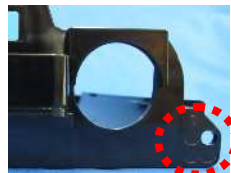
Cyan

Overprint

- Labels

Yellow

Magenta

Cyan

Overprint

Setting the Paper

1. Pull the paper tray out from the printer.

Paper Tray

2. Set the roll paper to paper holder.

Paper Holder

When using 5-inch paper, insert the "Spacer for 5-inch" between the paper holder and paper.

Snap the hooks (3 places) of the spacer for 5-inch into the support holes in the paper holder.

Support Hole

Hooks

Paper Holder

Spacer for 5-inch
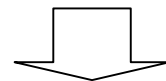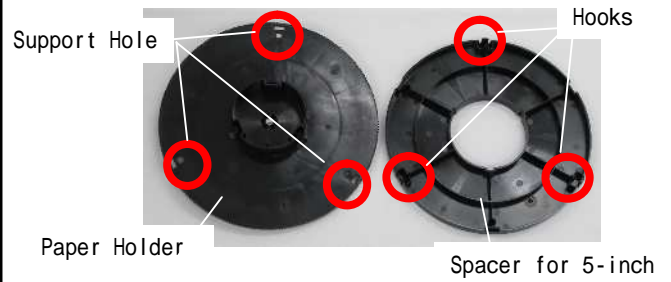
[Important] ————————————————

Leave no gap between the paper and the paper holder.

No gap   With gap

3. Place the paper holder onto the tray.

Paper Guide
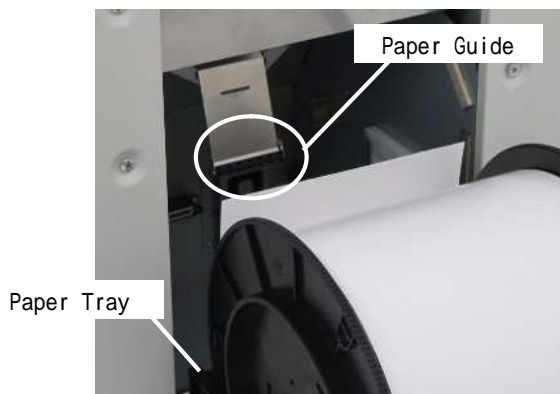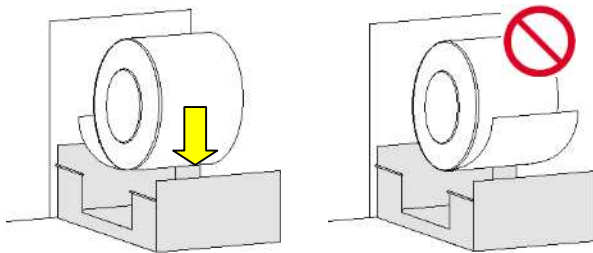
Paper Tray

[Check] ————————————————

When setting the paper, the end of the paper must be aligned with the back end of the paper tray.

Paper Guide

Align the end together
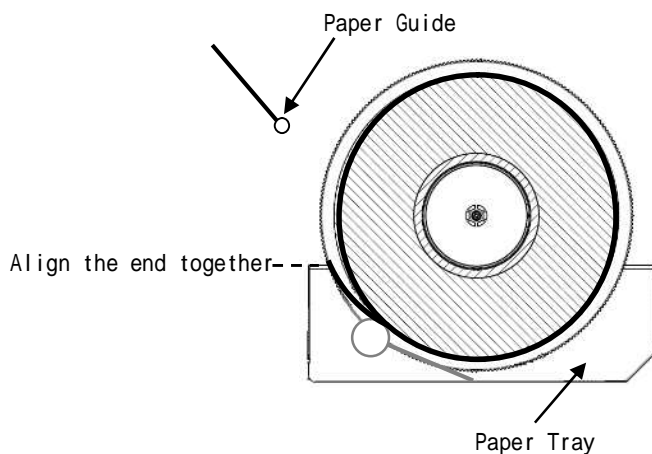
Paper Tray

If the end of the paper is located in front of the paper guide, it causes the paper jam when putting the paper tray back to the printer.

Paper Guide
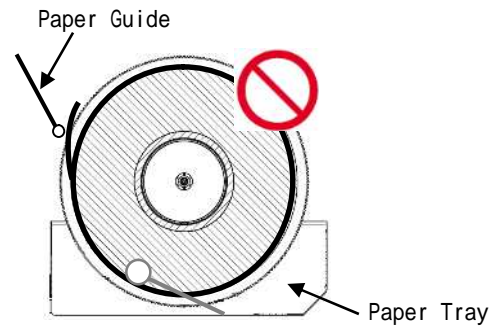
Paper Tray

4. Put the tray back into the printer.

[Check] ————————————————

Please insert the paper tray into the unit firmly.

5. Set the "Scrap Box" onto the printer.

28

6. Place the stacker.
 - When printing on under the 4-inch length paper.
   Insert the stacker hooks into the support holes
   located at the top of Scrap box
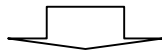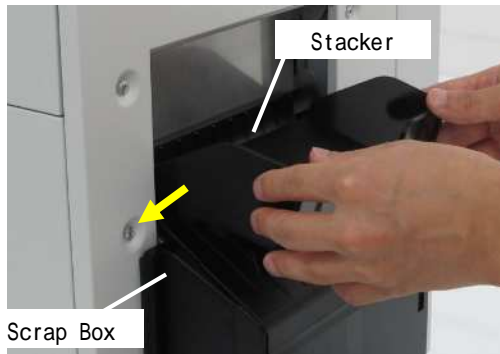
Stacker

Scrap Box

 - When printing on 4-inch to 10-inch length paper.
   Insert the stacker hooks into the support holes
   located at the middle of Scrap box.

Scrap Box

Stacker

-When printing on larger than 10-inch length paper
 The stacker cannot be used in this case. Please use
 the printer without installing the stacker to the
 scrap box.

[Check]

 - When the printer is initialized after the paper is
   installed, 7pieces of paper (102mm/pc) will be
   ejected automatically.

 - In case of taking the trash out of the scrap box,
   remove the scrap box and open its cover, then throw
   away the discarded material from inside.

Cover

Setting the Ribbon

1. Open the side ribbon cover.

2. Open the ribbon cassette lever in the direction of arrows
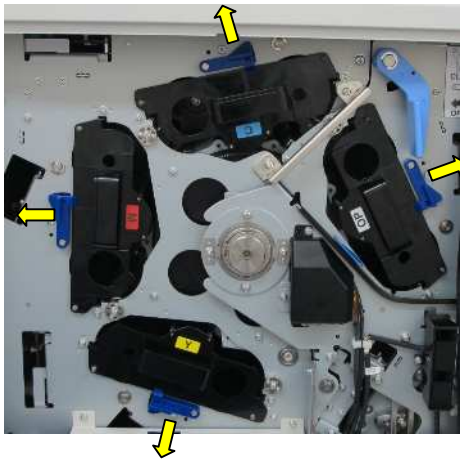
3. Remove the ribbon cassette.

4. Take out the new ribbon.

Take-up side Thinner Diameter

Supply Side (Thicker Diameter)
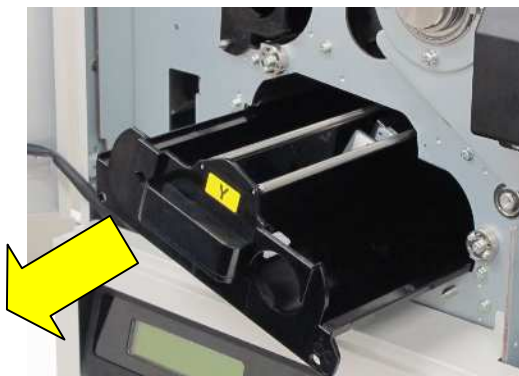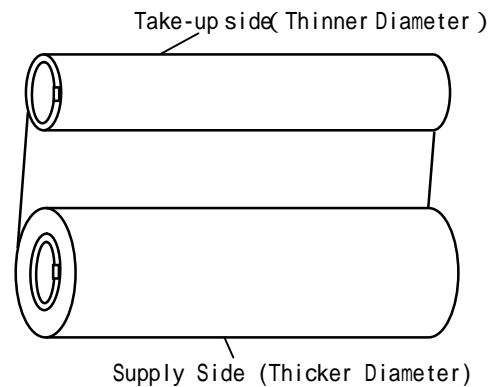
5. Insert the ribbon spool into the ribbon core.

