RONGDA

Operation Manual

Digital Duplicator

For model FR-8351/FR-8451

宁波荣大创想智造科技有限公司

Ningbo Rongda Imagine&Intelligent Manufacture Technology Co.,Ltd

Preface

First of all, thank you very much for purchasing our machine.

This book records the operation method of the machine and the precautions during use. In order to use this machine safely, conveniently and efficiently, please read the instruction manual carefully before use.

Explanation of symbols in the instruction manual

Warning Ignoring warnings and performing improper operations may result in death or serious injury.

Caution Ignoring the precautions and performing improper operations may result in personal injury or property damage.

This symbol indicates [prohibited matters], and the specific prohibited content will be shown or explained in the picture or text.



This symbol indicates [Code of Conduct], [Instructions]. Specific [Code of Conduct], [Instructions] will be shown or explained in the diagram or text.



And so on.

Cheak Describes reference pages and items in the instruction manual.

Hints Record reminders.

Important Record the things that must be paid attention to and the things that are prohibited.

Indicates the display screen. (For ease of reading, the font color may differ from the actual color)

Permissions and Prohibitions

- The contents in this book may not be reproduced without permission.
- The information in this book may be changed without prior notice.
- The operating instructions in this book are as comprehensive as possible. If there are any unclear, wrong or missing contents, please contact us.
- The company is not responsible for any losses caused by improper operation or machine characteristics (failure, natural wear and tear).
- Due to changes and improvements to the machine, the contents in this book may change and there may be some differences from your actual machine. Please understand that this may cause inconvenience to your operation.



Operation of this equipment in a residential environment may cause radio interference. In this case, the user may be required to take practical measures to correct the interference.

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In order to use this machine safely and correctly, please be sure to read this manual before use.

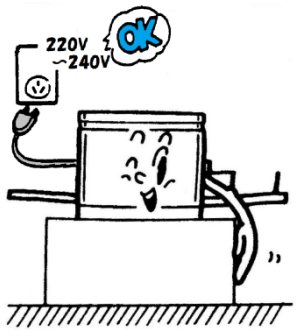
Before using this machine, it is essential for customers to read this manual to understand the machine's operating conditions, general precautions, names and functions of each component, etc.

Safety Instructions

Warning

- Power supply:

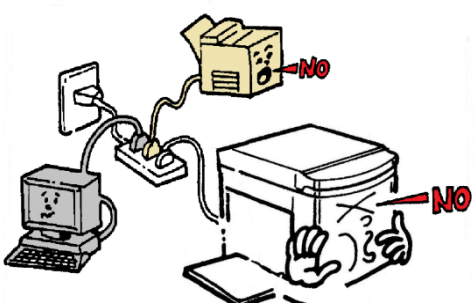
Use AC power supply/household power supply (AC 220V~240V). Do not use power supply other than specified.
Using power supply other than specified may cause electric shock or fire



Prohibited

- Please use a separate socket.

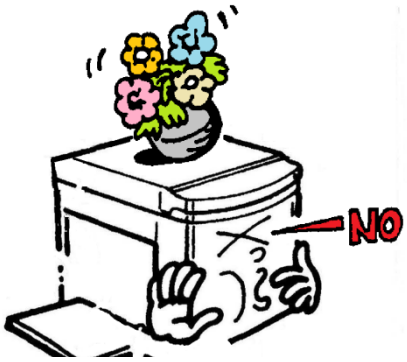
Avoid sharing the socket with high-power appliances such as copiers/printers/microwave ovens.
If you share the socket with other machines, it may cause fire, electric shock, and power outage.



Prohibited

- Do not place containers filled with liquids on the machine.

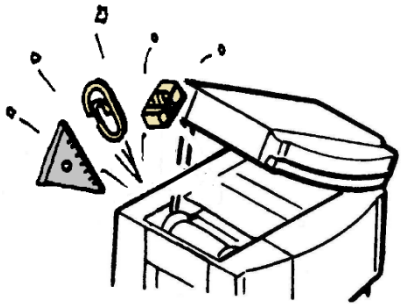
If the liquid in the container falls over and enters the machine, it may cause fire and electric shock.



Prohibited

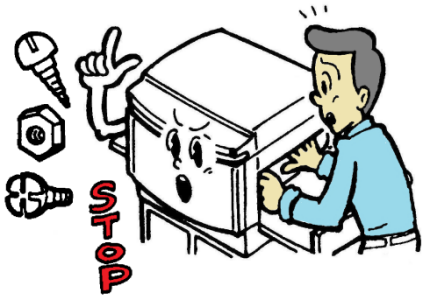
Warning

・Please avoid dropping metal pieces (paper clips, staples, etc.) and flammable objects into the machine. If they drop into the machine, it may cause a fire or electric shock.



Prohibited

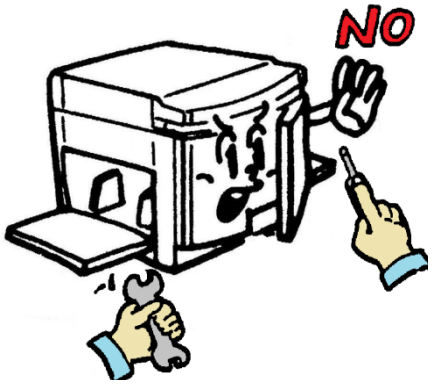
・Please do not remove the machine cover.
There are high-voltage, high-temperature, sharp, and rotating parts inside the machine, which may cause scratches or electric shock.



Disassembly is prohibited

・Please do not modify the machine or replace parts without permission.
Unauthorized operation may cause fire or electric shock.

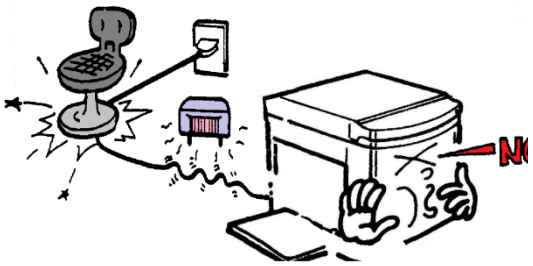
※ Replacement of consumables is not included.



Modification is prohibited

Warning

・Do not use a scratched or modified power cord.
In addition, do not step on, press, pull or scratch the power cord to avoid fire or electric shock.



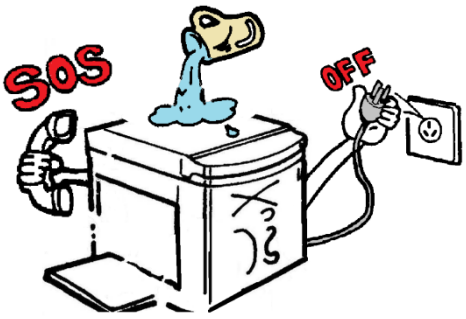
Prohibited

・If the machine is abnormally hot, smoking, or smelling, it may cause a fire or electric shock. In this case, please unplug the power cord and contact the supplier or after-sales department.



Unplug the power

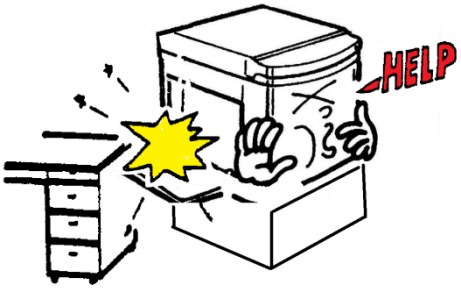
・ If any foreign objects (metal, water, liquid) fall into the machine, first turn off the switch, unplug the power cord, and then contact the supplier or after-sales service.
If you use the machine without taking measures, it may cause a fire or electric shock.



Unplug the power

Warning

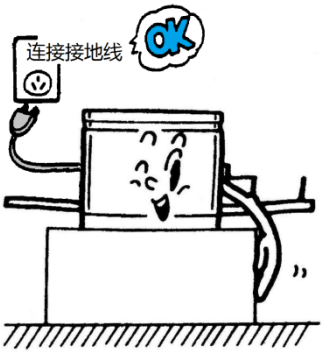
・ If the machine falls and the cover is damaged, first turn off the switch and unplug the power, then contact the supplier or after-sales service.
If you use it directly without taking countermeasures, it may cause a fire or electric shock.



Unplug the power

・The machine must be connected to the ground wire. Please use the dedicated power cord that comes with the machine and connect it using a triangular socket.
If there is a leakage, it may cause a fire or electric shock.

(It is strictly forbidden to contact with gas pipes and water pipes)



Connect the ground wire

・Do not unplug or plug the plug with wet hands. Doing so may cause fire or electric shock.

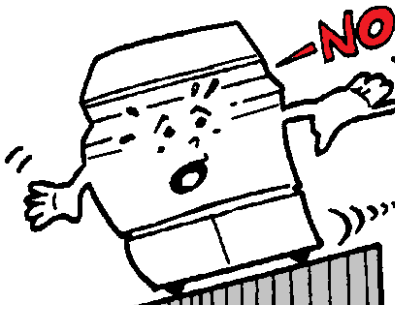


Prohibited

Caution

・ Please place the machine on a hard and level surface, otherwise the machine may fall and cause personal injury.

In addition, it may affect the normal use of the machine.



Prohibited

・ Do not place the machine near volatile flammable materials in humid, dusty, or vibrating places.

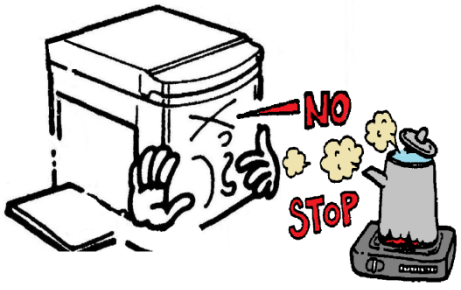
Otherwise, it may cause fire or electric shock.



Prohibited

・Please do not place the machine near cooking utensils or humidifiers to prevent smoke and mist from entering the machine.

Otherwise, it may cause fire or electric shock.



Prohibited

Caution

・ Do not place objects around the machine. If objects fall, it may cause injury or damage the machine.

In addition, it may cause machine failure.

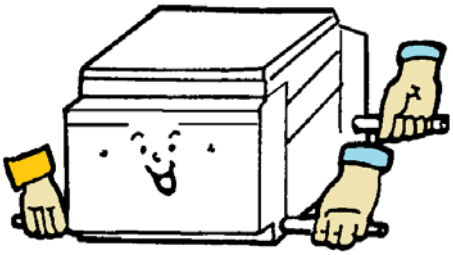


Prohibited

・ When moving the machine, be sure to turn off the power, unplug the plug, and fold up the operating unit (external connection/online). At least two people hold the handle and move horizontally.

In addition, if you move it via a dedicated table, first determine the condition of the moving route (steps, bumps and depressions) and then move it.

Otherwise, it may cause fire, electric shock, or ink leakage.



Prohibited

・When unplugging the power plug, first turn off the power, then pull it out by holding the plug.
If you try to pull out the plug by holding the power cord, the wires inside the power cord may be disconnected or exposed, causing a fire or electric shock.

In addition, if you pull out the plug without turning off the power, it may cause the machine to malfunction.



Prohibited

Caution

・ This machine uses ink during operation. When the machine breaks down, is being serviced or repaired, the ink may stain your clothes or skin. Please try to avoid such incidents.

・ The document table is made of glass. Please pay attention to the following matters during use:

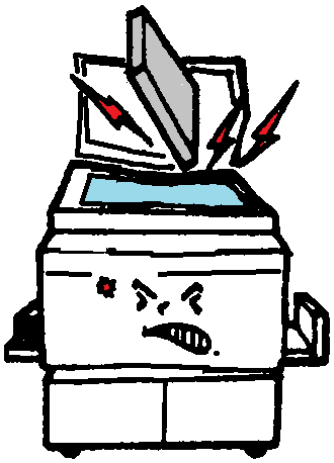
When the document is a heavy document such as a book, please place it gently on the document table.

If the document is placed on the document table with force, it may break the document table and cause injury.

Please do not concentrate the force on the scanning table at one point, otherwise it may break the document table and cause injury.

Please do not drop objects on the document table, otherwise it may break the document table and cause injury.

When pressing the document, please be careful not to use too much force, otherwise it may break the document table and cause injury.



Prohibited

・ Since this machine has the characteristic of paper dust flying out when feeding paper (when feeding at high speed), it may make the machine and the surrounding area dirty. Please use this machine in a well-ventilated environment.

Energy Saving Mode

When the machine is turned on and not operated for a certain period of time, it enters energy saving mode.
There are two types of energy saving modes: one is to turn off the display when the machine is turned on [1. Sleep mode], and the other is to automatically cut off the power [2. Auto off mode].



There are two mode indicator lights, one on the left and one on the right. If the left light is on, it means the device is in sleep mode. If the right light is on, it means the device is in Auto off mode.

Sleep mode

If the sleep mode is set, after the power is turned on, if the machine is not operated for a long time after the last printing job is completed, the machine will start the energy saving mode, the energy saving indicator light will light up, and the other indicators and display will automatically turn off. When you use the machine again, just press the energy saving button to end the sleep mode.

(Hints) The sleep mode time adjustment range is 0 to 60 minutes [0 = not used], and can be freely set in 1-minute units. The factory setting is [0].

Sleep mode time setting

ⅰ) Press the [SET] button on the panel when the machine is turned on.



※ The displayed screen changes to [Settings Screen].

(Hints) This setting can only be made in the printable state.
(When there is no error message)

ⅱ)Use the [Cursor move button [▽]] to move to the selected setting item.



※ The operation unit is located below the LCD screen.

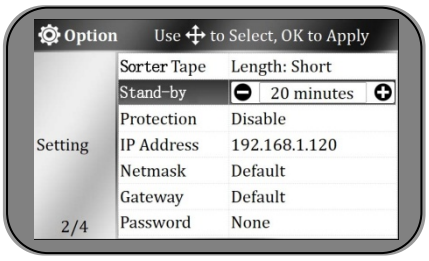
※ The current option is black background with white markings.

※ The ninth item from the top is [Sleep Mode Time Settings].

Press the [▽]key eight times in succession.

iii)Use the numeric keys to enter the time you want to set.

※ To set the time to 20 minutes, enter [2][0].



When not using this function, set the time to [0].

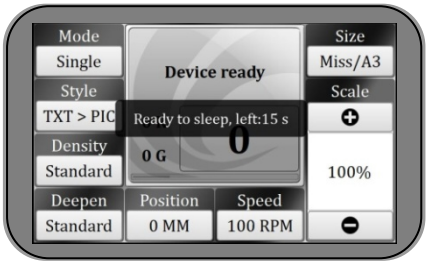
Enter the numbers in sequence and accurately.

iv)Press the [OK] button to complete the time setting.

※ The machine does not return to the initial interface.



Before the machine goes into sleep mode, a countdown window [Ready to sleep, left 15 s] will pop up on the initial interface, with a countdown of 15 seconds.



When the machine enters sleep mode, only the [Sleep Mode Indicator] is on.



When the machine is in sleep mode, press the [Sleep Mode Release Button] to return to the initial interface.



Auto off (optional)

If the machine has the Auto off function enabled, and the machine is turned on and no operation is performed for a certain period of time after the last operation is completed, the machine will automatically shut down the power supply.
However, the machine cannot enable the Auto off function when displaying a fault message or receiving online data.

The time adjustment range of the Auto off mode is 0 to 60 minutes [0 = not used], and can be freely set in 1-minute units. The factory setting is [0 = not used].

[Auto off] is an optional function and is not displayed on regular machines.

Time setting for auto off mode



ⅰ)With the power on, press the [Set] button on the panel.

※ The displayed screen changes to [Settings Screen].

This setting can only be made in the printable state.
(When there is no error message displayed)



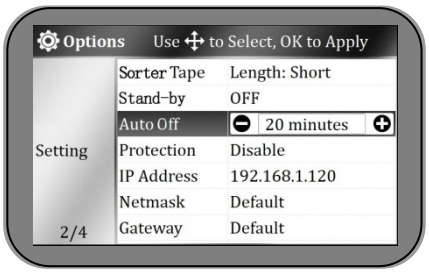
ⅱ)Use the [Cursor move button [▽]] to move to the selected setting item.

※ The operation area is below the LCD screen.

※ The current option is black background with white markings.

※ The tenth item from the top is [Auto off time setting].

Press the [▽] key nine times.



ⅲ)Use the numeric keys to enter the time you want to set.

※ To set it to 20 minutes, just enter [2][0].

Set the time to [0] when not using this function.

Enter the numbers one by one and accurately.



ⅳ)Press the [OK] button to complete the time setting.

※ The machine will not return to the initial interface.

How to set the auto off mode

※ Only works if the time is set.

ⅰ)With the machine turned on, press the [Auto off Setting] button on the panel.

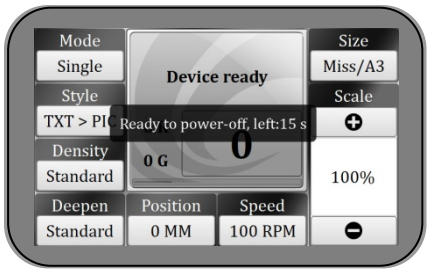


This setting can only be made in the printable state.
When there is no error message displayed)

ⅱ)When the [Auto off Setting Indicator] turns red and lights up, the setting is complete.



Before the machine automatically shuts down, a countdown window [Ready to power-off, left 15 s] will pop up on the initial interface, with a countdown of 15 seconds.



When the Auto off time is not set and the time is set to [0], this function cannot be activated even if this button is pressed.

When a fault message is displayed during printing, this function cannot be activated even if the [Set] key is pressed.

When the stop button is pressed during printing, the machine returns to the initial interface (no fault information is displayed). When the standby time reaches the [Auto off] setting time, the machine will automatically cut off the power supply and the remaining unprinted pages will be cleared. When you stop printing and leave the machine, press the [Set Key] again, the indicator light goes out, and the [Auto off Function] is released.

[Sleep Mode Function] and [Auto off Mode Function] can be enabled at the same time, and the one with the shorter setting time will be given priority; when the setting time is the same, the one that completes the setting earlier will be given priority.

Screen brightness

Adjust the display brightness.



ⅰ)With the power on, press the [Set] button on the panel.

※ The displayed screen changes to [Settings Screen].

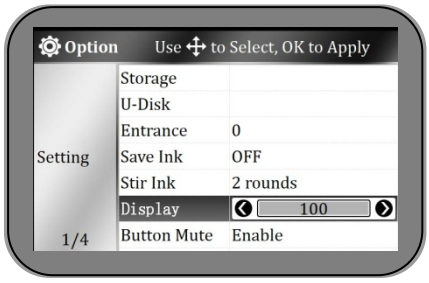
Hints This setting can only be made in the printable state.
(When there is no error message)

ⅱ)Use the [Cursor move button [▽]] to move to the selected setting item.

※ The sixth item from the top is [Display Brightness].

Press the 【▽】key five times.



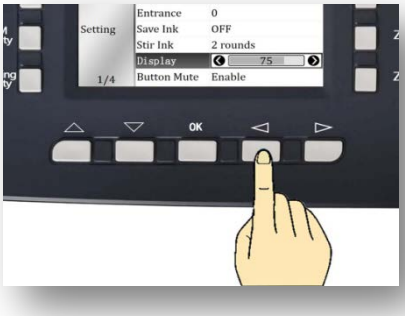


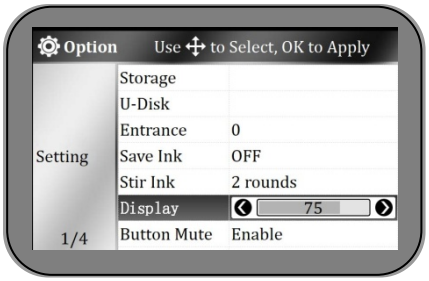
ⅲ)Use the [Cursor keys [◁] [▷]] to adjust the display brightness.

※ Display brightness is adjustable in increments of 5% from 0 to 100%.

※ The minimum display brightness is 1%. When it is set to 0, it automatically changes to 1%.

※ The factory setting for the display brightness is 100%.





ⅶ)Press the [OK] button to complete the setting.

※ The display will not return to the initial interface.

※ Press the [Stop] key to return to the initial interface



Password Settings

The machine can be protected by requiring the user to enter a password when the machine is in use, when printing is stopped and the user leaves the machine, or to prevent outsiders from using the machine at will.



Password setting

ⅰ)With the machine turned on, press the [Set] button on the panel.

※ The displayed screen changes to [Settings Screen].

(Hints) This setting can only be made in the printable state.
(When there is no error message)



ⅱ)Use the [Cursor Move Button [▽]] to move to the selected setting item.

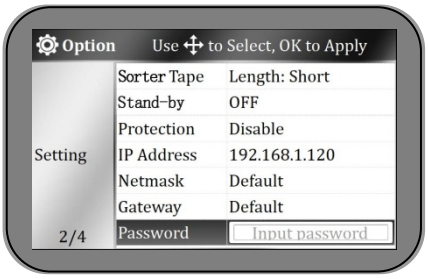
※ The operation area is on the lower side of the LCD screen.

※ The current option is marked with a white background.



ⅲ)There are 4 pages of item selection settings. The password setting item is on the 2nd page. Press the [▽] button continuously to move the scroll bar down. The [Password] setting item appears.

※ If no password is set, [None] is displayed.



ⅳ) Use the numeric keys to enter any 4-digit number.

(Hints) The first digit cannot be [0].

(Hints) Enter the numbers one by one and accurately.



v)Press the [OK] button.



※ The machine would not return to the initial interface.

※ Press the [Stop] key to return to the initial interface

Cancel password setting



i)With the machine turned on, press the [Set] button on the panel.

※ The displayed screen changes to [Settings Screen].

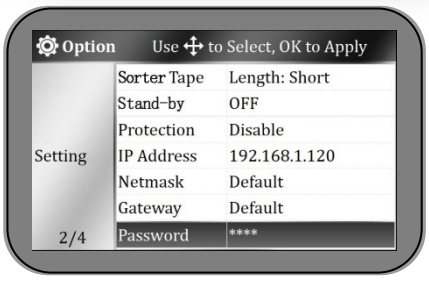
Hints This setting can only be made in the printable state.
(When there is no error message)

ii)Use the [Cursor movement keys [▽]] to move to the selected setting item.



※ The operation area is below the LCD screen.

iii)There are 4 pages of item selection settings. The password setting item is on the 2nd page. Press the [▽] key continuously, the scroll bar moves down, and the [User Management] setting item appears.



※ When setting a password, [****] is displayed.

iv)Press the [C] key to clear the password. The [Clear input] message appears.



v)Press the [OK] button to release the password.

※ The machine would not return to the initial interface.

※ Press the [Stop] key to return to the initial interface

Important If password protection is set, the machine will ask for the password when the main display light is off or when the machine is just turned on (when turning on the machine/turning on energy saving mode).

Important If the user forgets the password, please contact the agent or after-sales department.

Silent Mode

The key press sound can be turned off.



ⅰ)With the power on, press the [SET] button on the panel.

※ The displayed screen changes to [Settings Screen].

This setting can only be made in the printable state.
(When there is no error message)

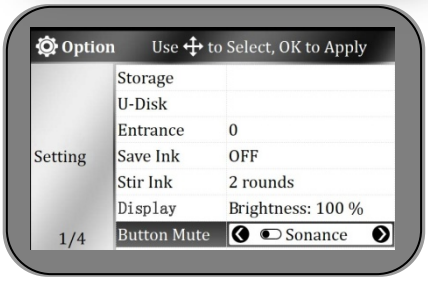
ⅱ)Use the cursor movement button [▽] to move to the [Buttom Mute] item.



※ The operation area is below the LCD screen.

※ The current option is black background with white markings.

ⅲ)There are 23 item selection settings in total, and the [Button Mute] item is in item 7.



※ The factory default option for this mode is: [Sonance].

ⅳ)Use the cursor keys [◁] and [▷] to select [Mute] or [Sonance].



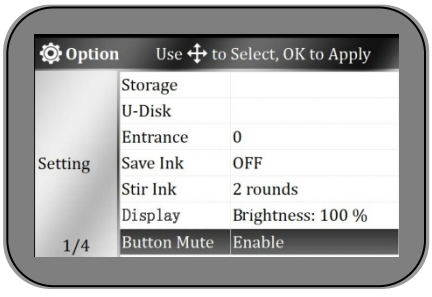
※ There are two modes to choose from: [Mute] and [Sonance].

ⅴ)Press the [OK] button to complete the setting.

※ The display screen will not return to the initial interface.

※ Press the [Stop] key to return to the initial interface





Total count display function

The total number of prints and the total number of master making are used as criteria for machine repair and replacement of machine parts, and the amount of work that can be done after the installation of the machine is completed can be judged.

ⅰ)With the machine turned on, press the [SET] button on the operation panel.



※ The displayed screen changes to [Settings Screen].

Hints This setting can only be made in the printable state.
(When there is no error message)

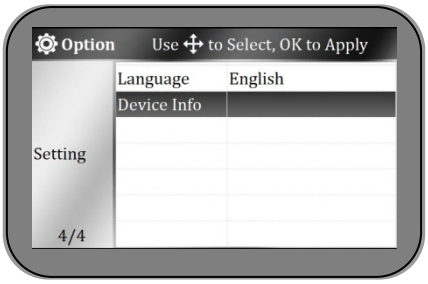
ⅱ)Use the [Cursor Move Button [▽]] to move to the selected setting item.



※ The operation panel is located on the lower side of the LCD screen.

※ The current option is marked with a white background on a black background.

ⅲ)There are 23 items in total for item selection and setting. [Device Information] is the 23rd item. Press the [▽] button continuously to move the scroll bar down until the item appears.

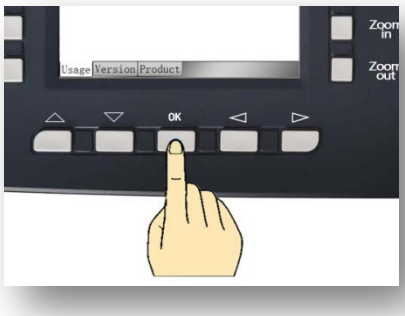


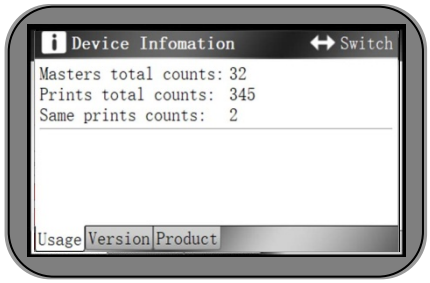
ⅳ)Press the [OK] button. The [Device Information] window appears.

※ The device information interface has 3 pages in total, and the counting information is on the first page.

※ The counting information includes the total number of plates made, the total number of prints, and the number of prints on the current plate.

※ Press the [Stop] key to return to the initial interface

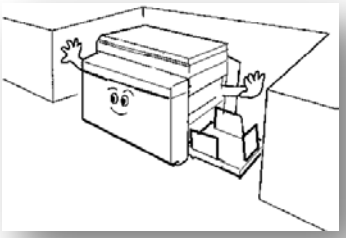




Precautions before use

This section mainly describes the use environment, conditions, general precautions, names and functions of each part of the machine, etc. Please read it carefully before use.

Machine installation environment and precautions



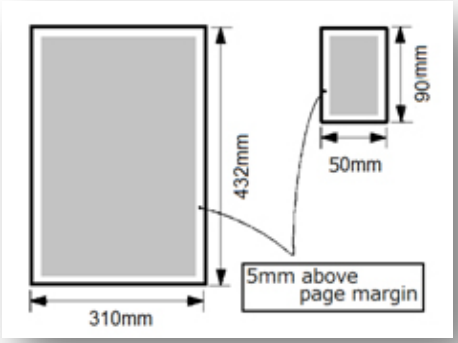
・ To use the machine safely, please pay attention to the machine's operation/replacement/repair of consumables, and ensure that the machine is installed on a level surface.

(Usage range: Temperature/10° C～35° C Humidity/20%～90% = no dew)

・ The following environments may cause safety hazards and may easily cause machine failures. Please avoid installing the machine in the following environments:

- Direct sunlight
- Air conditioner/ventilation vent/humidifier vent
- High temperature and humidity/low temperature and low humidity
- Near volatile flammable materials
- Humid/dusty/vibrating places
- Magnetic fields
- Unstable ground
- Uneven places

About the original



Cheak (☛ How to mount the original (P 41)

The following is the range of available paper:

- Maximum size --- Approx. 310mm × 432mm
- Minimum size --- Approx. 50mm × 90mm

When using other paper sizes, the original size is not automatically recognized, but master making is possible.

When the original is a book.

- Weight --- Maximum weight is about 10kg
- Thickness --- 6cm at the thickest

Make sure that the original has 5mm or more margins. Insufficient margins can lead to problems such as failure to read the original, failure to print a portion of the original, and paper jams.

The maximum print area of the FR-8351 is 252mm x 380mm (B4 reference). When the original exceeds the reference and is read in proportion to its actual size, it is read successfully but not printed in its entirety. In this case, use the reduced master making function.

Although it is stipulated that the margins of the original are 5mm or more, even if the original that meets the standard may not be able to print successfully. Such as the front of the original font is too thick, the use of paper quality is not good, etc., these may constitute the impact of printing failure factors.

Printing failure could occur when the original's handwriting is too light, the bottom gray of the original is too heavy, or when it can be read by the naked eye but not by the machine.

When using the following originals, make adjustments using the zoom function correctly.

- Originals larger than 297mm × 420mm = Use Zoom Out
- Originals smaller than 50mm × 90mm = Use Zoom In

Regular Original Size (Paper)

- A3 / 297mm × 420mm
- A4 / 210mm × 297mm
- A5 / 148mm × 210mm
- B4 / 257mm × 364mm
- B5 / 182mm × 257mm
- 8K / 260mm × 370mm
- 16K / 195mm × 270mm
- 16KS / 195mm × 270mm
- Post / 102mm × 165mm
- A4 Horizontal / 297mm × 210mm
- A5 Horizontal / 210mm × 148mm
- B4 Horizontal / 364mm × 257mm
- B5 Horizontal / 257mm × 182mm
- 16K Horizontal / 270mm × 195mm

About the paper

The following are the papers that can be used with this machine.

Available printing paper

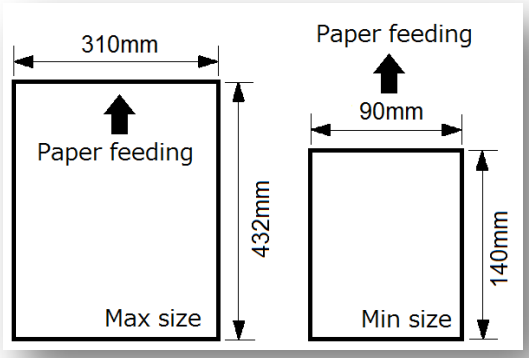
- Normal paper / Thin paper (40K) ~ Thick paper (210K)
- Recycled paper / General paper
- Copy paper / Approximately 40K ~ 210K
- Notepads, etc.

Unusable printing paper

- Glossy paper (colored paper)
- Raised paper (copy paper, half-sheet paper)
- Pasted thick paper
- Paper with bad cut surface/cut edge (bad cut edge)
- Paper that is severely deformed due to squeezing

Paper size

- Maximum: 310mm × 432mm
- Minimum: 90mm × 140mm (notebook)

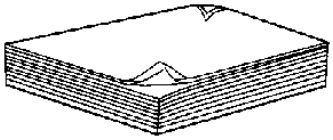
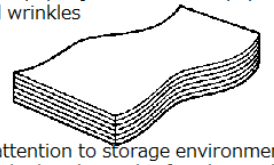
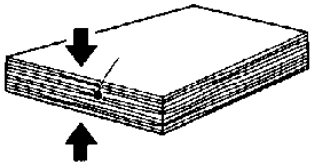
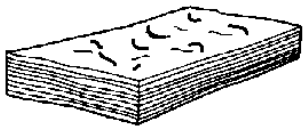
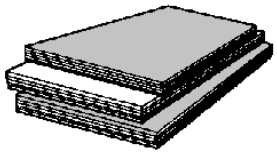
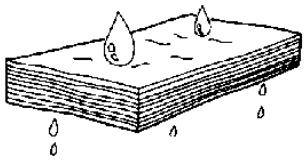


Maximum printing area

- FR-8451 = 291mm × 420mm
- FR-8351 = 252mm × 380mm

About the storage of paper

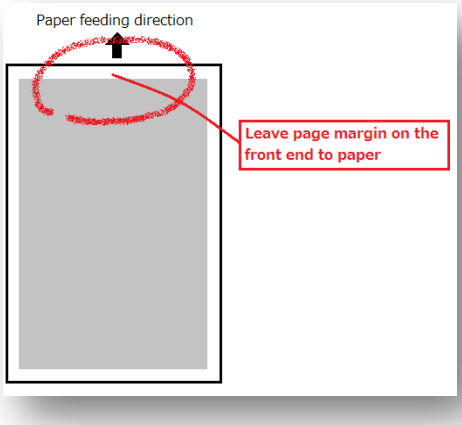
Do not use the following paper. Using the following paper may cause problems.

Bent of front end of paper is easy to cause paper jam Double paper intet and erinkles  Take out front bent	Paper is bent and deformed Paper is easy to be rolled on drum. Unfavorable paper arrangement will cause paper jam and double paper inlet and wrinkles  Pay attention to storage environment,and keep the bending sides facedown when in use	Cutting surfaces bonded together to cause paper jam Double paper inlet  Shake paper before use
Uneven paper surface is easy to cause paper jam Double paper intet and erinkles  Take out uneven paper	Different paper sizes are each to cause paper jam Unfavorable paper arrangement  Improve paper quality and size consistency management	Wet paper is easy to cause unfavorable paper arrangement / wrinkles  Do not put paper in wet place Do not put it on ground directly

- Wrap unused paper in packing and store it in a dry environment.
- Wet paper can cause problems such as paper jams and poor printing.
- Store the paper on a horizontal surface.
- Do not use paper tied with a rope if there are traces of rope on the paper.

About the page margins

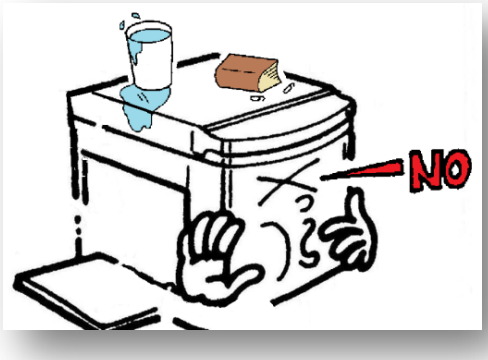
The professional printing ink used in this machine has strong viscosity, which is used to stick the paper to the roller.
Therefore, in order to ensure the smooth printing work, the original manuscript needs to have a certain margin, especially in the paper feeding direction.



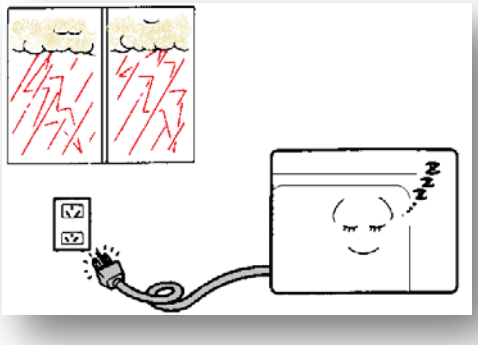
Hints In order to ensure smooth printing, it is best to leave a page margin of more than **10mm**.

Cheak About the original (P 18)
About printing paper (p 19)
[When the paper is rolled on the drum] (P 137 / 141)

Daily maintenance of the machine

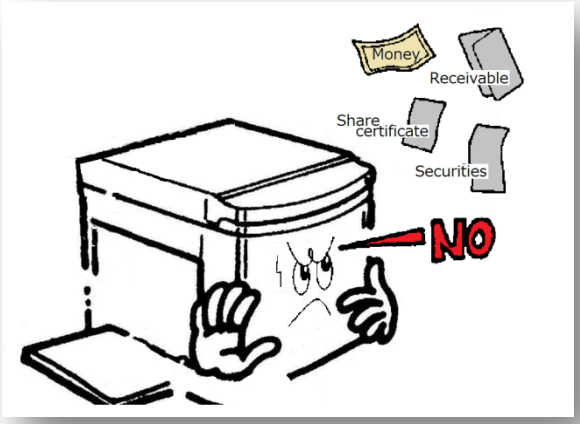


- Please do not place heavy objects on the machine or impact the machine.
- Please do not place bottles or cups filled with water on the machine. Once water enters the machine, the insulation effect of the machine will deteriorate.
- Avoid dropping metal pieces such as paper clips and staples into the machine or gaps.
- Avoid cutting off the power, unplugging the plug, and opening the outer cover while the machine is working.
- Before unplugging the plug from the socket, turn off the power of the machine first, then hold the plug and unplug it from the socket.
- It is strictly forbidden to unplug the plug or operate the machine with wet hands.
- When the machine is abnormally hot or makes abnormal noise, please stop using it immediately, turn off the power of the machine, unplug the plug, and contact the agent or after-sales department.
- It is strictly forbidden to disassemble the fixed outer cover and parts of the machine without authorization.
- It is strictly forbidden to modify the machine or replace parts without authorization.
- If there is thunder nearby, stop using immediately, turn off the power, unplug the plug, and use it after the rain stops.
- For paper jams and other issues, please refer to the relevant content in the latter part of this manual.
- To ensure the normal operation of the machine and improve the printing quality, please perform machine maintenance regularly.
- When cleaning the machine, please turn off the power of the machine, unplug the plug, and wipe the machine gently with a soft cloth dipped in neutral detergent and wring it dry. If volatile oil or thinner is used to clean the machine, it will cause machine failure or discoloration.
- When changing the location of the machine, do not tilt the machine. (Please contact the agent or after-sales department)
- Please operate according to this manual.

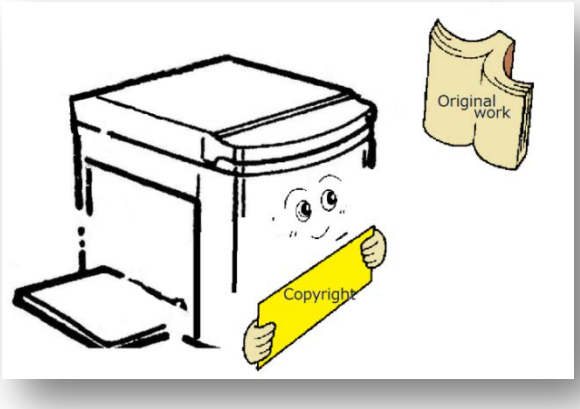


Prohibition of copying/printing

When using this machine for copying and printing, there are restrictions on the content. Even if the copied and printed items belong to you, you are prohibited from copying and printing illegal content.



