INTRODUCTION

This manual contains detailed instructions on the operation and care of this machine. To get the maximum versatility from this machine, all operators should read and follow the instructions in this manual. Please keep this manual in a handy place near the machine.

SAFETY INFORMATION

When using your machine, the following safety precautions should always be followed.

Safety During Operation

In this manual, all safety messages are identified by the words “WARNING” and “Caution”. These words mean the following:

WARNING:
Important information to alert you to a situation that might cause serious injury and damage to your property if instructions are not followed.

Caution:
Important information on how to prevent damage to your equipment, or how to avoid a situation that might cause minor injury.

– WARNING –

- ***Do not modify or replace any parts other than the ones specified in this manual.***
- ***Since some parts of the machine are supplied with high voltage, touch only the parts specified in this manual.***
- ***Do not operate the machine without covers. You might get your fingers caught in the machine, or the machine might be damaged because for example dust or the like might get inside it.***
- ***Since some parts of the machine are sharp and might cause injury, touch only the parts specified in this manual.***

– Caution –

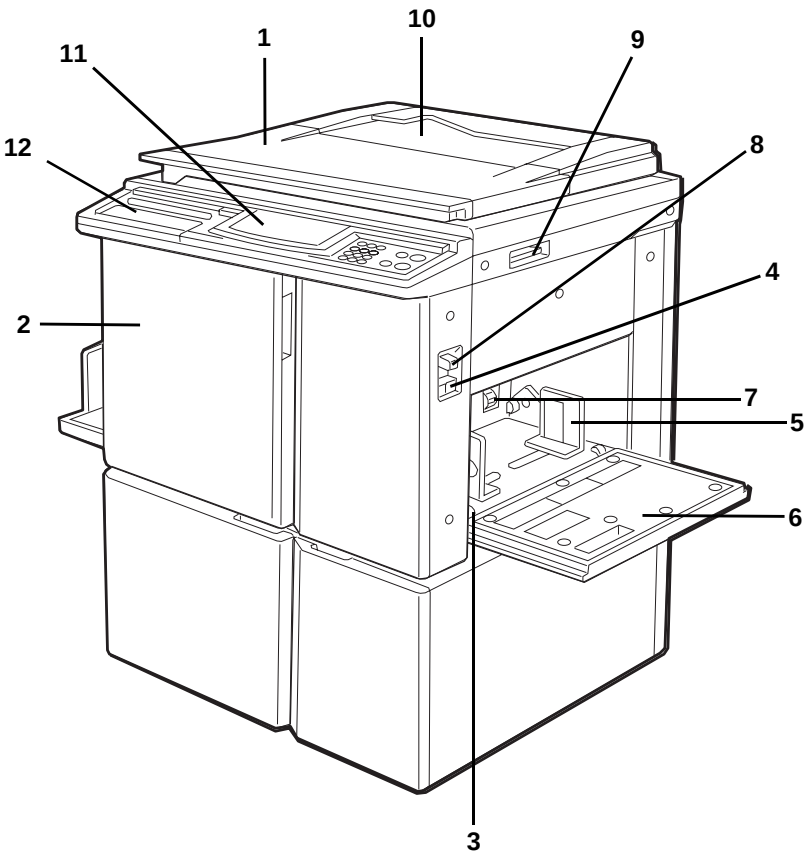
- ❒ While printing, do not turn off the main switch.
- ❒ While printing, do not open the door or covers.
- ❒ While printing, do not unplug the power cord.
- ❒ While printing, do not move the machine.
- ❒ Keep corrosive liquids, such as acid, off the machine.
- ❒ Do not allow paper clips, staples, or other small objects to fall inside the machine.
- ❒ Open and close the door and covers softly.
- ❒ Do not put anything except originals on the machine.
- ❒ Do not spill liquid on the machine.
- ❒ When you open or close the door or covers, don't let go of them.
- ❒ If you clean rubber parts with benzine, wipe them with a dry cloth afterwards.

General Safety Information

- ❒ Always turn the machine off when you have finished printing for the day.
- ❒ When the machine will not be used for long periods, disconnect the power cord.
- ❒ If the machine must be transported by vehicle, please contact your service representative.