[Important]

- Please insert a ribbon spool with its end-surface in red attached to 6 inch media set or 5 inch media set, into the supply side of the magenta ribbon. In case that the red ribbon spool is not installed on the magenta ribbon, the printer will not work properly due to being recognized as the invalid ribbon.

Supply Side (Left)   (Magenta)
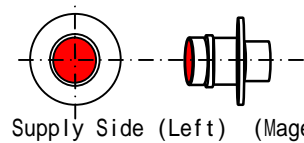
- Please insert the ribbon spools to set in the direction shown in the drawings below

Take-up side Thinner Diameter

Ribbon Rotation

Narrow

Take-up side (Right)

Wide

Supply Side (Right)

Supply Side (Thicker Diameter)

Concave   Convex

30
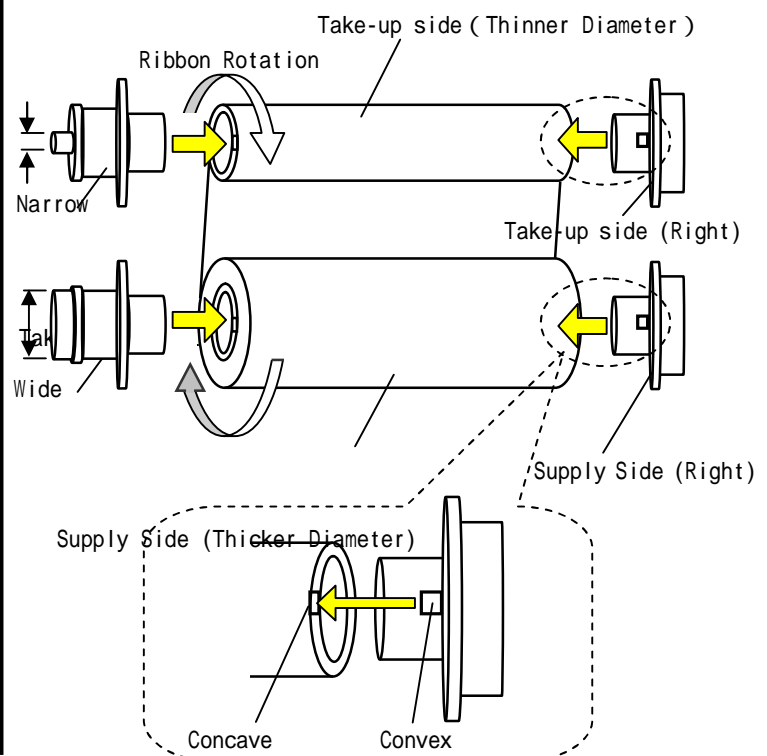
- There are 16 ribbon spools in total. (2pcs are respectively on the supply side and the take-up side of each ribbon (Yellow, Magenta, Cyan, and Overprint)).
  The spool edge of the supply side (Left) is wider than the take-up side (Left).
  The spool of the supply side (Right) is same as the take-up side (Right). Also, only a ribbon spool installed on the supply side of the magenta ribbon (Left) is painted red in its end-surface, and other 15pcs are white.
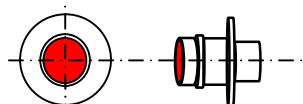
Supply Side (Left)　(Magenta)
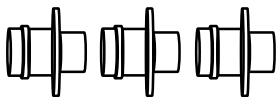
Supply Side (Left)
(Yellow, Cyan, and Overprint)
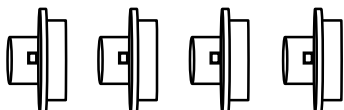
Supply Side (Right)　(Each Color Ribbon)
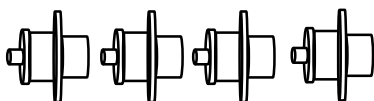
Take-up Side (Left)　(Each Color Ribbon)
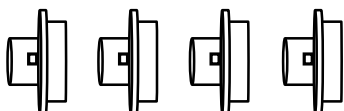
Take-up Side (Right)　(Each Color Ribbon)

- Please work carefully so that a layer slip does not occur while holding the supply side ribbon.
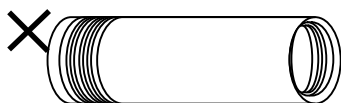
A Layer Slip State

- Please set the supply side (Right) and the take-up side (Right) to match the convex part of the ribbon spool to the concave portion of ribbon core.

⚠ Caution

- If the ink from the ribbon comes into direct contact with skin, wash the area thoroughly with soap and water. If it accidentally comes into direct contact with eyes, flush them immediately with water and receive the treatment of ophthalmologist.

6. Put the ribbon into the ribbon cassette.

(1) Install "supply-side" first.

Wide
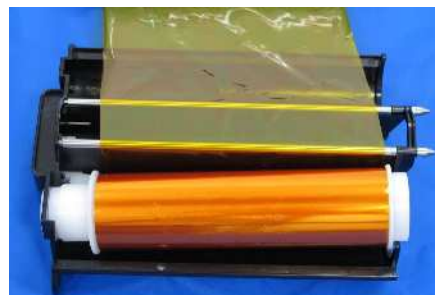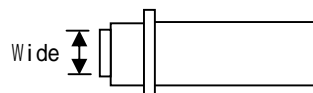
(2) Install "take-up" side.

Narrow
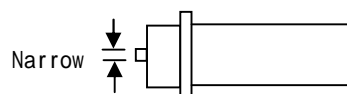
(3) Turn the take-up side ribbon to straighten out the wrinkle and slackness of the ribbon.
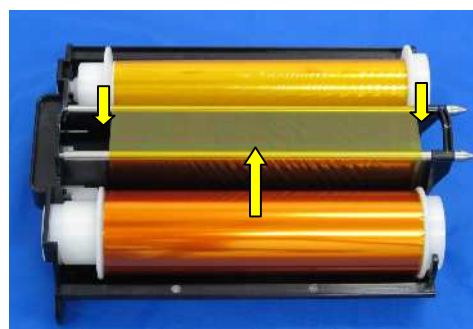
Please properly install the ribbons to match with the correct ribbon cassette of each color (yellow, magenta, cyan and overprint) referring to the labels of the ribbon cassette.

7. Install ribbon cassettes into the printer.

8. Lock the ribbon cassettes lever.

9. Close the ribbon cover.

[Check]

Please install ribbon cassettes in their proper locations.

Cyan

Magenta

Yellow

Overprint

32
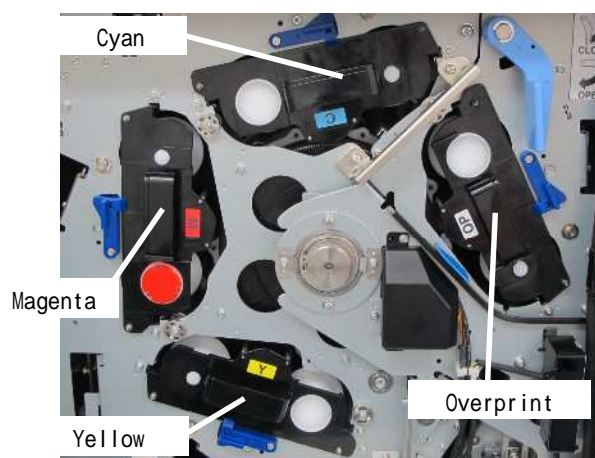
2. Menu Mode

This mode lets users use for printer settings.

2.1 Activate Menu Mode

Turning on the power while pressing "Online" switch.

[Check]
- Please keep pressing "Online" switch for approx. 20 seconds.
- When activating the menu mode with cover open, it will make the menu mode start after closing the cover.
- If opening the cover while starting up the menu mode, all switches in the control panel become invalid till the cover is closed.
  Please press "Online" switch when it is displayed "Offline" status after closing the cover.

2.2 Exit Menu Mode

Any of the following process flows allow users to exit the menu mode.