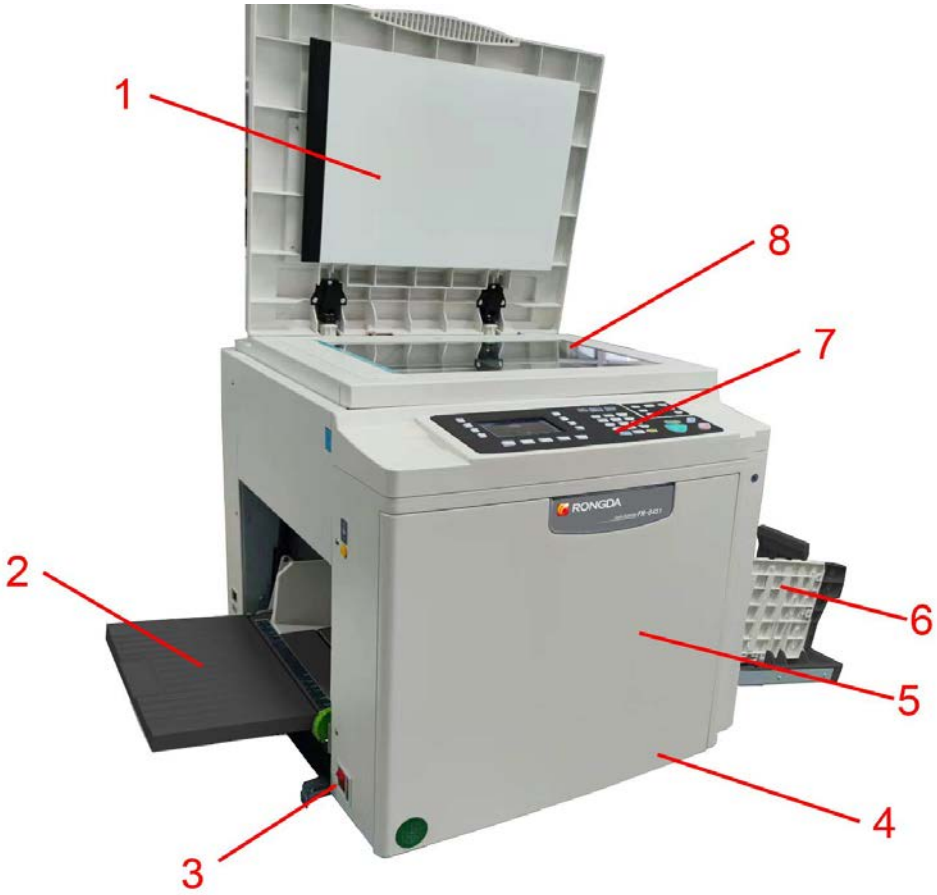
- It is forbidden to copy banknotes/currency/government-issued securities/revenue stamps/government bonds/local bonds, etc. (Even items with the "sample" stamp are forbidden to copy)
- Unused stamps and postcards may not be printed without government permission.
- Valid banknotes, currency, securities, etc. in circulation abroad may not be printed.
- Securities (stocks/bills/checks/commodity certificates, etc.) issued by the private sector, time certificates/coupons, etc., except for those used by enterprises and institutions, should be copied in strict accordance with government requirements.
- Private copying of government-issued passports/driver's licenses/permits/identity cards/passes/food stamps, etc. issued by public organizations is strictly prohibited.



- It is prohibited to print items that are kept in private homes and are not for sale, such as books, music scores, artworks, paintings, maps, audio-visual items, photographs, etc.

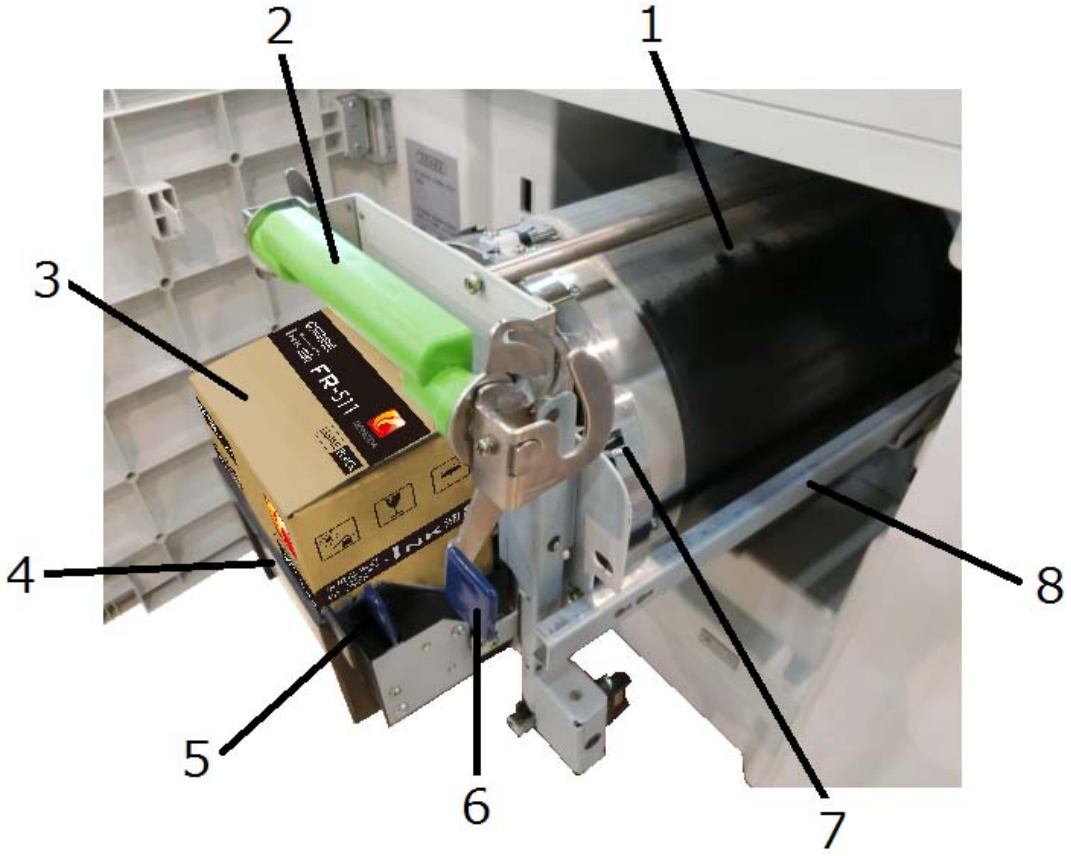
Names and functions of each part

Machine appearance



No	Name	Functions
1	Cover of scanning table	Make the original contact with the scanning platen glass well.
2	Paper feeding table	Place the printed paper.
3	Power switch	Press the button to the [I] side to turn on the power, and press it to the [O] side to turn off the power.
4	Front door opening portion	Put your hand into the depression on the back of the front door and open the front door.
5	Front door	Open the front door when replacing ink/installing rollers/dealing with master accumulation.
6	Paper receiving table	Load paper after printing.
7	Control panel	Cheak (For the names and functions of the operation area, please refer to (p 31-32)
8	Glass of original scanning table	Place the original face down.

Drum unit



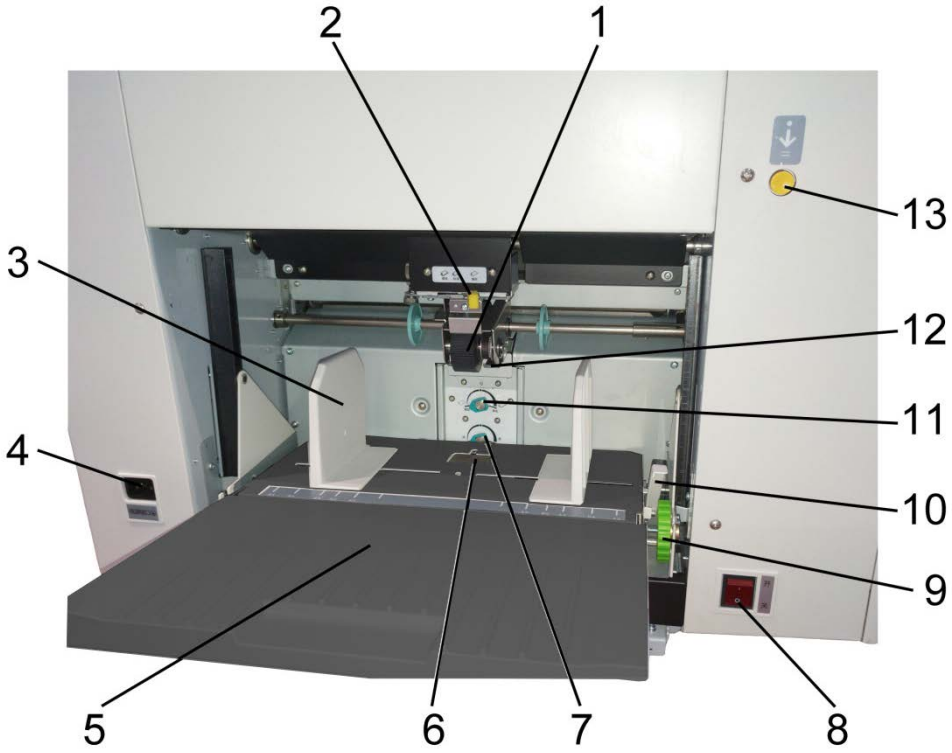
No.	Name	Functions
1	Drum	Impresses the ink onto the printing paper.
2	Drum handle	Hand hold here for drum removal and mounting operations.
3	Ink	Use the specified ink.
4	Ink box bracket	Container for the specified ink.
5	Ink box installation handle	Use when replacing ink cartridges and lock the ink cartridge holder.
6	Drum installation handle	For removing and installing the drum, lock the drum.
7	Drum guide rail	Use to properly install the drum into the machine body.
8	Drum locking switch	Use to properly install the drum into the machine body. (Two left and two right)

Paper feeding part



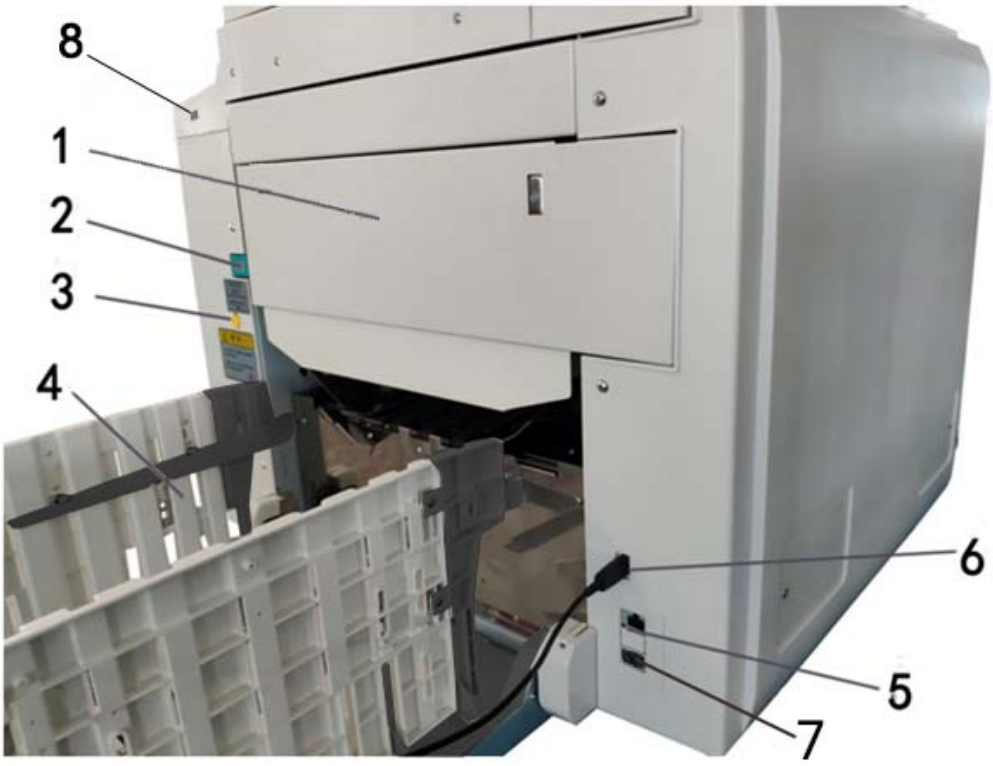
No.	Name	Functions
1	Power plug	Connect the power supply here.
2	Paper feeding table	Place the paper for printing.
3	Power switch	When the button is pressed to the [I] side, the power is turned on, and when it is pressed to the [○] side, the power is turned off.
4	Paper feeding lift button	The feeder table can be raised and lowered. Use this button to handle paper jams.
5	Scanning table switch	Use this handle when opening the original table to the right.

Paper feeding part - details



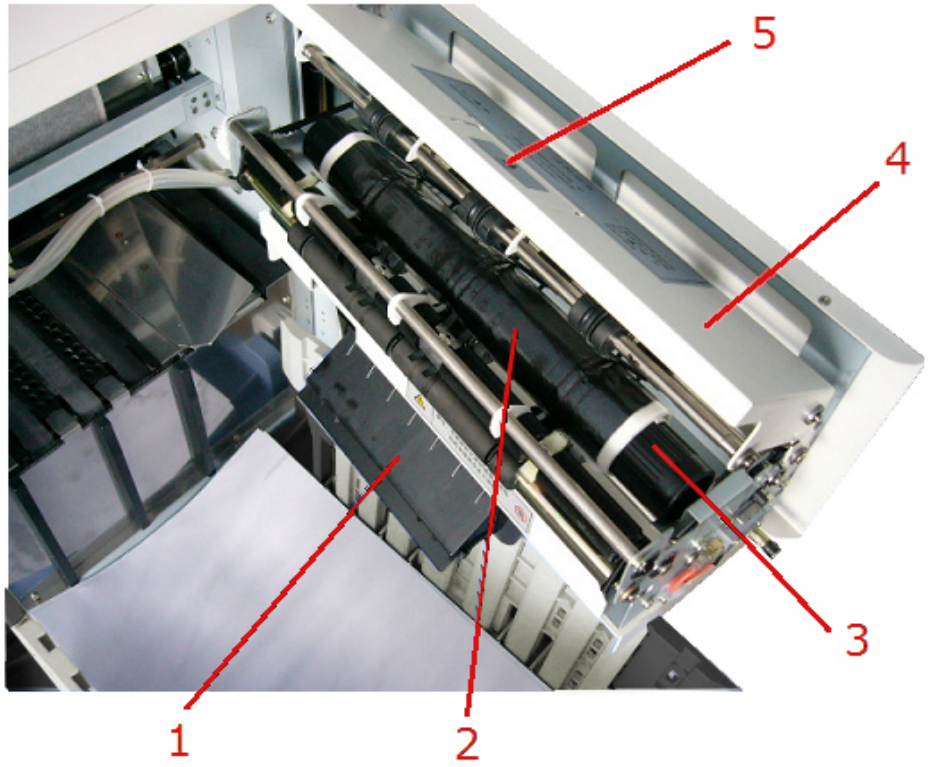
No.	Name	Functions
1	Paper feeder roller	The wheel that transports the printed paper forward. One for front and one for rear.
2	Paper feeding pressure control handle	Switches the amount of paper feed pressure according to the state of paper feed, and is divided into 3 speeds.
3	Friction plate	Plate that determines the position of the paper. Left and right symmetrical.
4	Power plug	Plug in the power cord.
5	Paper feed platform	Place the paper for printing.
6	Paper detector switch	Confirm that there is a switch on the feeder table for printing paper.
7	Height adjustment knob of paper auxiliary board	Adjust the knobs for the height of the auxiliary paper stops on the left and right sides of the separation sheet.
8	Power switch	When the button is pressed toward the [I] side, the power is turned on, and when it is pressed toward the [O] side, the power is turned off.
9	Left and right control knobs of paper feeding table	Adjust the position of the feed table to the left/right, and thus the printing position to the left/right.
10	Clipboard locking plate	The lock plate for fixing the paper clip board.
11	Pressure adjustment knob for paper separator	The knob that adjusts the strength of the separation sheet.
12	paper separator	The rubber sheet that separates the printed paper sheet by sheet.
13	Lift switch for paper feed platform	Buttons for raising and lowering the feeder table and for handling paper jams.

Paper out part



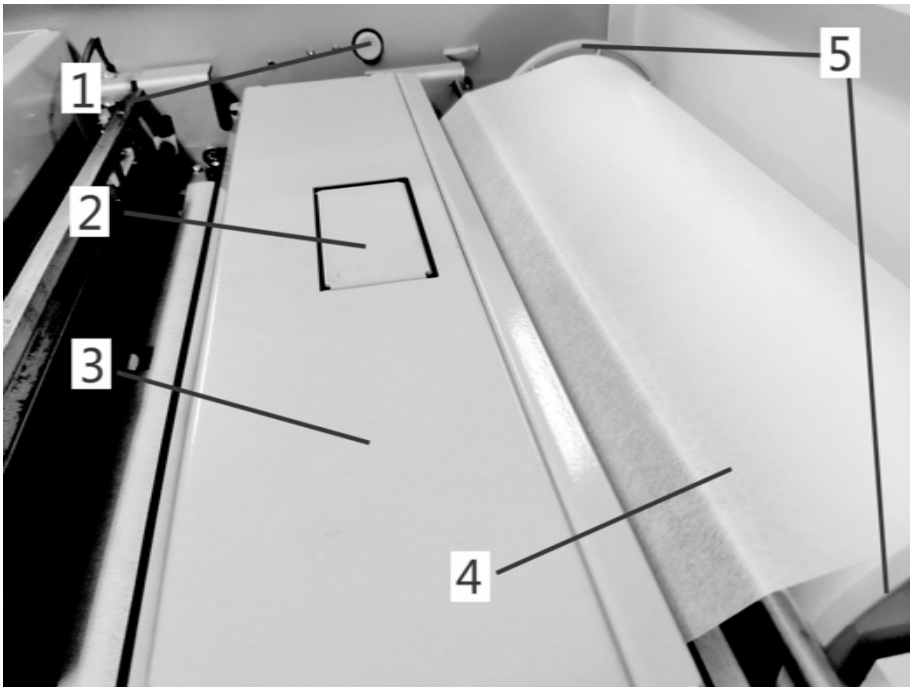
No.	Name	Functions
1	Disposal box	The used masters are drained here.
2	Switch of disposal box	Press this switch when opening the disposal box.
3	Drum rotating button	This switch turns the drum, use this button when dealing with paper jams.
4	Paper receiving table	Load the finished printing paper.
5	Divider Jack	Connect the packer for operation.
6	USB Socket	Plug in the USB power cord and print directly.
7	Network cable connector	Connect the network cable for online printing.
8	USB Socket	Plug in a USB flash drive to select a file for printing.

Disposal box



No.	Name	Functions
1	Blow-off nozzle	A fan that disengages the printing paper from the drum.
2	Waste master paper	Collects the waste master into the disposal box.
3	Disposal box core	Roll the discharged waxed paper on this core.
4	Upper cover of disposal box	Open or close the disposal box.
5	Switch handle	Used when opening the top cover of the disposal box.

Master making part

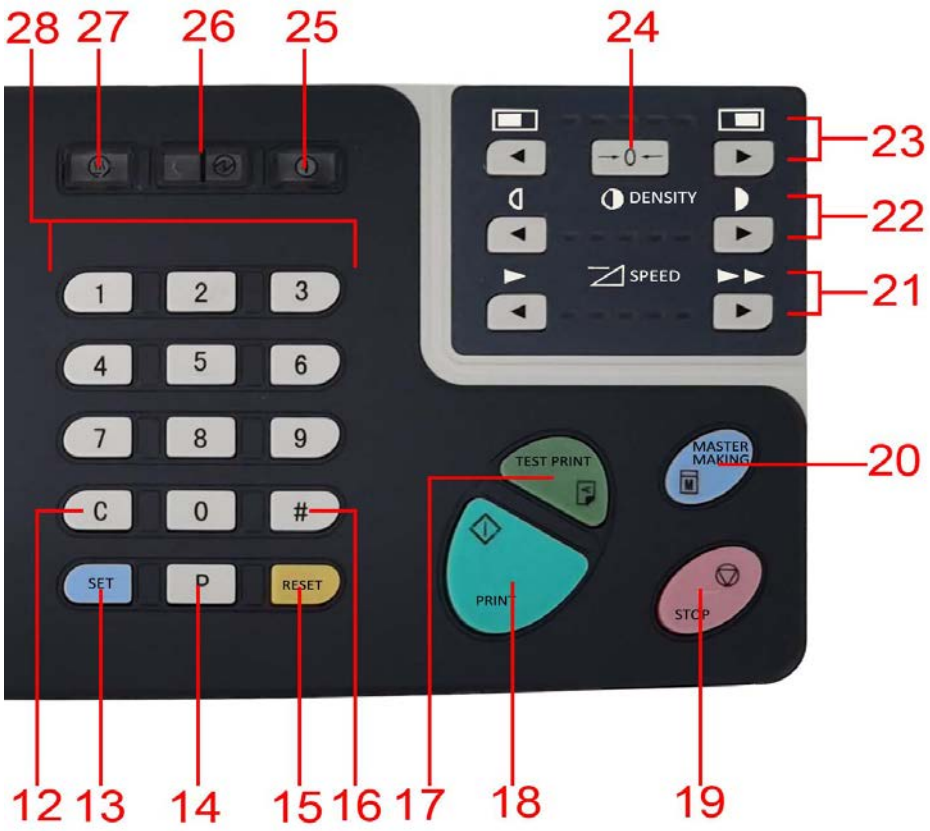


No.	Name	Functions
1	Cutter Toggle Switch	Used when installing the master.
2	Master making machine cover buckle cover	Master making cover switch.
3	Master making machine cover	The cover plate that protects the cutter assembly. Underneath the cover is the cutter.
4	Master roll	The master will be transported along the cover plate into the machine for master making.
5	Master roll holder	Used to adjust the tightness of the master.

Names and functions of the operation panel button



No.	Name	Functions
1	Plate making zoom selection button	Displays a screen of master making sizes that can be selected by the user.
2	Original size selection button	Displays the screen of the original size that can be selected by the user.
3	Display screen	Displays information necessary for machine operation and printing.
4	Plate making mode selection button	Displays the screen of the master making mode that can be selected by the user.
5	Image processing selection button	This is used when selecting an image mode suitable for the original.
6	Plate making concentration selection button	Displays the master making concentration screen that can be selected by the user.
7	Scan concentration selection button	The user-selectable scanning concentration screen is displayed.
8	OK button	Confirms the settings.
9	Direction buttons	Used when moving the selection item or selecting a setting item.
10	Infinite reduction button	Reduces the original in 1% increments.
11	Infinite expansion button	Enlarges the original in 1% increments.

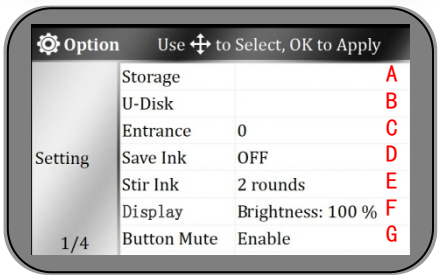


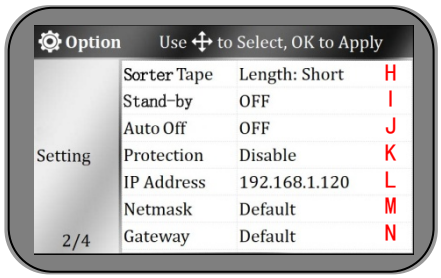
No.	Name	Functions
12	C key	Cancel the entered value or reset the counter to zero.
13	Setting key	Used when the operation setting selection screen is displayed.
14	P button	Accesses the group function screen.
15	Reset button	Resets the machine and returns some settings to the initial state (except for master making concentration, scanning concentration, and image mode).
16	# key	Cancel the group function and delete the data for grouping printing settings
17	Test Print Button	Performs a test print run, which does not affect the number of sheets entered.
18	Print button	Make the machine start the printing process.
19	Stop button	Stops the operation in progress. If plate making has been started, the machine will not stop until the master making process is finished.
20	Master making button	Enables the machine to enter the plate making process.
21	Printing speed button	Use when adjusting the printing speed.
22	Print concentration adjustment key	Used to arbitrarily adjust the printing concentration. (Available for models equipped with the "Automatic Printing Pressure Adjustment Function", but not enabled by factory default.)
23	Position Adjustment Key	Use when moving the printing position forward and backward.
24	Horizontal and vertical position center reset key	Pressing this key returns the horizontal and vertical positions to the center position (standard position).
25	Auto off setting key	This button is used to enable the auto off function after the machine has stopped running for a certain period of time. (The time needs to be set in advance.
26	Mode Indicator	The left indicator light is on when using the sleep mode and the right indicator light is on when using the auto off mode.
27	Sleep mode release button	When the Sleep Mode indicator is on, press this button to return the machine to the basic state.
28	Numeric Keys	Use when entering the number of sheets or values.

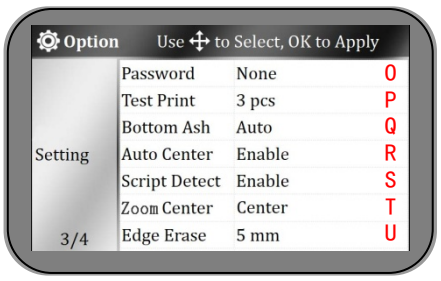
Operation setting screen

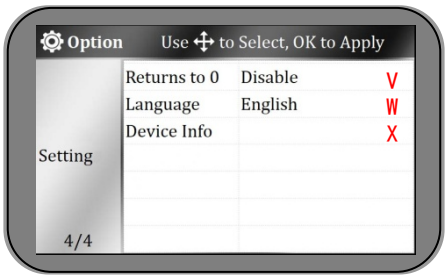
Press the [Set] key in the operation panel/numeric keypad area to change the display to the operation setting screen.











※ The symbols (A to X) in the table are for convenience of explanation and are not included in the actual screen. Some functions are optional items, the actual operation setting screen sequence may be slightly different from the illustration.

Symbol	Name	Explanation	Reference
A	Internal storage	Displays the machine's built-in storage files.	p. 86
B	External storage	Used when displaying data on a USB flash drive.	p. 132
C	Paper feed adjustment	Adjusts paper arching to accommodate different weights of paper.	p. 59
D	Ink saving	Reduces the amount of ink used.	p. 82
E	Ink uniformity	Performs a forced ink supply setting from master making to master roll to drum.	p. 84
F	Screen brightness	Adjusts the display brightness.	p. 12
G	Key mute	Turns key sound on or off.	p. 15
H	Paper tape grouping	Set the printing action when group printing is performed.	p. 47
I	Auto sleep	Automatically turns off the display after a certain period of time after the machine stops running.	p. 8
J	Auto off(Optional)	Automatically cut off the power supply after a certain period of time after the machine stops running.	p. 10
K	Confidentialityity protection	When printing is finished, the wax master is forced to be discharged into the disposal box.	p. 71

L	IP address)	Input the necessary information to continue online printing.	p. 114
M	Subnet mask	Enter the necessary information to continue on-line printing.	p. 114
N	Gateway	Enter the necessary information to continue network printing.	p. 114
O	User management	Enter the password setting when operating the machine.	p. 13
P	Number of trial prints	Setting of the number of test prints after master making.	p. 69
Q	Background gray concentration	Setting for adjusting and removing the gray background.	p. 61
R	Image centering	Master making position centering setting.	p. 90
S	Original recognition	Setting for automatic recognition of the original size.	/
T	Zoom midpoint	Setting of the center point reference position when scaling.	p. 67
U	Paper edge elimination	Elimination of paper edge lines.	p. 89
V	New print reset	Setting of printing quantity memory function.	p. 91
W	Language	Chinese/English display language switching setting.	/
X	Device information	Records total master making/printing number and equipment soft firmware information.	p. 16

Basic printing operations

This chapter mainly records the preparation work before printing, basic operation methods and operation sequence.

Before printing

How to install the power cord



1. Turn off the power switch

・The power switch is on the left side of the machine.

Cheak The names and functions of the various parts of this machine (P 26/27)



2. Plug in the dedicated power cord for this machine

・The plug is on the left side of the machine.

Cheak The names and functions of the various parts of this machine (P 26/27)



3. Insert the plug into the socket

・ Be careful to insert it firmly to prevent it from falling off during printing.

If the plug falls off during printing, follow steps 1 to 3 above to complete the power supply installation.

Cheak Notes on Power Supply (P 1)

When unplugging the plug from the socket, turn off the power first and wait until the display goes out before unplugging the plug.

How to place the printed paper

1. Gently open the paper feed platform



Cheak Names and functions of each part of the machine (P 24-26)
About printing paper (P 19)

2. Installation of printed paper



- Place the paper on the feed platform with the front end of the paper aligned with the front end of the feed tray, adjust the paper clip board according to the paper size, and fix the paper clip board.

Hints If the clipboard is adjusted too tightly, it will affect the paper feed.

Cheak Names and functions of each part of the machine (P 26-27)

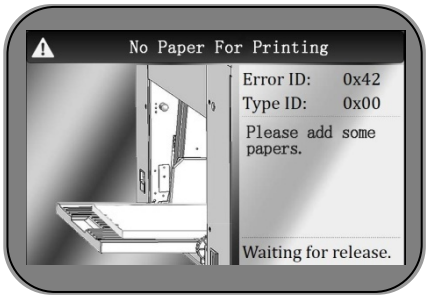
Hints Use the [FEEDER TABLE LIFT] button to add paper, lower the feeder table, or remove paper during printing.

3. Installation of Paper Lock Switch



- Push the paper lock switch up.

Hints Even if you place fewer sheets of paper, you need to arrange them neatly.
Arrange the paper neatly. When the front end of the paper placed on the feeder table is bent or buckled, the prompts for installing printed paper do not disappear.
If this happens, gently press down on the front of the paper, or place the warped end face down.



4. Feed pressure setting

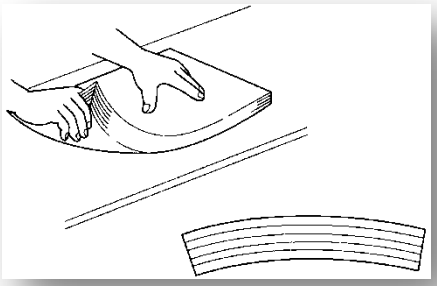


- Adjustment settings for paper feed strength are set to adjust the paper feed strength by the paper feed pressure adjustment handle.

The feed pressure is not adjusted according to the paper material, but according to the feeding condition.

There are three levels of stops for the paper feed pressure adjustment handle:

- [Thin Paper] Thin Paper ~ Standard Paper
- [Standard] Standard paper to thick paper
- [Thick paper] Thick paper



Paper that is not aligned or cut surfaces that are not intact is a major cause of poor feeding, so please straighten and disperse paper that is stuck together before feeding.

If the paper is warped, correct the paper manually or place it with the warped direction down. Especially for note paper, there are many cases of poor feeding due to warped paper.

5. Paper separation pressure setting



- This setting is to prevent paper from being fed together. It is adjusted by the separation pressure adjustment knob.

Adjustment of [Separation Pressure] is not determined based on the quality of the paper used, but is adjusted based on the actual paper feeding situation.



- Turn the knob to the **left** to **reduce** the separation pressure.
- Turn the knob to the **right** to **increase** the separation pressure.

Reduce the separation pressure in the following cases

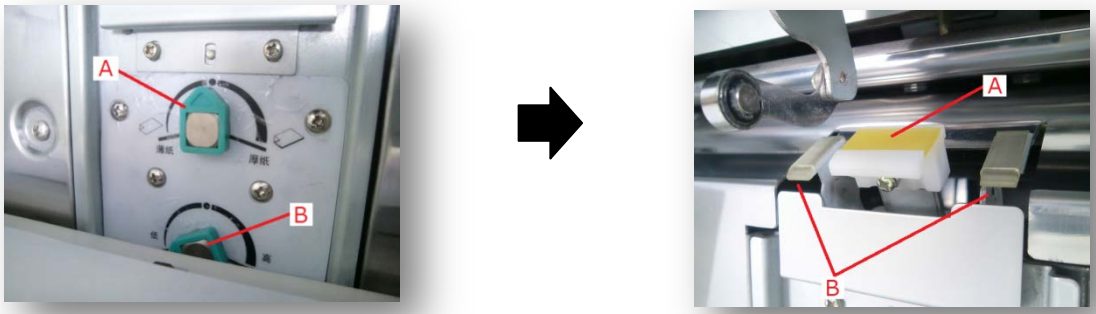
- The paper is wrinkled when feeding, or the front of the paper is scratched.
- The paper feed is not smooth, or there is a paper jam on the feed side.

Increase the separation pressure in the following cases

- There are unprinted sheets in the printed sheet.
- 2-3 sheets of printing paper are fed together, or the printing position is off.

Tips

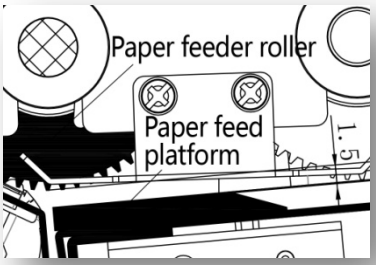
Separation pressure adjustment can be accomplished not only by the main separation tab (A), but also with the aid of the paper feed stopper (B).



Knob (A) adjusts the strength of the separation tab (A) and knob (B) adjusts the height of the paper feed stop (B). Normally use knob (A) to adjust the separation pressure and turn knob (B) to the far left.

Turning knob (A) to the left results in weaker separation pressure; turning it to the right results in stronger separation pressure. Turning knob (B) to the left decreases the height of stopper (B); turning it to the right increases the height of stopper (B).

6.Setting the working height of the feeder platform

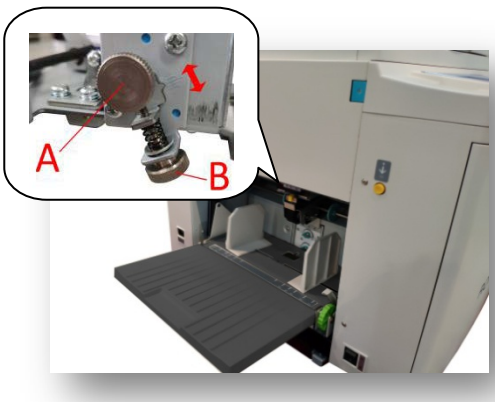


- The working height of the feed table can be realized by adjusting the paper detection trim screw.

The factory setting for the working height of the feed table is **1.5mm** clearance from the paper rollers.

Tips

The detection adjusting screw (A) is used to open the adjustment action of the paper detection trim screw (B);
The paper detection trim screw (B) is used to adjust the gap between the feed table and the paper rollers.



How to install the receiving platform

1. Gently open the paper receiving platform

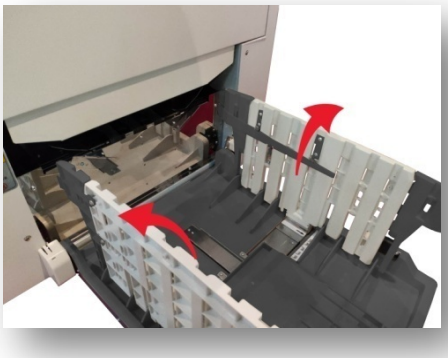
Cheak (Names and Functions of Parts of the Machine/Details (P 28)



Do not let go on the way to open to avoid damage.

When the splice tray is fully opened, the splice tray will be slightly lower than the machine.
Do not place objects under the splice tray or open the splice tray completely.

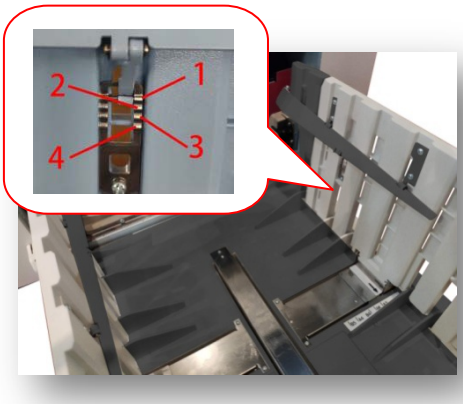
2. Open the paper guide plates





・Adjust the position of the paper guide plate according to the scale.

Depending on the condition of the discharged paper, fine adjustments can be made in order to ensure that the paper is discharged neatly.

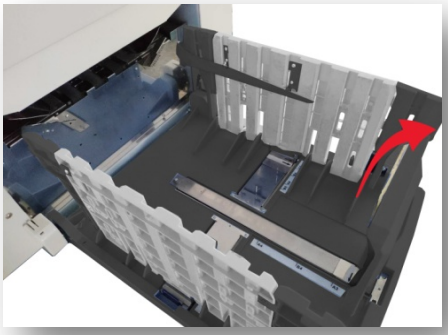


3. Gear setting for left and right paper guide plates

Adjust the stalls according to the paper weight.There are 4 gears.

- First: G (paper weight) <50g
- Second: 50g≤G<85g
- Third: 85g≤G
- Fourth: The machine is idle for processing, and the catch table is normally stored.

4.Open the front paper stopper



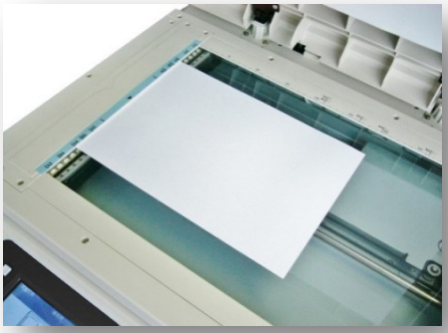
Depending on the actual paper discharge, fine adjustments can be made to make the paper discharge neatly.

Installation method of the original

1. Open the scanner cover



2. Place the original to be printed with the text side facing down on the scanning table





- Align the top of the original with the left end of the scanning platform, align the center with the [▲] mark, and align both ends of the original with the scale indicating the paper size.

Please make sure that the paper on the paper feed table is facing the same direction as the original on the glass table.

If the front end of the document has large fonts and dark colors, or if the front margin of the document is small and the back margin is large, place the document upside down (that is, with the bold font side facing the back).

Cheak About the original (P 18)

3. Gently close the scanning cover



If the original is a "Magazine" or "Book", the setting method is the same as "Single Page", and the original is placed in the center on the left end of the scanning platform.

When printing, it is not advisable to place the original at an angle in order to correct the skewed content. This may cause poor scanning or failure. Please correct the original before printing.

Cheak About the original (P 18)

Basic printing methods

※ Process from master making to printing a finished product using a new original.

1. Turn on the Power



・The power switch is on the left side of the machine.
・The machine is turned on when the [I] side of the button is pressed, and it is turned off when the [O] side is pressed.

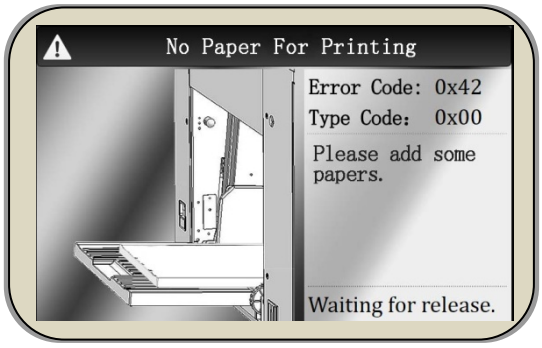
Cheak Precautions concerning the power supply (P 1 / 4)
Names and functions of each part of the unit (P 26/27)
How to install the power plug (P 35)

Hints During machine startup, the display shows the screen on the right, please be patient at this time.