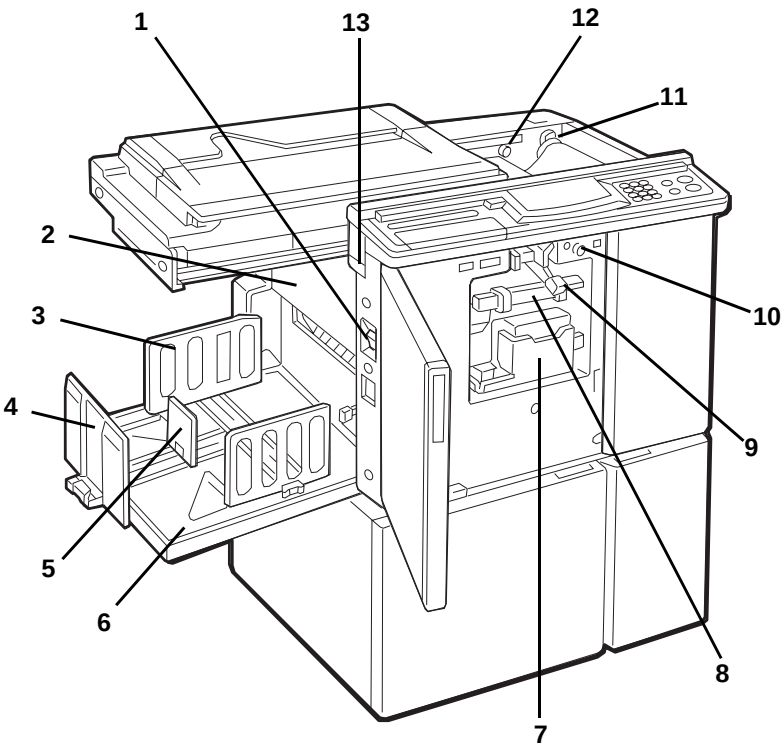
GUIDE TO COMPONENTS

Machine Exterior



1.	**Platen Cover**	Lower this cover over an original before printing.
2.	**Front Door**	Open for access to the inside of the machine.
3.	**Side Plate Fine Adjusting Dial**	Use to shift the paper feed table sideways.
4.	**Paper Feed Table Down key**	Press to lower the paper feed table.
	or	
	Change Paper key	When you have an optional large capacity tray, this key is used to remove paper.
5.	**Paper Feed Side Plates**	Use to prevent paper skew.
6.	**Paper Feed Table**	Set paper on this table for printing.
7.	**Separation Roller Pressure Levers**	Use to adjust the separation roller pressure to prevent double feed.
8.	**Feed Roller Pressure Lever**	Use to adjust the contact pressure of the paper feed roller according to paper thickness.
9.	**Original Table Release Lever**	Use to open the original table unit when installing the master.
10.	**Original Holder**	Convenient place for holding originals while operating the machine.
11.	**Operation Panel**	Operator controls and indicators are located here. ☞ See page 6.
12.	**Behind Cover**	Open to access the **CS Mode** key and so on. ☞ See page 6.