<Process Flow 1>
1. When <Quit> from main menu appears, press " " switch two times and then select <Yes>.
2. Select <Yes> and press "Online" switch.
   After saving the changes in the menu mode setting, the initialization automatically starts in the same way as the power is turned on.

<Process Flow 2>
1. Turn the power OFF.
   Changes in the menu mode setting will not be saved

2.3 Menu Mode Setting Chart

The following describes the setting flow of menu mode.

⎯⎯⎯⎯▶ Use the arrow switch　　　　　　　to operate

- - - - - - ▶ Use Online switch to operate

Menu Tree

```
┌──────────────┐        ┌──────────────┐              ┌──────────────┐
│ Test Page    │◀──────▶│ Test Page    │- - - - - - ->│ Test Page    │
│              │        │ ALL 1        │              │ Printing     │
└──────────────┘        └──────────────┘              └──────────────┘
                                │  ▲
                        ┌──────────────┐              ┌──────────────┐
                        │ Test Page    │- - - - - - ->│ Test Page    │
                        │ ALL 2        │              │ Printing     │
                        └──────────────┘              └──────────────┘
                                │  ▲
                        ┌──────────────┐              ┌──────────────┐
                        │ Test Page    │- - - - - - ->│ Test Page    │
                        │ Gradation 1  │              │ Printing     │
                        └──────────────┘              └──────────────┘
                                │  ▲
                        ┌──────────────┐              ┌──────────────┐
                        │ Test Page    │- - - - - - ->│ Test Page    │
                        │ Gradation 2  │              │ Printing     │
                        └──────────────┘              └──────────────┘
                                │  ▲
                        ┌──────────────┐              ┌──────────────┐
                        │ Test Page    │- - - - - - ->│ Test Page    │
                        │ Gray 40 1    │              │ Printing     │
                        └──────────────┘              └──────────────┘
                                │  ▲
                        ┌──────────────┐              ┌──────────────┐
                        │ Test Page    │- - - - - - ->│ Test Page    │
                        │ Gray 40 2    │              │ Printing     │
                        └──────────────┘              └──────────────┘
                                │  ▲
                        ┌──────────────┐              ┌──────────────┐
                        │ Test Page    │- - - - - - ->│ Test Page    │
                        │ Gray 70 1    │              │ Printing     │
                        └──────────────┘              └──────────────┘
                                │  ▲
                        ┌──────────────┐              ┌──────────────┐
                        │ Test Page    │- - - - - - ->│ Test Page    │
                        │ Gray 70 2    │              │ Printing     │
                        └──────────────┘              └──────────────┘
                                │  ▲
                        ┌──────────────┐              ┌──────────────┐
                        │ Test Page    │- - - - - - ->│ Test Page    │
                        │ Black 1      │              │ Printing     │
                        └──────────────┘              └──────────────┘
                                │  ▲
                        ┌──────────────┐              ┌──────────────┐
                        │ Test Page    │- - - - - - ->│ Test Page    │
                        │ Black 2      │              │ Printing     │
                        └──────────────┘              └──────────────┘
                                │  ▲
                        ┌──────────────┐              ┌──────────────┐
                        │ Test Page    │- - - - - - ->│ Test Page    │
                        │ Checker 1    │              │ Printing     │
                        └──────────────┘              └──────────────┘
                                │  ▲
                        ┌──────────────┐              ┌──────────────┐
                        │ Test Page    │- - - - - - ->│ Test Page    │
                        │ Checker 2    │              │ Printing     │
                        └──────────────┘              └──────────────┘
```

```
┌─────────────────┐         ┌─────────────────┐         ┌─────────────────────┐
│ Adj Print Regist│ ◄─────► │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
│                 │         │ V-Y 1           │         │ V-Y 1        +000*  │
└─────────────────┘         └─────────────────┘         └─────────────────────┘
                                                         Use   to change settings

                            ┌─────────────────┐         ┌─────────────────────┐
                            │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
                            │ V-M1            │         │ V-M1         +000*  │
                            └─────────────────┘         └─────────────────────┘
                                                         Use   to change settings

                            ┌─────────────────┐         ┌─────────────────────┐
                            │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
                            │ V-C 1           │         │ V-C 1        +000*  │
                            └─────────────────┘         └─────────────────────┘
                                                         Use   to change settings

                            ┌─────────────────┐         ┌─────────────────────┐
                            │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
                            │ V-OP 1          │         │ V-OP 1       +000*  │
                            └─────────────────┘         └─────────────────────┘
                                                         Use   to change settings

                            ┌─────────────────┐         ┌─────────────────────┐
                            │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
                            │ H-Y 1           │         │ H-Y 1        +000*  │
                            └─────────────────┘         └─────────────────────┘
                                                         Use   to change settings

                            ┌─────────────────┐         ┌─────────────────────┐
                            │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
                            │ H-M1            │         │ H-M1         +000*  │
                            └─────────────────┘         └─────────────────────┘
                                                         Use   to change settings

                            ┌─────────────────┐         ┌─────────────────────┐
                            │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
                            │ H-C 1           │         │ H-C 1        +000*  │
                            └─────────────────┘         └─────────────────────┘
                                                         Use   to change settings

                            ┌─────────────────┐         ┌─────────────────────┐
                            │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
                            │ V-Y 2           │         │ V-Y 2        +000*  │
                            └─────────────────┘         └─────────────────────┘
                                                         Use   to change settings

                            ┌─────────────────┐         ┌─────────────────────┐
                            │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
                            │ V-M2            │         │ V-M2         +000*  │
                            └─────────────────┘         └─────────────────────┘
                                                         Use   to change settings

                            ┌─────────────────┐         ┌─────────────────────┐
                            │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
                            │ V-C 2           │         │ V-C 2        +000*  │
                            └─────────────────┘         └─────────────────────┘
                                                         Use   to change settings

                            ┌─────────────────┐         ┌─────────────────────┐
                            │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
                            │ V-OP 2          │         │ V-OP 2       +000*  │
                            └─────────────────┘         └─────────────────────┘
                                                         Use   to change settings

                            ┌─────────────────┐         ┌─────────────────────┐
                            │ Adj Print Regist│ ◄─────► │ Adj Print Regist    │
                            │ H-Y 2           │         │ H-Y 2        +000*  │
                            └─────────────────┘         └─────────────────────┘
                                                         Use        to change
                                                         settings
```

35

```
                      ┌──────────────────────┐         ┌──────────────────────┐
              ↓   ↑   │ Adj Print Regist     │◄───────►│ Adj Print Regist     │
                      │ H-M 2                │         │ H-M 2        +000*   │
                      └──────────────────────┘         └──────────────────────┘
                          │    ↑                        Use    to change settings
                          ↓    │
                      ┌──────────────────────┐         ┌──────────────────────┐
                      │ Adj Print Regist     │◄───────►│ Adj Print Regist     │
                      │ H-C 2                │         │ H-C 2        +000*   │
                      └──────────────────────┘         └──────────────────────┘
                          │    ↑                        Use   to change settings
                          ↓    │
                      ┌──────────────────────┐         ┌──────────────────────┐
                      │ Adj Print Regist     │- - - - ►│ Adj Print Regist     │
                      │ Test Page 1          │         │ Printing             │
                      └──────────────────────┘         └──────────────────────┘
                          │    ↑
                          ↓    │
                      ┌──────────────────────┐         ┌──────────────────────┐
                      │ Adj Print Regist     │- - - - ►│ Adj Print Regist     │
                      │ Test Page 2          │         │ Printing             │
                      └──────────────────────┘         └──────────────────────┘

┌──────────────────┐  ┌──────────────────────┐         ┌──────────────────────┐
│ Adj Cutter       │◄►│ Adj Cutter           │◄───────►│ Adj Cutter           │
│                  │  │ TOP 1                │         │ TOP 1        +000*   │
└──────────────────┘  └──────────────────────┘         └──────────────────────┘
                          │    ↑                        Use    to change settings
                          ↓    │
                      ┌──────────────────────┐         ┌──────────────────────┐
                      │ Adj Cutter           │◄───────►│ Adj Print Regist     │
                      │ Bottom 1             │         │ Bottom 1     +000*   │
                      └──────────────────────┘         └──────────────────────┘
                          │    ↑                        Use   to change settings
                          ↓    │
                      ┌──────────────────────┐         ┌──────────────────────┐
                      │ Adj Cutter           │◄───────►│ Adj Cutter           │
                      │ TOP 2                │         │ TOP 2        +000*   │
                      └──────────────────────┘         └──────────────────────┘
                          │    ↑                        Use   to change settings
                          ↓    │
                      ┌──────────────────────┐         ┌──────────────────────┐
                      │ Adj Cutter           │◄───────►│ Adj Print Regist     │
                      │ Bottom 2             │         │ Bottom 2     +000*   │
                      └──────────────────────┘         └──────────────────────┘
                          │    ↑                        Use   to change settings
                          ↓    │
                      ┌──────────────────────┐         ┌──────────────────────┐
                      │ Adj Cutter           │- - - - ►│ Adj Cutter           │
                      │ Test Page 1          │         │ Printing             │
                      └──────────────────────┘         └──────────────────────┘
                          │    ↑
                          ↓    │
                      ┌──────────────────────┐         ┌──────────────────────┐
                      │ Adj Cutter           │- - - - ►│ Adj Cutter           │
                      │ Test Page 2          │         │ Printing             │
                      └──────────────────────┘         └──────────────────────┘

┌──────────────────┐  ┌──────────────────────┐
│ Buzzer           │◄►│ Buzzer               │
│                  │  │            OFF*      │
└──────────────────┘  └──────────────────────┘
                          │    ↑
                          ↓    │
                      ┌──────────────────────┐
                      │ Buzzer               │
                      │            ON        │
                      └──────────────────────┘
```