Hints After the power is turned on, some of the internal parts of the machine will rotate, which is the basic procedure of the machine and is a normal phenomenon.

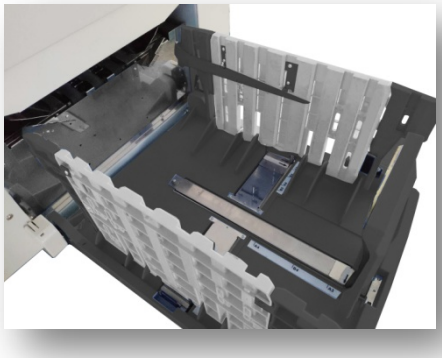
2. Place the paper on the feeding table.





Cheak About paper (P 19)
How to install printing paper (P 36-38)

3. Set up the paper receiving platform



Cheak How to install the receiving platform (P 39-40)

4.Place the original

・The machine automatically recognizes and displays the original size.



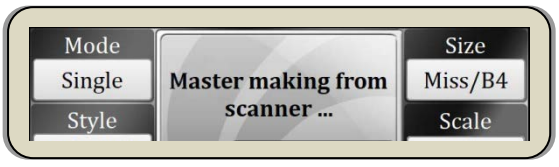


Cheak About the original (P 18)
How to set up the original (P 63)

The settings related to master making that can be made at this time

Cheak Printing concentration
Scanning concentration (P 57)
Master making concentration (P 55)
Original background processing (P 61)
Enlarge/reduce original (P 65)
Original merging (P 73)

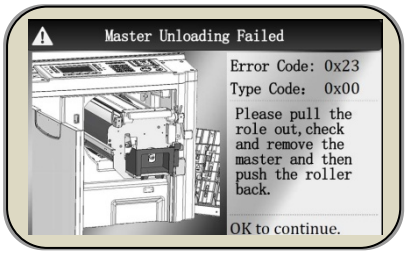
5.Press the “Master Making” button



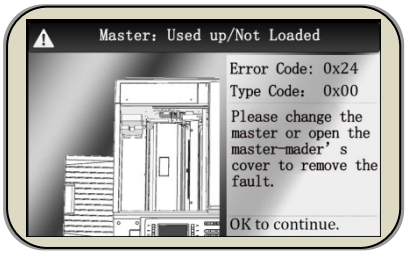


After pressing the button, the machine will carry out a series of actions such as discharging the waste master making - reading the original - master making - plate loading - test printing, etc. The process is automatic.

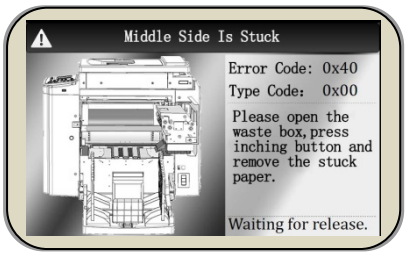
Faults that may be encountered during this action



Cheak (P 140/145)



Cheak (P 96/141)



Cheak (P 139/143)

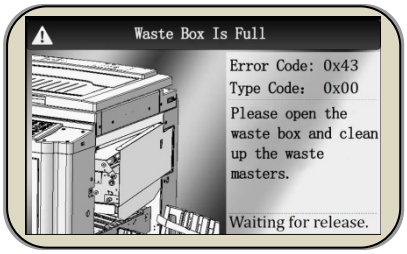
- After the test print, you can…

Cheak Adding a Test Print (P 69)
Adjusting the print position (P 51)
Changing the print speed (P 54)

If there is an issue during the test printing…

Cheak The overall master making concentration is high/low
→ Change the master making concentration (P. 55)
→ or Change the scanning concentration (P 57)
There is a bottom gray → Remove the bottom gray function (p. 61)
Uneven concentration in some areas → Add a test print (P. 69)
No (or almost no) printing → Make several test prints (P. 69)
Checking the condition of the drum surface (P. 102)

Fault message display during operation like this



Cheak (P. 100)

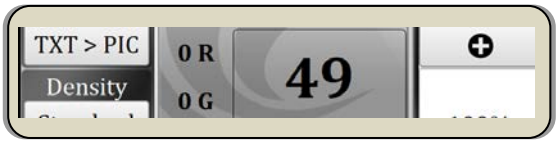
6. Enter the number of prints





Cheak How to enter the number of prints (P. 47)

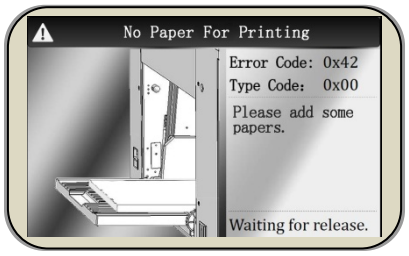
7.Press the “Print” button



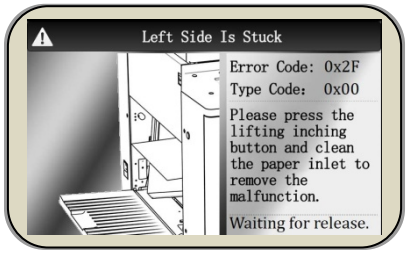


- - After printing starts, the number of sheets entered decreases.
- - The progress bar shows the approximate amount to be printed.

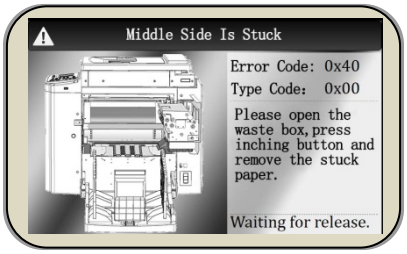
Fault message display during operation like this



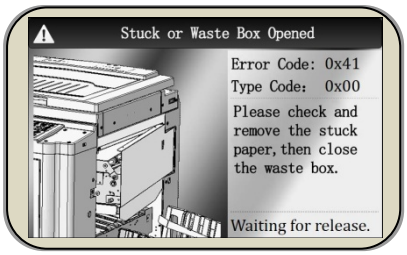
Cheak (P. 36)



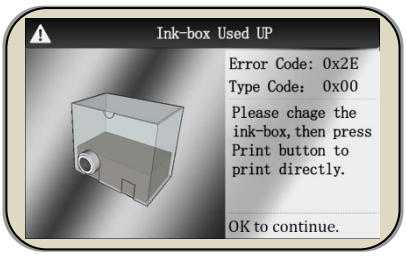
Cheak (P. 138/142)



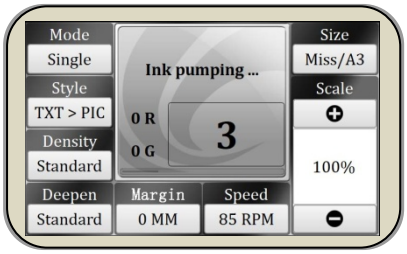
Cheak (P. 139/143)



Cheak (P. 138/144)



Cheak (P 93)



Cheak (P 95)

8. To stop the printing process, press the [Stop] button.



- When the machine stops running, the number of remaining sheets is displayed on the screen.
- To continue printing, press the [Print] button.

When [New Printing Quantity Clear] is set to [No], if printing is completed for the quantity entered at the beginning, the number initially entered will be displayed at the input; in this case, pressing the [Master Making] button will cause the machine to skip the trial printing session and print directly. Therefore, please pay attention to the number indicated at the sheet number input.

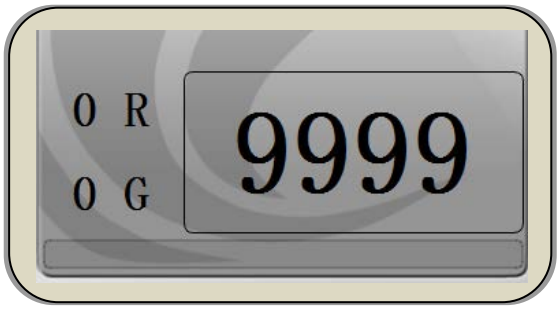
Precautions when printing large quantities from a single original

The master used for printing is very thin, and when an original is printed in large quantities, the master may break, thus affecting the quality of the printing. Taking this factor into account, the number of master making should be approximately 2,000 when printing in large quantities.

Various Printing Functions

This section describes how to use the functions for inputting the number of printing sheets, printing speed, printing concentration, and scaling.

Input of printing sheets



Use the numeric keys on the operation panel to enter the number of sheets to be printed. The maximum number of sheets that can be entered in a single pass is [9999] (4-digit upper limit), and ultra-large print runs can be realized when combined with the group count function.

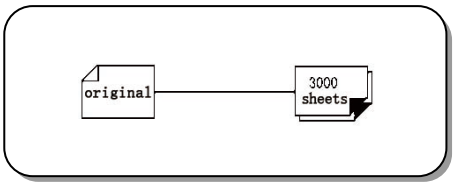
The number of sheets entered is shown on the display, and the number of sheets remaining is shown during printing (understood as subtraction).

The following are two examples.

1. General printing

After entering the number of sheets, continuous printing starts. When the printing paper runs out on the way, the machine will display the remaining number of sheets and stop running. After adding printing paper to the paper table, press the print button again to continue printing.

・For example, when you want to print 3,000 sheets continuously, use the numeric keypad to input [3]-[0]-[0]-[0] in sequence.



2. Group printing

This function can be used to differentiate the number of prints in the same batch.
After a group printing is completed, the number of groups is reduced, the machine is still running, but printing is temporarily stopped, so you can manually place a marker on the printed sheets to distinguish them, or just take away the batch of prints.
Depending on the setting. After manually pressing the [Print] button, the machine will start printing again. The machine stops rotating after all of the entered sheets have been printed.
Group printing is divided into [Simple Group Printing] and [Complex Group Printing].

- Please use [Group Input Dedicated Button] for input.





Manually start reprints

When the printing of the entered number of sheets is completed, the machine will continue to rotate, but the paper feed will stop. During this time, you can remove the printed paper from the table or place a distinguishing item, and then, depending on the actual situation, press the print button when it is necessary to print again to continue with the next round of printing.

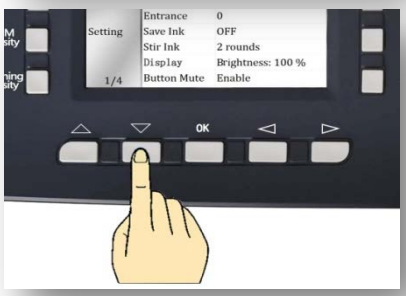
Automatic printing function

- After the entered number of sheets are printed, the machine will continue to run, but the paper feeding will be paused for a period of time. The pause time can be set to 3 levels. During the pause period, you can remove the ejected paper or place a separate object. After a certain period of pause, the machine will automatically resume printing.

  How to set this function (start from the startup interface)

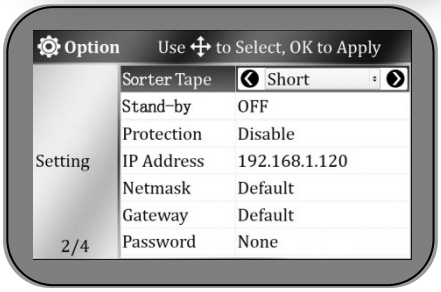


ⅰ) Press the [SET] button to enter the setting screen.



ⅱ)Press the [Cursor Move Key [▽]] to move to the [Sorter Tape] option.

There are 23 items in the setting screen, and [Sorter Tape] is the 8th item.



ⅲ)Use the cursor movement keys [◁][▷] to make a selection.

- Interval between each group

➢ [Short] = 5 seconds
➢ [Medium] = 6 seconds
➢ [Long] = 7 seconds
➢ [None] = Manual

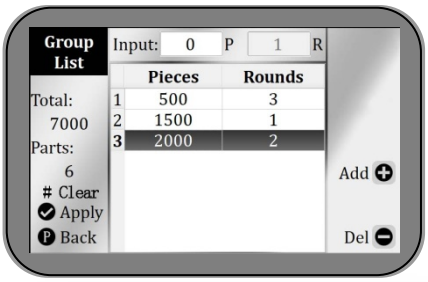


When [None] is selected for this option, drum idling between groups will not stop, and the [Print] button will need to be pressed to start the next group.

ⅳ)Press the [OK] to complete the settings.

Ex.) • **<u>500 sheets * 3 groups / 1500 sheets * 1 group / 2000 sheets * 2groups</u> / complex grouping**(7000 sheets in total)

Enter the following in order:



[P]

[5] - [0] - [0]- [▷] - [3] - [Add ⊕]

[1] - [5] - [0] - [0] - [▷] - [1] - [Add ⊕]

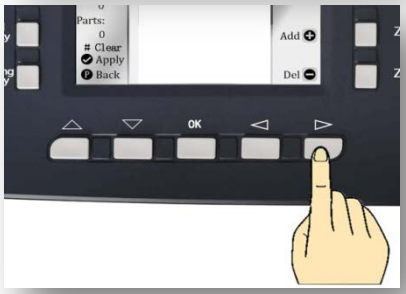
[2] - [0] - [0] - [0] - [▷] - [2] - [Add ⊕]



When setting up group printing, enter them in sequence without intervals.

i) Press [P]。

ii) Use the number keys to enter [5] [0] [0].



iii) Press [▷] .

iv) Use the number keys to enter [3].

v) Press [Add ⊕]。

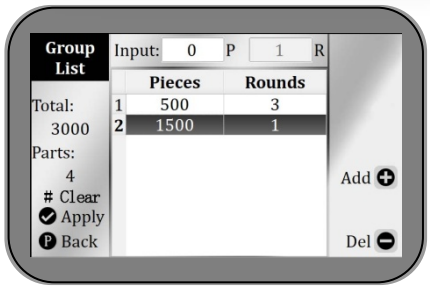


※ Here the [Zoom] key corresponds to [Add ⊕].

vi) Repeat ii) to v) thereafter.

※ If you add a wrong group, you can use the delete key to clear the group. The [Reduce] key corresponds to the [Del ⊖] function.





vii) After all inputs are completed, press the [OK] key to complete the setting.



※ After confirmation, you will return to the initial interface.

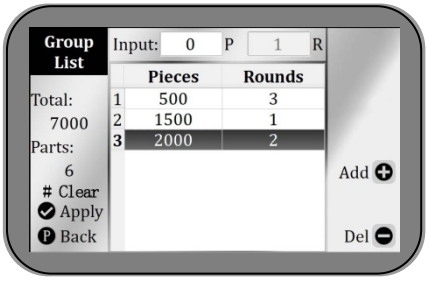
※ The print quantity display box in the initial interface (red box in the figure) shows the number of the first group of group settings.

For repeated printing, you can use the grouper to operate. For details, please consult the official.

How to Cancel grouped printing data

i) Press the 【 P 】 key to enter the group printing settings interface.

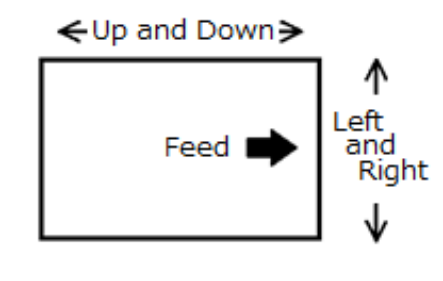




ii) Press the [#] key to delete all grouped printing data settings, and the display will return to the initial interface



Printing position adjustment

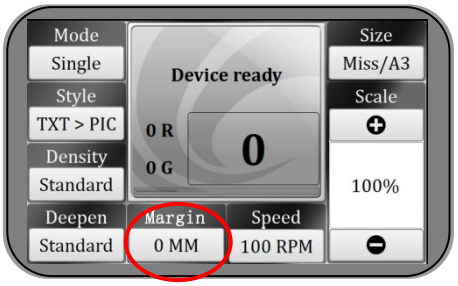


The printing position can be adjusted in the top and bottom (up and down)/left and right relative to the paper. There are separate adjustment buttons for the top and bottom (up and down)/left and right.

1. Adjustment of the vertical (up and down) direction

(Also available during printing)





Adjustments are made using the [Print Position] button in the operation area, regardless of whether the machine is stopped or printing. Adjustments are made with the center as the reference, and the movement scale is displayed on the lower left side of the display.

- Adjust the printing position backward



Use the Print Position button/left to make adjustments.

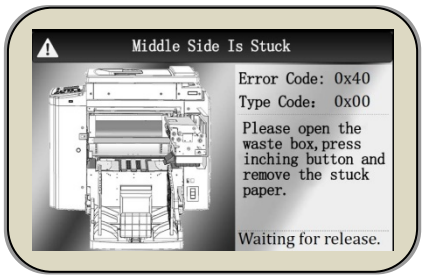
If you adjust it downward too much, the content on the bottom of the paper will overflow and the printing will not be possible, so please confirm the current printing status first.
If the bottom overflows, continuing to print may cause the overflow content to be printed on the back of the paper.

- Adjust the printing position forward



Use the Print Position button/right to make adjustments.

If you adjust upward too much, the margins will become smaller, which may cause the paper to roll up on the drum. Therefore, please check the printing status when making adjustments.



Cheak (p. 139/143)

・Adjust the printing position towards the center

Press the center [Reset] button.



2. Left and right direction adjustment

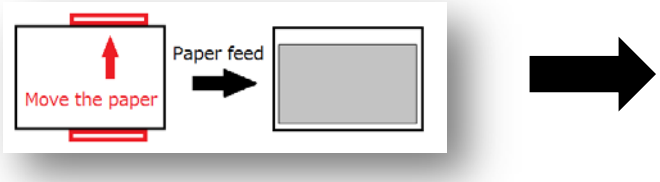


(Not available during the printing process)

Adjust the paper placement on the paper feeding table by moving the overall position of the paper feeding table.

・Adjust the printing position to the left (reverse operating side)

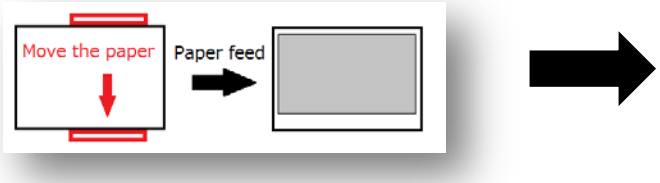
Turn the knob shown in the illustration to the left/counterclockwise to move the paper for printing to the reverse operating side.





・Adjust the printing position to the right (operating side)

Turn the knob shown in the illustration to the right/clockwise to move the paper for printing to the operating side.





Do not perform this operation during printing. Be sure to stop printing, lower the paper feed platform, and then make adjustments.

Cheak Lowering the printing platform (p. 36-38)



Since over-adjustment may result in incomplete printouts, use the test print function after adjustment to confirm that the prints are in proper condition before printing large quantities.
If you print with overflowed content, the edges of the paper or the paper as a whole may be sticky, or the overflowed content may appear on the next page, in which case you should master making again.

Cheak Test print (p. 69)

Print speed adjustment



The [Print Speed] button in the operation area allows you to adjust the printing speed.
The printing speed is divided into 6 levels, and the corresponding indicator for the selected level lights up when the setting is completed.
The speed in the standard case is [3 Speed].

- [1-speed] = 60 sheets/minute
- [2-speed] = 80 ppm
- [3 Speed] = 100 ppm *Standard Speed
- [4-speed] = 120 ppm
- [5-speed] = 140 ppm
- [6-speed] = 160 ppm



If you want to use the [6 speed] function, you need to long press the right button of [print speed], and when the indicator lights are both on, the printing speed is 160 sheets/minute.

If the machine is used at [6 speed] for a long time, it will wear out faster. Please select the printing speed according to the actual printing needs.

When the printing speed is **fast**, the printing is **lighter**, vice versa.

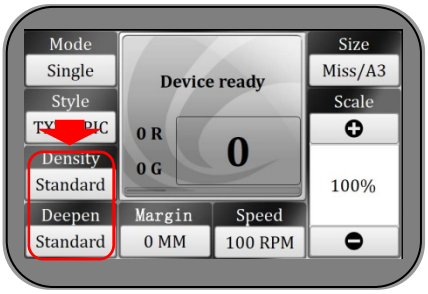
- In summer, the temperature is high, the ink will become soft, and the overall printing will be thicker. If the printing speed is increased in this case, the printing will be lighter.
- In winter, the temperature is low, the ink will become hard, and the overall printing will be lighter. If the printing speed is slowed down in this case, the printing will be thicker.

As mentioned above, printing speed will have a certain impact on printing concentration. In order to reduce this impact, the machine has an [Automatic Printing Pressure Adjustment] function. That is, the printing pressure function is automatically adjusted according to the printing speed.

The FR-8351/8451 models do not have the [Automatic Printing Pressure Adjustment] function (this function is optional), and the printing pressure needs to be adjusted manually.

Printing concentration adjustment

Printing concentration is generally adjusted in one of three ways, [1. Adjusting master making concentration], [2. Adjusting scanning concentration], and [3. Adjusting print pressure].
Adjusting the [master making] or [printing pressure] will change the overall printing concentration, and adjusting the [scanning concentration] will change the degree of color of the original, and the print will change accordingly, and there will be a certain difference between the print and the original.



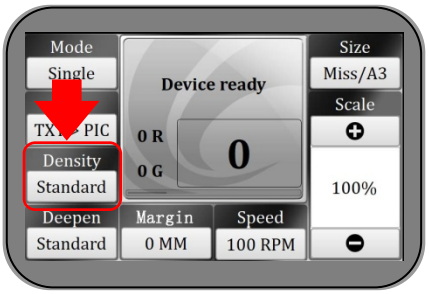
In general, the master making and scanning concentrations are set to the [Standard] position and are also shown in the display. The setting of the printing pressure varies depending on the machine type.

When adjusting the printing concentration using [1. Adjusting master making concentration], [2. Adjusting scanning concentration], the setting takes effect during the scanning stage of the original, so the concentration of the currently created master can not be changed after the completion of the master making and test printing operations.
If you are not satisfied with the current concentration, you can adjust the setting after confirming the concentration of the paper, and then [Master Making] again to make it effective for the next printing.

You can use [INK SAVING MODE] to save ink and lighten printing. Cheak (p. 82)

When [ONLINE PRINTING] or [USB PRINTING] is performed, the scanning process is skipped, so even if [2. SCANNING CONCENTRATION] is adjusted, there is no effect on the printing.

1. Adjusting master making concentration

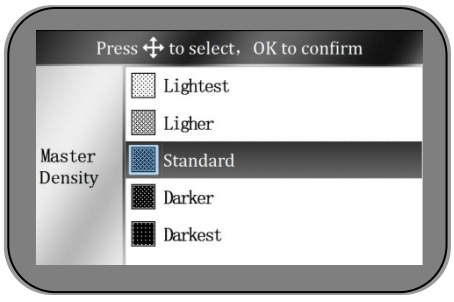


The start point of master making concentration adjustment is the [original scanning], so be sure to set this item before master making.

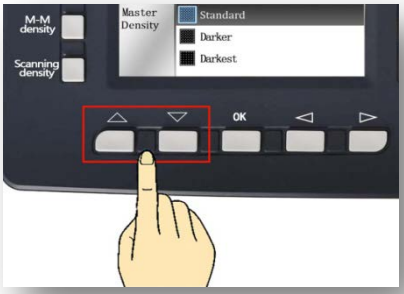
Setting method

ⅰ) Press the [Master making concentration] setting key.





ii) Use [Cursor movement keys [▽] [△]] to select.

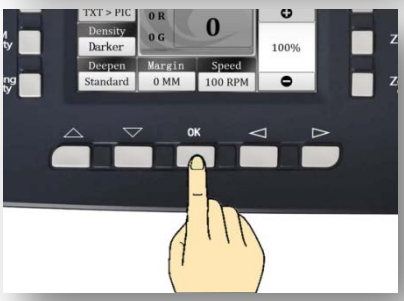


・The concentration selection has 5 levels.

- [Lightest]
- [Lighter]
- [Standard]
- [darker]
- [darkest]

iii)Press the [OK] button to complete the setting.

※ The display will return to the initial interface.



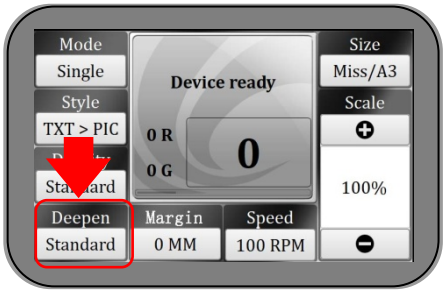
This setting applies to the following cases

・When the temperature is low and the printing is light → darker
・When the temperature is high and the printing is dark → lighter
・When the printing is thick and the paper jams easily → lighter
・When printing on both sides/preventing ink leakage → lighter
・When printing paper with adhesive backing → Lighter
・When saving ink → Lighter

When the concentration of master making is thicker, the amount of ink printed onto the paper is higher, and the paper tends to become soft. This is an important cause of failure of paper arrangement, paper rolled on the drum and other faults.

When the overall lettering of the original is coarse or there are complex patterns such as photographs, the printing quality will be better if the master making concentration is lightened.

2. Adjusting scanning concentration



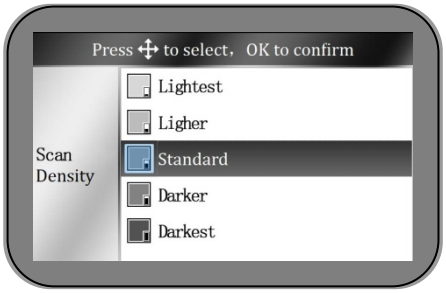
※ Need to be set before master making

The start point of master making concentration adjustment is the [original scanning], so be sure to set this item before master making.

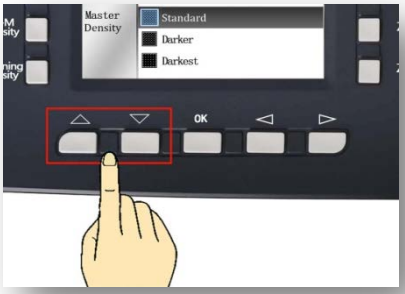
Setting Method

ⅰ)Press the concentration setting button





ⅱ)Use [Cursor movement keys [▽] [△]] to select.



・ There are 5 levels of concentration selection.

- [Lightest]
- [Lighter]
- [Standard]
- [Darker]
- [Darkest]

ⅲ) Press the [OK] button to complete the setting.

※ The display screen returns to the initial interface.

※ The setting selection is at the bottom left of the display screen.





Applicable to the following cases:

- ・When a part of the content is light → Darker
- ・When a portion of the content is light → Darker
- ・When the photo is strong as a whole → Lighter
- ・When the background color of the original is strong → Lighter

Use the [MASTER MAKING CONCENTRATION LIGHTENING] function to lighten an original that is too dark or has erasures.

Cheak (p. 55)

3. Adjusting print pressure(optional)

Adjusting the printing pressure has the same effect as adjusting the master making consistency and affects the overall consistency of the print.

The "master making consistency adjustment" determines the printing consistency by the amount of ink penetrating through the master, while the "printing pressure adjustment" determines the printing consistency by the amount of pressure applied to the ink when it is printed on the paper.

After adjusting the overall printing consistency, if there are smudges on the printing paper, or if less ink comes out in some areas, try using the print pressure adjustment function.

Each model has its own adjustment method.

The FR-8351/8451 models do not have the [Automatic Printing Pressure Adjustment] function, so the printing pressure must be adjusted manually. (This function is optional.)

Automatic Printing Pressure Adjustment (optional)

Adjustment is made with the [Printing Concentration] button in the operation area, which is divided into 5 levels. When the setting is completed, the corresponding indicator for the selected level lights up.

The default printing concentration is the third level.



- [1] = Weakest, same as speed 1
- [2] = Weak, same as speed 2
- [3] = Medium, same as speed 3 (standard)
- [4] = Strong, same as speed 4
- [5] = Strongest, same as speed 5
- [AUTO] = Printed speeds are linked (Slow = Weak ~ Fast = Strong)

If the printing speed is adjusted, the printing consistency setting also changes automatically.

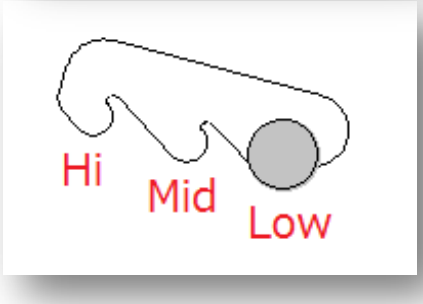
Depending on the actual usage requirements, [Print concentration] can be adjusted even after [Print speed] has been determined.

Manual Printing Pressure Adjustment

1. After opening the disposal box, you can see the operation area in the position shown.



2. The paper pressure adjustment is divided into 3 levels, and each level has a corresponding adjustment position.



The drum and the discharge belts are near the operating area, and these parts rotate during the printing process. Be sure to operate the handles while the machine is stationary or you may be injured.

Whether you adjust the printing pressure or make changes to other areas, please restore the original state after printing. Otherwise, printing directly upon reuse may cause the machine to malfunction.

Paper feed adjustment

Adjust the paper arch amplitude to adapt to papers with different surface smoothness to ensure smooth paper feeding.

Adjustment method



ⅰ) Press the [Set] button on the panel while the machine is turned on.

※ The display screen changes to the [Settings screen].

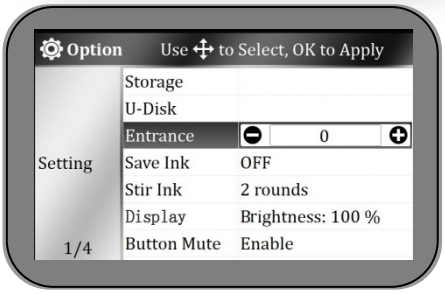
This setting can only be made when printing is possible.
(When no error message is displayed)



ⅱ)Use the [Cursor Move Button [▽]] to move to the selected setting item.

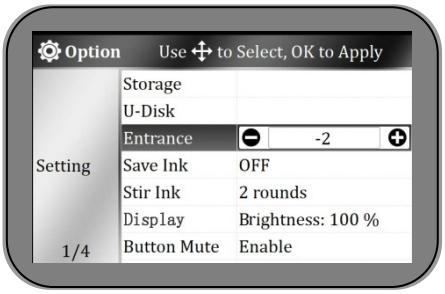
※ The operation area is on the lower side of the LCD screen.
※ The current option is marked with a white background.

ⅲ)There are 23 item selection settings in total, and the [Paper Feed Adjustment] item is the 3rd item. Press the [▽] button continuously and the scroll bar moves down until the [Entrance] setting item appears.



ⅳ)Use the cursor movement keys [◁][▷] to adjust the level.





Level adjustment range: -20 ~ +20, the paper arching range increases from -20 to +20.

Please adjust according to the actual arching range of the paper, the standard is 7~10mm.

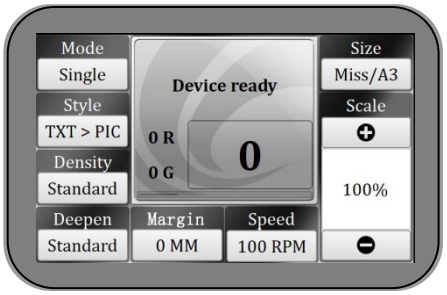
v) After the adjustment is completed, click the [OK] button.

※ The display screen will not return to the initial interface.



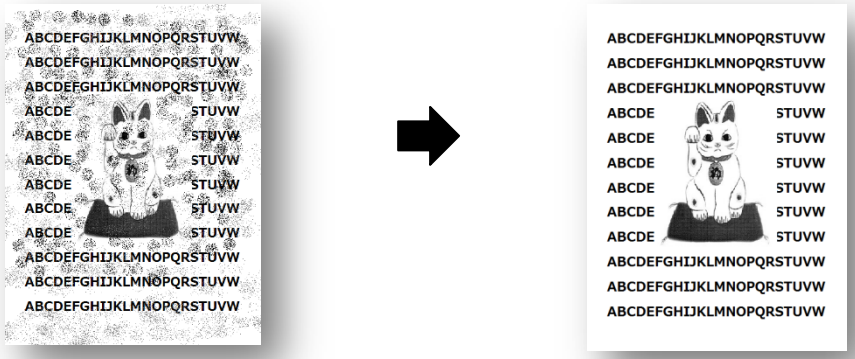
vi) Click the [Stop] button to return to the main interface.





Remove original background color function

If the original is old, smudged, or has a background color, master making will scan in the background color of the original, resulting in an unclear print sheet. In this case, you can use the [Background Color Removal Function] to minimize the effect of the original background color.

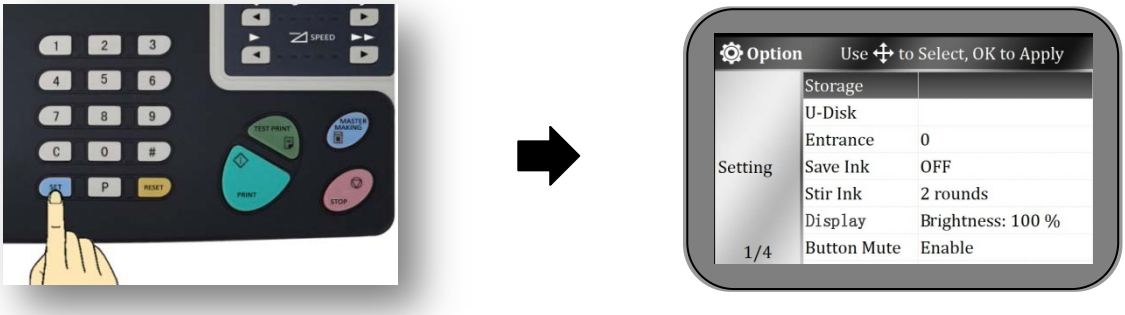


Please note that this function may not work for some special original background colors.

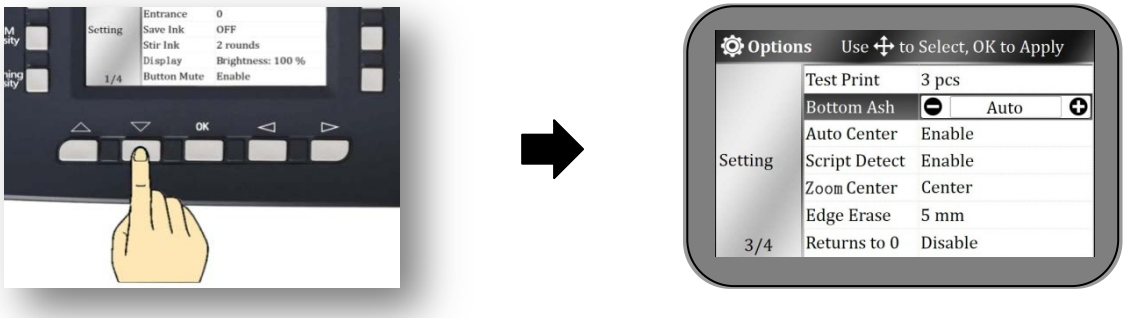
Setting Method

※ Make settings before master making begins.

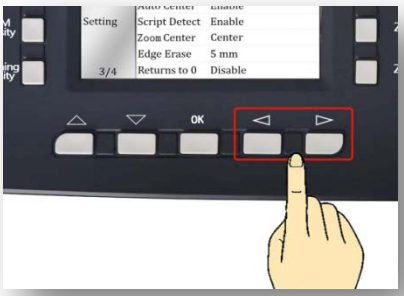
ⅰ)Press the [Set] button on the panel while the machine is turned on.



ⅱ)Use the [Cursor Move Button [▽]] to move to the selected setting item.



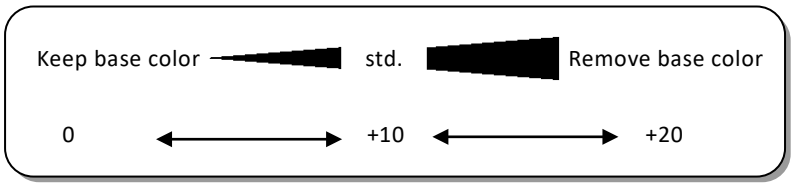
iii)Use the cursor movement keys [◁][▷] to adjust the level.



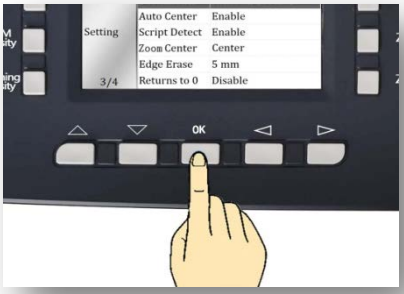
※ The base color setting is divided into [Auto] setting or [Manual] setting.

[The [AUTO] setting means that the machine automatically recognizes the original background color and then eliminates it automatically.

The [Manual] setting ranges from [0] to [+20], with [0] retaining the base color and [+20] eliminating it completely.



iv)Click the [Stop] button to return to the main interface.



※ The display screen will not return to the initial interface.

※ Press the [Stop] key to return to the initial interface

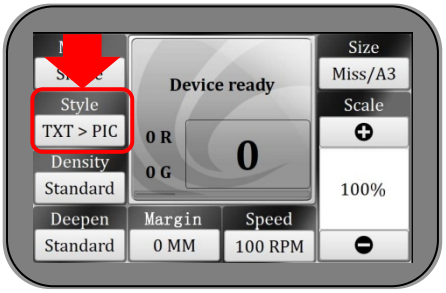
After the setting is completed, the debasement level does not return to standard (0) even if the power is turned off or the reset button is pressed.

Depending on the type and condition of the original, the print quality may be affected to some extent after this adjustment is set.

This function can be used when the original comes with a photograph, or when the original has a gray tone in the base and you want to emphasize the tone or remove the tone.

- To emphasize the color tone or intensity → Adjust the base color removal level in the + direction.
- To lighten the color tone or intensity→ Adjust the base color removal level in the - direction.

Select the mode that matches the original



Setting before master making begins.

Select the appropriate [IMAGE MODE] according to the type of original.

There are seven original setting modes available, each with its own characteristics.
The factory setting is [TEXT > PICTURE] mode.

[Text]

・The text-only mode, with an overall effect that is darker. When there is a photo or color pattern in the original, the printing effect of this part will be blackish.

[Picture]

・Mode for photographs, where the overall printing effect is light. This mode emphasizes the tone of the photograph or color print.

[TXT>PIC]

・This is recommended when the original contains both text and photographs (color printing), with emphasis on the print quality of the text.

[PIC＞TXT]

・This is recommended when the original contains both text and photographs (color printing), with emphasis on the print quality of the image (color printing).

[Newspaper]

・This mode is chosen when the original has a heavy bottom gray, such as newspapers. It allows lines and text to be printed on the thin side.