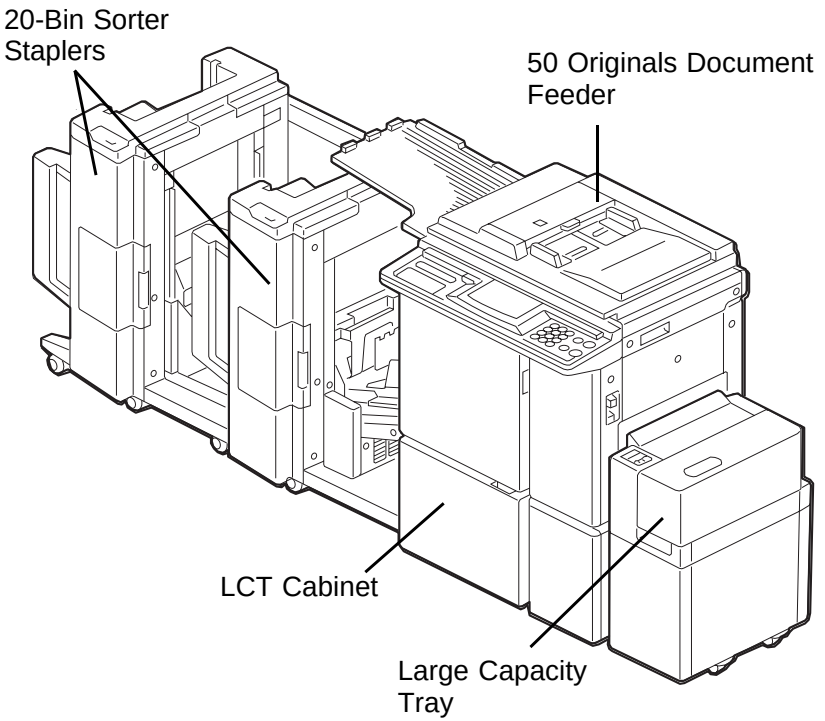
Machine Interior



1.	**Main Switch**	Use to turn the power on or off.
2.	**Master Eject Container Cover**	Open when removing the master eject box.
3.	**Paper Delivery Side Plates**	Use to align the prints on the paper delivery table.
4.	**Paper Delivery End Plate**	Use to align the leading edge of prints larger than A4, 8 1/2" x 11".
5.	**Small Size Paper Delivery End Plate**	Use to align the leading edge of prints that are A4, 8 1/2" x 11" or smaller.
6.	**Paper Delivery Table**	Completed prints are delivered here.
7.	**Ink Holder**	Set the ink cartridge in this holder.
8.	**Drum Unit**	The master is wrapped around this unit.
9.	**Drum Unit Lock Lever**	Lift to unlock and pull out the drum unit.
10.	**Drum Rotation Button**	Press to rotate the drum unit.
11.	**Pressure Release Lever**	Use to install the master roll.
12.	**Master Cut Button**	Press this button to cut the master leading edge after installing a new master roll.
13.	**Master Eject Unit Open Button**	Press to remove misfed paper or a misfed master.

Options

This machine can be provided with the following options:



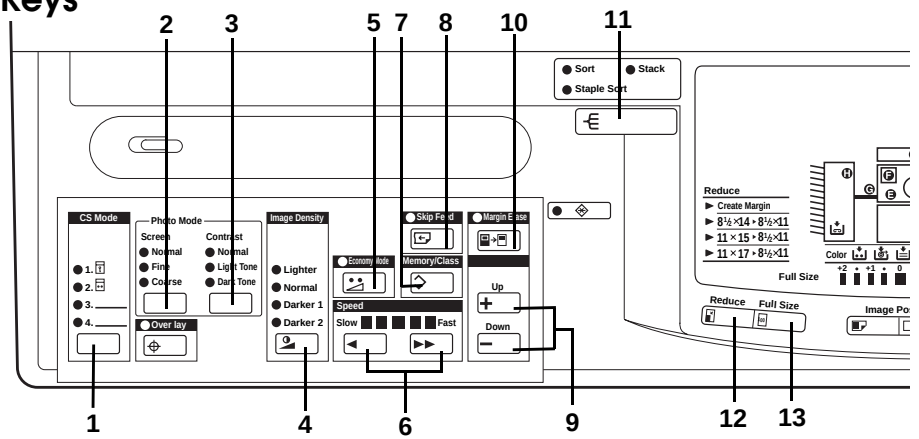
*Other options:
- 20 Originals Document Feeder
- Color Drums (red, blue, green, brown, yellow, purple, navy, and maroon)
- Tape Dispenser
- Key Counter
- Cabinet

❒ If you have sorter staplers and you want to have a document feeder, the 50 originals document feeder should be equipped with your machine.

❒ Sorter staplers and a tape dispenser cannot be equipped together.