36

```
┌─────────────────┐              ┌─────────────────┐
│ Head Check      │◄────────────►│ Head Check      │
│                 │              │            ON * │
└─────────────────┘              └─────────────────┘
                                 ┌─────────────────┐
                                 │ Head Check      │
                                 │            OFF  │
                                 └─────────────────┘

┌─────────────────┐              ┌─────────────────┐
│ Counter         │◄────────────►│ Counter         │
│                 │              │ Total         0 │
└─────────────────┘              └─────────────────┘
                                 ┌─────────────────┐
                                 │ Counter         │
                                 │ Head Y        0 │
                                 └─────────────────┘
                                 ┌─────────────────┐
                                 │ Counter         │
                                 │ Head M        0 │
                                 └─────────────────┘
                                 ┌─────────────────┐
                                 │ Counter         │
                                 │ Head C        0 │
                                 └─────────────────┘
                                 ┌─────────────────┐
                                 │ Counter         │
                                 │ Head OP       0 │
                                 └─────────────────┘
                                 ┌─────────────────┐
                                 │ Counter         │
                                 │ Cutter        0 │
                                 └─────────────────┘

┌─────────────────┐    ┌─────────────────┐    ┌─────────────────┐
│ Quit            │───►│ Quit            │◄──►│ Quit            │
│                 │    │         No/Yes  │    │         No/Yes  │
└─────────────────┘    └─────────────────┘    └─────────────────┘
                                                ┌─────────────────┐
                                                │ Data Loading    │
                                                └─────────────────┘
```

After saving the changes of settings, displays Online

List of Detailed Settings

1. Test Page (test print)

The length of either 4-inch(101.9mm) or 9-inch(228.6mm) is printed as the test print purpose in the selected items.

(1) ALL 1

Print all print patterns programmed in the printer in 4-inch-long paper.

(2) ALL 2

Print all print patterns programmed in the printer in 9-inch-long paper.

(3) Gradation 1

Print the color gradation patterns in 4-inch-long paper.

(4) Gradation 2

Print the color gradation patterns in 9-inch-long paper.

(5) Gray 40 1

Print the gray pattern with 40% density in 4-inch-long paper.

(6) Gray 40 2

Print the gray pattern with 40% density in 9-inch-long paper.

(7) Gray 70 1

Print the gray pattern with 70% density in 4-inch-long paper.

(8) Gray 70 2

Print the gray pattern with 70% density in 9-inch-long paper.

(9) Black 1

Print the black pattern in 4-inch-long paper.

(10) Black 2

Print the black pattern in 9-inch-long paper.

(11) Checker 1

Print the grid pattern in 4-inch-long paper.

(12) Checker 2

Print the grid pattern in 9-inch-long paper.

2. Adj Print Regist (adjust the print registration)

Adjust the printing registration of each color for 4-inch long and others besides 4-inch long.

Paper feeding direction
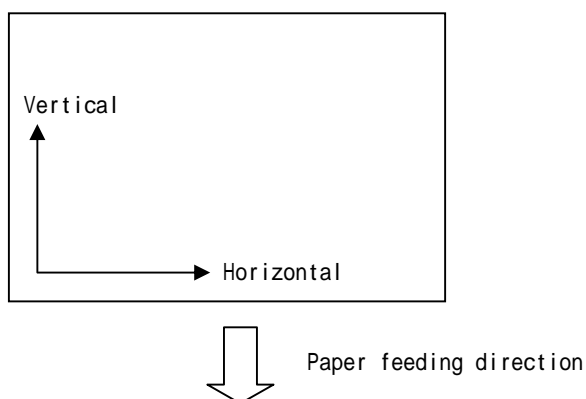
(1) V-Y 1

   Adjust the printing registration of the vertical alignment in yellow for 4-inch-long paper.

   (Adjustment range -127 - 0 - +127)

(2) V-M 1

   Adjust the printing registration of the vertical alignment in magenta for 4-inch-long paper.

   (Adjustment range -127 - 0 - +127)

(3) V-C 1

   Adjust the printing registration of the vertical alignment in cyan for 4-inch-long paper.

   (Adjustment range -127 - 0 - +127)

(4) V-OP 1

   Adjust the printing registration of the vertical alignment in overprint for 4-inch-long paper.

   (Adjustment range -127 - 0 - +127)

(5) H-Y 1

   Adjust the printing registration of the horizontal alignment in yellow for 4-inch-long paper.

   (Adjustment range -100 - 0 - +100)

(6) H-M 1

   Adjust the printing registration of the horizontal alignment in magenta for 4-inch-long paper.

   (Adjustment range -100 - 0 - +100)

(7) H-C 1

   Adjust the printing registration of the horizontal alignment in cyan for 4-inch-long paper.

   (Adjustment range -100 - 0 - +100)

(8) V-Y 2

   Adjust the printing registration of the vertical alignment in yellow for any length of paper except 4-inch-long.

   (Adjustment range -127 - 0 - +127)

(9) V-M 2

   Adjust the printing registration of the vertical alignment in magenta for any length of paper except 4-inch-long.

   (Adjustment range -127 - 0 - +127)

(10) V-C 2

   Adjust the printing registration of vertical alignment in cyan for any length of paper except 4-inch-long.

   (Adjustment range -127 - 0 - +127)

(11) V-OP 2

   Adjust the printing registration of vertical alignment in overprint for any length of paper except 4-inch-long.

   (Adjustment range -127 - 0 - +127)

(12) H-Y 2

   Adjust the printing registration of horizontal alignment in yellow for any length of paper except 4-inch-long.

   (Adjustment range -100 - 0 - +100)

(13) H-M 2

   Adjust the printing registration of horizontal alignment in magenta for any length of paper except 4-inch-long.

   (Adjustment range -100 - 0 - +100)

(14) H-C 2

   Adjust the printing registration of horizontal alignment in cyan for any length of paper except 4-inch-long.

   (Adjustment range -100 - 0 - +100)

(15) Test Page 1

   Print the grid pattern in 4-inch-long paper.

(16) Test Page 2

   Print the grid pattern in 9-inch-long paper.

3. Adj Cutter   (adjust the cut position)
Adjust the cutting position of the paper for 4-inch-long and others besides 4-inch-long.

(1) Top 1
   Adjust the cut position of top edge for 4-inch-long paper.
   (Adjustment range -100 ~ 0 ~ +100)
(2) Bottom 1
   Adjust the cut position of bottom edge for 4-inch-long paper.
   (Adjustment range -100 ~ 0 ~ +100)
(3) Top 2
   Adjust the cut position of top edge for any length of paper except 4inch-long paper.
   (Adjustment range -100 ~ 0 ~ +100)
(4) Bottom 2
   Adjust the cut position of bottom edge for any length of paper except 4inch-long paper.
   (Adjustment range -100 ~ 0 ~ +100)
(5) Test Page 1
   Print the grid pattern in 4-inch-long paper.
(6) Test Page 2
   Print the grid pattern in 9-inch-long paper.