[Pencil]

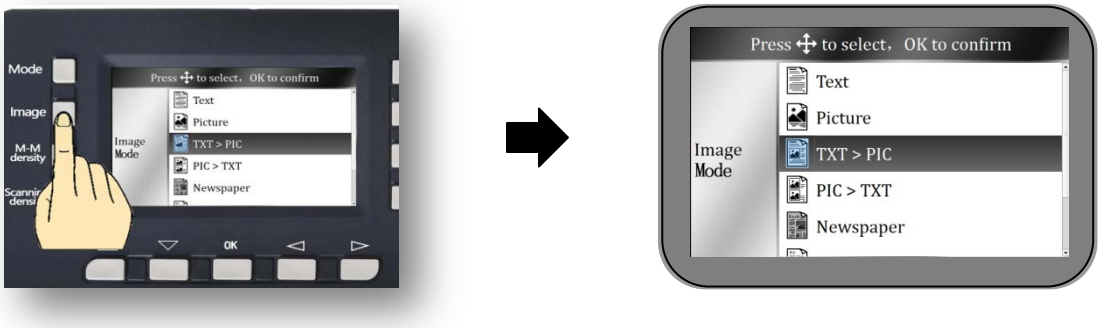
・Select this mode for originals written in pencil or those with light writing. The overall effect of printing is darker and thicker than the original.

[Net-screen]

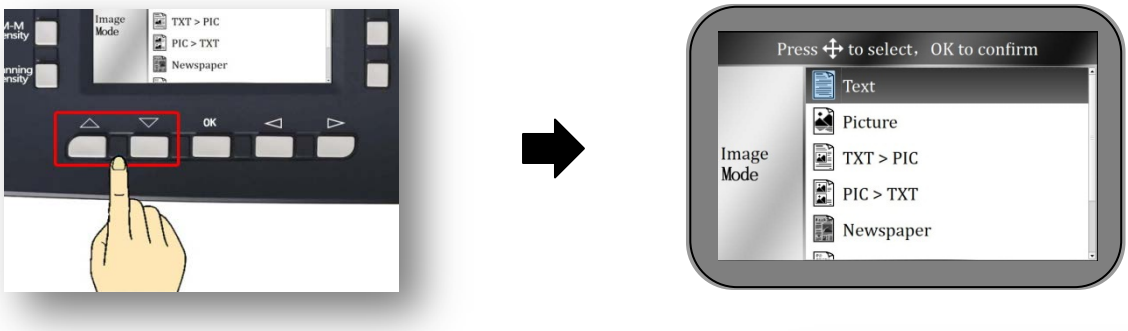
・Processing photo originals with a dot screen gives a clearer, three-dimensional printing effect.

Setting method

ⅰ) Press the [Image Selection] key to enter the mode selection interface.



ii) Use [Cursor movement keys [▽] [△] to select the corresponding Image mode.



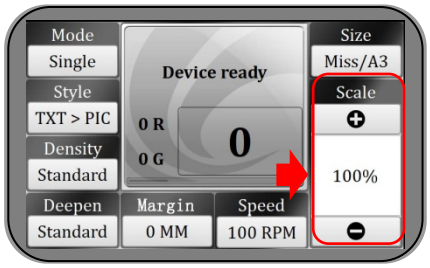
iii) Press the [OK] button to complete the setting.

※ The display will return to the initial interface.



After the setting is completed, the machine does not return to [Text > picture] mode even if the power is turned off or the reset button is pressed.

Zooming of originals



Setting before master making begins.

For enlarging/reducing the proportion of the original.
When there are no margins around the edges of the original, use the Zoom Out function set to [94%] to leave some margins before printing.

Cheak About the original (p. 18)
About the page margin (p. 21)

There are two types of original zooming, [Common Multiplier Zoom] and [Stepless Zoom]. Stepless zooming is available in a range of 1% and can be adjusted in a range of 50% to 200%.

Frequently used magnification scaling

The following is information about the margins when scaling from fixed-size (B4, A4, etc.) originals to other-size originals.

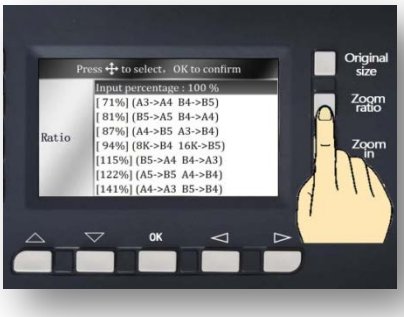
Zooming			Magnifying		
Ratio	Original size	Paper size	Ratio	Original size	Paper size
94%	8K →	B4	115%	B4 →	A3
	16K →	B5		B5 →	A4
	Margin			B6 →	A5
87%	A3 →	B4			
	A4 →	B5			
	A5 →	B6			
81%	B4 →	A4	122%	A4 →	B4
	B5 →	A5		A5 →	B5
	B6 →	A6		A6 →	B6
71%	A3 →	A4	141%	A4 →	A3
	B4 →	B5		B5 →	B4
	A4 →	A5		A5 →	A4
	B5 →	B6		B6 →	B5
	A5 →	A6		A6 →	A5

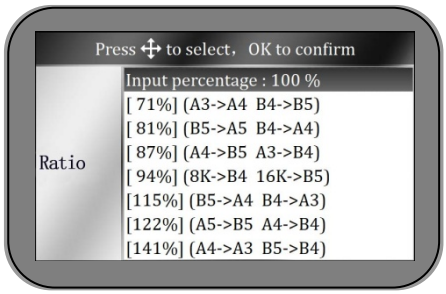
※ [8K] [16K] are special paper sizes in the Asian region.

Setting method

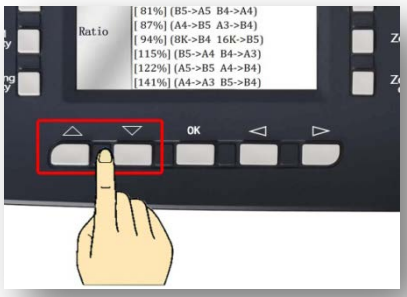
ⅰ) Press the [Zoom Selection] button to enter the zoom ratio setting interface.

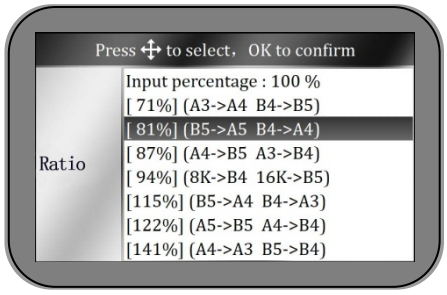
※ There is a total of one page of selectable items.





ii) Use [Cursor movement keys [▽] [△]] to select the zoom mode.





iii) Press the [OK] button to complete the setting.

※ Returns to the initial interface.

※ The set zoom ratio is shown on the display.



Stepless Zoom

Stepless zooming is available in a range of 1% and can be adjusted in a range of 50% to 200%.



Setting method

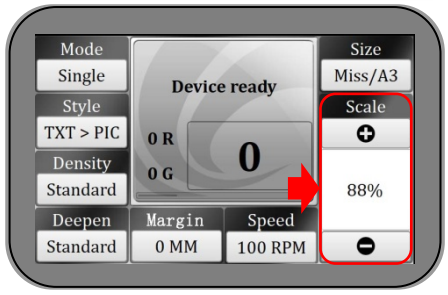
i)Press the [Stepless Zooming] or [Stepless Magnifying] button for the settings.

Pressing the button continuously to change the value continuously.





ii) The set zoom ratio will be shown on the display.



For either [Common Zoom] or [Stepless Zoom], be sure to place the original first and then make the settings. If you set first, the ratio reverts to the standard [100%] mode.

If you press the [Reset] button, the ratio returns to the standard [100%] mode.

Zoom Center Setting

The center of the paper is used as a reference, and the printed content is scaled to the center of the reference.

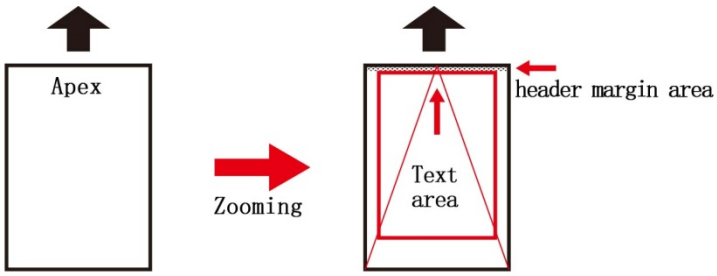
※ This setting is also required before master making.

There are five types of zoom center reference settings.

-[Top Midpoint]

Zoom the text based on the top (apex) midpoint of the paper.

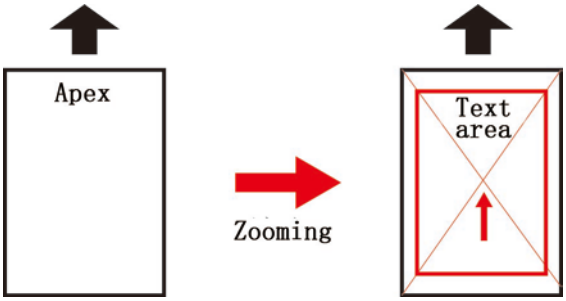
※ The margins at the top of the paper (header margin area) remain unchanged.



-[Centering Point]

Zoom the text using the center of the paper as a reference.

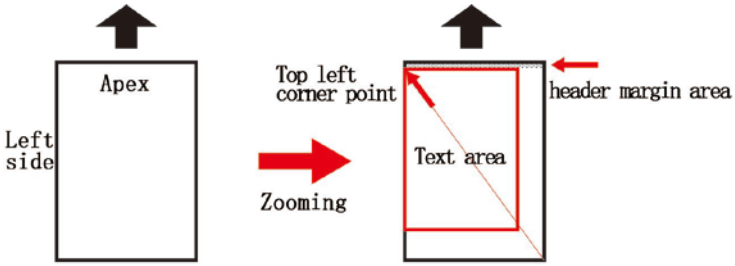
※ The top and bottom margins (header margin area) of the paper are equal, and the left and right face margins are equal.。



-[Upper Left Corner Point]

Zoom the text using the top left corner of the paper as a reference.

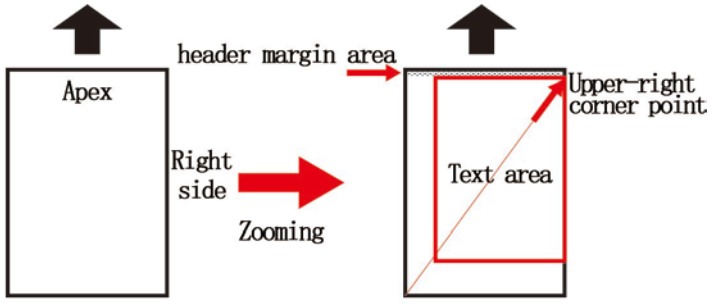
※ The margins at the top of the paper (header margin area) remain unchanged.



-[Upper Right Corner Point]

Zoom the text based on the upper-right corner point of the paper.

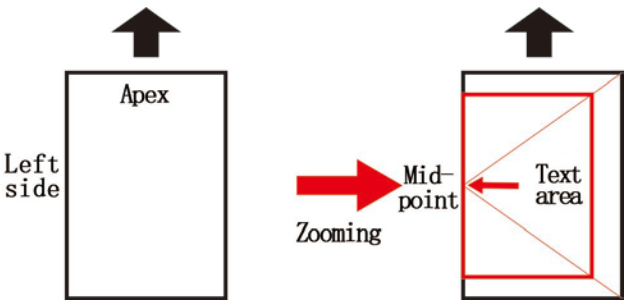
※ The margins at the top of the paper (header margin area) remain unchanged.



-[Left Midpoint]

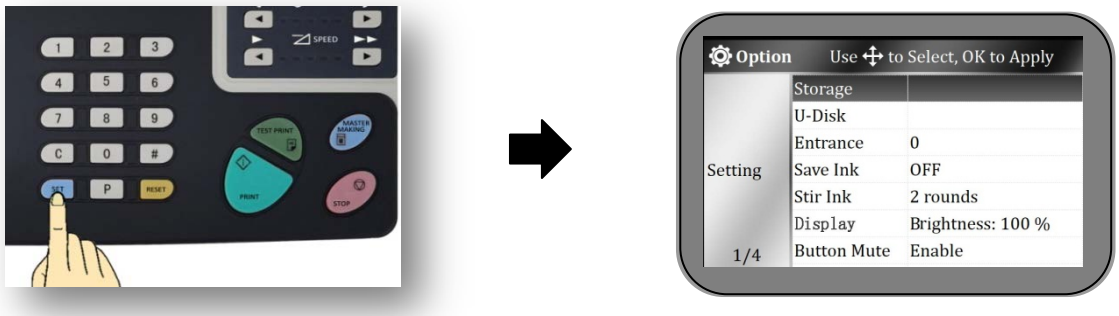
Scales the text based on the midpoint of the paper end.

※ The left end of the paper is flush with the text area, and the top and bottom margins are equal.

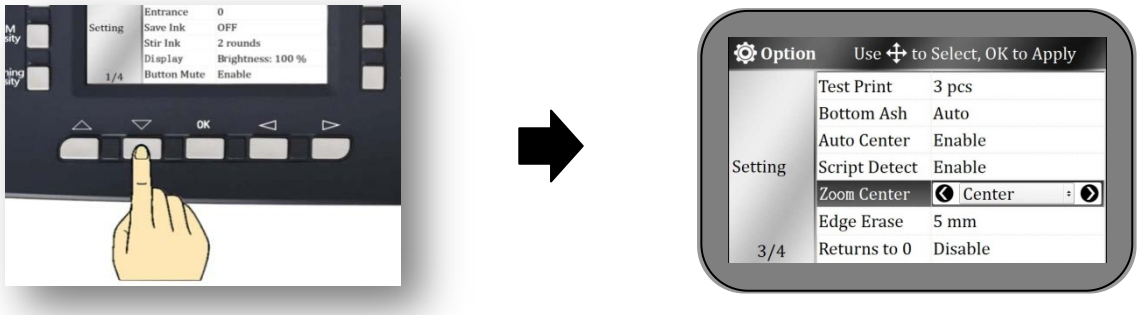


Setting method

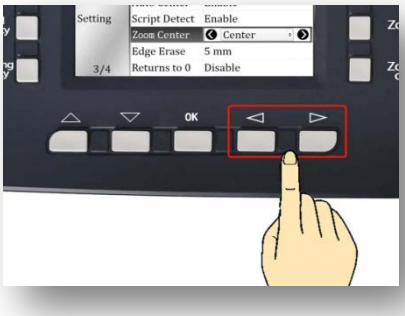
ⅰ) Press the [Setting] key in the numeric keys to enter the operation setting screen.



ⅱ)Use [Cursor Move [▽] key] to select the zoom center item. (Total 4 pages)



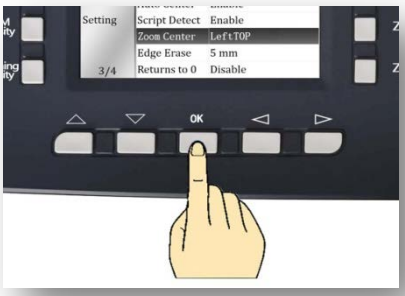
ⅲ)Use [cursor movement keys [◁] [▷] for zoom center reference selection.



ⅳ) Press the [OK] button to complete the setting.

※ The display screen does not return to the initial screen.

※ Press the [Stop] key to return to the initial interface.



Setting of the number of test prints



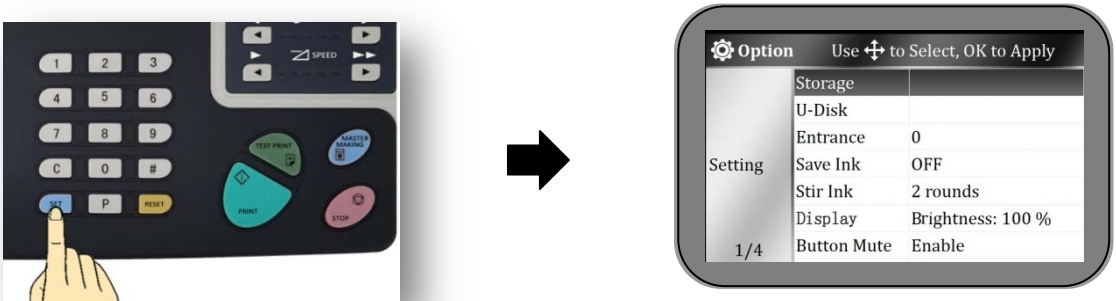
When you start master making and printing, there will be a trial printing session after the master making is completed, the machine will automatically print several sheets of finished products and stop running when it is finished, these trial prints can be used to confirm the printing position, the printing quality and so on. Depending on the actual situation, you can press the test print button several times, and the machine will complete the corresponding number of test prints.

The number of such trial prints can be set arbitrarily between 1 and 9, and the factory default setting is 3.

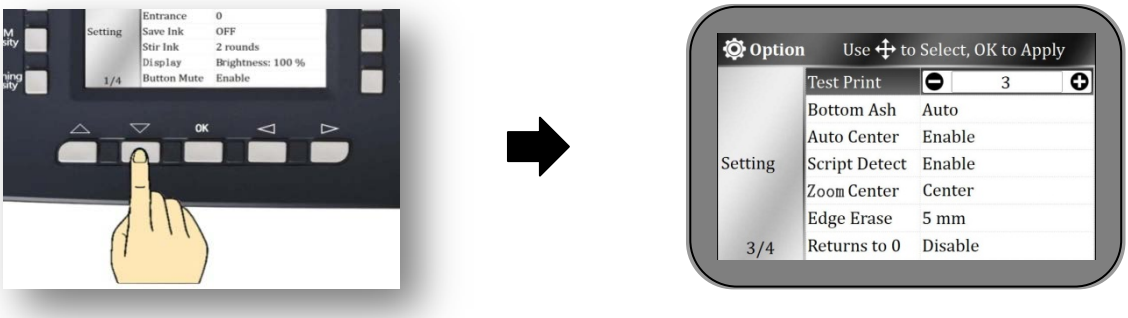
If the number of printed sheets has been entered before master making, the machine will then skip the test print session and print directly after master making is complete.

Setting method

i) Press the [Setting] key in the corner of the numeric keys to enter the operation setting screen.

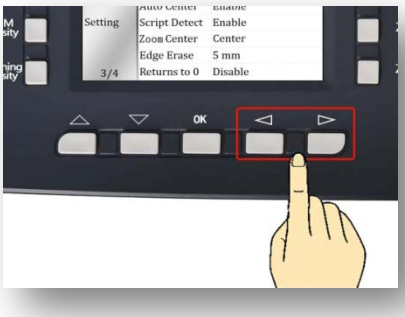


ii) Use [Cursor Move [▽] key] for [Test Print Setting] selection. (Total 4 pages, on page 3)



iii) Use the cursor movement keys [◁][▷] to set the number of sheets.

- You can set it between 1 and 9.



iv) press the [OK] button to complete the setting.

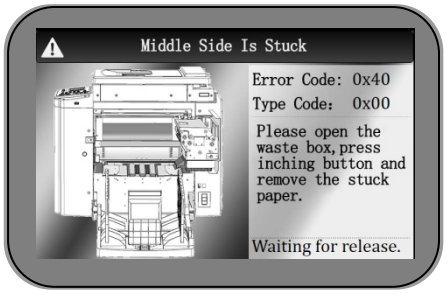


※ The display screen does not return to the initial screen.

※ Press the [Stop] key to return to the initial interface.

After the setting is completed, the number of test prints will not return to the standard setting (3) even if the power is turned off or the reset button is pressed.

If the paper is rolled up on the drum during the master making - test print process, the display shows [PAPER JAM ON CENTER]. After clearing the jam, check the margins/printing position/print consistency and adjust accordingly.



Cheak
About the original (P. 18)
About Margins (P. 21)
Adjusting the Print Position (P .51)
Adjusting Print Thickness (P. 55)
Zooming the Original (P. 65)

Confidentiality protection

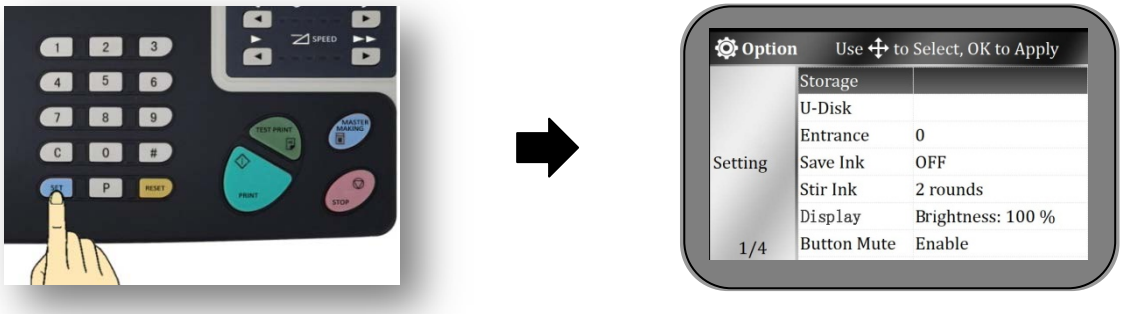
After printing, the master (original) used for the current print run will remain on the drum. If you want to continue printing, you can enter the number of sheets to be added and then start printing again. When the number of printings to be added is small, you can increase the number of printings by directly pressing the test print button.

The machine will not automatically clean up the master (original) from the previous printout without the relevant settings. As a result, contents that may need to be prevented from being viewed by a third party, such as Confidentiality documents and test papers, will be easily printed by others, leading to data leakage.

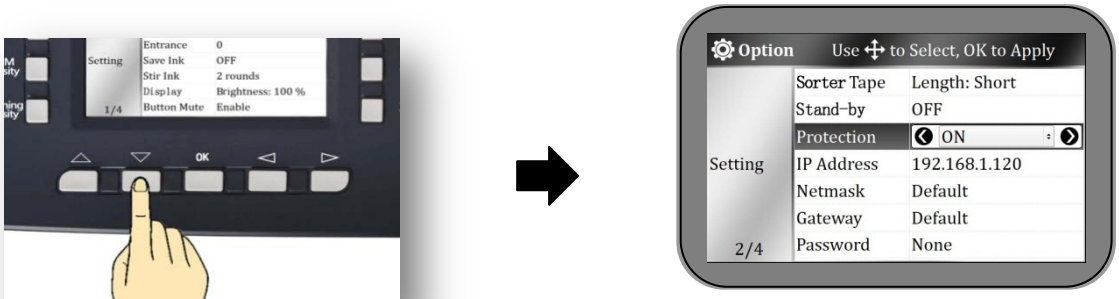
The [Confidentiality Protection] function is to force the waxed paper remaining on the drum to be discharged after printing to prevent it from being printed directly by uninvolved persons.

Setting method

i) Press the [Setting] key in the corner of the numeric keys to enter the operation setting screen.



ii) Use Cursor Move Button [▽] to select the desired item [Protection].



iii) Use the cursor movement keys [▷] to select [ON].



iv) Press the [OK] button.



※ The display screen does not return to the initial screen.
※ Press the [Stop] key to return to the initial interface.
※ The machine will perform a master unloading program where the master roll on the drum is forced out.

In this setting, there is no master covering the drum as the master is discharged. When left for an extended period of time, debris (e.g., hair, dust, etc.) may adhere to the surface of the drum. To avoid this, you can place a blank original (white paper) on the scanner table and execute the master making, wrapping a piece of blank master around the drum, which will protect it from dust.

When this setting is turned on, scanned and online printed documents are also not saved by the machine.

When this function is turned on, the word [Protection] will be displayed on the initial interface .

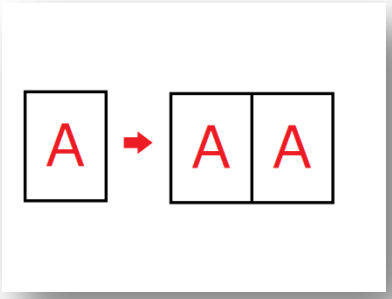


Special Printing Functions

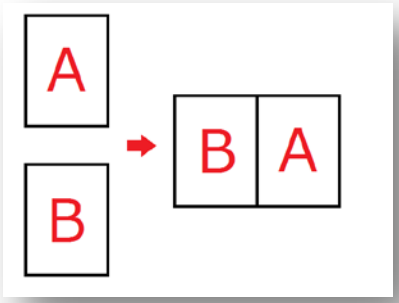
Two-in-one function

This function is used in scenarios where an original is copied onto both sides of the same sheet of paper, or for scenarios where two different originals are printed onto a single sheet of paper.

Due to the different types of originals, the methods of operation are not exactly the same.



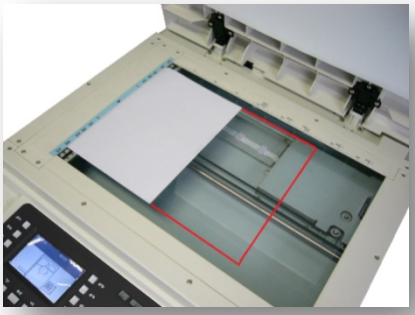
- One original



- Two originals

Setting method

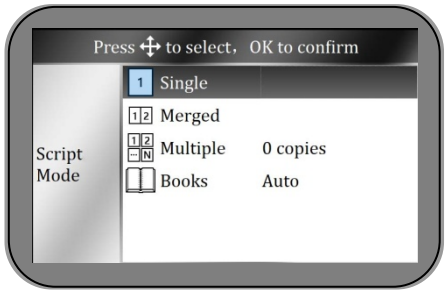
i) Place the original on the original scanning table.



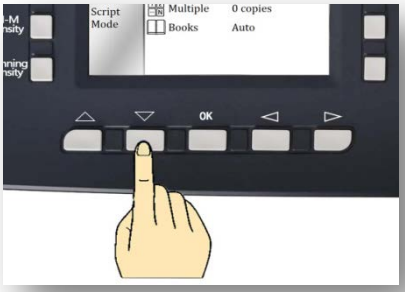
The orientation of the paper used can be set to vertical or horizontal.

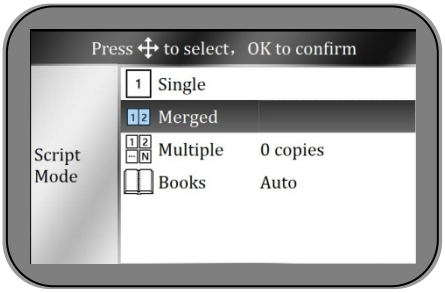
ii) Press the [Mode] button.





iii) Use the cursor movement key [▽] to select the[Merged] option.





iv) Press the [OK] button to complete the setting.

※ The machine returns to the initial screen.



v) Depending on the actual situation, please utilize [Original Zoom], [Original Mode] and other related settings flexibly when the 2-in-1 function is enabled.

In general, when the original size is exactly half the size of the paper (for example, the print paper is A3 and the original is A4), you can set the original to 100% ratio (original size); if the original size is larger, it is recommended that you use the original size reduction function, but the maximum size of the original should not exceed A4.

When the machine is shipped from the factory, there is an automatic recognition function of the original size. If the original size used is [A4] [B5] [A5], the machine can automatically detect the original size.

※ Zoom ratio when using the 2-in-1 function (red text indicates that any ratio can be set)

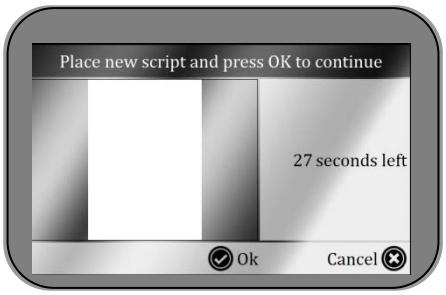
		Size of printing paper			
		B4	A4	B5	A5
Original size	A4	87%	71%	61%	50%
	B5	100%	81%	71%	57%
	A5	122%	100%	87%	71%
	Postcard (A6)	173%	141%	122%	100%

vi) Press the [Master making] button

- Scanning the first original



vii) When the scanning of the first original is finished, a beep sounds and the information displayed on the screen changes. At this point, the second original can be placed.



Even if you are using the same original, you will need to reopen the scanning cover at this point and perform the action of placing the original again.

viii) Close the scanning cover and the machine starts scanning the second original. When scanning is complete, the machine automatically makes a test print.



After the first original has been scanned, if the scanning cover is not opened and the master making button is pressed, the print position of the second sheet will be blank (because nothing has been scanned). This method can be used for master making when printing only on one side.

The original mode, zoom ratio settings, etc. made before scanning the first original cannot be changed when scanning the second.

Book and magazine master making

When books and newspapers are printed by placing them directly on the original scanning table, a band of shadows appears in the center of the print due to the bumps on the hinge of the book or newspaper. This function automatically eliminates this banding.



Setting method

i) Turn the book (newspaper) to be printed to the specified page, place it on the scanning table, and then gently close the scanning cover.



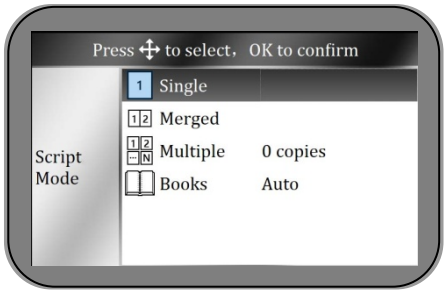
The size range of the book or newspaper being printed should be within B6 to A4 to ensure that the cover can be closed properly.

The original scanning table is made of glass and has a maximum weight capacity of 10 kg. Do not place objects with force and avoid dropping objects on the scanner to avoid breaking the glass. Do not press the scanning cover even if the print is not flat.

Cheak
Precautions (P. 6)
About originals (P. 18)
Prohibitions on Copying and Printing (P. 23)

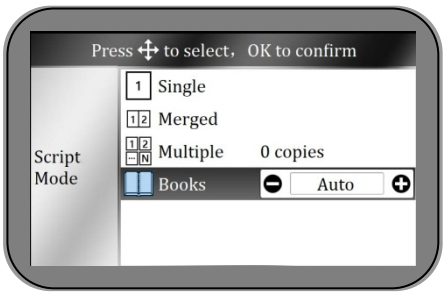
ii) Press the [Mode] button.





iii) Use the cursor movement keys [▽] to select the[books] mode.

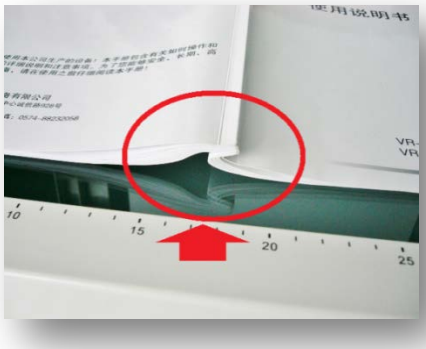




※ Center Seam Elimination is divided into [Auto] and [Manual], and the standard setting is [Auto].

[Auto] means that the scanning head automatically eliminates band shadows according to the closed portion of the booklet.

[Manual] means that the user can manually set and adjust the width of the shadow on the floating part of the booklet hinge according to his/her own needs in order to achieve the best result.



iv) Use the cursor movement keys [◁][▷] to select the center seam elimination mode.



Hints You can use the numeric keys to input the size of the eliminated shadow. When the boxed content is a number, you need to press [C] key to clear it first, and then input it.

Hints The manual input value can be set arbitrarily between 1 mm and 60 mm.

v) Press the [OK] button to complete the setting.

※ Return to the initial screen.



Important As with the 2-in-1 function, when performing book and magazine master making, the machine can automatically recognize the original size (A4, B5, etc.), or in the case of unrecognizable specifications, please manually select the appropriate size.

Important If the shadow size is not set properly, it may eliminate some of the printed content.

Important Since the original is three-dimensional, shadows may appear around the original, which can be part of the cause of paper jams.

Important The image centering function is not available in the book and magazine printing mode, so be careful where you place the original book.

vi) Press the [Master Making] button

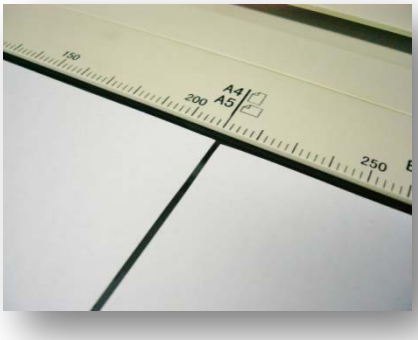
Hints To prevent the original (book, newspaper) from floating, press the original gently.



This mode can also be applied in the following case

- When two originals of the same size are placed side by side on the scanner table for scanning and printing, a shadow line appears between the two originals due to the paper boundary. In this case, use this Mode to eliminate this shadow line.



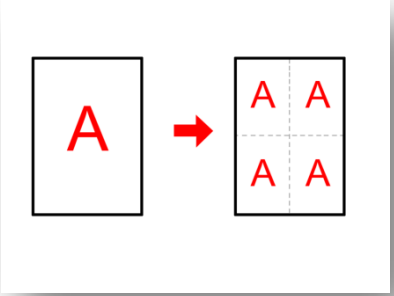


The situation is handled in the same way as regular book and magazine master making.

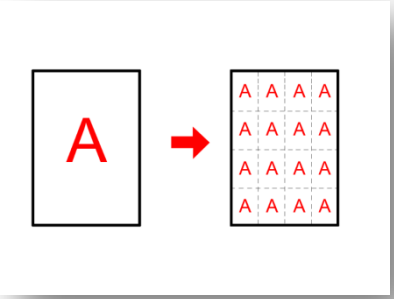
This setting returns to the standard setting (a plain paper original) when the machine is powered off or the reset button is pressed.

Multiple copies in one

You can use this function when you make several copies of an original onto the same sheet of paper.



・ Few copies

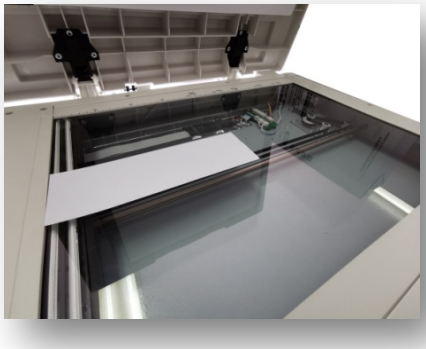


・ Many copies

Setting method

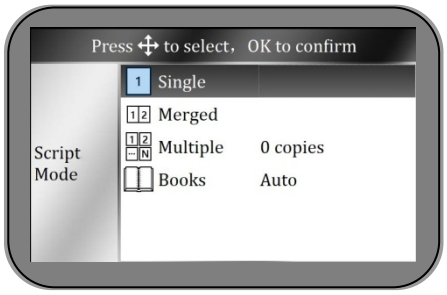
i) Place the original on the original scanning table.

The paper used is set up in the same direction as in the general case (with the short edge of the original placed at the left end, as shown on the right).

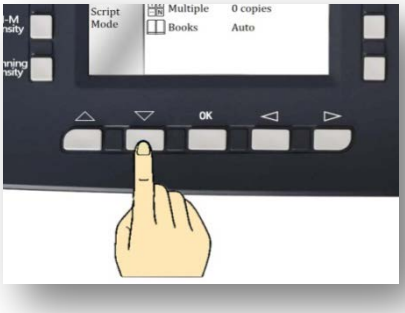


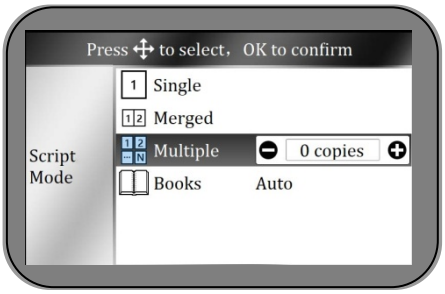
ii) Press the [Mode] button.



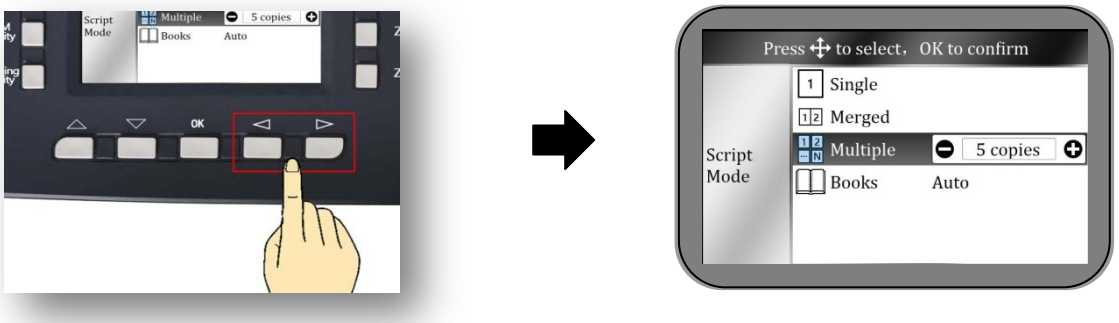


iii) Use the cursor movement key [▽] to select the [Multiple] option.

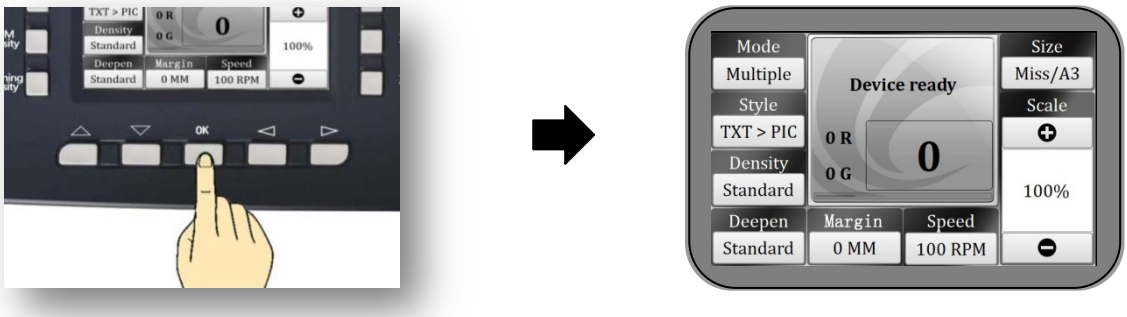




iv) Use the cursor movement keys [◁][▷] to select [COPY NUMBER], or set it with the numeric keys.



v) Press the [OK] button to complete the setting and the screen returns to the initial screen.



vi) Press the [Original size] button to set the original size.

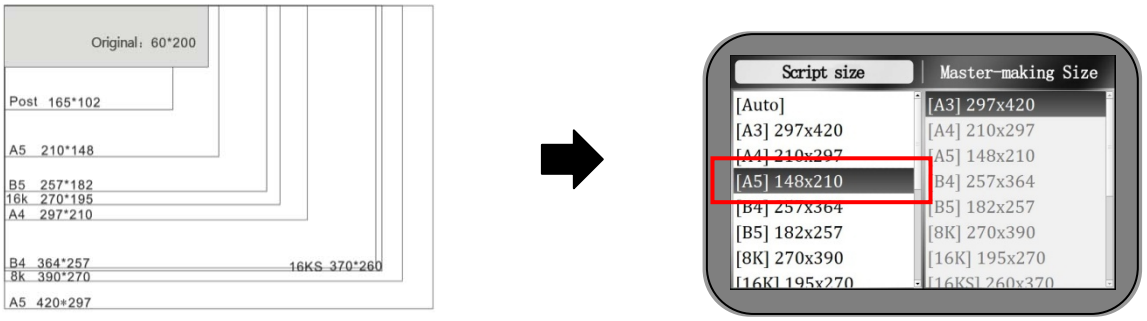


※ The machine automatically detects common original sizes, at which point you can skip this step.

Cheak About the original (P. 18)

※ For non-conventional original sizes, select the appropriate [Original Size] based on the long side of the original.