Operation Panel

Keys



1. CS Mode key
☛ See pages 56 and 104.

2. Screen key
Press to select the screen image.
☛ See page 36.

3. Contrast key
Press to select the contrast.
☛ See page 36.

4. Image Density key
Press to make prints darker or lighter. ☛ See page 23.

5. Economy Mode key
Press to save ink. ☛ See page 37.

6. Speed keys
Press to adjust the printing speed.
☛ See pages 23 and 24.

7. Memory/Class key
Press to select Memory or Class mode. ☛ See pages 40 and 63.

8. Skip Feed key
Press to select skip feed printing.
☛ See page 51.

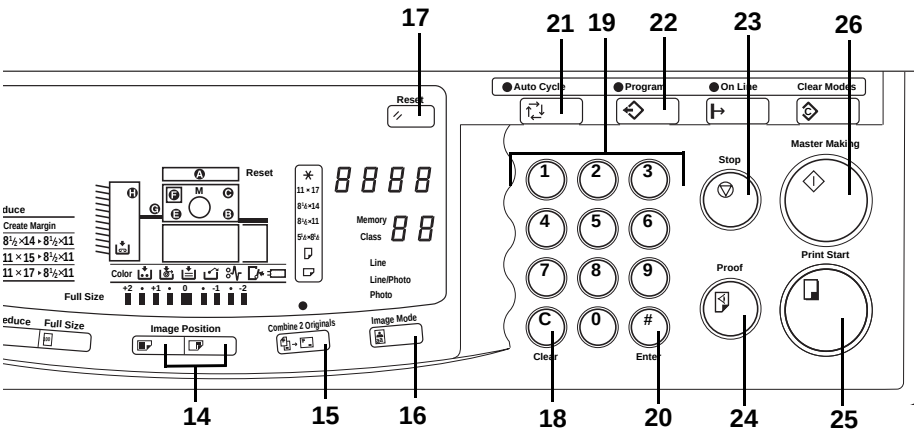
9. Up/Down keys
Press to select the size of margin erase or SP menu.

10. Margin Erase key
Press to print book originals that have a solid image on the edges.
☛ See page 31.

11. Sort key (for the optional sorter stapler)
Press to select Sort, Staple Sort, or Class Sort mode. ☛ See page 65.

12. Reduce key
Press to reduce the image.
☛ See page 26.

13. Full Size key
Press to make full size prints.



14. Image Position keys
Press to shift the image forwards or backwards. ☛ See page 21.

15. Combine 2 Originals key
Press to combine 2 originals onto 1 print. ☛ See pages 47 and 61.

16. Image Mode key
Press to select Line, Photo, or Line/Photo mode. ☛ See page 35.

17. Reset key
Press to reset error indicators. ☛ See page 140.

18. Clear key
Press to change the number set in the counter.

19. Number keys
Press to enter the number of prints and data.

20. Enter key
Press to input data into memory.

21. Auto Cycle key
Use to process the master and make prints automatically. ☛ See page 38.

22. Program key
Press to input or recall user programs. ☛ See page 53.

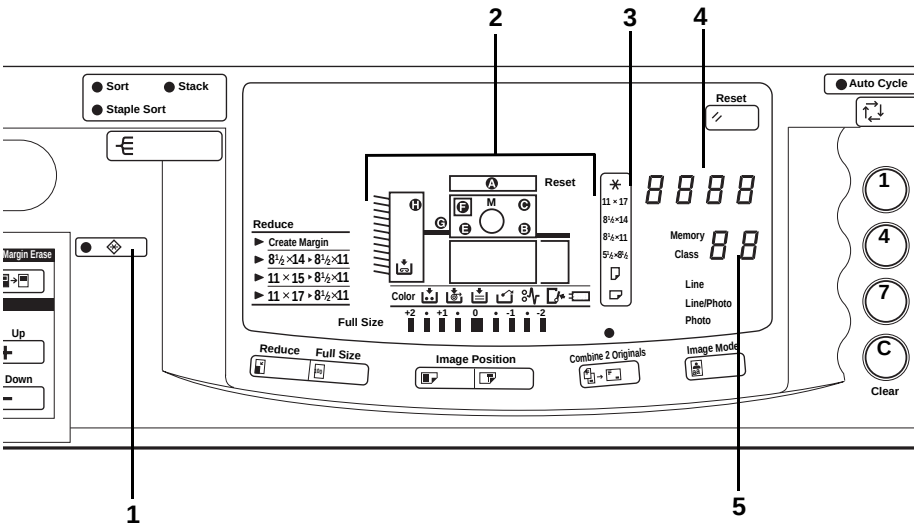
23. Stop key
Press to stop the machine operation.