4. Buzzer   (switch buzzer ON/OFF)
Buzzer switch is invalid since this printer does not have the buzzer function.

5. Head Check   (print head damage check)
Turn ON/OFF to check the print head damage when turning on the printer.
          ON: Enable the print head damage check
          OFF: Disable the print head damage check

6. Counter   (couter display)
Display various counter data of the printer.

(1) Total
   Display the total length of paper feed distance.   (unit: m)
(2) Head Y
   Display the printed distance of yellow thermal print head.   (unit: m)
(3) Head M
   Display the printed distance of magenta thermal print head.   (unit: m)
(4) Head C
   Display the printed distance of cyan thermal print head.   (unit: m)
(5) Head OP
   Display the printed distance of overprint thermal print head.   (unit: m)
(6) Cutter
   Display the cut number of paper cutter.   (unit: times)

7. Quit (ends menu mode)

Choose whether to end menu mode.

Yes: Ends menu mode

No: Not end menu mode

2.4 Printer Setting Initialization

The following will show how to reset the menu mode settings back to the factory default settings.

Start-up of Initialize Mode Setting

 Turn the power ON while pressing "　" switch.

[Check]
  - Keep pressing the "　" switch until <Data Loading> appears on LCD screen of the control panel.
  - At displaying <Data Loading> on LCD screen, all the menu mode settings are returned to its original factory defaults.
  - Once all the settings are returned to the default values, the printer starts the initialization automatically.

3. Cleaning of Printer

3.1 Thermal Printing Head

1. Confirm the printer power OFF.

2. Remove a stacker.

3. Remove the scrap box.

4. Open the ribbon cover.

5. Remove all ribbon cassettes.
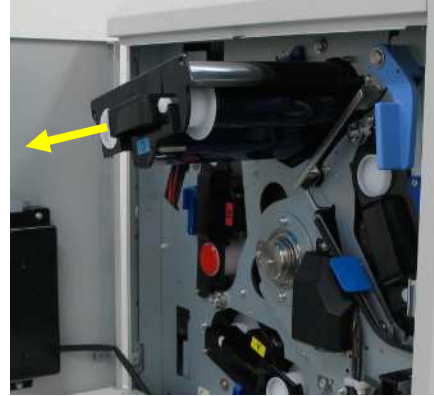
6. Push the side cover lever in the direction of arrow and unlock it.

7. Pull the side cover to open gently by holding the handle on it.

[Important]

Because the side cover and top of the side cover are very heavy, please grip the handle firmly and open each cover slowly.

8. With holding the handle on the side cover, unlock the OP platen lock lever, and pull the top of the side cover further to the front.

Because the side cover and top of the side cover are very heavy, please grip the handle firmly and open each cover slowly.

Platen

OP platen lock lever
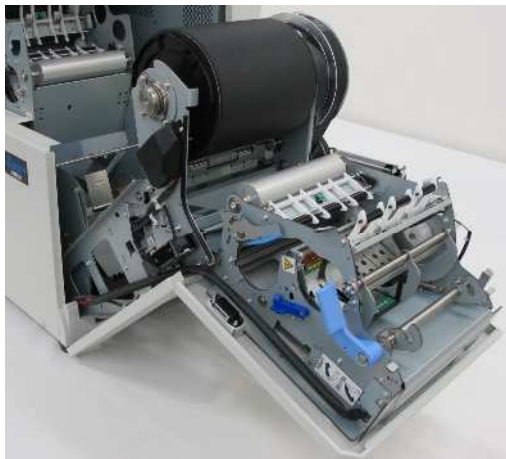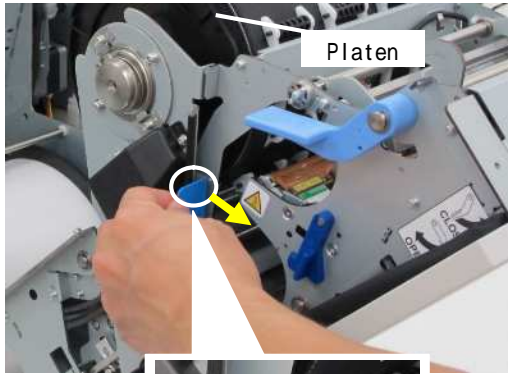
9. Wipe off the stain on thermal print head(4) with a soft cloth dipped in ethanol.

Guide Plate

Thermal Head

Guide Plate
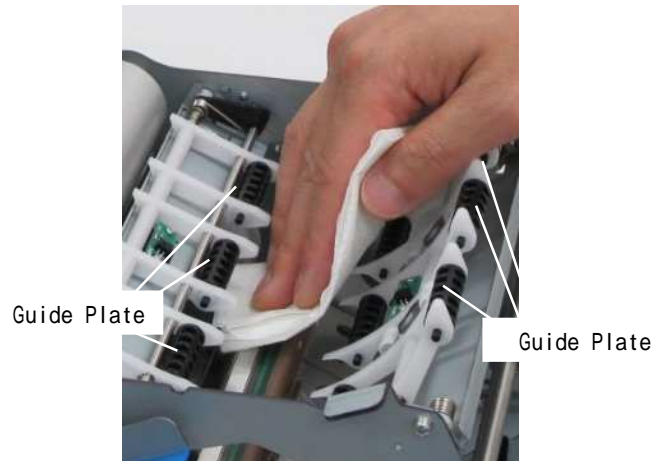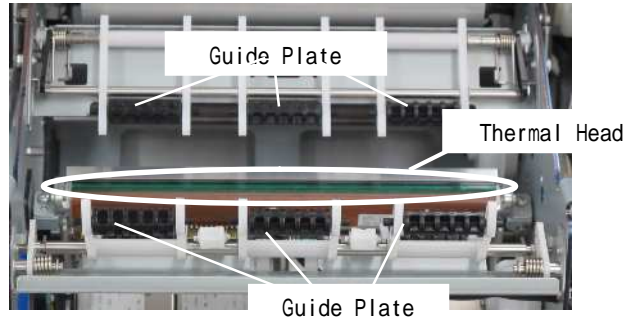
Guide Plate

Guide Plate

Please clean slowly to avoid the cloth from getting caught on a guide plate.

10. Lift the side cover with holding the handle, and close the top of it.
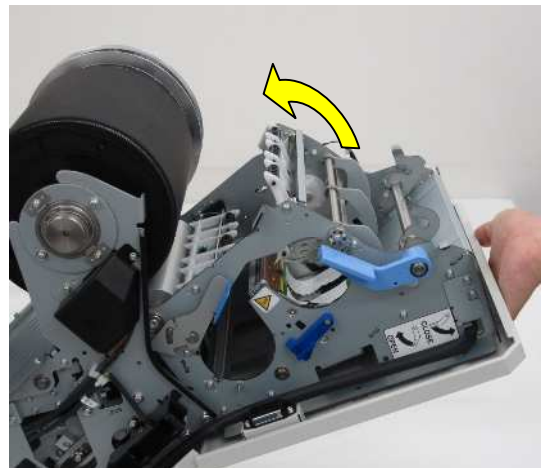
11. Push it up further and close the side cover.
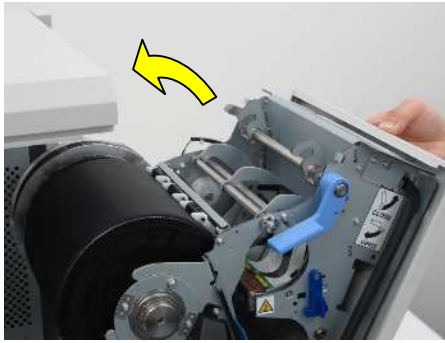
12. With pushing the side cover handle, pull the side cover lever in the direction of arrow and lock it.