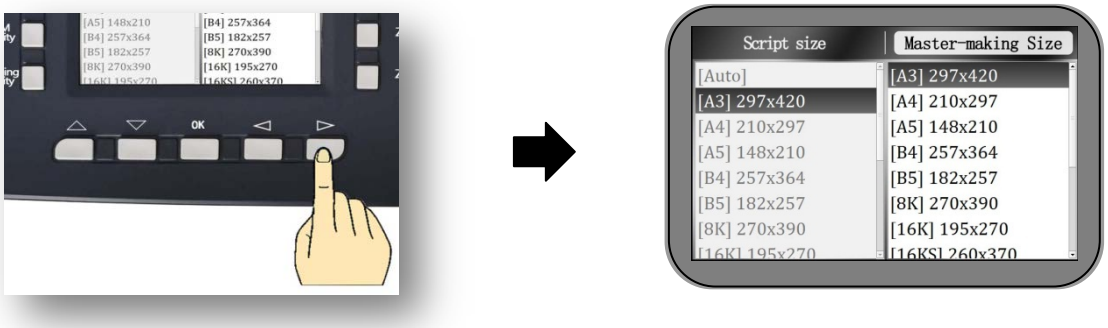
Ex: If the original size is 60*200, select the original size of [A5] 148x210.



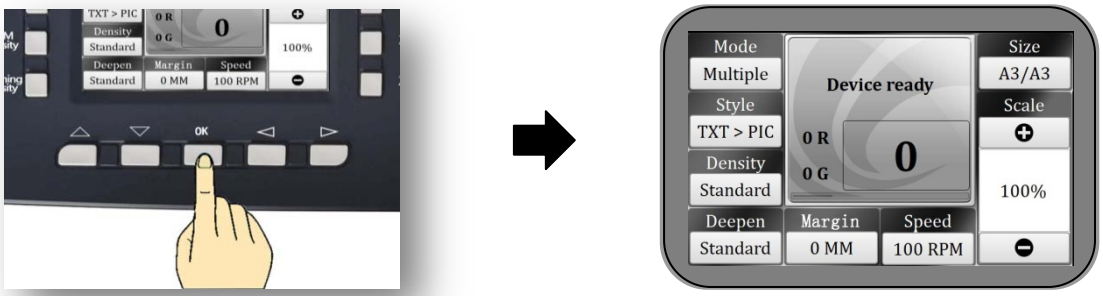
If the original paper size is the same as the copy paper size, you can omit the following steps.

To change the copy size, refer to the following operation instructions

vii) Use the cursor movement keys [▷] to select the [Master-making Size] item, and press the cursor movement key [▽] to select the desired copy size.



viii) Press the [OK] button to complete the setting and the screen returns to the main page.



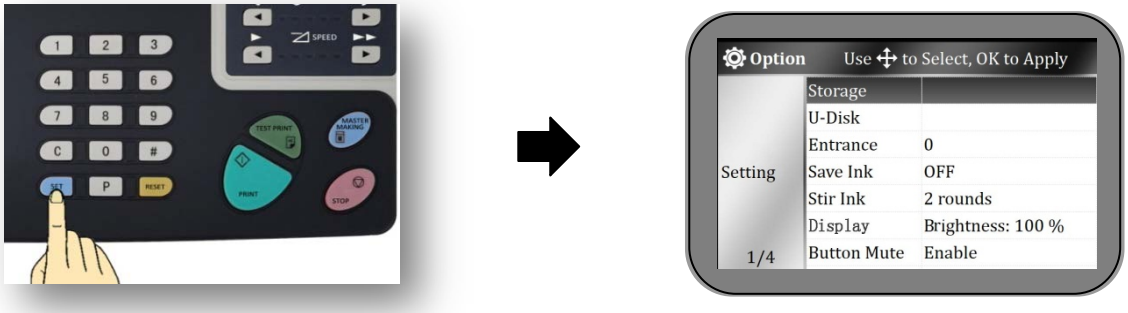
Ink saving mode

Use this mode to save ink consumption. This setting is off at the factory.

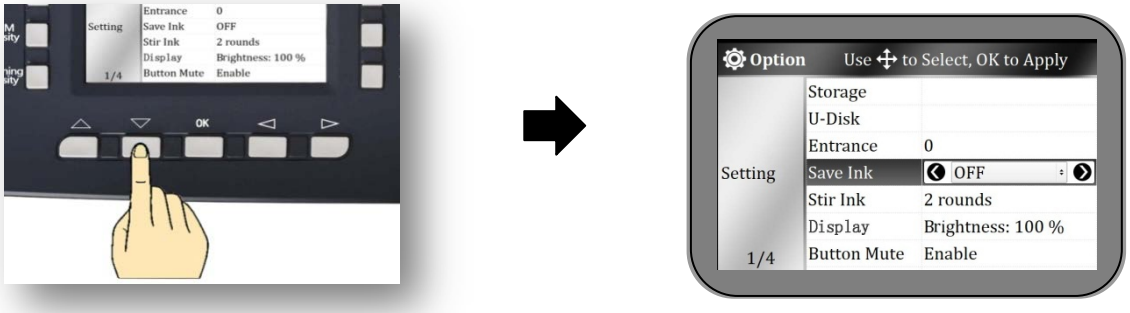
This setting controls the amount of ink by reducing the master making consistency and, therefore, negatively affects the print quality.

Setting method

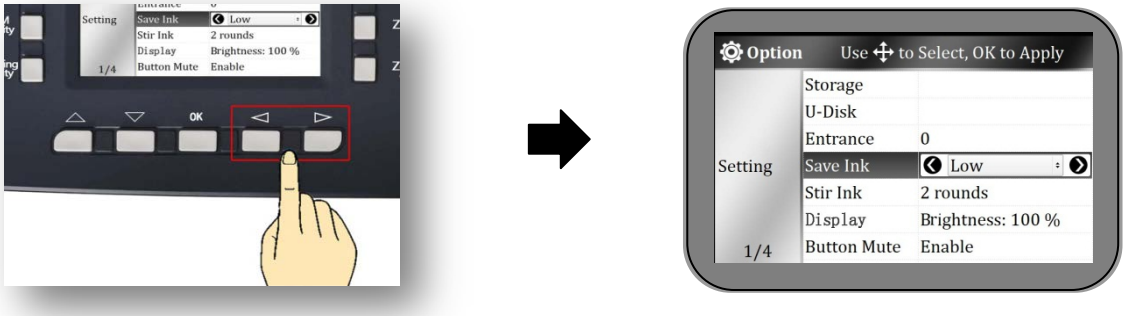
i) Press the [Setting] key in the corner of the numeric keys to enter the operation setting screen.



ii) Use the cursor movement keys [▽] to move to the i[save ink] item.



iii) Use the cursor movement keys[◁] [▷] to select the [Save ink] setting.



※ There are four options for the ink saving setting mode, [OFF], [LOW], [MEDIUM], [HIGH].
The above options indicate that the ink saving strength increases in steps and the ink consumption decreases in steps.

iv) Press the [OK] button to complete the setting.



※ The display screen does not return to the initial screen.

※ Press the [Stop] key to return to the initial interface.

During the setting period, the sound of rotating parts may be heard inside the machine, which is normal.

In summer, when the temperature is high, the ink flows well, and the printing consistency is thick, this mode can be used to control the amount of ink discharged; in winter, the opposite is true.

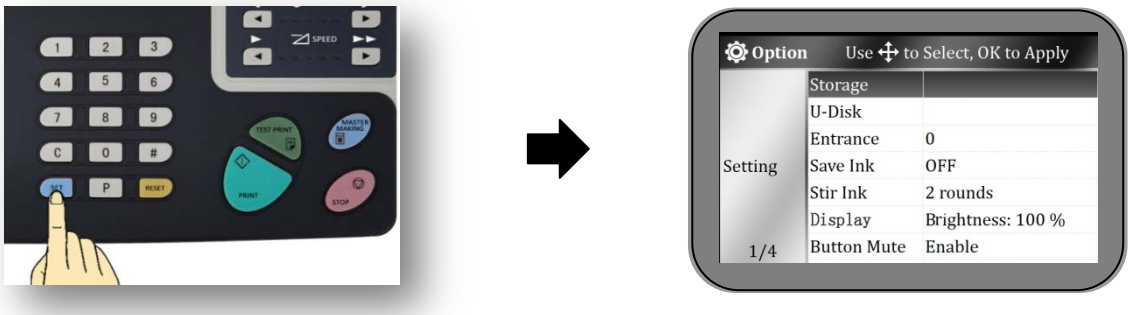
After this setting is completed, this setting will not return to the standard setting (off) even if the power is turned off or the reset button is pressed.

Stirring ink function

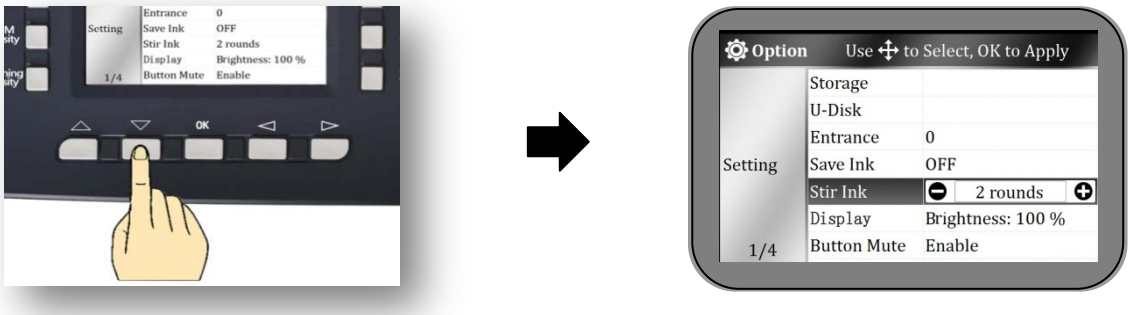
Function to evenly distribute the ink in the drum to all areas during the master making and test printing process. The factory default setting is [2 rounds].

Setting method

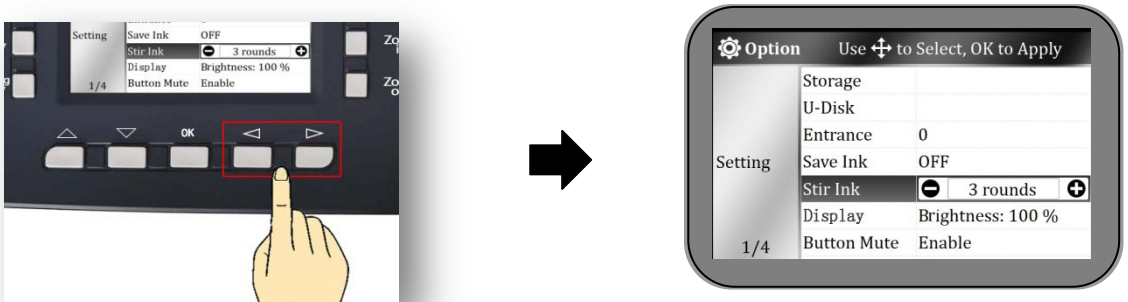
i) Press the [Set] key in the corner of the numeric keys to enter the operation setting screen.



ii) Use the cursor movement key [▽] to select the [Stir ink] function.

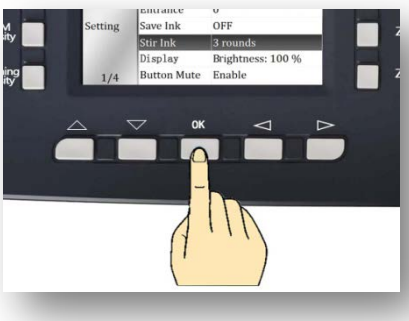


iii) Use the cursor movement keys [◁][▷] to select the setting.



※ There are 2 options for the leveling setting: [OFF], [ON - Rounds Setting], which setting range of the rounds is 1-10.

iv) Press the [OK] button to complete the setting.



※ The display screen does not return to the initial screen.

※ Press the [Stop] key to return to the initial interface.

After this setting is made, ink leakage may occur at the rear end of the drum during continuous master making or when printing small quantities in multiple passes. In this case, turn off this function.

After completing this setting, it will not return to the factory default setting [2 rounds] even if the power is turned off or the reset button is pressed.

Storage function

The machine can automatically save the scans from each master making so that they can be retrieved and used directly during the next master making.

When the [Confidentiality Protection] function is turned on, the machine does not save the scanned contents. Cheak (P. 71-72)

Due to the limited storage space of the machine, when the storage space reaches the upper limit, the machine will automatically delete the previous copy of the earliest saved content. To avoid data loss, please clean up useless files in time.

Setting method

i) Press the [Setting] key in the corner of the numeric keys to enter the operation setting screen.

※ The display screen changes to [Setting Screen].

This setting can be made only in the normal printing state.
(i.e., when there is no error message indication)

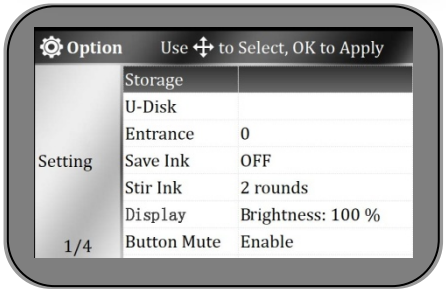


ii) Use the cursor movement button [▽] to move to the [Internal Storage] item.

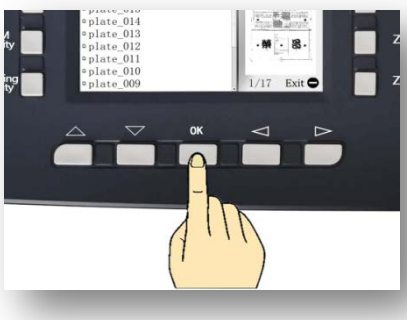
※ The operation area is on the lower side of the display.
※ The current option is marked in white on a black background.

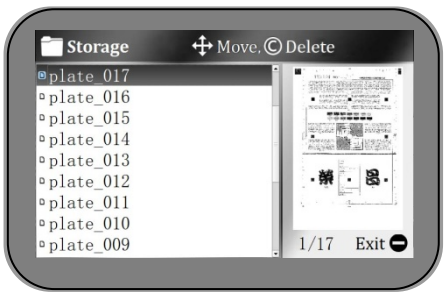


iii) There are 23 items in the item selection settings, and the [Storage] item is the first item.



iv) Press the [OK] button to enter the storage function operation interface and display the file list.

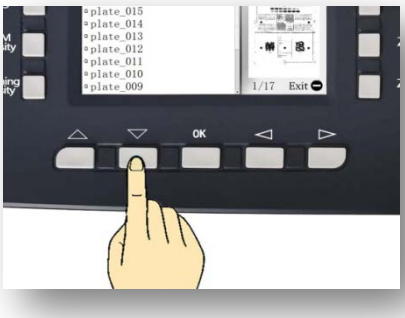




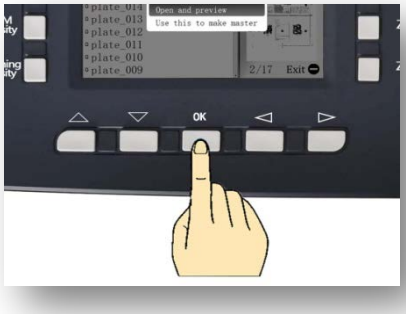
In this screen, master making is not possible, and you need to open the image preview in order to continue master making.

The file list is sorted in descending order of storage time, with the latest storage time file at the top of the list.

v) Use the cursor movement buttons [▽] [△] to move to the specified file item.

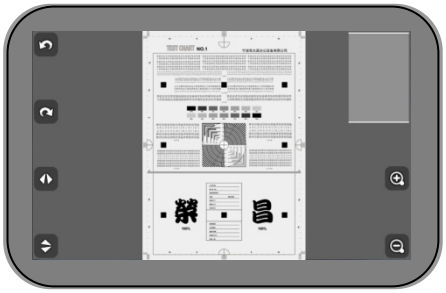


vi) Press the [OK] button to bring up the options screen.



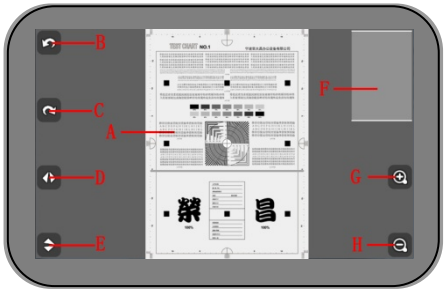


vii) Use the cursor movement keys [▽] [△] to move to the [Open and preview] option. Press the [OK] button to enter the image preview screen.



When [Master making using image] is selected, master making and printing can be performed directly, and the number of prints needs to be set in advance.

The contents of each part of the image preview screen are shown in the following table.

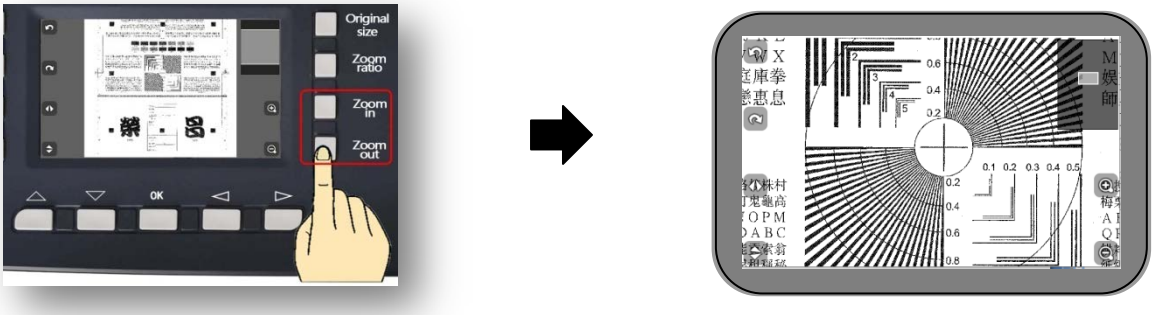


No.	Name	Function
A	Image preview area	Presents the stored image information
B	Left Turn Button	Rotates the preview image counterclockwise (press to rotate 180°).
C	Right Turn Button	Rotates the preview image clockwise (press to rotate 180°).
D	Flip Horizontal Button	Flips the preview image horizontally.
E	Vertical Flip Button	Flips the preview image vertically.
F	Thumbnail Area	The area of the full image that corresponds to the currently displayed content.
G	Zoom Button	Enlarges the preview image.
H	Zoom Out Button	Zooms out the preview image.

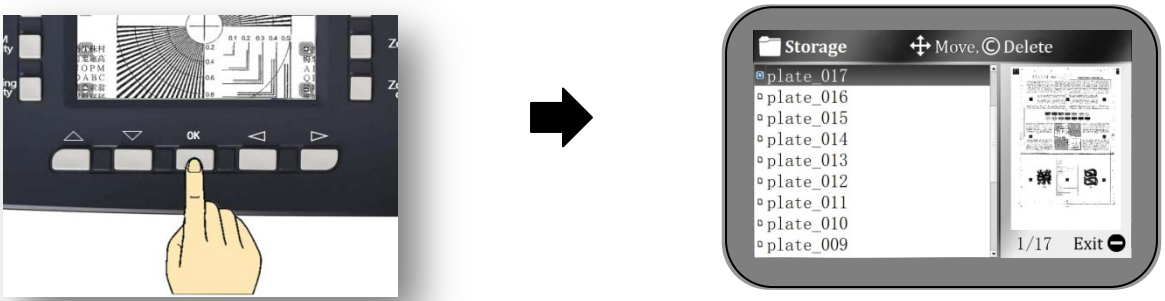
The image left and right rotation buttons, horizontal and vertical flip, zoom in and zoom out buttons correspond to the [Mode], [Image], [Master making density], [Scanning density], [Zoom in], [Zoom out] buttons at the bottom of the display respectively.

If the operation image is rotated to the left or right, or flipped horizontally or vertically, the print from direct master making will appear as a rotated/flipped image.

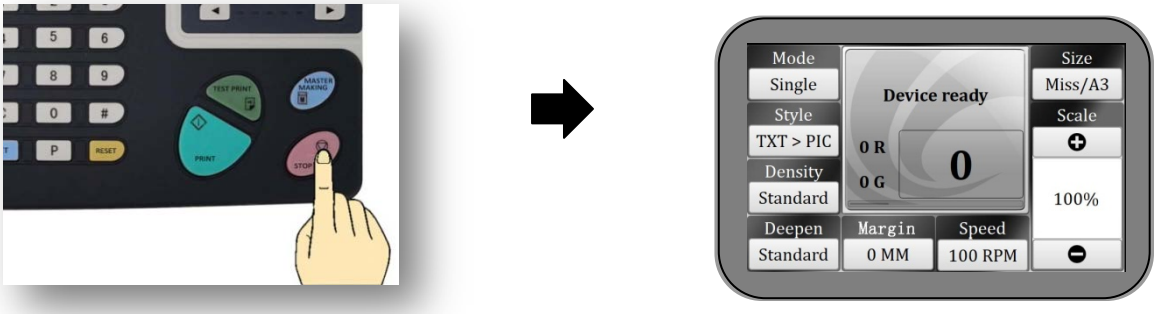
If the image is enlarged or reduced, after exiting the preview screen, then the image will also return to its original size.



vi) Click the [OK] button to exit the Preview Image screen and return to the File List screen.



vii) Press the [Stop] key to return to the initial interface



Paper edge elimination

Based on demand, this function can remove lines close to the edge of the paper to optimize the print quality.

※ Perform this setting before the master making operation starts.
※ If the line is more than 10 mm from the edge of the paper, the edge removal function does not work.

Setting method

i) Press the [Set] key in the corner of the numeric keys to enter the operation setting screen.

※ The display screen changes to [Setting Screen].

This setting can be made only in the normal printing state.
(i.e., when there is no error message indication)



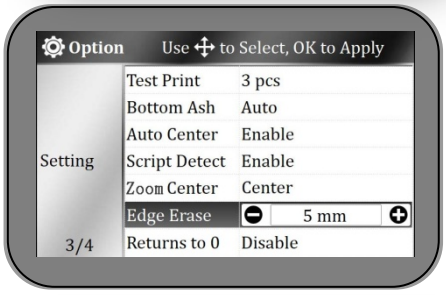
ii) Use the cursor movement button [▽] to move to the [Paper edge elimination] item.

※ The operation area is on the lower side of the display.
※ The current option is marked in white on a black background.



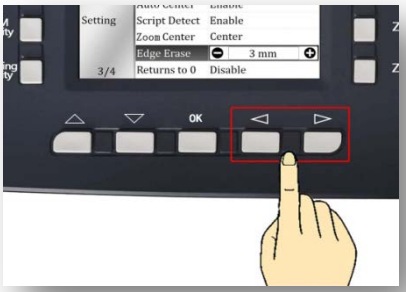
iii) There are 23 items in the item selection settings, and the [Edge Erase] item is the 20th.

※ Adjustment range: [Keep] or [1~10mm].



iv) Use the cursor movement keys [◁][▷] to adjust [Keep] or [1~10mm].

※ [Keep] means not to erase the lines around the edges of the original.
※ [1~10mm] means an adjustable range that can be adjusted according to the width of the line from the paper edge.



vi) Press the [OK] button to complete the setting.

※ The display screen will not return to the initial interface.



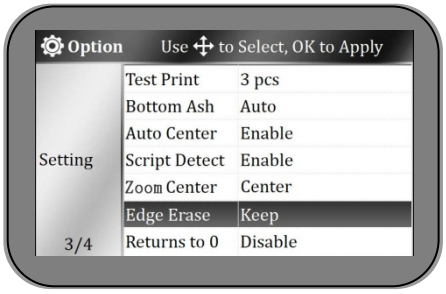


Image centering

Whether to adjust the image to the center. The factory default setting is [On].

Setting method

i) Press the [Set] key in the corner of the numeric keys to enter the operation setting screen.

※ The display screen changes to [Setting Screen].

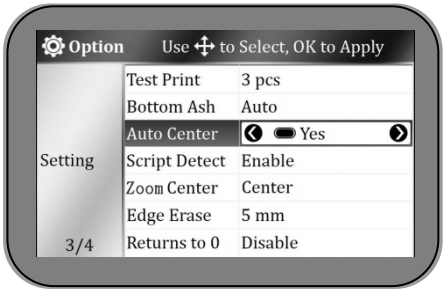


This setting can be made only in the normal printing state.
(i.e., when there is no error message indication)

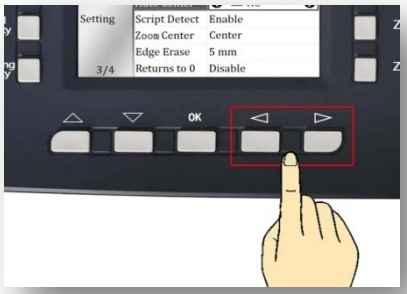
ii) Use the cursor movement button [▽] to move to the [Auto Center] item.

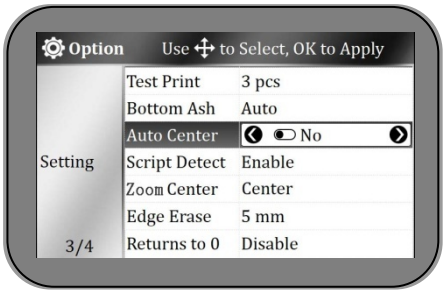
※ The operation area is on the lower side of the display.





iii) Use the cursor movement keys [◁][▷] to turn this function on or off.





iv) Press the [OK] button to complete the setting.

※ The display screen does not return to the initial screen.

※ Press the [Stop] key to return to the initial interface.



Print quantity memory function

This option is used to determine whether the default print quantity after a printing is completed is the same as the previous print quantity.

※ Please set this before printing.

※ The factory default setting is [On].

Setting method

i) Press the [Setting] key in the corner of the numeric keys to enter the operation setting screen.



※ The display screen changes to [Setting Screen].

This setting can be made only in the normal printing state.
(i.e., when there is no error message indication)

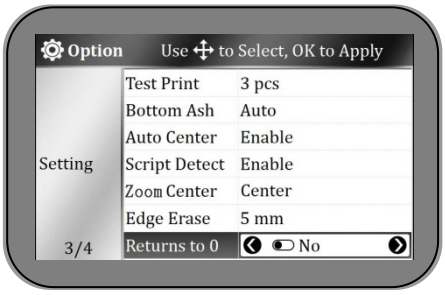
ii) Use the cursor movement button [▽] to move to the [Returns to 0] item.



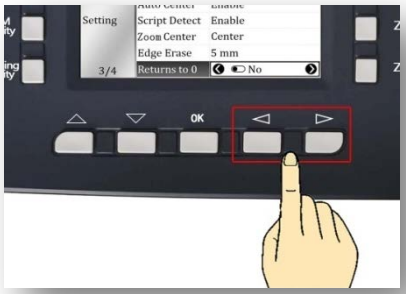
※ The operation area is on the lower side of the display.

※ The current option is marked in white on a black background.

iii) There are 23 items in the item selection settings, and the [Returns to 0] item is the 21th.



iv) Use the cursor movement keys [◁][▷] to turn this function on or off.



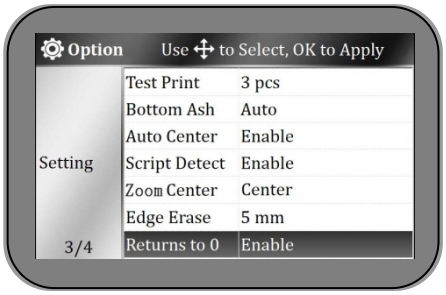
※ You can select "Yes" or "No" for this option.

v) Press the [OK] button to complete the setting.

※ The display screen does not return to the initial screen.

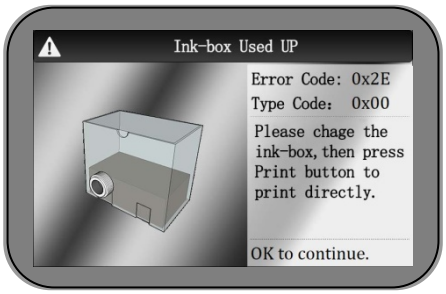
※ Press the [Stop] key to return to the initial interface.





Replacement of Consumables & Disposal of Disposal Box

Replacing the ink cartridge



When the ink runs out, an alert pops up on the display showing that the ink is empty and the machine stops operating.

<u>Ink cartridge replacement</u>

i) Open the front cover of the machine.



Please do this operation when the machine is stopped.

ii) Trigger the ink holder switch and the ink mounting bracket will tilt to the side you are standing on.



Due to the tighter installation, this part requires a little bit of strength.

iii) Remove the empty ink cartridge.



iv) Unscrew the cover of the new ink cartridge to be replaced on it.



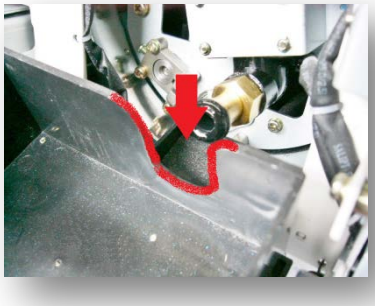
The ink is viscous, but it will still flow or ooze out, so please be careful to avoid spilling the ink and staining your body or clothes.

v) Install the new ink cartridge into the ink mounting bracket as is.



Be sure to take care to snap the mounting slots of the ink cartridge into the corresponding recesses of the mounting bracket.





vi) Gently close the mounting bracket and lock it.



A crisp [click] will sound when locking correctly.

vii) Close the front cover.



viii) The prompt message disappears, and printing continues by pressing the [Print] button.



Precautions for replacing ink

Do not leave the ink cartridge in the open lid for too long, air may seep into the ink, resulting in a decrease in the suction power of the pump to draw in ink properly.

If there is still ink left in the ink cartridge and the display indicates that the ink is running out, it is suggested to gently press the ink bag to squeeze the remaining ink towards the cartridge mouth (as shown below).





When replacing the ink cartridge, if you notice any abnormality (scratches/breaks/leakage), stop using the ink cartridge.

Use of inks that do not match the model of this machine will cause the machine to malfunction or operate poorly.

Please do not store the ink in extreme high/low temperatures/direct sunlight to avoid deterioration of the ink.

Please be aware of the expiration date of the ink. The expiration date for black ink is generally one and a half years, and even less for color ink. The use of expired ink may cause machine malfunction, blurred print, and other problems. The production date of the ink is printed on the ink cartridge at the factory.

Please read the precautions related to ink and ink cartridges carefully.

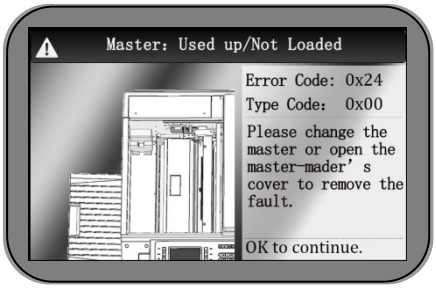
About the ink supply



The ink supply action is automatically performed when the machine is in the state of test printing, printing, master making, or the end of the test printing operation. At this time, the paper feed is temporarily suspended, and the ink is supplied while the drum is rotating.
When the machine is supplying ink, the display will be as shown on the right, and the process will take up to 90 seconds. When the ink supply is complete, the printing action will resume or be ready.

Replacing the master roll

When the master installed in the machine runs out, the display presents the message shown at right and the machine stops running.



Names of parts involved in the process of replacing the master roll Cheak (P 30)

a: Master making cover button

b: Cutter button



Master roll replacement

i) Open the original scanner table/scanner table cover.

① Press the scanner table switch handle.

② Push open the Scanning table cover.

Cheak (P. 26)



ii) Press down the master making cover button.



iii) Flip up the master making cover.

- Press the arrow to turn up to the limit position.



iv) Remove the Master roll that has been used up.



v) Remove the holder embedded to the left and right of the master roll core.

Be sure not to throw away this pair of Master roll master roll holders, which are recycled.

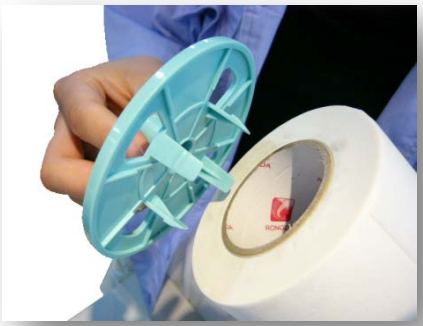


On the inside of the master paper core, there is a piece for attaching to the holder.
This is not recycled and can be discarded with the paper core.

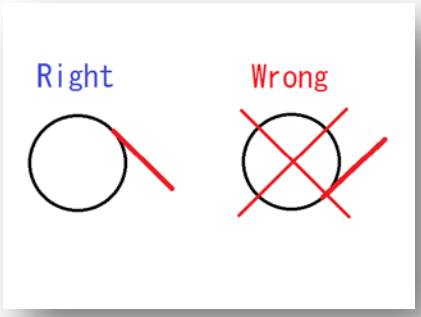


vi) Attach the brackets to the ends of the new master core.

There is no difference between the left and right brackets



vii) When placing the master roll, please pay attention to the direction.

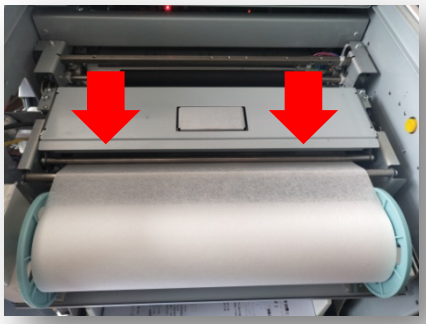




viii) Place the master in the groove as it is.



ix) Close the master making cover.



x) Close the scanning table



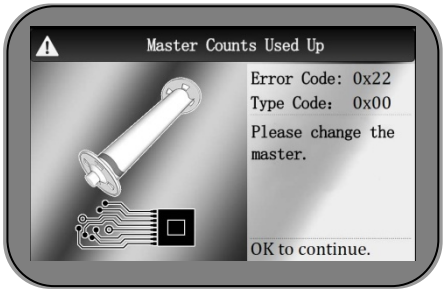
Master Replacement Precautions

Since masters use special raw materials, they are greatly affected by humidity. Therefore, please take care to avoid placing the master in extreme high or low humidity environments.

Use of master roll that do not match the model of this machine will cause the machine to malfunction or operate poorly.

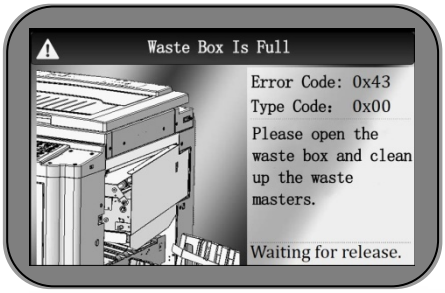
Please pay attention to the expiration date of the master. The shelf life of the master is generally three years under good storage conditions, so please pay attention to the stock situation before purchasing.

If there is still master left in the machine and the display shows the message [Replace master], you can just pick out and reinstall it. If this still does not work, replace it with a new roll or contact your distributor.



Disposal of waste masters

When a new master making is performed, the master from the previous use is automatically drained into the disposal box. When the disposal box is full, a message is displayed and the old masters in the disposal box have to be removed and discarded manually.



Disposal method

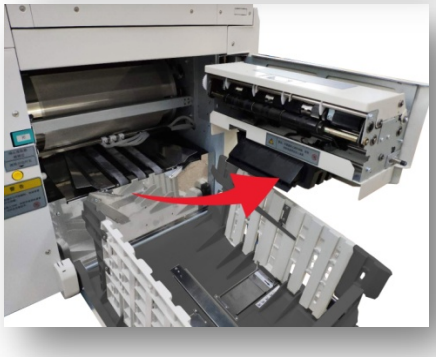
i) Press the disposal box switch to open the disposal box.



Perform this operation with the machine stopped.

Cheak Refer to Names and Functions of Parts (P. 28).

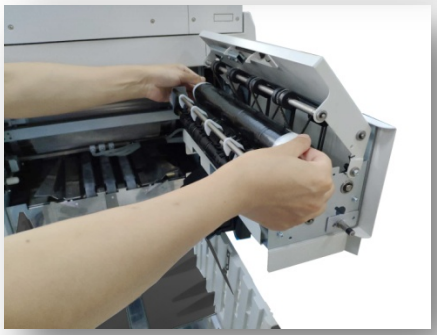
ii) Completely open the disposal box.



iii) Press the disposal box switch and the top flap of the disposal box will pop open.



iv))Remove the core with the master roll.



There will be ink residue on the master, so please be careful not to let the ink stick to your hands.
The left and right edges of the master rolls usually do not have ink, therefore you can carefully hold the edges of the core.

v) Squeeze the core of the roll with one hand and carefully pull out the master roll with the other hand, discarding the latter.



Both the master roll and the core are slippery and can be easily removed by tilting the end slightly downward to remove the waste master roll.

The roll core needs to be recycled, so please remember not to throw it away.

vi) Return the roll core to the disposal box.



vii) Fasten the top cover of the disposal box, and when it is locked, a [bang] sound will be emitted.



viii) Close the outer cover and the same [click] will sound when locking.



Regardless of the reason for opening the top lid of the disposal box, and regardless of whether or not the screen indicates that the disposal box is full, discard the used masters from the disposal box.

Due to the ink adhering to the old masters, it is recommended to place the old plates in a plastic bag, or wrapped in paper, before discarding them so that they do not stain other items.

The Removal and Reinstall of the Drum

If you experience a paper jam inside the machine, or if you need to clean the inside of the drum body and case, you will need to pull the drum out and remove it.



Before removing the drum, make sure that the place where the drum is expected to be placed is level. If the drum is placed on a bumpy place, it may cause the drum to break or other accidents.

There is ink residue on the surface of the drum and some of the internal spare parts, therefore, please take care to avoid ink sticking everywhere when pulling out the drum.

Please perform this operation with the machine energized but not running.

i) Open the front door



- The drum may rotate after opening the front door, so please wait until the rotation stops before proceeding to the next operation. (It can be judged by the sound and the status of the drum)

ii) Pull up on the drum mounting handle in order to unlock the drum.



iii) Pull out the drum slowly.



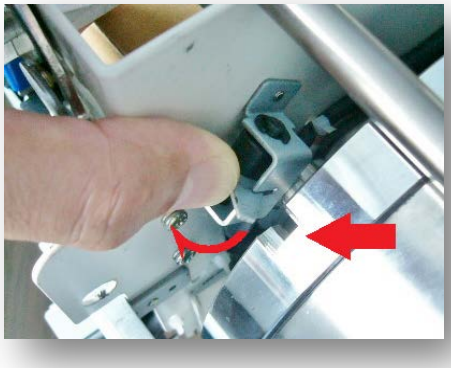
- The end of the drum is equipped with a brake to prevent the drum from being pulled out quickly enough to cause disengagement.

iv) With one hand still holding the handle and the other hand holding the drum frame, take out the drum.

- Pull the drum up slightly towards the top to disengage the guide rails and catches.



v) Please demonstrate the steps above in reverse order when reinstalling the drum.