24. Proof key
Press to make proof prints.

25. Print Start key
Press to start printing.

26. Master Making key
Press to make a master.

Indicators



1. Special Feature indicator
This indicator is lit when you press keys under the behind cover on the operation panel.

2. Monitors
The monitors light up or blink when a non-standard condition occurs within the machine. ☞ See page 135.

3. Paper Size and Direction indicators
Indicates print paper size and direction.

4. Counter
Displays the number of prints entered. While printing, it shows the number of prints remaining. Also, displays the machine's condition.

5. Memory/Class indicator
Shows the number entered in Memory mode or Class mode.

INSTALLATION REQUIREMENTS

The machine's location should be carefully chosen because environmental conditions can affect its performance.

Optimum Environmental Conditions

- ❒ Temperature: 10 – 30°C, 50 - 86°F
- ❒ Humidity: 20 – 90% RH
- ❒ A strong and level base (a sturdy desk and cabinet etc.).
- ❒ The machine must be level within 5 mm (13/64") both front to rear and left to right.
- ❒ Make sure to locate this machine in a large well ventilated room that has an air turnover of more than 30 m^3/hr/person.

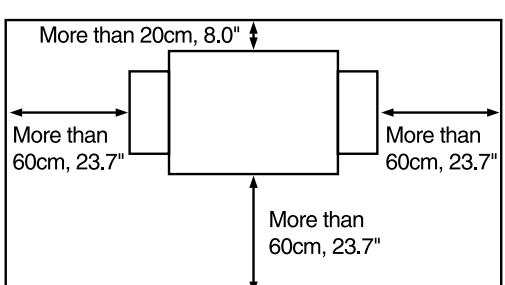
Environments To Avoid

- ❒ Direct sunlight or strong light (more than 1500 lux).
- ❒ Locations directly exposed to cool air from an air conditioner or heated air from a heater. (Sudden temperature changes from low to high or vice versa may cause condensation within the machine.)
- ❒ Dusty areas.

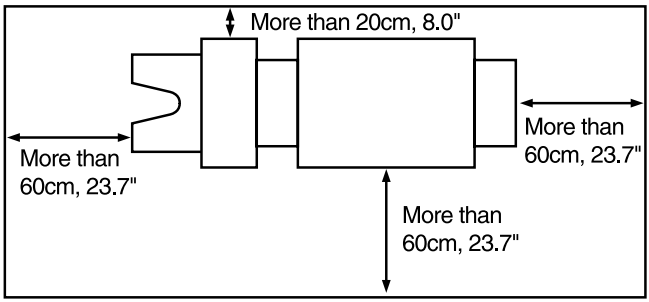
Access To The Machine

- ❒ Place the machine near a power source, providing clearance as shown.

Main Frame



Main Frame With Optional Sorter Stapler



Power Connection

Main Frame

- ❒ Securely connect the power cord to a dedicated 120 V, 50/60 Hz power source which supplies less than 3.5 A.
- ❒ Make sure the plug is firmly inserted in the outlet.
- ❒ Avoid multiwiring.
- ❒ Do not pinch the power cord.
- ❒ Make sure that the wall-outlet is near the machine and easily accessible.

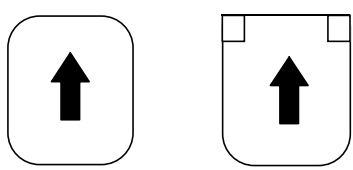
Optional Sorter Stapler

- ❒ Securely connect the power cord to a dedicated 120 V, 60 Hz power source which supplies more than 3.0 A.
- ❒ The socket out-let must be near this equipment and easily accessible.