13. Install all ribbon cassettes to the printer.

14. Close the ribbon cover.

3.2 Ribbon Cassettes

1. Remove the ribbon cassette.

2. Remove the ribbon from the ribbon cassette.
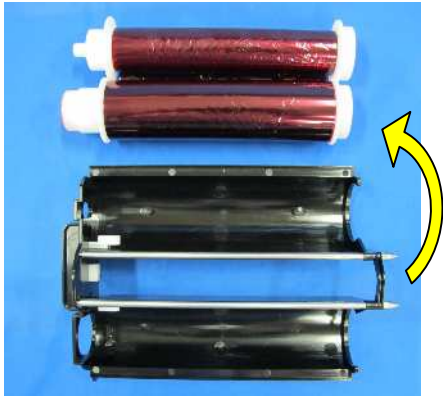
3. Wipe off the stain on the shaft with a dry cloth.

Shaft

4. Put the ribbon back into the ribbon cassette. Turn the take-up side ribbon to straighten out the wrinkle and slackness of the ribbon.
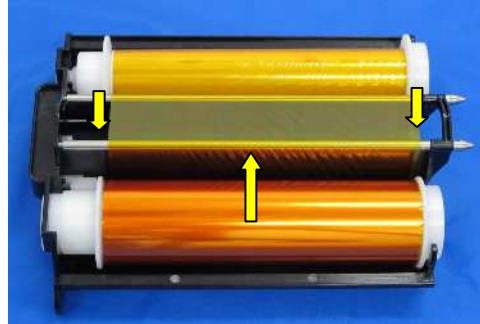
5. Put the ribbon cassette back to the printer.

4. In case of the failure

4.1 Error Display

Warning (alarming)

Status	LCD Display 1234567891011121314151617181920	Solution
Media Near End	Warning [1000] Media Near End	Prepare new media (paper and ribbon).
No Proper Media Found	Warning [1400] Unknown Media	Use proper media (paper and ribbon).
Print Head being Cooled Down	Warning [4000] Head Cool Down	Wait till the thermal print head cools down.
Print Head Damaged	Warning [4800] Head Damaged Y	Detect the thermal print head damaged and contact the maintenance personnel. Referring to P56.
	Warning [4800] Head Damaged M	
	Warning [4800] Head Damaged C	
	Warning [4800] Head Damaged OP	

Recoverable Error

Status	LCD Display 1234567891011121314151617181920	Solution
Data Error	Error [8000] Data Error	Clear the error by pushing the ONLINE switch twice, and then, send correct commands.
Cover Open 1	Error [8400] Cover Open 1	Close ribbon cover
Cover Open 2	Error [8400] Cover Open 2	Put the paper tray back to the inside printer.
Cover Open 3	Error [8400] Cover Open 3	Close side cover.
Media Ends	Error [8800] Media End	Change for new media (paper and ribbon) Referring to P48.
Ribbon Jam (Yellow)	Error [8000] Ribbon Jam Y	Remove the jammed ribbon and install it correctly Referring to P52.
Ribbon Jam (Magenta)	Error [8000] Ribbon Jam M	
Ribbon Jam (Cyan)	Error [8000] Ribbon Jam C	
Ribbon Jam (Overprint)	Error [8000] Ribbon Jam OP	

(Recoverable Error Continue)

Status	LCD Display 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Solution
Paper Jam 1	Error [9400]	Remove the jammed paper and install the
	Paper Jam 1	paper correctly.
Paper Jam 2	Error [9400]	Referring to P50.
	Paper Jam 2	
Paper Jam 3	Error [9400]	
	Paper Jam 3	
Paper Jam 4	Error [9400]	
	Paper Jam 4	
Paper Jam 5	Error [9400]	
	Paper Jam 5	
Paper Jam 6	Error [9400]	
	Paper Jam 6	
Paper Jam 7	Error [9400]	
	Paper Jam 7	
No Ribbon (Yellow)	Error [A000]	Install the ribbon cassette correctly.
	No Ribbon Y	Referring to P30.
No Ribbon (Magenta)	Error [A000]	
	No Ribbon M	
No Ribbon (Cyan)	Error [A000]	
	No Ribbon C	
No Ribbon (Overprint)	Error [A000]	
	No Ribbon OP	
Media Type Error	Error [A000]	Replace the media with the correct width
	Media Type	or adjust the paper size specified for printing with the media width.

Non-Recoverable Error

When the following errors are displayed, please contact the maintenance personnel.

Error [B000] ~ Error [BFFF]

Error [C000] ~ Error [CFFF]

Error [D000] ~ Error [DFFF]

Error [E000] ~ Error [EFFF]

Error [F000] ~ Error [FFFF]

4.2 Coping Action for Media End

[Check] ───

Although Media end occurs when the paper or ribbons are still remained a little, this is a normal operation for protecting the printing data.

1. Remove the stacker.

2. Remove the scrap box.

3. Pull the paper tray out from the printer.

4. Rotate the paper holder to rewind the paper.

5. Remove the paper holder from the paper.

6. Open the ribbon cover.

7. Remove all ribbon cassettes.
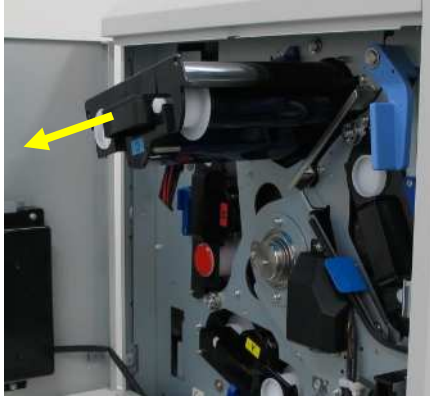
8. Remove all the ribbons from the ribbon cassettes.

9. Remove all ribbon spools.

[Check]

- One ribbon spool with its end-surface in red (Supply Side (Left) of the magenta ribbon) attached to the media set is NOT REUSABLE, so please discard it after use.
  If you re-install it into the new ribbon, the printer will not work properly due to being recognized as the invalid ribbon.

Supply Side (Left)   (Magenta)
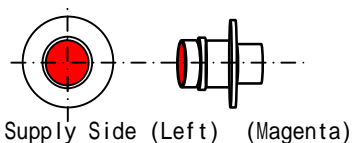
- Please DO NOT discard 4 ribbon cassettes attached to the printer unit and 15 white ribbon spools in order to reuse them.

10. Install paper by referring to the paper setting (Page 27).

11. Install ribbon cartridge by referring to the ribbon setting (Page 30).

4.3 Coping Action for Paper Jam

[Check]

If there is any printing data remaining in the printer, please try to clear paper jams without turning off the printer. After clearing the jams, it starts to print the remaining data. If the power is turned off, please execute the print transaction once again.

1. Remove a stacker.

2. Remove the scrap box.

3. Open the ribbon cover.

4. Push the side cover lever in the direction of arrow and unlock it.

Side Cover Lever

5. Pull the side cover to open gently by holding the handle on it.

[Important]

Because the side cover and top of the side cover are very heavy, please grip the handle firmly and open each cover slowly.

6. With holding the handle on the side cover, unlock the OP platen lock lever, and pull the top of the side cover further to the front.

Platen

OP Platen Lock Lever

7. Remove the jammed paper inside printer device.

8. Pull the paper out and cut off the folded part or in-process of the printing area.
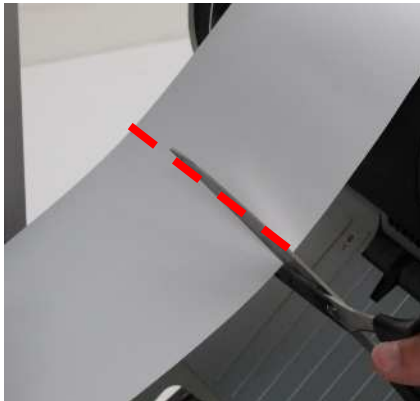
[Check]
- Please cut the paper near the paper tray.
- Paper must be cut in the straight way of horizontal direction. If the paper is cut on the bias, the paper jam might be occurred.
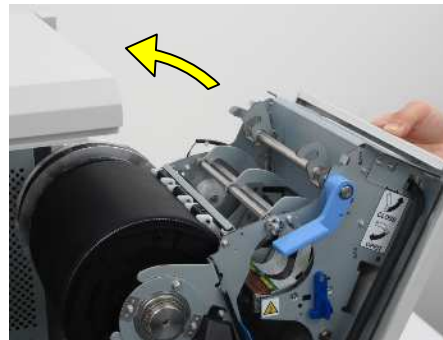
9. Rotate the paper holder and put the front edge of paper back into the tray.
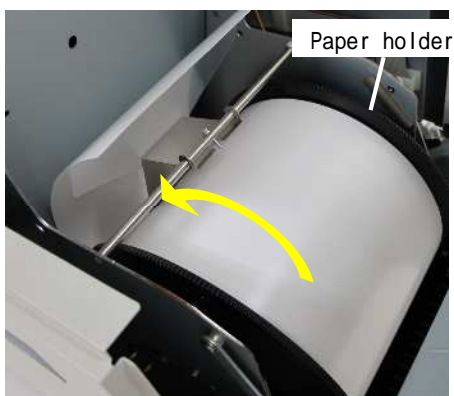
Paper holder