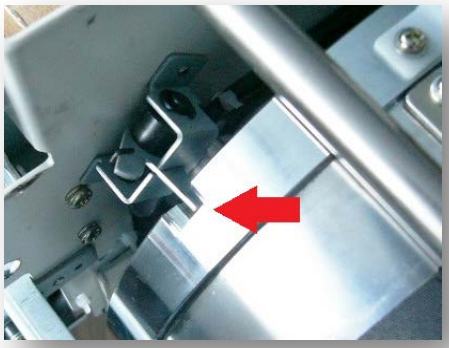
<u>Turning the drum while it is pulled out of the body.</u>

- In general, the position of the drum is fixed by the brake. To turn the drum freely in this case, release the brake.

- With the drum completely pulled out of the machine, slowly turn the drum counterclockwise.



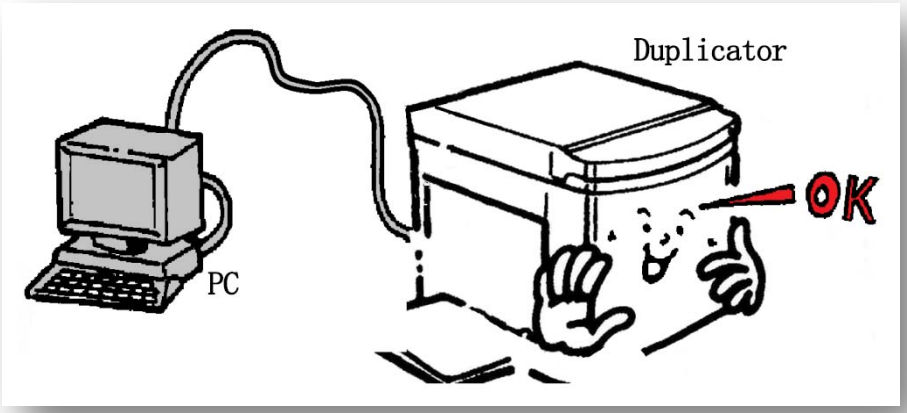
- When placing the drum back into the body, adjust the drum Attitude until the brake fixing position matches the brake exactly.



If the drum brake fixing position does not match the brake, the drum cannot be mounted. Forced installation may cause unforeseen malfunctions.

Do not jostle the drum while it is pulled halfway out of the body, as this is likely to cause malfunctions.

Online Printing Function



This machine not only prints single pages and booklet originals, but also sends documents and information from your computer directly for printing.

There are 3 ways to print on-line from this machine:

- by LAN connection
- by USB cable connection
- from a USB flash drive

When using the above method, please install the designated Duplicator Driver on the specified PC first.

The following instructions are based on the Microsoft operating system [Windows 7/ 64-bit version].
The current version of the print driver of this machine is [Ver 1.1.0], which can be used until [Windows 10 / 64-bit version].

Installation of the duplicator driver

Before installation

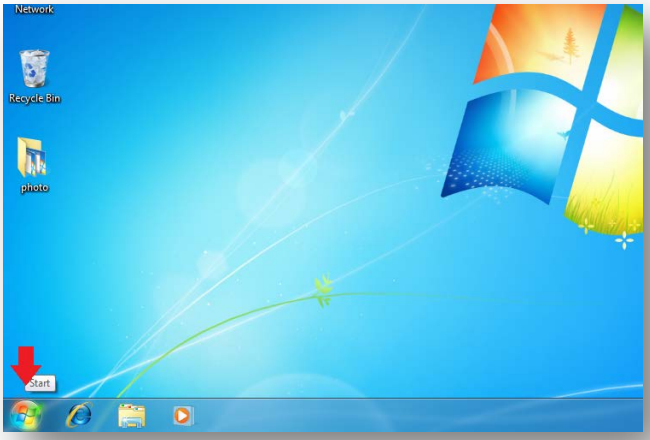
Please note that due to differences in computer environments (brand, OS, system version, antivirus software, etc.), the pop-up messages during the installation process may differ from the following, and the installation may not be successful.

Please confirm whether the computer's operating system is 32-bit or 64-bit. If it is confirmed, you can skip the step below.

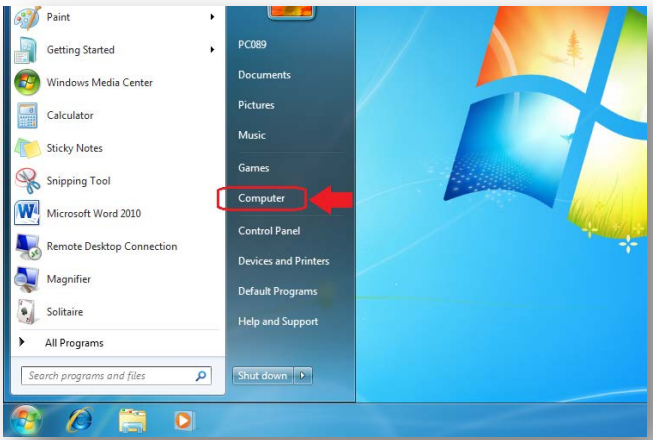
The common [Operating System] for Microsoft Windows is divided into [32-bit] version and [64-bit] version. Since [Installation of the duplicator driver] differs for different operating systems, please make sure to check this item in advance.

How to confirm the operating system

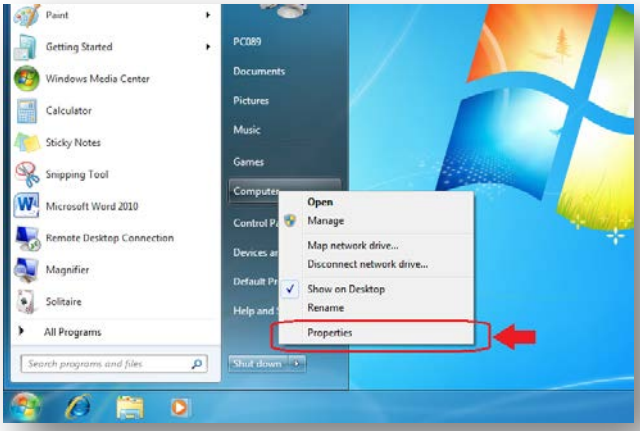
1. With the computer turned on, click the Start button in the lower left corner.



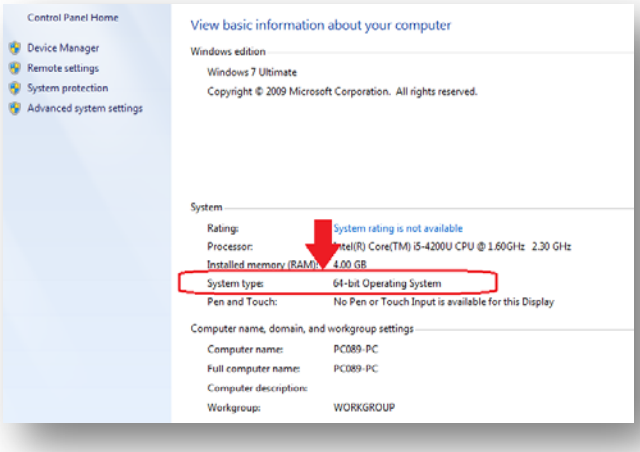
2. Select [Computer] and right-click.



3. Choose [Properties].



4. The number displayed under [System Type] is the version of [Operating System].



※ The example above is [64-bit version].

5. After confirmation, click the [Close (C)] button in the upper right corner of the window.

Operation system is divided into two kinds of [32 bits] edition and [64bit] edition. Since [Installation of digital duplicator driver] has requirements on this item, be sure to confirm this item.

Installation of the duplicator driver

Before installation

As mentioned earlier, the driver must be installed for either of the online printing methods (LAN connection/USB connection/U disk printing). The following describes the installation of the printer driver.

The following installation needs to be started with the computer powered on and the duplicator powered on.

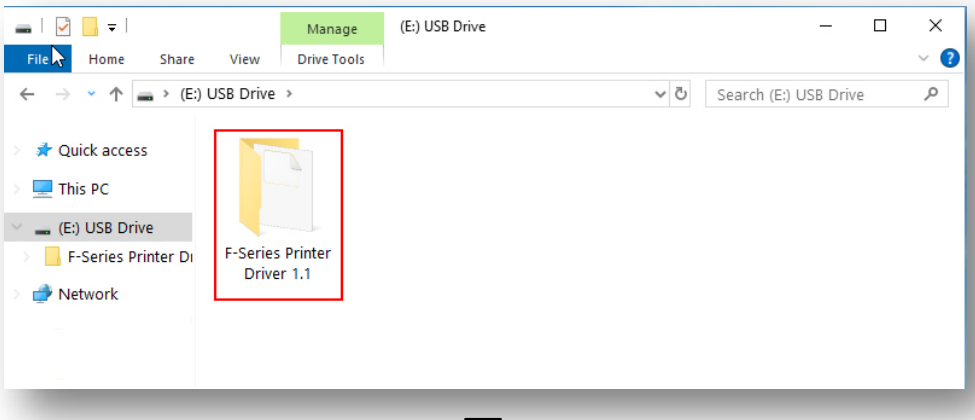
If connecting via USB, you can either connect it directly before installing the driver or after the driver installation is complete.

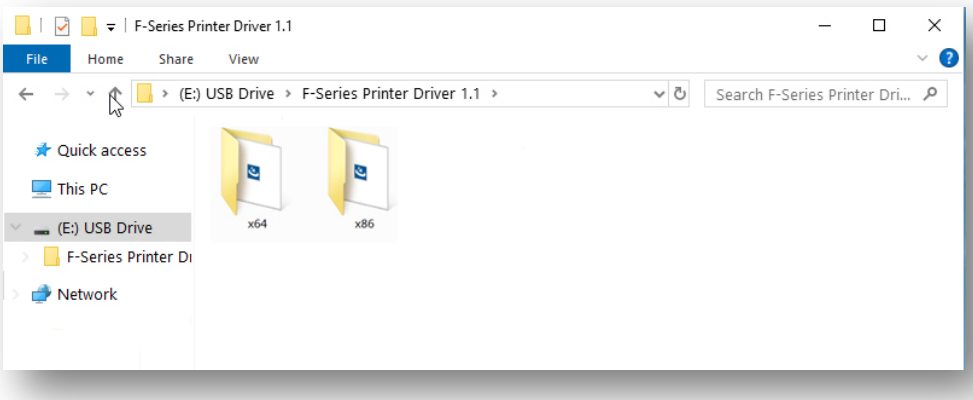
1. Insert the USB flash drive with the duplicator driver into the computer drive.



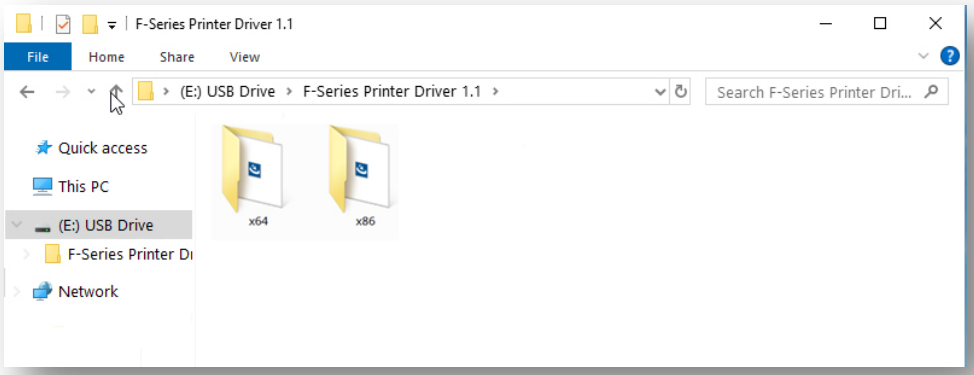
The duplicator driver can be downloaded by scanning the QR code or entering the URL to the company's official website, the file name is [F-Series Printer Driver 1.1].

2.Open the file [F-Series Printer Driver 1.1]。



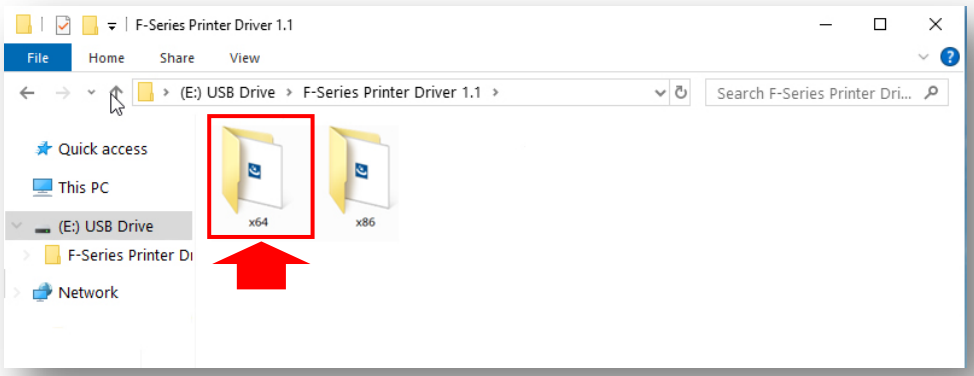


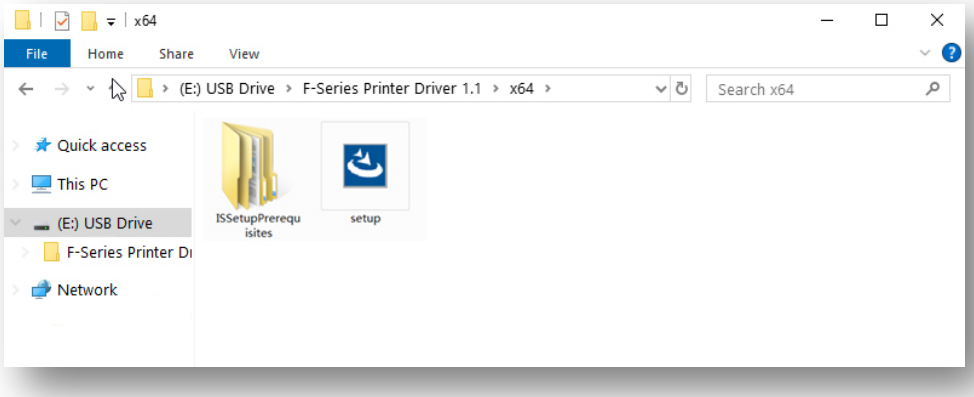
3. Select the [x64] or [x86] folder according to your computer configuration.



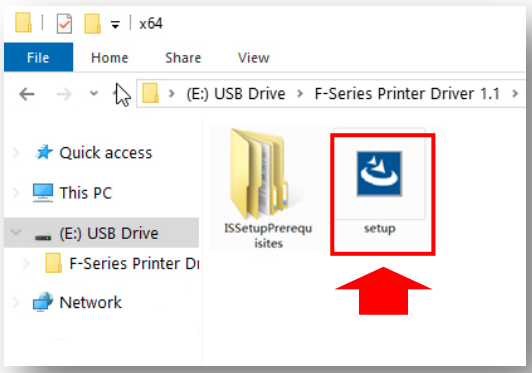
※ Here we take [x64] as an example.

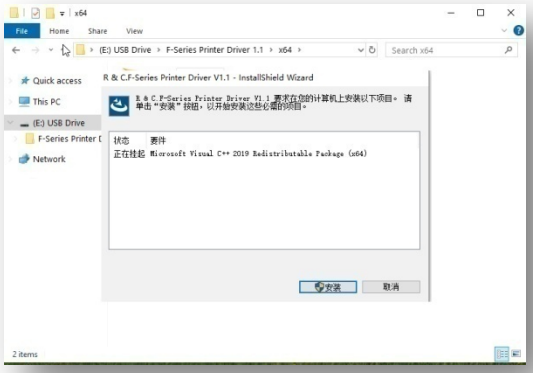
4. Click the [x64] folder.



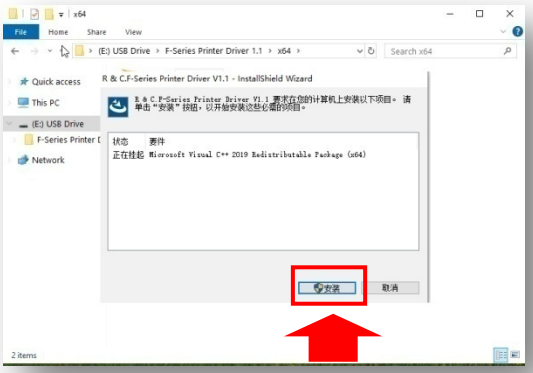


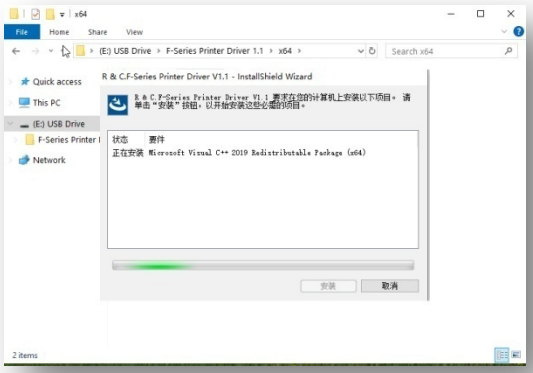
5. Select the [setup] application.



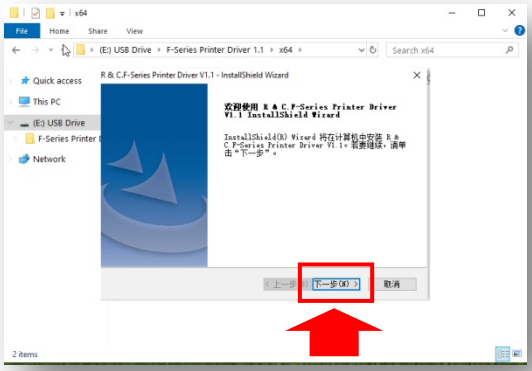


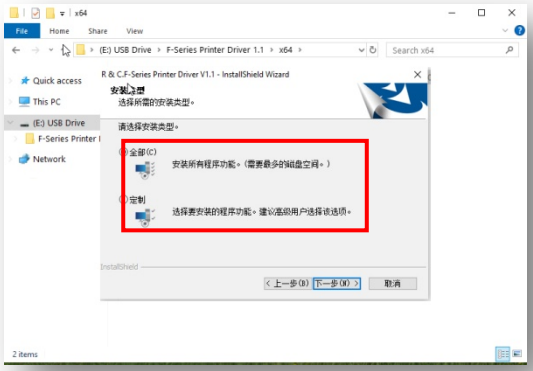
6. Click the Install button and wait for the installer to run.



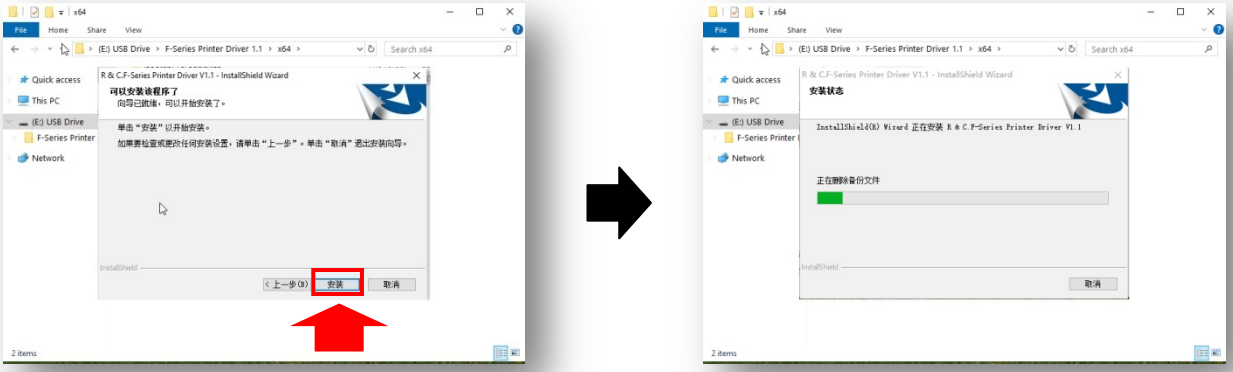


7. After the installation is complete, click [Next] and select [Installation Type]. In general, the default options are sufficient.

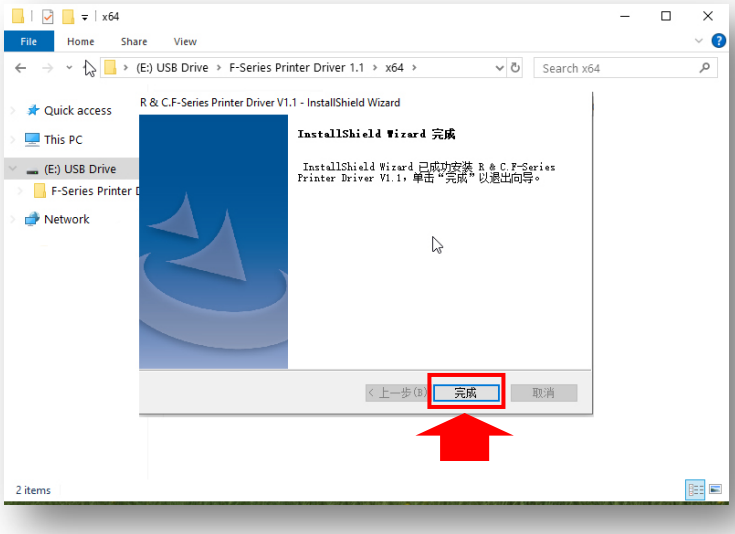




8. Click the Install button and wait for the installer to run.



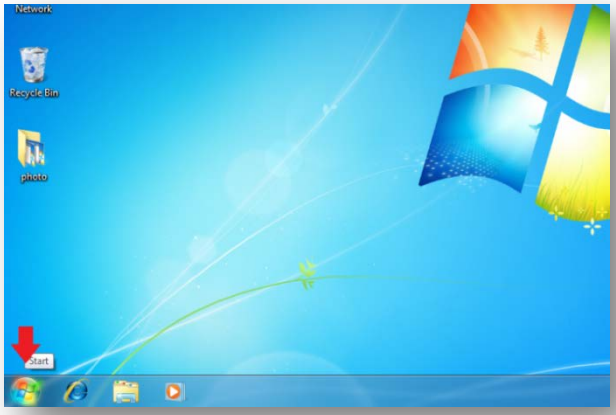
9. After the installation is complete, click [Finish] to complete the driver installation.



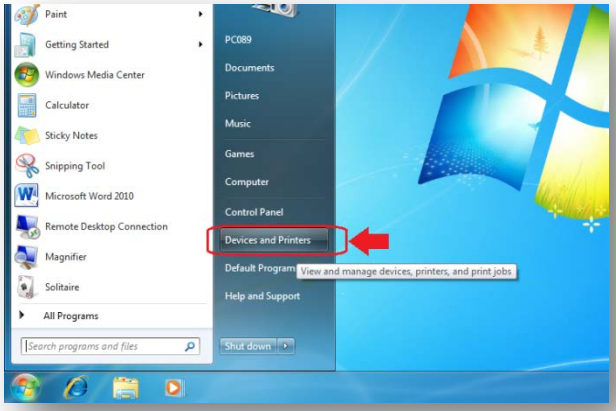
Initial setup of the duplicator driver

After the digitalduplicator is connected to the computer, it is necessary to perform initial settings before printing for the first time.

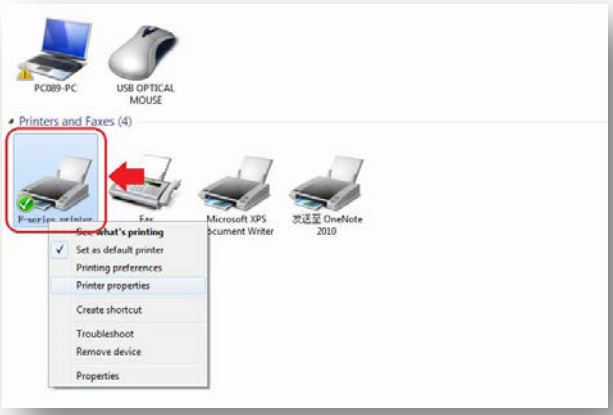
1. Click the [Start] button in the lower left corner of the desktop.



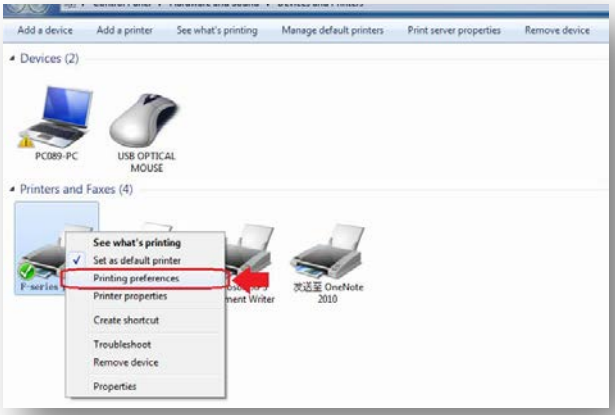
2. Click [Devices and Printers].



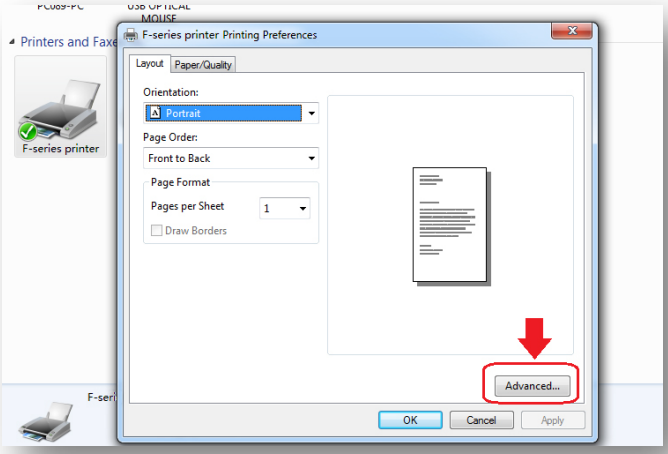
3. This window will display all printers connected to the computer. Right-click [F-series printer].



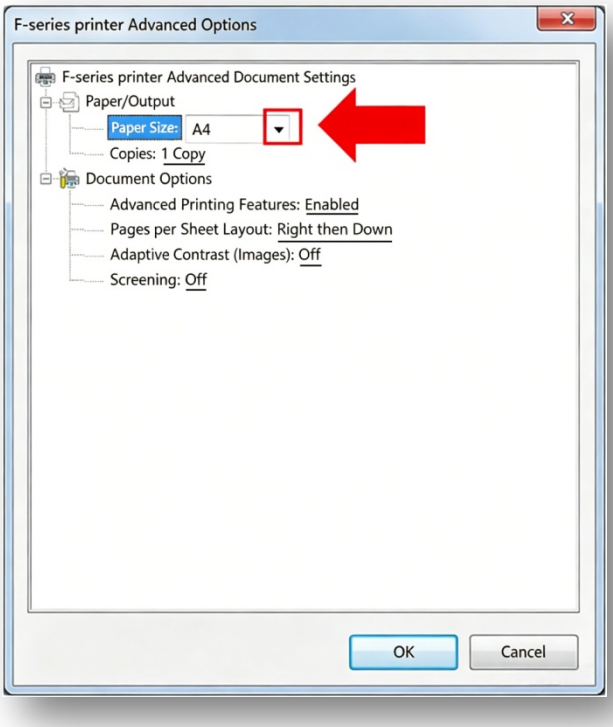
4. Click the [Printing Preferences (G)] option in the drop-down list.



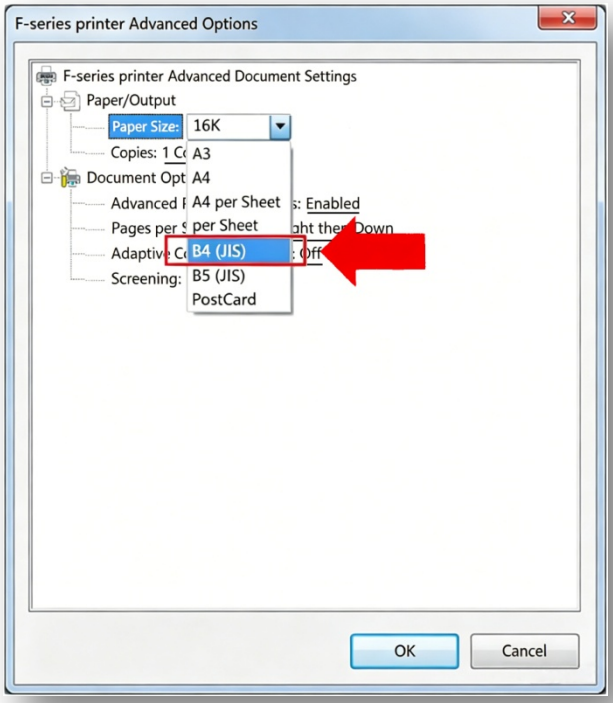
5. Click the [Advanced (V)].



6. Click the [▼] button to the right of the "Paper Size" option [A4] under Paper/Output.

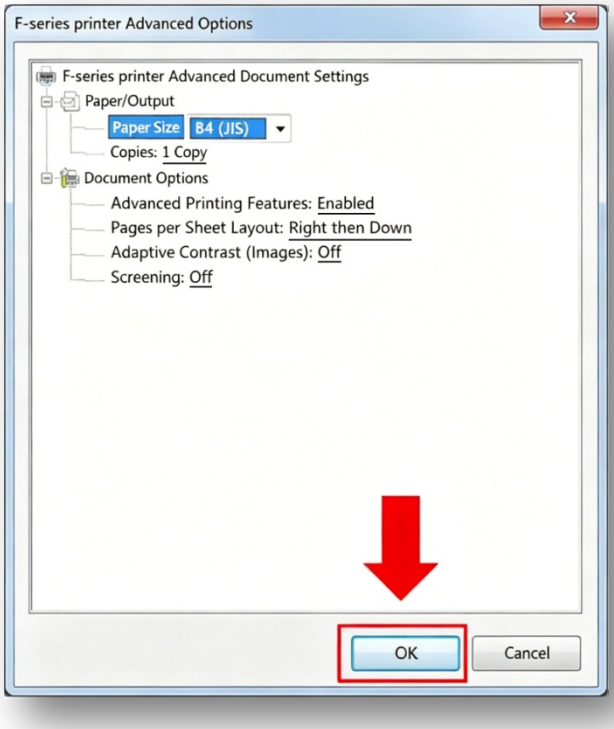


7. The drop-down list will display 7 items. Select [B4 JIS] here.



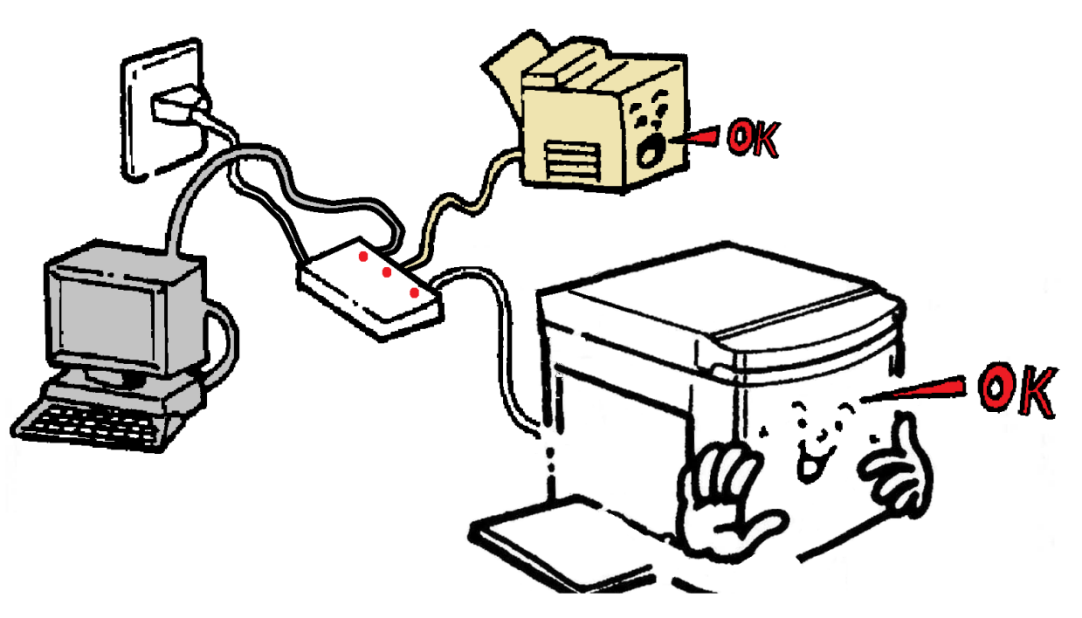
※ Choose the appropriate paper size here according to your needs.

8. Click [Confirm].



9. Click the [Close] button in the upper right corner to close the window with completed settings.

Network printing function



In an area with network coverage, you can connect the duplicator to the network so that everyone in the area can use the duplicator. However, this still requires each user to install the duplicator driver on their computer.

IP address settings

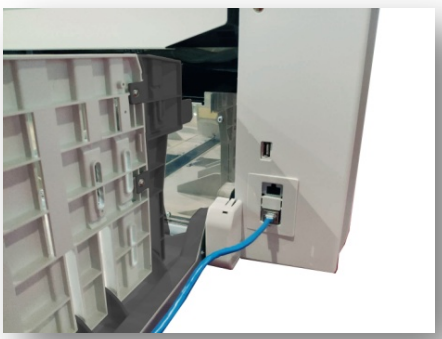
Any machine connected to the local area network (LAN) must have an [IP address]. This "IP address" is like a "residence" in daily life. Through the IP address, machines and computers can interact with each other under the LAN connection. There are usually two ways to set the IP address: 1. Automatic setting when the machine is connected to the LAN; 2. Manual setting. For this machine, in order to prevent misoperation, the second method of arbitrary setting is adopted.

First, you must confirm with the network administrator "the IP address that this machine can use in the LAN".
For this machine, the pre-set IP address is [192.168.1.120] or [192.168.1.130]. If the customer has other devices in the LAN using the same IP address, the address conflict will cause network failure. If you confirm with the network administrator that the IP address [192.168.1.120] or [192.168.1.130] is in use, you can entrust the network administrator to set another unused IP address as alternative.

The following will use the IP address [192.168.1.120] as an example.

IP address setting

1. Use a network cable to connect the duplicator to the switch.

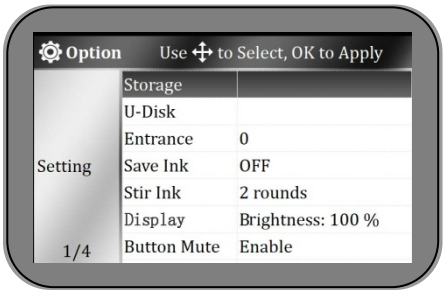


2. Turn on the power switch of the duplicator.



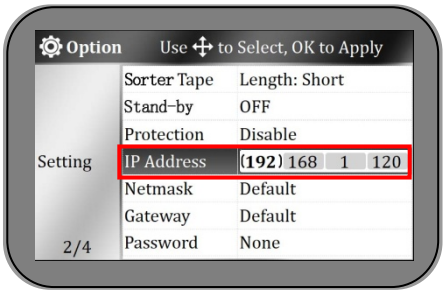
3. Press the [Set] key in the numeric key area to enter the setting screen.



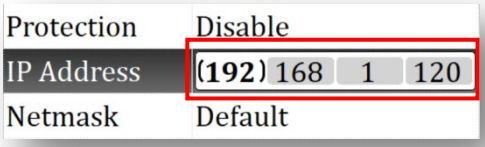


4. Use the cursor to move the button [▽] to the [IP Address] item.





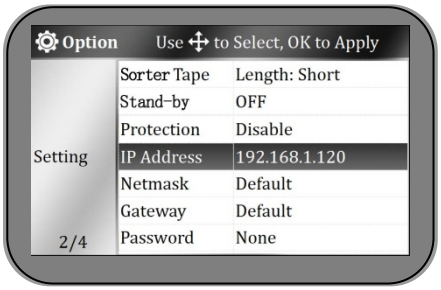
5. Record the current IP address (to be used later). The example IP address here is [192.168.1.120].
   - The separator "." is no need to enter. Press the cursor movement keys [◁] and [▷] to adjust the number of each segment.



Important The IP address shown here must be confirmed with the network administrator before confirming whether the IP address has been used within the currently connected LAN.

6. Press the [OK] button to return to the setting screen.

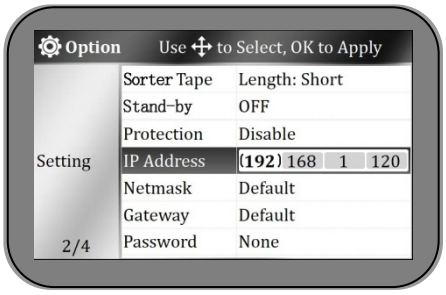




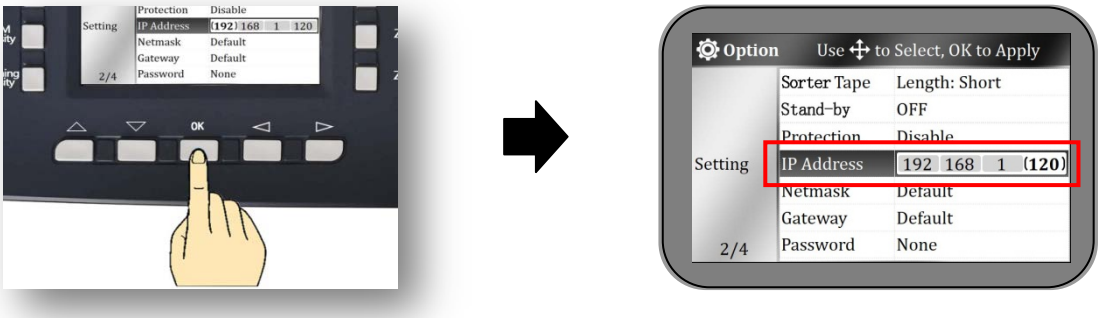
If the machine's preset IP address is in use

If the IP address [192.168.1.120] or [192.168.1.130] has already been used, you need to change the IP address of this machine. In this case, obtain an unused IP address from the network administrator and change it accordingly.

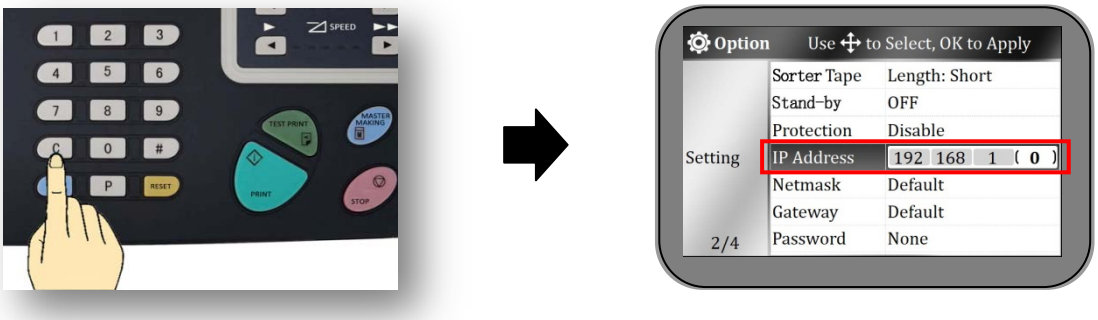
1. Refer to the above content in this section and go to the IP address option interface.