OPERATION

Printing Paper

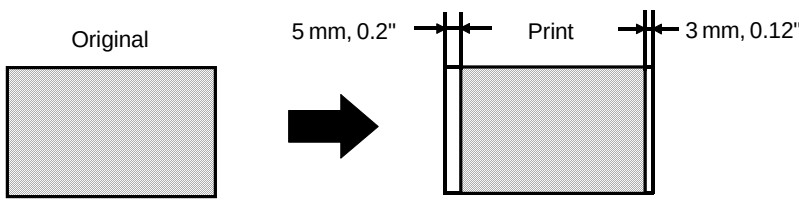
- ❒ The following types of print paper are not recommended for this machine.
  - Paper smaller than 90 mm x 148 mm, 3.6" x 5.9"
  - Paper larger than 297 mm x 432 mm, 11.6" x 17.0"
  - Paper heavier than 209.3 g/m^2, 55.6 lb
  - Paper lighter than 47.1 g/m^2, 12.6 lb
  - Roughly-cut paper
  - Paper of different thickness in the same stack
  - Buckled or curled paper
  - Short grain paper
  - Low stiffness paper
- ❒ A3 (297 x 420 mm), 11" x 17", originals or printing paper can be used but the maximum print area is 250 x 355 mm, 9.8" x 13.9". Select Reduce mode when you want to print the entire image of an A3, 11" x 17" original.
- ❒ Correct curls in the paper before setting it in the machine. When you cannot correct the paper curl, stack the paper with the curl face down. Otherwise the paper might wrap around the drum or stains might appear.
- ❒ Store paper where it will not curl or absorb moisture. Use paper soon after it is unpacked.
- ❒ Only use paper where the leading edge has two right angle corners, as shown below.



Originals

- Under the following conditions, the machine might not detect the original on the exposure glass. If you press the **Master Making** key again, the machine will start making a master anyway.
  - When you set a dark original on the exposure glass.
  - When the original is not centered according to the size marks on the left scale.
  - If you do not open the platen cover at an angle of more than 25 degrees with the exposure glass when you replace originals.

- The maximum original size you can set on the exposure glass is 307 x 432 mm, 12" x 17".
- If you use paste-up originals, make sure the pasted parts hold firmly to the base sheet. If the thickness of the paste-up original is more than 0.2 mm, 2/250" and the space between the pasted parts is less than 2 mm, 2/25", a shadow might appear on the prints.
- If you use originals that have bold letters or solid images at the leading edges, you might get prints with dirty edges. In this case, insert the widest margin first, or raise the printing speed.
- The first 5 mm, 0.2" of the leading edge and the last 3 mm, 0.12" of the trailing edge cannot be printed. Make sure the leading edge margin is at least 5 mm, 0.2" and the trailing edge margin is at least 3 mm, 0.12".



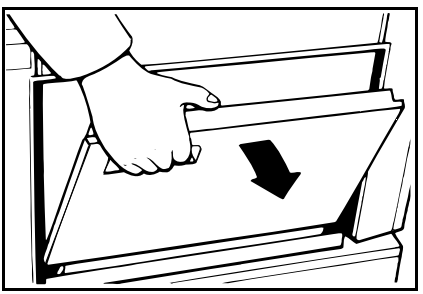
Preparation For Printing

❒ ☛ See page 83 when you load paper in the optional large capacity tray.

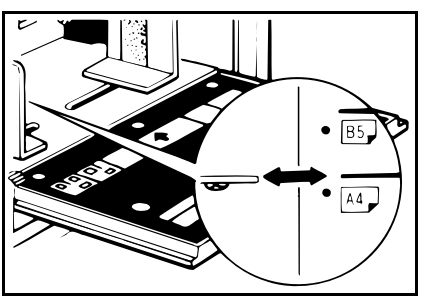
❒ ☛ See page 89 when you load paper in the optional paper cassette for LCT.

Loading paper

1 Carefully open the paper feed table.

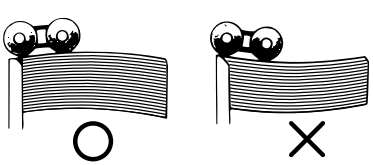


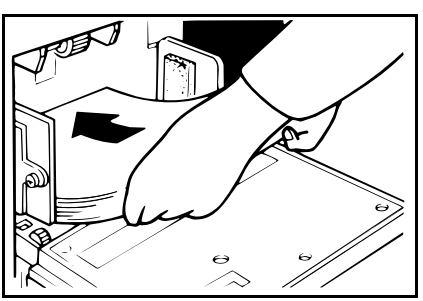
2 Adjust the side plates to match the paper size.



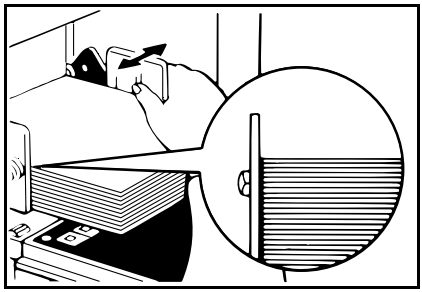
3 Place the paper on the paper feed table.