10. Lift the side cover with holding the handle, and close the top of it.
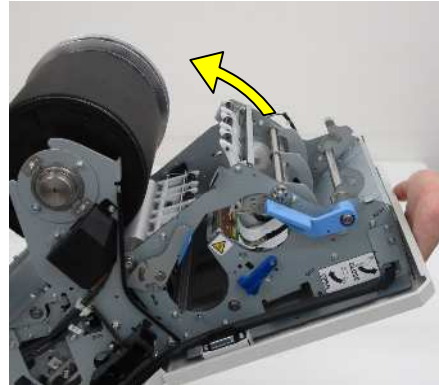
11. Push it up further and close the side cover.

12. With pushing the side cover handle, pull the side cover lever in the direction of arrow and lock it.

13. Close the ribbon cover.

4.4 Coping Action for Ribbon Jam

[Check]

If there is any printing data remaining in the printer, please try to clear paper jams without turning off the printer. After clearing the jams, it starts to print the remaining data. If the power is turned off, please execute the print transaction once again.

1. Remove a stacker.

2. Remove the scrap box.

3. Open the ribbon cover.

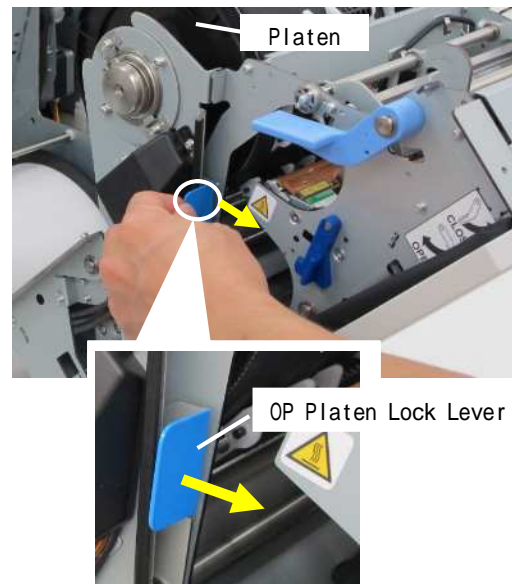4. Push the side cover lever in the direction of arrow and unlock it.

Side Cover Lever

5. Pull the side cover to open gently by holding the handle on it.

[Important]

Because the side cover and top of the side cover are very heavy, please grip the handle firmly and open each cover slowly.

6. With holding the handle on the side cover, unlock the OP platen lock lever, and pull the top of the side cover further to the front.

Platen

OP Platen Lock Lever

7. Remove the jammed ribbon inside the printer device.

8. Cut off the unnecessary ribbon.

9. Pull the paper out and cut off the folded part or in-process of the printing area.
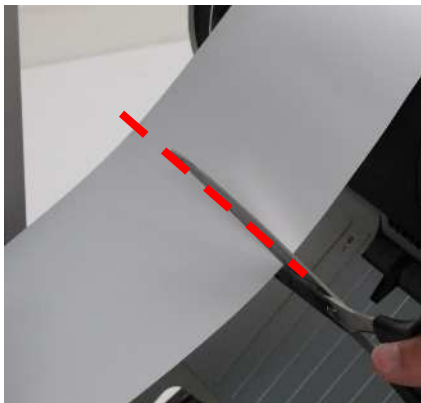
[Check]

- Please cut the paper near the paper tray.
- Paper must be cut in the straight way of horizontal direction. If the paper is cut on the bias, the paper jam might be occurred.

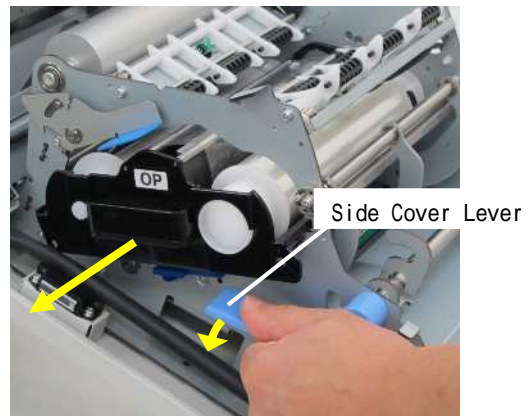10. Rotate the paper holder and put the front edge of paper back into the tray.

Paper holder
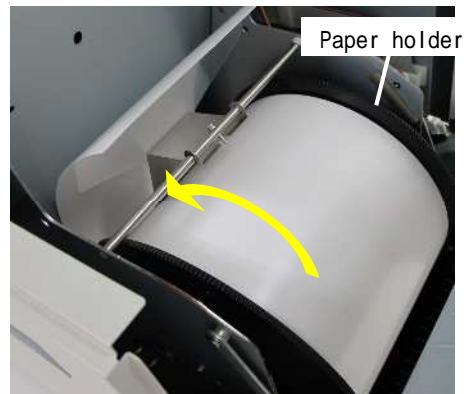
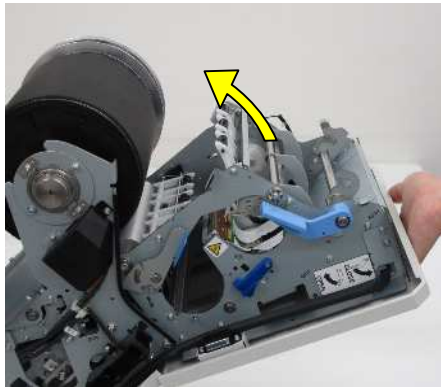11. Remove the ribbon cassette which has a torn ribbon.

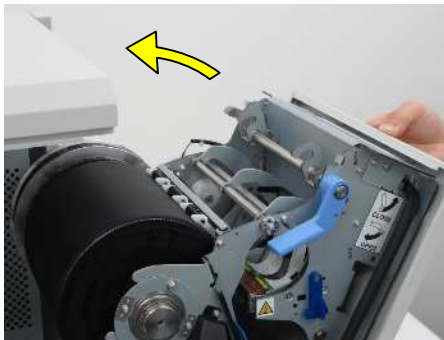[Check]

Push down the side cover lever when removing the ribbon cassette for Over Print.

Side Cover Lever

12. Lift the side cover with holding the handle, and close the top of it.

13. Push it up further and close the side cover.

14. With pushing the side cover handle, pull the side cover lever in the direction of arrow and lock it.

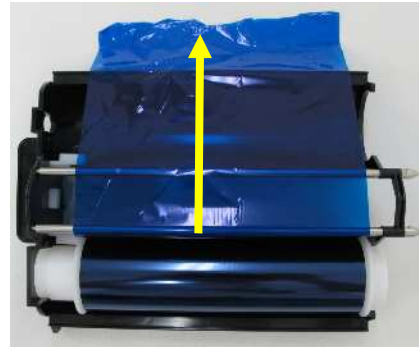15. Stick the ribbons together with the transparent tape.

(1) Stick the transparent tape on the cut-out part of the take-up side.

Stuck with the transparent tape

(2) Remove the take-up side ribbons.