2. Press the cursor movement key [▷] three times in succession to move the cursor to the last column.
   Note: The **firstthree** digits in the IP address (**192.168.1.**xxx) are usually the same, only the fourth is different.

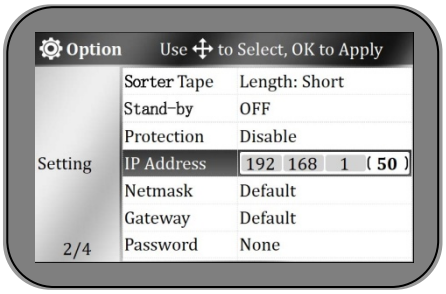


3. Press the [C] key to clear the last digit of the IP address, and the last digit will change to 0.



4. Enter the last digit of the IP address provided by the network administrator. If your company's network is more complex, please repeat steps 1-3 above until the specified IP is filled in.



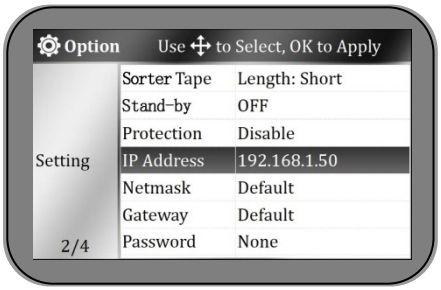


Note: Enter "50" as shown in the example above, and press the numeric keys [5] → [0] in sequence.

If [0.0.0.0] appears in the IP address setting column, please enter it from the first digit according to the above method. In this case, enter [255.255.255.0] in the "Subnet Mask" part.

5. Press the [OK] button to complete the IP address setting.



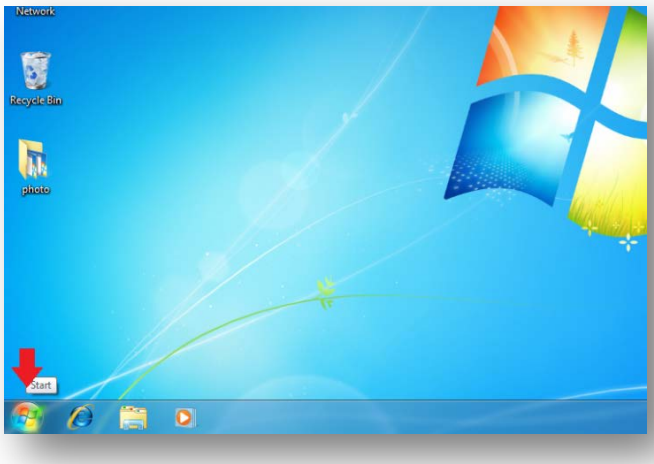


Connect the computer to the duplicator via LAN

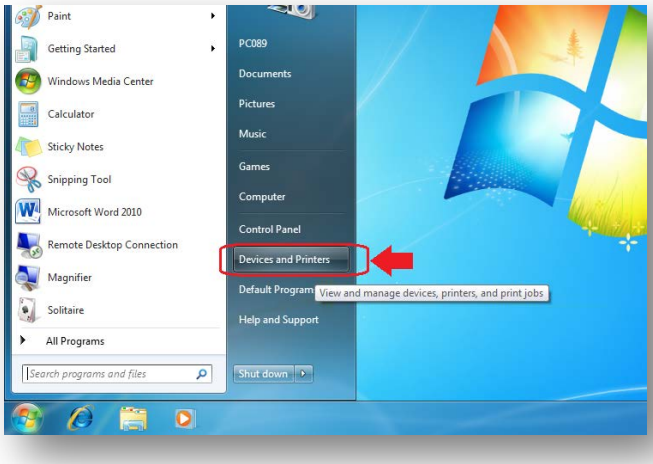
For computers already connected to the same LAN, you can proceed to the next step if the duplicator driver has been installed.

Cheak (Installation of the duplicator driver (P. 105)

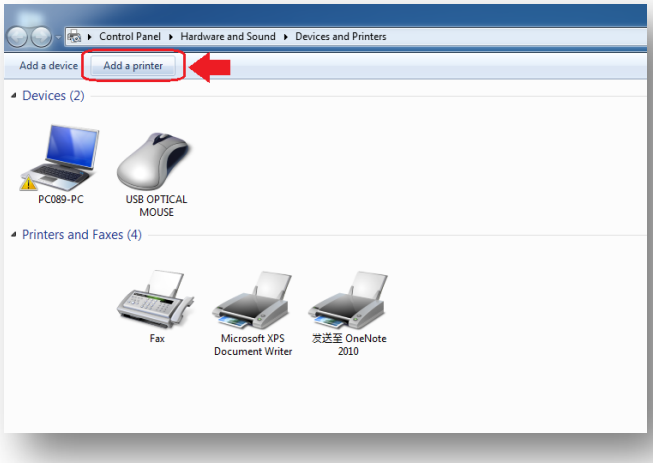
1. Click the [Start] button in the lower left corner of the desktop.



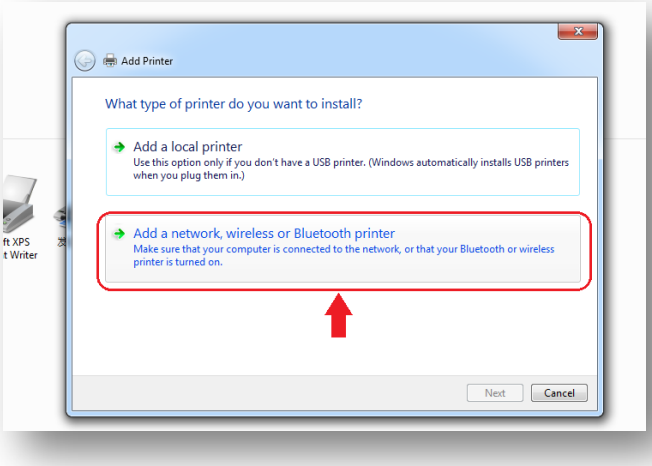
2. Click [Devices and Printers].



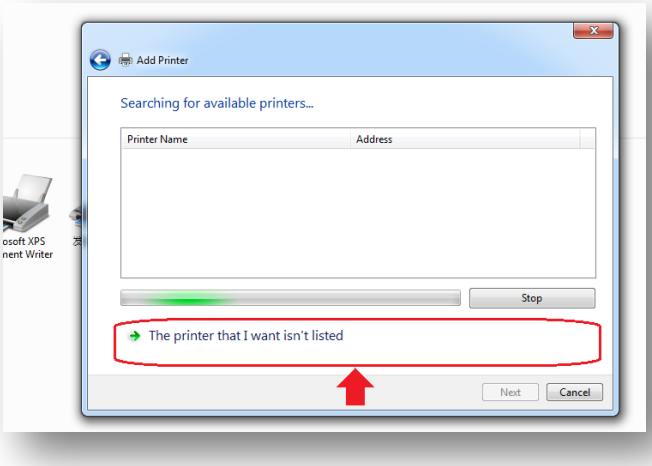
3. Click [Add printer].



4. Click [Add a network, wireless or Bluetooth printer (W)].

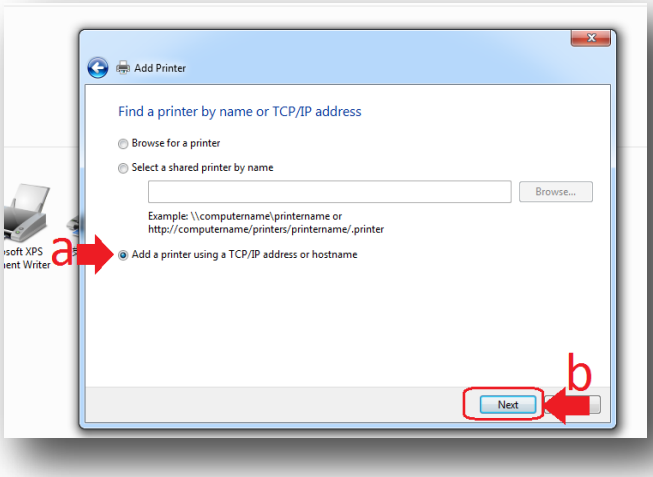


5. Click [The printer that I want is not listed].



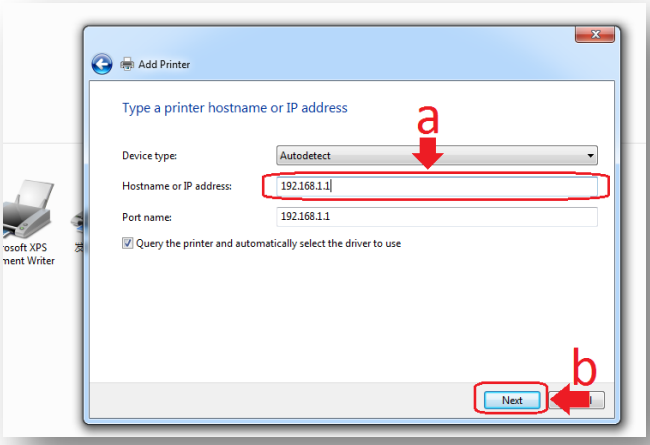
- If you are in a LAN where multiple printers are already connected, the search may take some time. You can continue to select this option even if the list is still searching.

6. Click [Add a printer using a TCP/IP address or host name (I)], and then click [Next (N)].



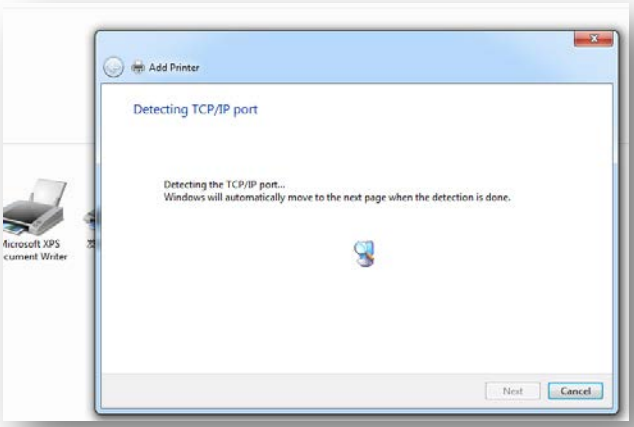
7. Enter the IP address confirmed in the previous section in [Host name or IP address (A)] and click [Next (N)].

Note: Please input the numbers and symbols (including ".") in the IP address correctly in half-width format. The port name (P) will be automatically generated after entering the IP address.

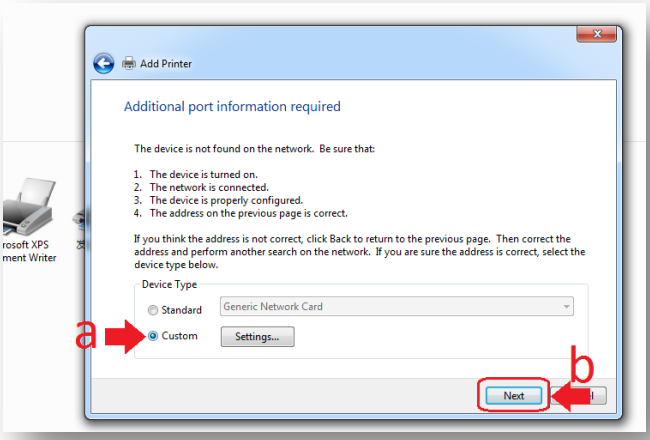


8. Wait for the device to automatically perform [TCP/IP Port] detection.

Depending on the usage environment, the detection may take some time.

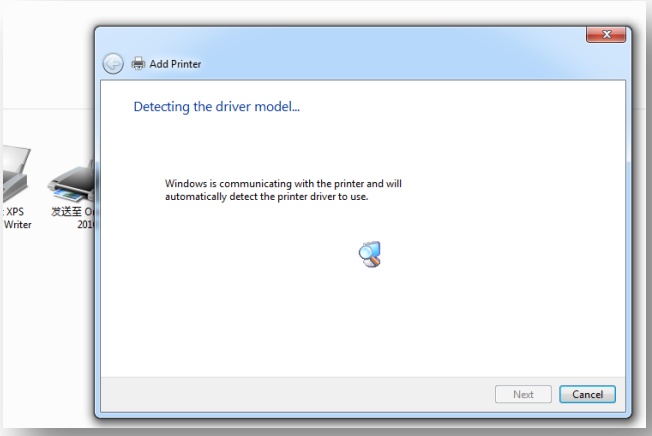


9. In the following [Additional port information required] interface, click [Customize (C)], and then click [Next (N)].



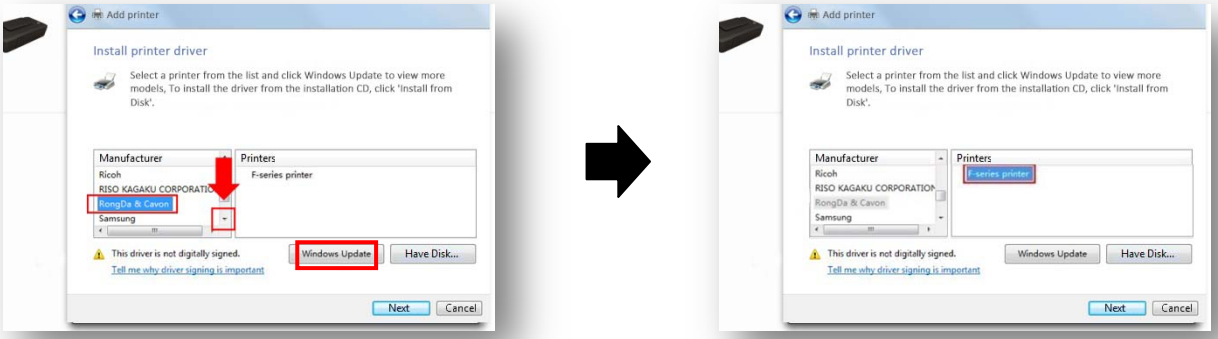
10.Waiting for the device [Detecting driver model...].

Depending on the usage environment, the detection may take some time.

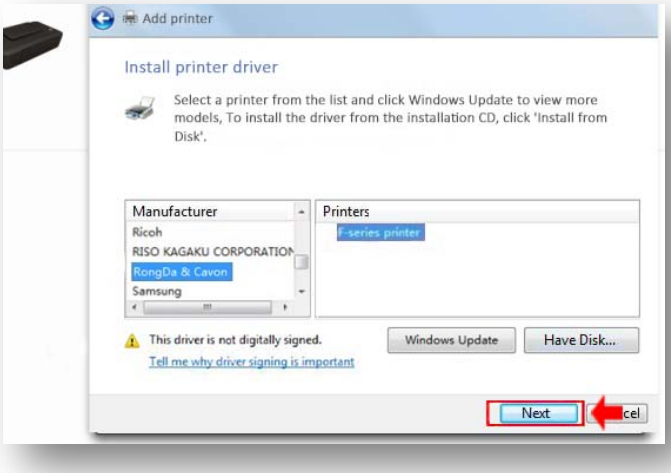


11. In the following [Install Printer Driver] interface, pull down the manufacturer name, select the manufacturer [RongDa & Cavon], and then select the printer [F-series printer].

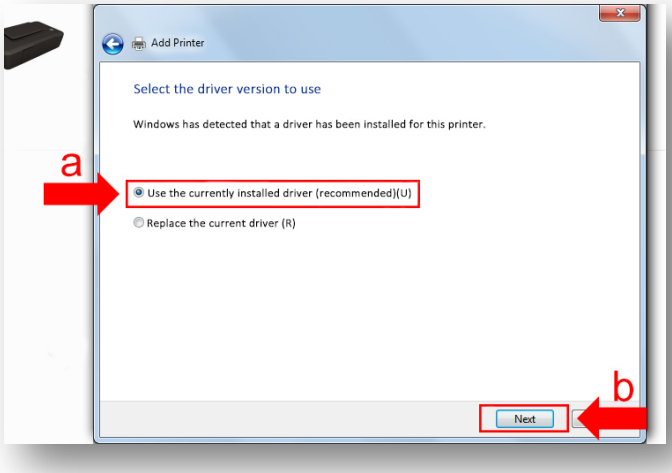
Depending on the usage environment, the detection may take some time.
The [Cavon] here is a domestic brand that belongs to our company.



12. Click [Next (N)].

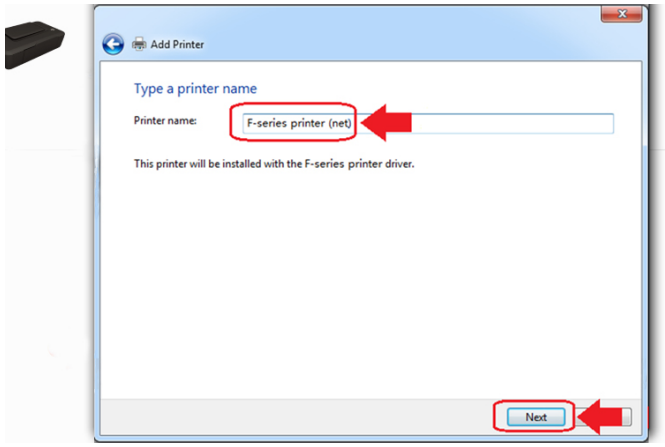


13. In the [Select the driver version to use] interface, click [Use the currently installed driver (recommended)], and then click [Next (N)].

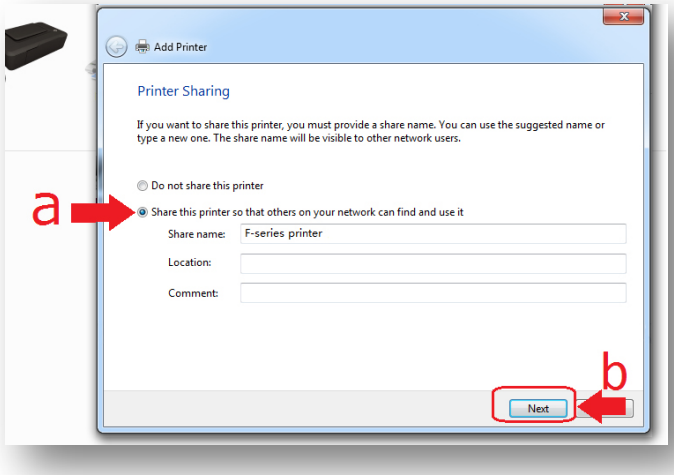


14. In the [Type a printer name] interface, the printer's name is automatically filled in. If there are no problems, just click [Next (N)].

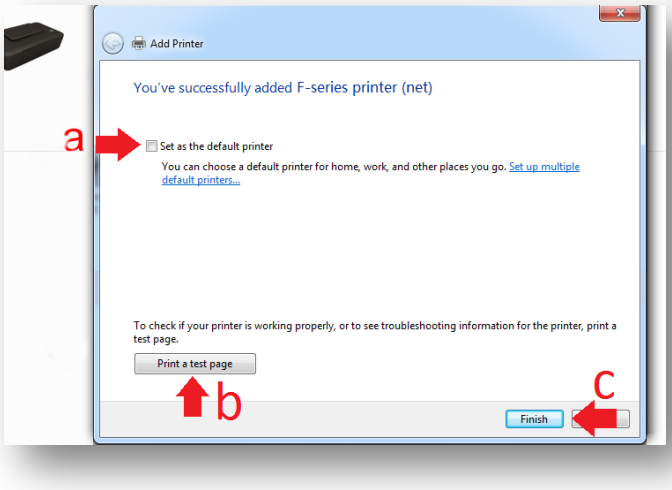
A [Warning] message related to the installation may be displayed here. Please ignore the warning and directly select [Start Installation].



15. Select whether to share this printer according to your needs, and then click [Next (N)].



16. If you do not want to set this machine as the default printer, deselect the option above and click [Finish (F)].



If you click [Print Test Page (P)], a test sheet will be output using the network print function.

LAN/USB online printing

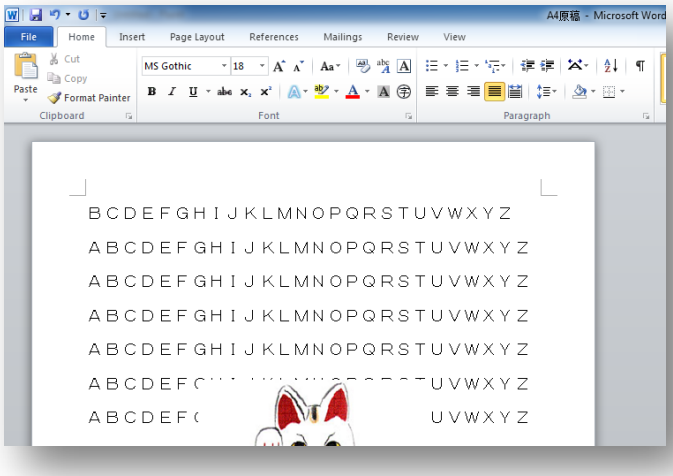
If the machine is already connected to a LAN via a network cable, or to a computer via a USB cable, you can send data directly to the duplicator for printing.



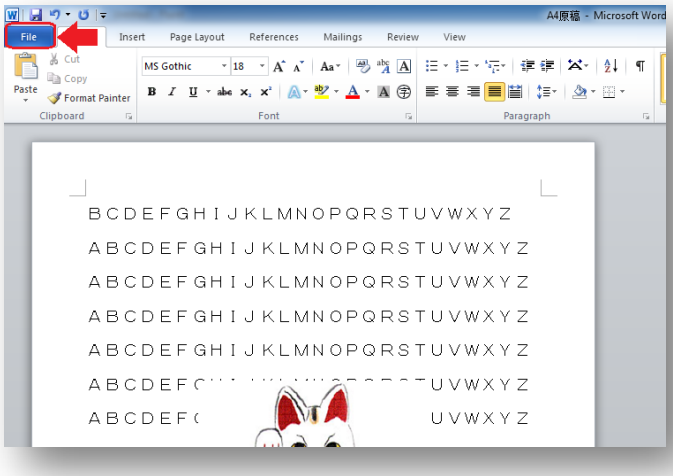


Printing method

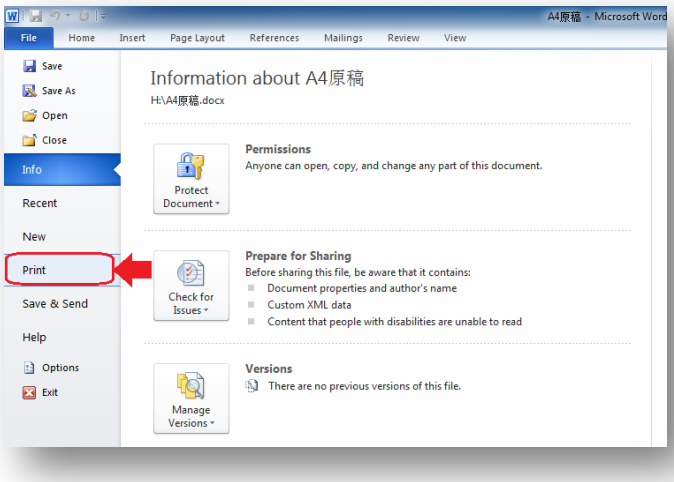
1. Open the file to be printed.



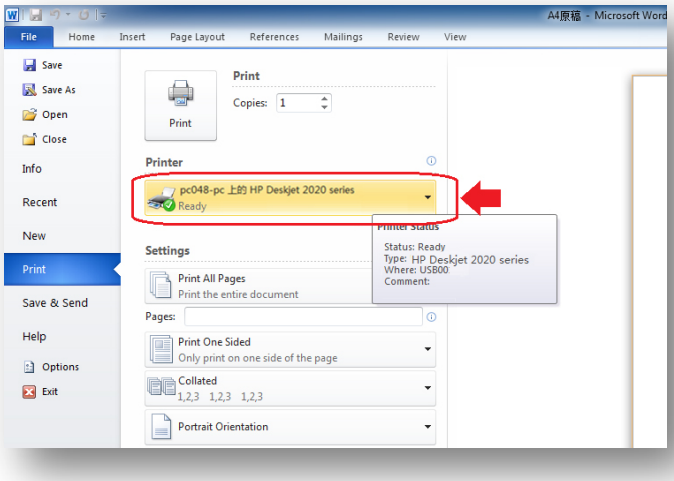
2. Click the [File] option in the upper left corner of the opened file.



3. Click [Print].

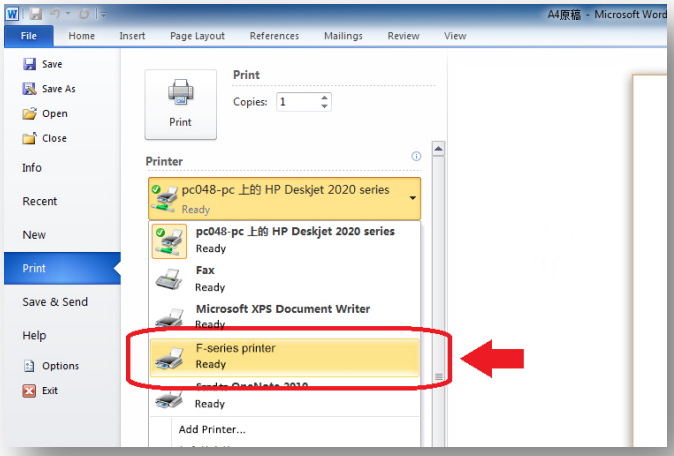


4. Click [Printer Types] displayed under [Printer]. (All printers connected to this computer are displayed here.)



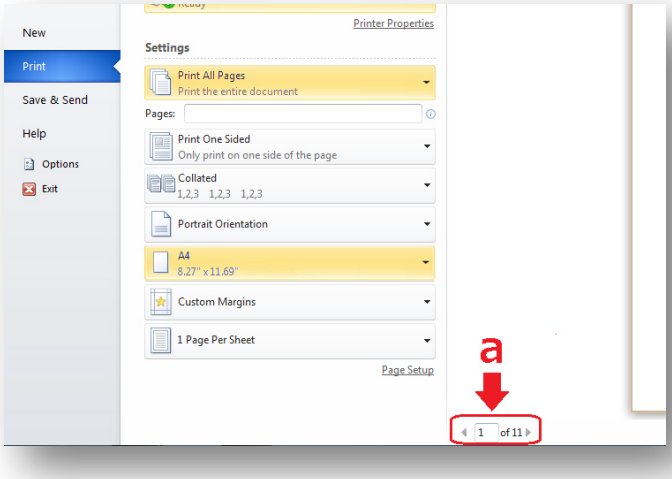
5. Choose [F-series printer]。

・When installing the driver, if you set this machine as the default printer, this machine will be displayed at the top of the list.

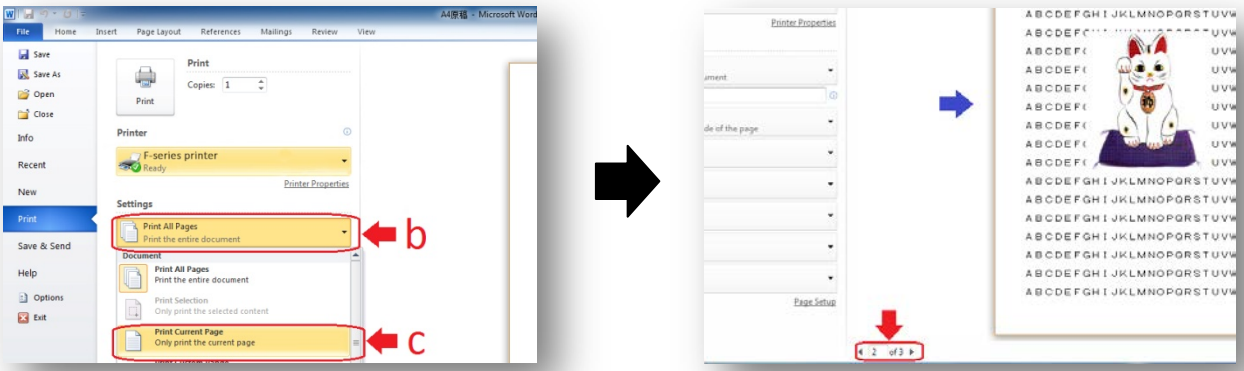


6. This setting differs depending on whether the document to be printed is a single page or multiple pages. This machine is unable to continuously print documents with multiple pages.

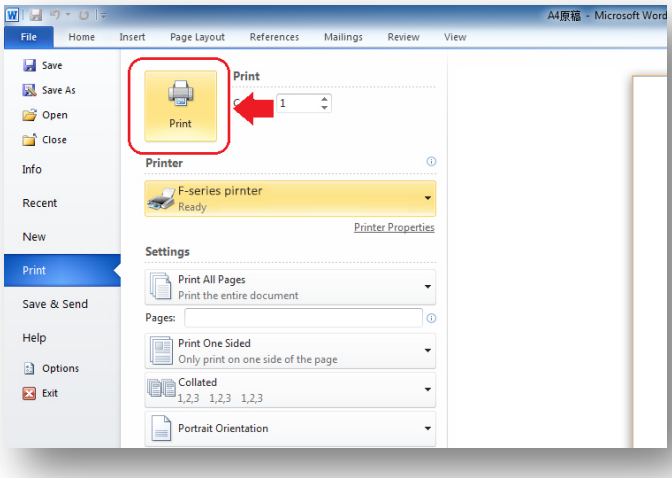
To determine whether to print a single- or double-page document, refer to the contents shown by the "a" arrow in the following figure.



- For the single page, proceed directly to step [7] to print.
- For the duplicate pages, click [Print All Pages] and then click [Print Current Page] on the display.
- Specify the page number to be printed and confirm it with the image displayed on the right side of the screen.



7. Click [Print].



8. After the data is transferred, the printer automatically starts the "layout-master making-printing" series of actions and prints.

USB flash drive printing



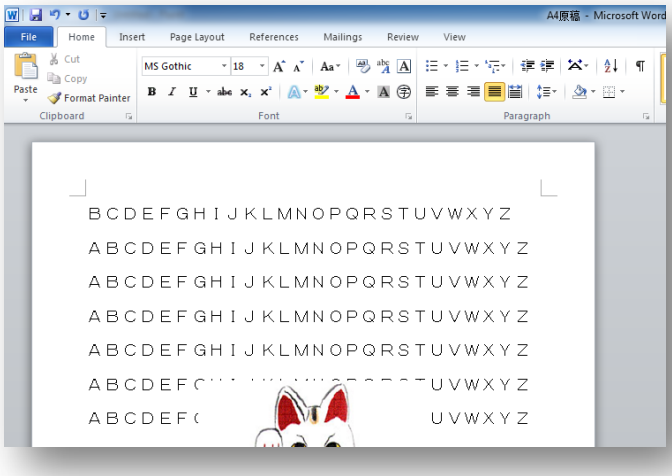
The machine supports U disk printing, if the data is saved in the U disk, it can be inserted into the machine to print directly.

Please convert the contents to be printed to a format usable by the duplicator in advance, and then save them on a USB flash drive.

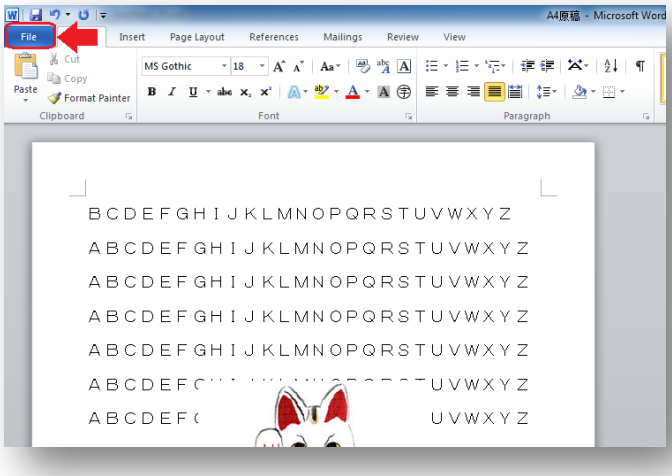
Convert and store data into a duplicator-readable format

1. Insert the USB drive into a computer with the duplicator driver installed.

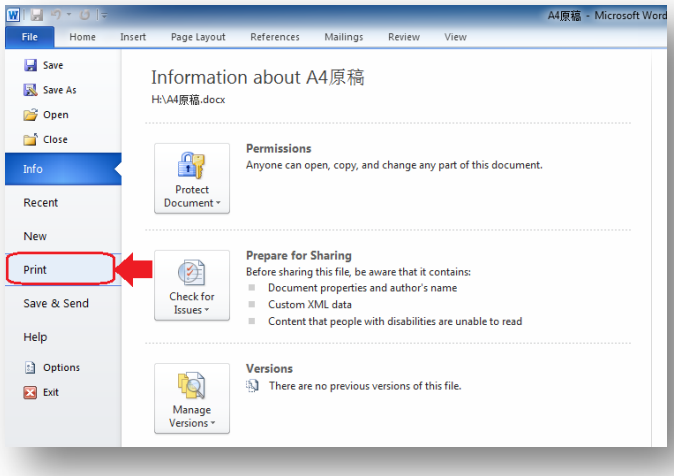
2. Open the file you want to print.



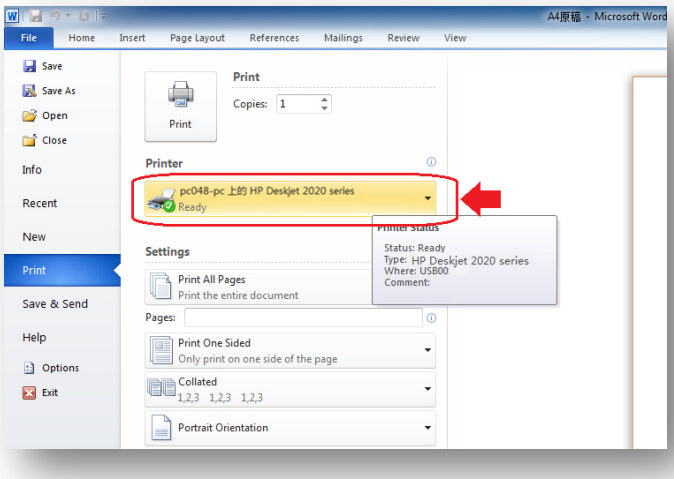
3.Click the [File] option in the upper left corner.



4. Click [Print].

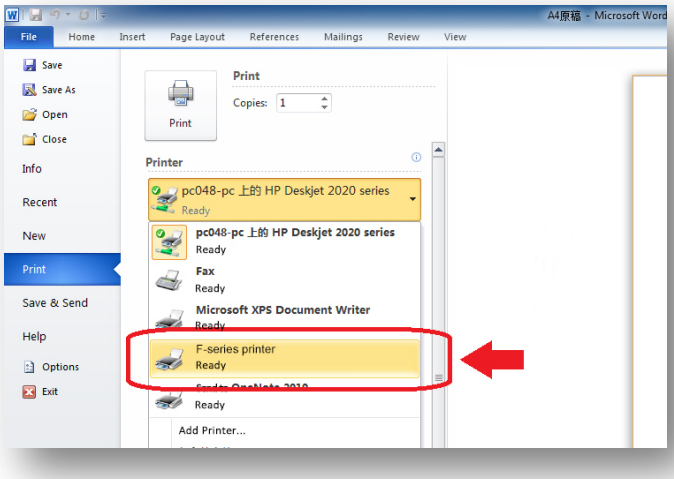


5. Click [printer type] displayed under [Printers]. (All printers connected to this computer are displayed here.)



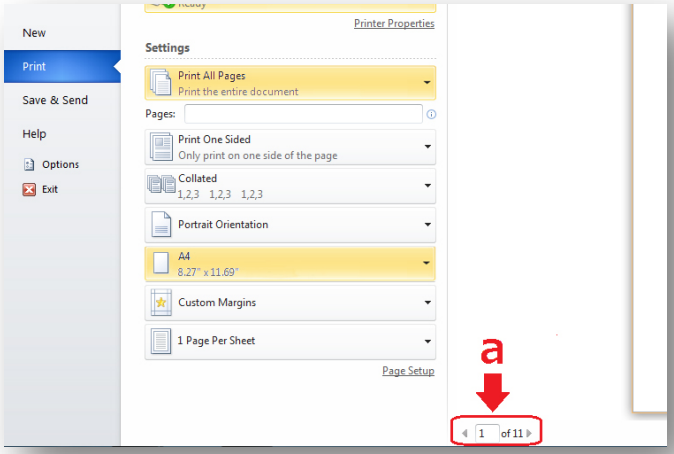
6. Click [F-series printer]

- When installing the driver, if you set this machine as the default printer, this machine will be displayed at the top of the list.

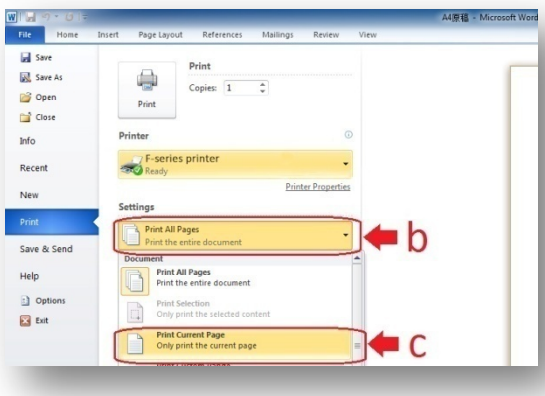


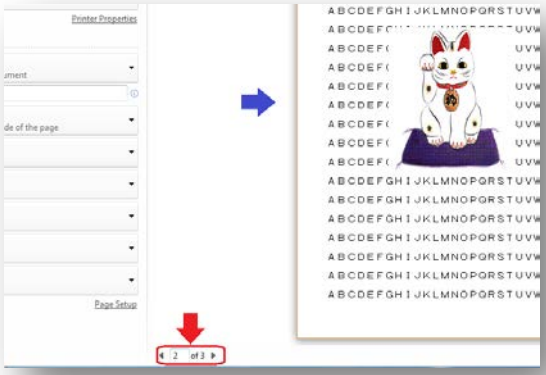
7. This setting differs depending on whether the document to be printed is a single page or multiple pages. This machine is unable to continuously print documents with multiple pages.

To determine whether to print a single- or double-page document, refer to the contents shown by the "a" arrow in the following figure.

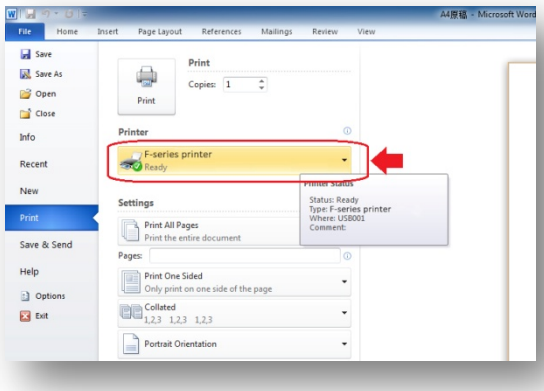


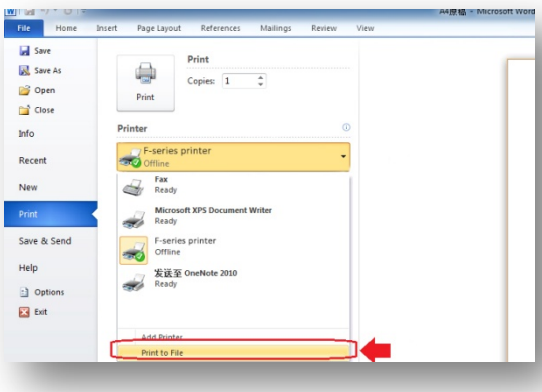
- For the single page, proceed directly to step [7] to print.
- For the duplicate pages, click [Print All Pages] and then click [Print Current Page] on the display.
- Specify the page number to be printed and confirm it with the image displayed on the right side of the screen.



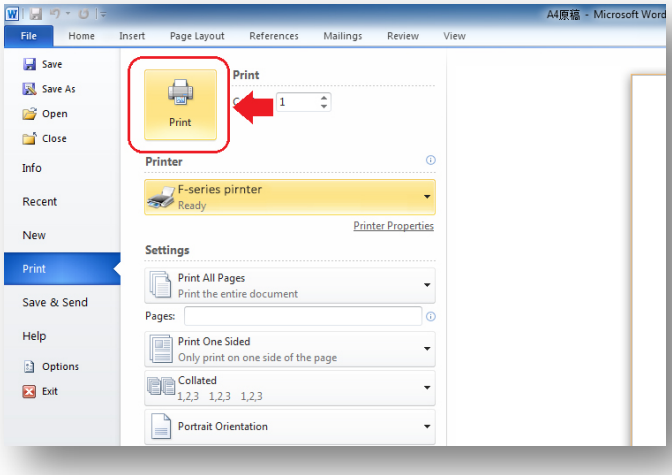


8. Click [Printer Name] under [Printer] again, and click [Print File].

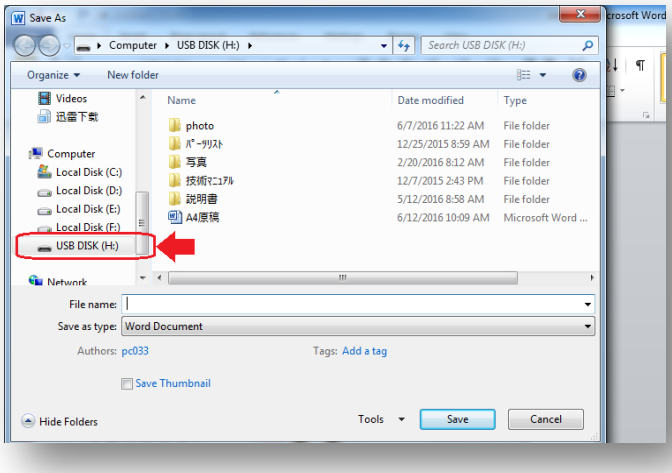




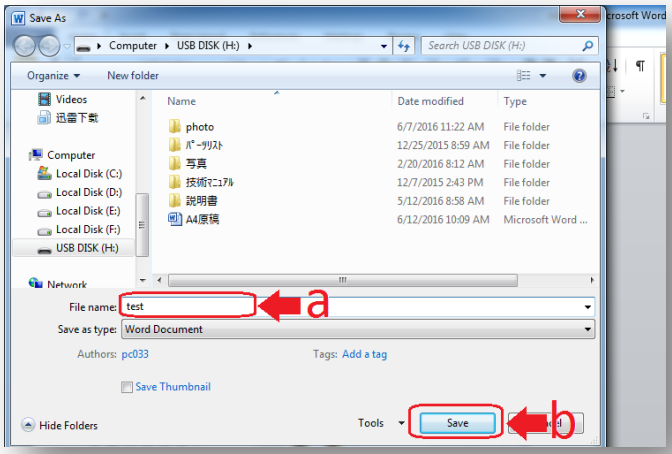
9. Click [Print].



10. Choose the USB drive where the data is saved.



11. Enter a file name, and then click [OK].



The file name needs to be [half-width English letters/numbers]. The printer display can only display up to 17 digits, so please pay attention to the length.

Files saved in a USB flash drive can have multiple different extensions (.pdf/.doc/.xlsx, etc.), but this machine only displays and uses the specific extension [.prn].

To avoid data corruption, it is recommended to back up your files.

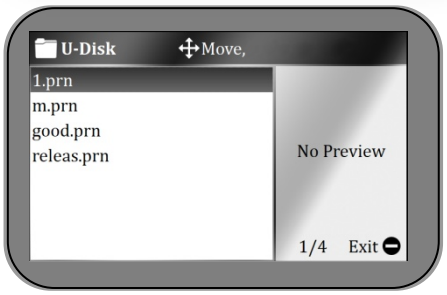
Print directly via USB flash drive



1. Turn on the power of the machine.
   - If a fault message is displayed, please troubleshoot it first.

2. Insert the USB drive containing the print data into the machine.

Cheak (☛ the Names and Functions of Each Part (P. 28)



3. The data in the USB flash drive will be displayed.

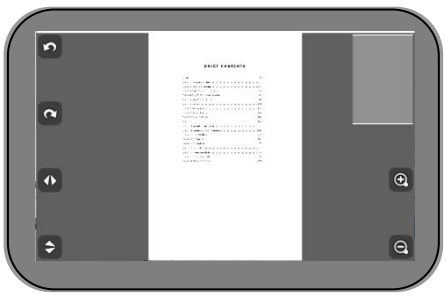
- ➢ It takes some time to read the data from the USB drive.
- ➢ As mentioned above, the machine will only display [.prn] format files.
- ➢ Storing fewer files in the USB drive can speed up the reading process.

4. The background color of the selected file will change. Use [▽] or [△] to select.



5. After pressing the [OK] button, the file preview screen is displayed on the screen.





Cheak (☛ Image Preview Interface (P. 88)

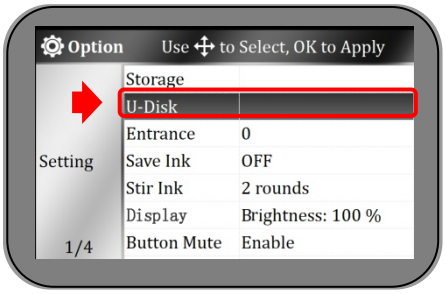
6. Press the [Master Making] button and the machine starts.



The USB drive has inserted, but the display is blank

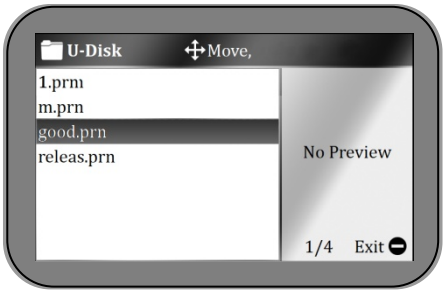
1. Press the [Set] button in the number area to enter the settings screen and select the [U-Disk] item.
   ・The second item from the top is [U-Disk].





2. Press [OK] and it will be displayed.





To prevent accidental data loss, please back up the data in the USB flash drive.

Printing failure may occur due to computer problems, improper data settings and save status, etc.

The data in the USB flash drive must be converted by the machine driver, otherwise the machine cannot print.

Common Malfunctions

This chapter will give examples of some common faults. When the machine fails or is in poor condition, you can try to handle it yourself according to the content or index of this chapter.

If the situation does not improve, or the problem occurs frequently after trying to repair it, please contact your local agent as soon as possible or consult our company directly.

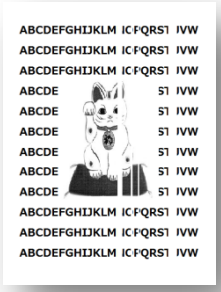
The power does not turn on



・ Is the power cord connected?
・ Is the power plug inserted into the socket?
・ Is the socket powered?

Cheak How to install the power cable (P. 35)

White lines appear in the vertical direction of the printed paper



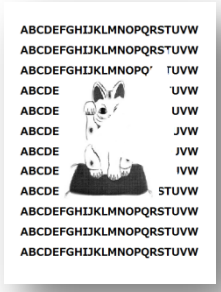
・ Is there any stain in the scanned area?

Please contact the company's after-sales department.

Incomplete printing

(Uneven printing is not counted here)

・ Are there any stains on the glass scanning table or the original?



Cheak How to place the original (P. 41)

・ Is there any foreign object on the drum?

Please check the condition of the drum surface. If there is a foreign object attached between the master and the drum, remove the master attached to the drum before attempting to remove the foreign object.

Cheak Manually removing the master from the surface of the drum (P. 145)

Stains on the front edge of the paper

・ Are there stains on the glass scanning table, originals, or original covers?



Cheak (☛) How to place originals (P. 41)

・ Printing a large number of copies at once?

The master is very thin. When printing continuously and in large quantities, the master may break. If you would like to print a large number of copies at one time, please do master making in the middle of the process properly.

・ Is the printing position adjusted too far to the left or right?

Cheak (☛) Adjustment of printing position/adjustment to left and right (P. 51)

The overall background color of the printed paper is too dark

・ Is the original made of recycled paper or newspaper?



Cheak (☛) Background color removal (P. 61)
Change original mode (P. 63)

・ Have the settings been changed?

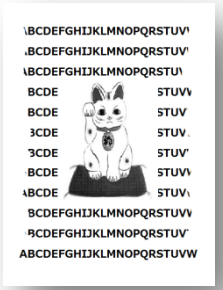
Cheak (☛) Background color removal (P. 61)

・ Is the temperature of the environment too low?

If the temperature outside the machine is low, the light of the scanning light source will dim, making the printed content darker overall.

Cheak (☛) About the use environment (P. 17)

The printing is incomplete at both ends of the paper (left and right)



・ Is there any master roll or printing paper on the printing roller (under the drum)?

The printing roller is directly under the drum, please remove the drum to check.

Cheak (☛) How to remove and install the drum (P. 102)

・ Has the machine not been used for a long period?

If the machine has not been used for a long time, the ink on the drums may condense, resulting in new ink not being easily supplied or delivered.

Blurred print

・ Has the machine not been used for a long period?

If the machine has not been used for a long time, too much ink may condense or build up on the surface of the drum. Restart printing in such circumstance and it should gradually return to normal after a certain number of prints.

・ Is the ink used sitting for a long time?

Black inks generally have a shelf life of one and a half years, while colored inks are even shorter. If left for too long, the ink components will separate, thus affecting the printing quality.

Cheak Precautions for Using Ink (P. 95)



・ Are the settings wrong? (e.g., printing concentration)

If the mode set does not match the original, the print quality may be affected.

Cheak Adjustment of printing concentration (P. 55)

・ Is there a quality problem with the paper?

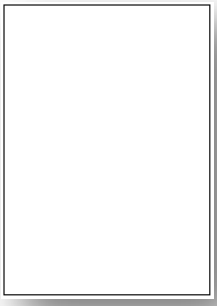
For recycled paper, straw paper, glossy paper, etc., ink bleeding may occur more easily.

Cheak About printing paper (P. 19)

・ Is there a lot of dust on the printing paper?

Paper dust may adhere to the surface of the master making during the printing process, when this happens, please do the master making again.

No printing at all



・ Is there any printed paper on the drum surface?

Check the condition of the drum surface and remove it if there is a foreign object (e.g., the print paper is wrapped around the drum in its entirety).

Cheak Manually removing the paper from the surface of the drum (P. 145)

・ Is the master installed correctly?

Incorrect installation orientation and release lever position of the master may cause printing to malfunction.

Cheak Installation of the master (P. 96)

Uneven printing



・ Has the machine not been used for a long period?

If the machine has not been used for a long time, too much ink may condense or build up on the surface of the drum. Restart printing in such circumstance and it should gradually return to normal after a certain number of prints.

・ Less prints after master making?

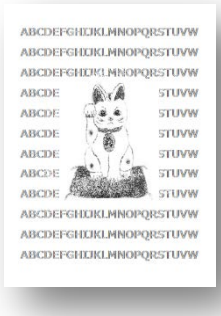
It is normal for uneven printing to occur after master making, and the printing will generally return to normal after several trial printings.

・ Is there any master roll or printing paper on the printing roller (under the drum)?

The printing roller is directly under the drum, please remove the drum to check.

Cheak The removal and reinstall of the drum (P. 102)

The overall printing is light



・ Is the machine used in a low temperature environment?

Ink flows slowly at low temperatures. Please adjust the printing pressure, turn up the concentration, and then do the master making again.

Cheak Adjustment of printing concentration (P. 55)
Adjustment of printing pressure (P. 58)

Important If the temperature is too low, printing results may not be satisfactory even if a more intense master making mode is selected. Please consider raising the ambient temperature where the machine is located.

・ What is the current master making mode?

In order to prevent the image from mushy, the image and text/image modes will print lighter than the actual original.

Cheak Change the master making concentration (P. 63)

・ Is ink saving mode turned on?

If it is on, please turn it off and do the master making again.

Cheak About the ink saving mode (P. 82)

・ Has the machine not been used for a long period?

If the machine has not been used for a long time, too much ink may condense or build up on the surface of the drum. Restart printing in such circumstance and it should gradually return to normal after a certain number of prints.

The overall printing is dark

・ Is the machine used in a high temperature environment?

Ink flows actively at high temperatures. Please adjust the printing pressure, turn down the concentration, and then do the master making again.



Cheak Adjustment of printing concentration (P. 55)
Adjustment of printing pressure (P. 58)

If the temperature is too high, printing results may not be satisfactory even if a less intense master making mode is selected. Please consider lowering the ambient temperature where the machine is located.

・ What is the current master making mode?

The text mode will print darker than the actual original.

Cheak Change the master making concentration (P. 63)

・ Did the printing paper roll up on the drum and stop the machine?

If this issue has happened, it may make the machine more susceptible to ink bleeding in the following printing. Please check the results of the test print, if it is not good, do master making several times.

Cheak
- About the original (P. 18)
- About the margins (P. 21)
- Adjust the printing position (P. 51)
- Adjust the printing concentration (P. 55)
- Original Scaling (P 65)

・ Is the ink used sitting for a long time?

Black inks generally have a shelf life of one and a half years, while colored inks are even shorter. If the ink is stored for too long, the ink concentration will change, making it easier to penetrate the paper, resulting in an overall thicker printing effect.

Printing backend content overflows

・ Is the size of the original used too large?

If there is a lot of printed content at the back of the paper, it will have a certain impact on paper discharge or printing quality. For such originals, please make some adjustments before printing, such as reducing the original ratio/adjusting the printing position forward/speeding up the printing speed/adjusting the height of the paper support, etc.

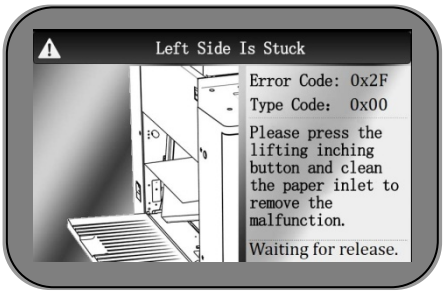


Cheak
- About the original (P. 18)
- About the margins (P. 21)
- Adjust the printing position (P. 51)
- Adjust the printing speed (P. 54)
- Original scaling (P. 65)

・ Is special paper used?

For colored paper (such as art paper, glossy paper, etc.), the ink will not dry easily, making it more likely to cause printing problems.

Cheak About the printing paper (P. 19)



Frequent paper feed jams

・ Check the paper pressure at the feeder

Cheak Settings of paper feeding pressure (P. 37)

・ Are you printing on both sides?

Paper that has been printed on is easily affected by ink and static electricity. Please place the paper that has been printed on one side on a flat surface to dry before printing.

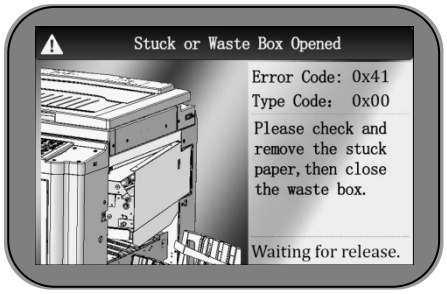
・ Does the printing paper meet the requirements?

For creased or bent paper, manually correct it before placing it on the paper feed table. Especially for postcards, carefully arrange them flat and aligned before placing.

・ Is the paper feed roller (BOM code: 3.06.03.003) worn?

The paper feed roller is considered a consumable part, and its wear will affect paper feeding. If it is excessively worn, please replace it as soon as possible.

Frequent paper out jams



・ Are you printing on both sides?

Paper that has been printed on is easily affected by ink and static electricity. Please place the paper that has been printed on one side on a flat surface to dry before printing.

・ Are you printing on both sides?

Paper that has been printed on is easily affected by ink and static electricity. Please place the paper that has been printed on one side on a flat surface to dry before printing.

・ Does the paper-out side of the machine face towards a place with strong light or direct sunlight?

A light sensor is installed on the paper-out side of the machine to detect the paper output status. If the external light is too bright, it may interfere with the sensor and cause an error.

・ Is there any printed paper or other foreign matter wrapped around the printing roller under the drum?

Please remove the drum to confirm.

Cheak The removal and reinstall of the drum (P. 102)

・ Is the paper receiving table installed properly?

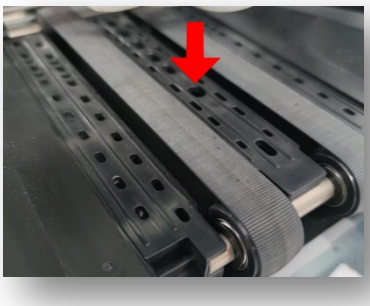
If the position of the positive stopper of the paper receiving table or the wide or narrow gap of the guide plate is not adjusted properly, the discharged paper may be affected.

Cheak Installation of the paper receiving table (P. 39)

・ Is there any wind near the paper receiving table?

Since paper is very light, even a slight breeze may cause an error message when the paper is ejected at high speed.

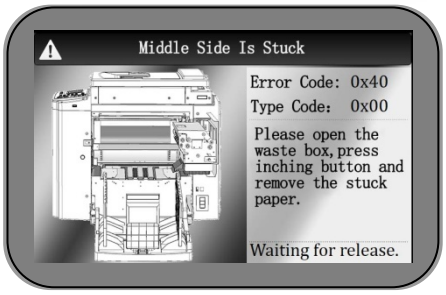
・ Is there any stain on the sensor?



Open the disposal box first. The [right paper jam sensor] is located between the middle and the right belt of the three paper delivery belts. There is a hole here that is slightly larger than the others. The sensor is located below this hole.

Clean up the sensor carefully with a soft cloth or paper towel.

Frequent paper mid jams



・ Is the paper feed pressure appropriate?

Cheak Settings of paper feed pressure (P. 37)

・ Are you printing on both sides?

Paper that has been printed on is easily affected by ink and static electricity. Please place the paper that has been printed on one side on a flat surface to dry before printing.

・ Does the printing paper meet the requirements?

Paper that is too thin or too soft and below the minimum grammage requirement is easily stuck to the ink. Please do not use.

Cheak About the printing paper (P. 19)

・ Are the page margins too narrow? (Or, is the origin too large?)

If the original is too large, use the Zoom Original function before master making. Due to different settings, the printed content may be brought forward as a whole, resulting in narrower front margins and, in some cases, paper jams.

Cheak About the original (P. 18)
About page margins (P. 21)
Adjust the printing position (P. 51)
Original scaling (P. 65)

・ Too many bold letters in the original?

Even if the margins are wide enough, if the original has a lot of bold type or if the original has large photographs, the paper may not print well because of too much ink. Before printing such originals, adjust the master making density and replace the paper with thicker paper.

Cheak Adjust the printing density (P. 55)

Scratches on the front of the paper

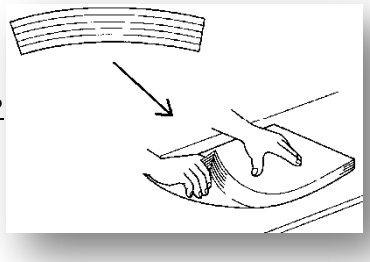
・ Does the printing paper meet the requirements?

Paper that is too thick or has a poor cutting surface may cause the paper to break during printing.

Cheak About the printing paper (P. 19)

・ Is there any bending of the printing paper?

This tends to occur when the paper is deformed, especially when it is bent downward. Please try to correct the shape of the paper before placing it.

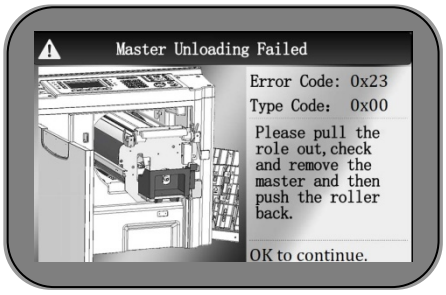


・ Is the separator pad accessory (BOM code: 2.03.06.147 for this model) damaged?

If worn, please replace it as soon as possible.

Frequent master unloading failures

(The master has been successfully unloaded, but the machine still stops running and reports an error)



・ Has the machine or drum been unused for a long time?

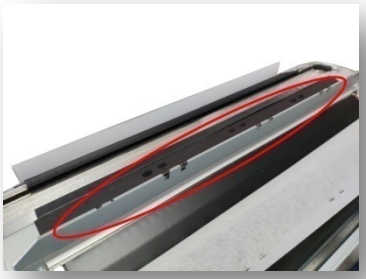
If the machine or the drum has not been used for a long time, after the first start-up, the remaining ink will stick the master on the drum, making it difficult to remove.

Cheak Manually remove the master from the roller surface (P. 145)

・ Is there any ink or oil stain on the roller's fixture?

Dirt stuck here will cause abnormality, please manually remove the master on the roller surface and then clean this accessory.

Cheak Manually remove the master from the roller surface (P. 145)

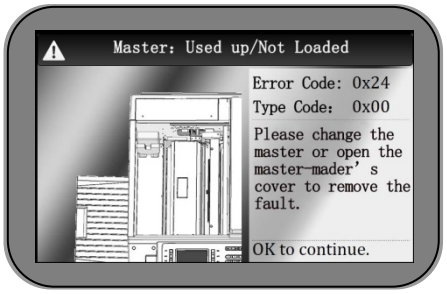


・ Is there any master stuck in the disposal box or the inner part?

Remove the waste paper box to confirm the specific situation.

Cheak Disposal of waste master (P. 100)

Frequent "Master used up or failed to upload master" failure

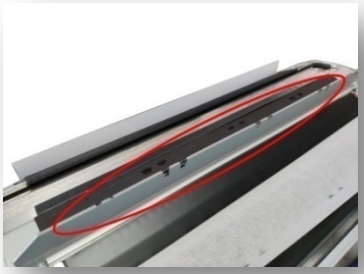


・ Is there any ink or oil stain on the roller's fixture?

Dirt stuck here will cause abnormality, please manually remove the master on the roller surface and then clean this accessory.

Cheak Manually remove the master from the roller surface (P 145)

・ Remove the master installed on the machine and confirm the bending condition



Masters are very thin and highly susceptible to the storage environment. Try to replace the wax master when there are frequent master-loading failures.

Cheak Replacing the master roll (P. 96)

Common malfunctions during online printing

・ When printing, [Offline] is displayed and printing cannot be performed.

The default setting of this machine is [Offline setting].

Click [Start] → [Devices and Printers], double-click [F-series printer] in the window, click [Printer (P)] in the upper left corner, and change the status of the all-in-one machine to [Printer online use (U)] to cancel the offline setting.

・ Network connection failed

The printer's IP address may have changed. Please follow the previous steps to reconfirm the current IP address of the machine.

・ Printing failed when connecting the USB power cable

It may be that the USB port has a temporary problem. Try changing the port or restarting.

・ The printing result deviates from the actual data

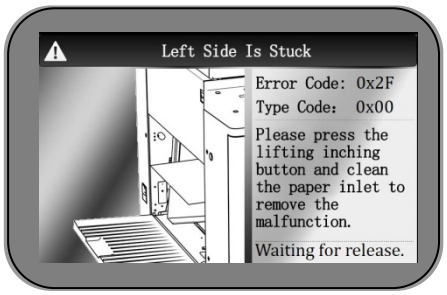
The printer driver is set incorrectly. Please refer to the previous content to reinstall the driver.

・ When using the USB flash drive printing function, the file name cannot be displayed on the machine operation screen

The file name may use characters that the machine cannot read. It is recommended to use half-width English and numbers when naming.

Solutions for Common Malfunctions

Left paper jam



Left paper jam refers to an issue in which the printed paper gets stuck just as it is rolled into the machine.

i)Lower the paper feed table.

- The paper feed table lifting button is on the right side of the paper feed table.



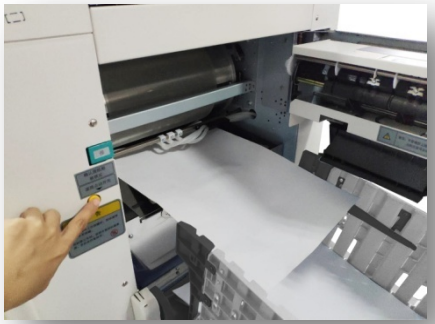
ii)Clear the jammed paper

If the paper does not feed forward too far, you can pull the paper out directly from the paper feed side. If most of the paper is rolled into the inside of the machine, pull the paper out horizontally from the pickup roller.



iii)Arrange the paper feed table.

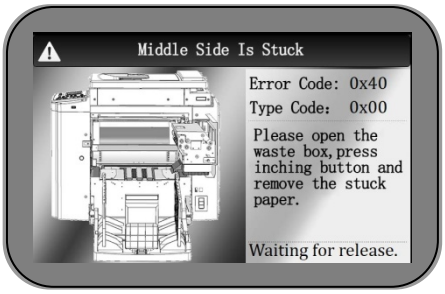
Hints When the jammed paper cannot be removed manually, press the [Rotate Drum Button] to move the paper and then remove it.



Cheak Names and functions of each part (P 28)

Cheak Frequent paper feed jams (P. 138)

Mid paper jam



Mid paper jam refers to an issue in which the printed paper gets stuck during printing.

i) Press the disposal box switch button to open the disposal box.



ii)Press the [Drum Rotate Button] and slowly remove the paper.



Please note that when the drum rotates, the disposal transfer belt will also rotate.

iii) After removing the paper, continue to hold down the [Drum Rotation Button] until a light [Pong] sound is heard. The drum will automatically stop at a certain position.



iv)Close the disposal box

Even if there is no paper on the drum surface, sometimes it is still necessary to pull out the drum to deal with the jammed paper.



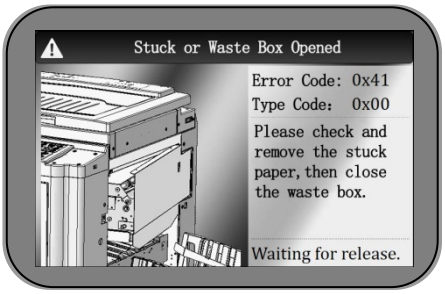
Cheak The removal and reinstall of the drum (P. 102)

Cheak Names and functions of each part (P. 25)

Cheak Frequent paper mid jam (P 139)

Right paper jam

Mid paper jam refers to an issue in which the printed paper gets stuck while being ejected from the machine.

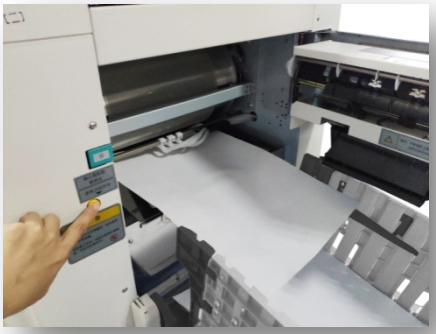


i) Press the disposal box switch button and open the disposal box.



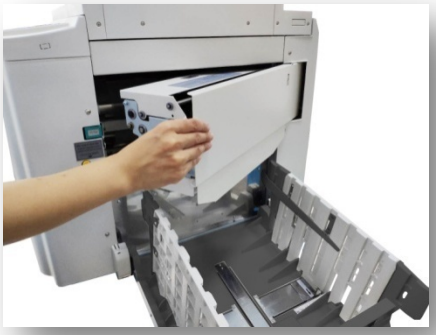
ii)Press the [Drum Rotate Button] and slowly remove the paper.

Please note that when the drum rotates, the disposal transfer belt (BOM code: 3.06.03.021) will also rotate.



iii) After removing the paper, continue to hold down the [Drum Rotation Button] until a light [Pong] sound is heard. The drum will automatically stop at a certain position.

iv)Close the disposal box

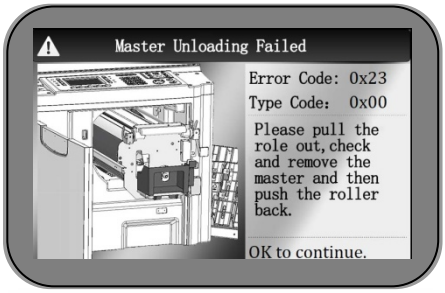


Cheak Names and functions of each part (P. 25)

Cheak Frequent paper out jam (P. 138)

Master unloading failure

Master unloading failure refers to an issue in which the master has stuck on the drum for some reason. Due to the shelf life of the ink or master, climate, master making concentration, etc., this may not be a malfunction.



a) Open the front cover

- Please operate the machine after it has stopped running.



b) Pull up on the drum mounting handle in order to unlock the drum



c) Pull out the drum

- Pull out the drum slowly, and when you pull it to the outermost side, the drum will catch on the brake to avoid a sudden smash.

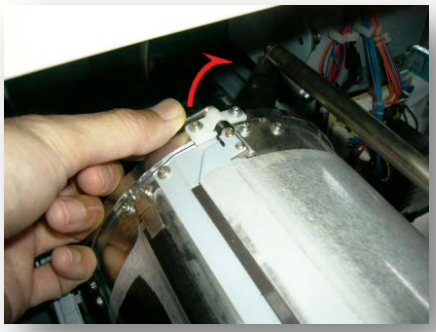


d) Find the clamp cover (BOM code: 2.03.06.321 for this model) to open the fixture (BOM code: 3.06.03.030 for this model).

- The clamp cover handle is at the inner side of the drum.



e) Lift the clamp cover handle and open the fixture

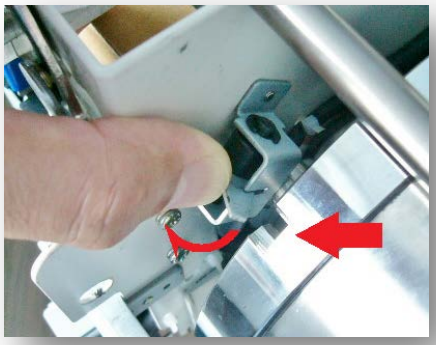


f) Remove the stuck master

The master may automatically warp up.



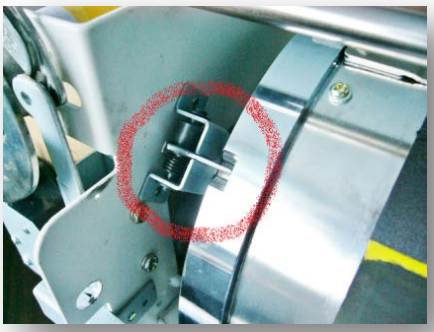
g) Unlock the drum handle and turn the drum slightly & counterclockwise



h) Follow the rotation of the drum and remove the entire master gently and smoothly



i) After removing the master, continue to rotate the drum, until it reaches the locking position



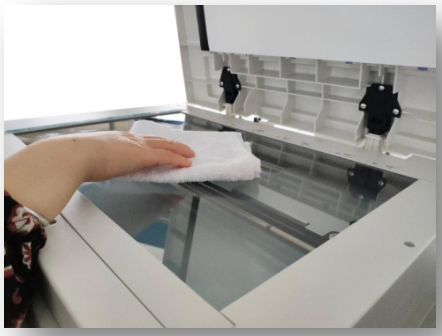
j) Reinstall the drum in the reverse order of the above steps



Cheak The removal and reinstall of the drum (P. 102)

Daily Maintenance

In order to use the machine comfortably, customers can do some simple cleaning on the machine by themselves. When operating, please be sure to cut off the power supply.



Cleaning the scanning table glass

- The scanning platen is a high-precision component. Avoid being hit by hard objects or scratched by sharp objects. Please use a soft cloth or toilet paper to wipe it.



Cleaning the scanning table cover

- Please use a soft cloth or toilet paper to wipe it.



Cleaning the printing roller (BOM code: 2.03.06.234 for this model)

- Please remove the drum before cleaning the printing roller.
- The ink may remain on the printing roller, please be careful.



Cleaning the casing

- Please use a soft cloth or non-woven wipes.

Warning

- Be sure to turn off the power switch and unplug the power plug before cleaning to avoid accidental fire or short circuit.
- Please wring out the cloth before wiping, and do not allow water or detergent to flow into the machine, especially sensitive parts such as circuit boards. If it flows into the machine, do not start it and contact the dealer immediately.
- When wiping off dust, use a soft cloth, water, and a neutral solvent. Do not use alcohol or organic solvents, as the latter may discolor or damage the casing.

Appendix

Thank you very much for purchasing our products! If you encounter any problems during use, please contact your local dealer or send an email to our company.

We promise that even if the models are discontinued, the supply of related spare parts and consumables is still available within at least 5 years.

Statement of Product Recycling and Reuse

Our products contain recyclable, reusable and re-resourced parts and materials to promote the development of the circular economy and support environmental protection. To facilitate your recycling, you can contact your local dealer.

If you find that the product has serious quality problems, or any situation that may endanger or harm the health of the user, please contact the local dealer immediately. Our company will strictly implement the product recall procedure and assist in handling it.

Statement of Consumable Purchasing and Disposal

Please contact your local dealer to order consumables.

The disposal of used ink cartridges, masters or accessories should follow the regulations of your local community, or you can contact your local dealer to recycle them.

Notice

1. Please use the consumables specified by our company.
2. Please store consumables properly according to the instructions on the package.
3. Do not store consumables in the following locations:
   - Location exposed to direct sunlight or a bright location near a window
   - Location with drastic temperature changes
   - Location that is too hot and humid or too cold and dry

Warning

1. If the ink you use is not our company's product, malfunction may occur;
2. Please keep the ink out of the reach of children;
3. Please store the ink in a cool, dry place, and avoid heat or direct sunlight;
4. When replacing ink cartridges, be careful not to stain your clothes or hands;
5. When handling used ink cartridges, replace the ink cap to prevent ink from splashing;
6. If ink accidentally gets into your eyes, please rinse immediately with running water; if you still feel unwell, please seek medical attention as soon as possible.

Name or content of toxic and hazardous substances or elements in the product

Marking for control of pollution caused by electronic	Accessory name		Toxic and hazardous substances or elements					
			Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
	Machine	Shell	○	○	○	○	○	○
		Assembled substrates	×	○	○	○	○	○
		Chassis, shaft, etc.	×	○	○	○	○	○
	Power cable		○	○	○	○	○	○
	CD-ROM		○	○	○	○	○	○
	Ink		○	○	○	○	○	○
	Master		○	○	○	○	○	○

○:The content of the toxic and hazardous substance in all homogeneous materials of this component is below the limit requirements specified in GB/T26572-2011 "Requirements of concentration limits for certain restricted substances in electrical and electronic products".

×:The content of the toxic and hazardous substance in at least one homogeneous materials of this component exceeds the limit requirements specified in GB/T26572-2011 "Requirements of concentration limits for certain restricted substances in electrical and electronic products".

Marking for control of pollution caused by electronic information products:

- This mark applies to electronic information products sold in the People's Republic of China. The arrow indicates that the product is a recyclable electronic information product, and the number in the circle indicates the environmentally friendly use period of the product.
- As long as the safety or usage precautions of this product are followed, it will not cause serious pollution to the environment or cause serious damage to people or property from the date of manufacture to the specified period.

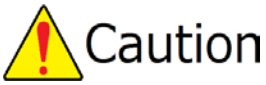
Technical specifications

Model	FR-8351	FR-8451
Operation mode	Scanner mobile scanning, thermal master making, memory print, A3 scan, B4 print	Scanner mobile scanning, thermal master making, memory print, A3 scan, A3 print
Operator interface	5-inch LCD screen	
Original type	Sheet, book & magazine (<= 10kg), two-in-one	
Image processing mode	Text, text>image, image, image>text, newspaper, screen, pencil	
Original size (min/max)	Min: 50mm × 90mm, Max: 310mm × 432mm	
Printing area (max)	252mm × 380mm	291mm × 420mm
Paper size (min/max)	Min: 90mm × 140mm, Max: 310mm × 432mm	
Master making speed	17 sec (B4vertical)	18sec (A3 vertical)
Resolution	300 × 600dpi (Scan: 600 × 600dpi, print: 300 × 400dpi)	
Print zoom ratio	Common zoom ratio: 71%, 81%, 87%, 94%, 115%, 122%, 141% Step-less zoom: 50% - 200% (1%precision)	
Paper weight (min/max)	40g/㎡- 210g/㎡	
Paper feeding capacity	1,000 sheets (70g/㎡)	
Paper receiving capacity	1,500sheets (70g/㎡)	
Print speed	5 levels (60, 80, 100, 120, 140 ppm), max 160 ppm	
Image positioning	Horizontal: ±10mm, Vertical: ±10mm	
Scan concentration	Lightest, lighter, standard, stronger, strongest	
Master making concentration	Lightest, lighter, standard, stronger, strongest	
Disposal box capacity	60 sheets	
Ink supply	Auto (600ml/unit)	
Master supply	Auto (90m/roll)	
Power supply	220V, 50Hz, 2A	
Rated input power	210W	
Paper feeding system	Auto	
Weight	Net weight: 95kg, gross weight: 127kg	
Size (L × W × H)	Storage size: 670 × 720 × 630 mm, working size: 1310 × 720 × 630 mm	

Features	Online printing, USB printing, LAN printing, ink saving mode, pencil mode, newspaper mode, screen mode, multiple copies in one, book shadow elimination, paper edge elimination, background color removal, grouping function, original auto detection, original scanning length adjustment, master length adjustment, master pressure auto clutch release, paper out buffer, auto ink distribution, paper arching adjustment, screen brightness adjustment, silent mode, image rotation & mirror printing, print quantity memory, password mode, confidentiality function, consumable exhaustion notice, error info notice, engineering mode, energy saving
Optional features	Auto off, auto print pressure adjustment
Optional accessories	Paper separator (BOM code: 2.03.06.184), drum, base stand cabinet



The above contents are subject to change without prior notice



This manual describes the instructions and precautions on how to operate and use this device.For safe, long-term and efficient use of this device, please read carefully before use.



Ningbo Rongda Imagine&Intelligent Manufacture Technology Co.,Ltd

Address: No.928 Chengxin Road, Yinzhou District, Ningbo, China
Tel: 0574-8823 1666
Fax: 0574-8823 2058
Official website: http://en.nbrdc.com

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