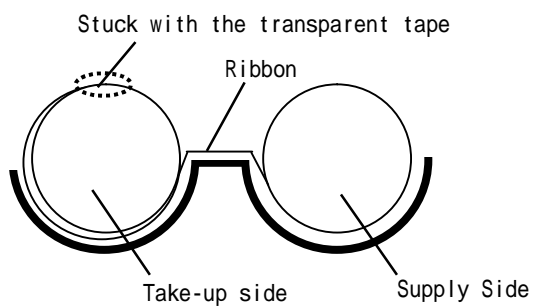(3) Pull out the ribbon from the supply side to the take-up side.
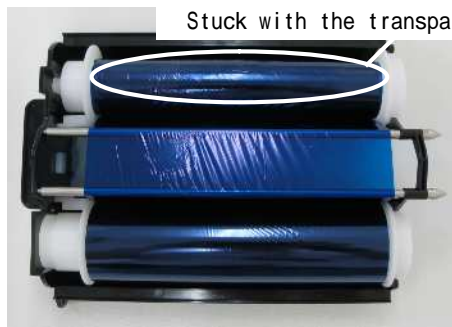

(4) Set the take-up side ribbon over the pulled-out ribbon.
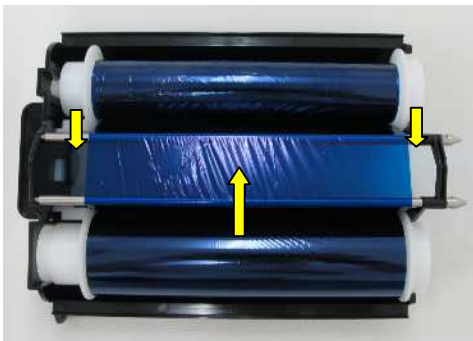

55

(5) Stick the edge of the supply side ribbon on the take-up side with the transparent tape.

Stuck with the transparent tape

Stuck with the transparent tape

Ribbon

Take-up side   Supply Side

16. Turn the ribbon of the take-up side to straighten out the wrinkle and slackness of the ribbon.
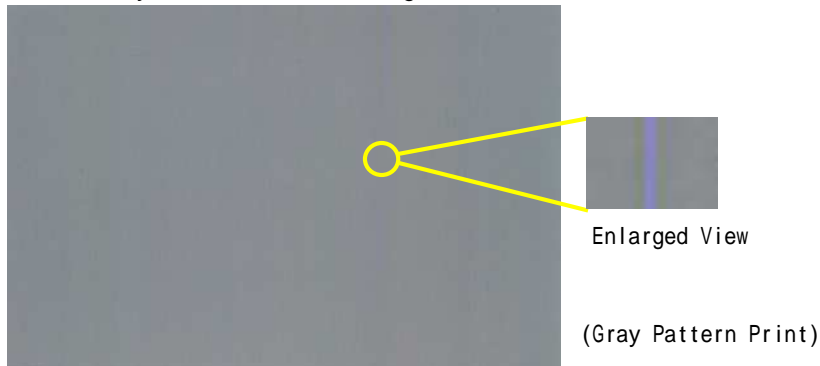

17. Install ribbon cassettes into the printer.
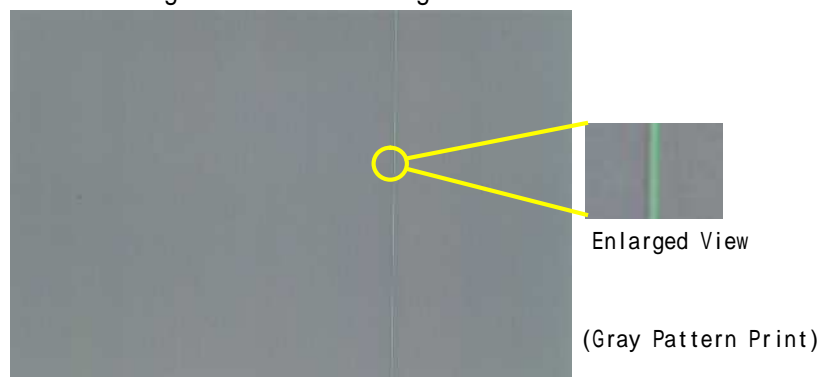

18. Close the ribbon cover.

4.5 How to confirm the head damaged

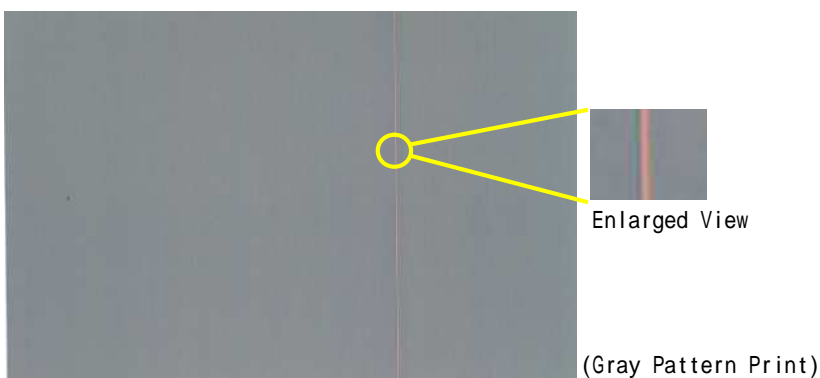If the head is damaged, the print results appear as a lack of vertical column on print as follows.

- If the yellow head is damaged.

Enlarged View

(Gray Pattern Print)

- If the magenta head is damaged.

Enlarged View

(Gray Pattern Print)

- If the cyan head is damaged.

Enlarged View

(Gray Pattern Print)

Please confirm the head damage in the following procedures if the print is resulted above.

1. Turn the printer power OFF.
2. Turn the printer power ON.
3. If the warning of the head damaged is displayed after the printer initialization is completed, it indicates that the thermal print head is damaged. Please inform the maintenance personnel.
   On the other hand, if the warning of the head damaged is not displayed, please clean the thermal print head by referring to Cleaning of Printer (P42).

4.6 Additional Precautions

- Do not open the side cover when the power is cut off during the printing.
  Because there is a possibility to damage the platen, paper, and etc.
  Please open the side cover after turning ON the power of the printer.

Specifications

Specifications			MH250	
Print Method			Dye sublimation thermal transfer (with 4 kinds of independent print heads of YMC and OP)	
Print Resolution			About 11.8points/mm (300dpi)	
Print Head Width			About 162.2mm (1,920 points)	
Paper Size			Longitudinal (mm)	Horizontal (mm)
		4x6	101.6	152.4
		6x8	203.2	152.4
		6x9	228.6	152.4
		6x10	254.0	152.4
		3.5x5	88.9	127.0
		5x7	177.8	127.0
		User-Defined	88.9 914.4 (12.7mm each)	152.4 or 127.0
Print Area Size			Longitudinal (mm)	Horizontal (mm)
		4x6	101.6	152.4
		6x8	203.2	152.4
		6x9	228.6	152.4
		6x10	254.0	152.4
		3.5x5	88.9	127.0
		5x7	177.8	127.0
		User-Defined	88.9 ~ 914.4 (12.7mm each)	152.4 or 127.0
Print Time and Throughput			1st Piece	in 19sec
			Print every 1pc when continuous printing	About 2.5sec
			Every 1hr	1000pcs
Initialization Time			Within 40sec	
Interface			USB 2.0 (Hi-Speed)	
Receive Buffer Memory			Approx. 120Mbytes	
Image Buffer Memory			Approx. 81Mbytes	
Power			Voltage: AC 100 240V ± 10% Frequency: 50/60Hz ± 1Hz	
Power Consumption			Working	100 - 240V 9.5 - 3.6A
			~~Standby~~	~~T.B.D.~~

Specifications	MH250	
Operating Environment	Temperature: 5 ~ 35 Humidity: 30 ~ 80%Rh (no condensation)	
Storage Environment	Temperature: -20 ~ 60 Humidity: 5 ~ 85%Rh (no condensation)	
Noise	Action	T.B.D.
	Standby	T.B.D.
Weight	Approx. 50kg (host only) T.B.D. paper/ink ribbon/not included options	
Life	Host	5 years
	Cutter	1 million pcs
Life of Replaceable Parts	Paper Folder Life (guideline) : T.B.D. Ribbon Cassette Life (guideline) : T.B.D. Thermal Print Head Life (guideline) : 30km	
Consumables	T.B.D.	
Attached Software	Printer driver	

After-Sales Service Guide

Please contact your dealer where you purchased this product if you have any questions about the operation or the repair service.