❒ Correct the paper curl before setting the paper. If you cannot do so, stack the paper with the curl face down as shown.



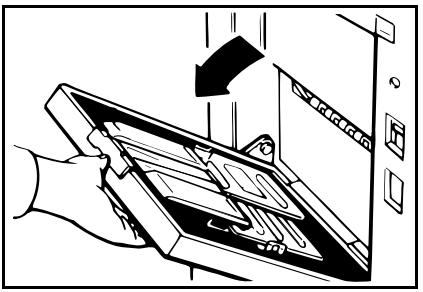


4 Make sure that the paper feed side plates contact the paper lightly.

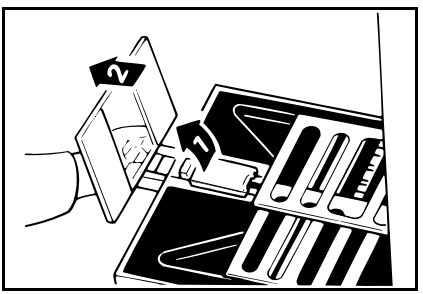


Setting up the paper delivery table

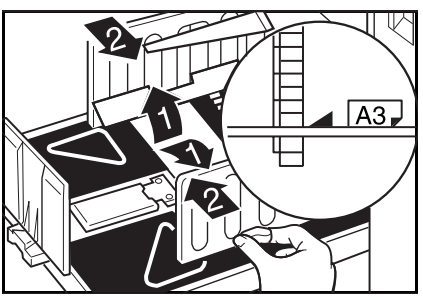
5 Open the paper delivery table.



6 Lift the paper delivery end plate and move it to match the print paper size.

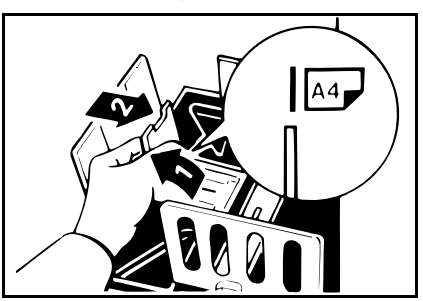


7 Lift the paper delivery side plates and adjust them to the paper size.

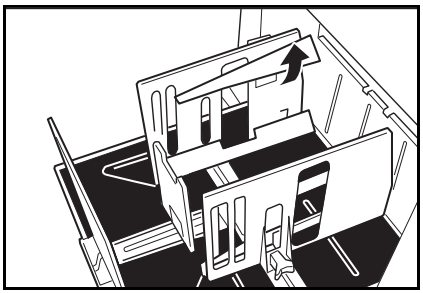


8 If you want to use A4, 8 1/2" x 11" or smaller paper, lift the small size paper delivery end plate and move it to match the print paper size.

- When you use B4, 8 1/2" x 14" or larger size paper, you do not need to lift the small size paper delivery end plate.

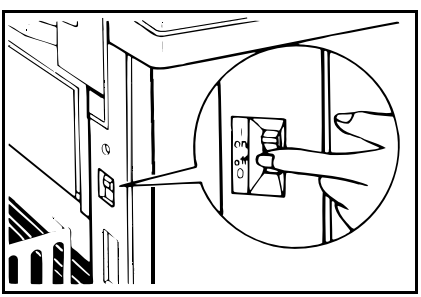


9 If necessary, lift the left and right guides.



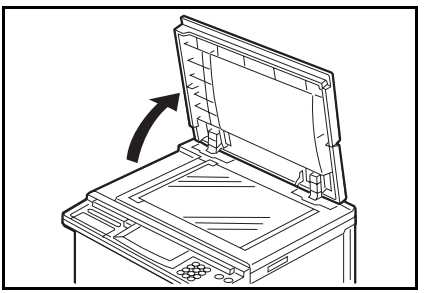
- If you find paper is not delivered properly when printing on thin paper, make sure the guides are up.
- When printing on paper thicker than 81.4 g/m^2, 21.6 lb, do not lift up the guides.
- When the guides are up, you may not load the unit to full capacity (1,000 sheets) depends on the paper you are using.
- If you have the optional tape dispenser installed, the paper capacity is 500 sheets.

10 Turn on the main switch.

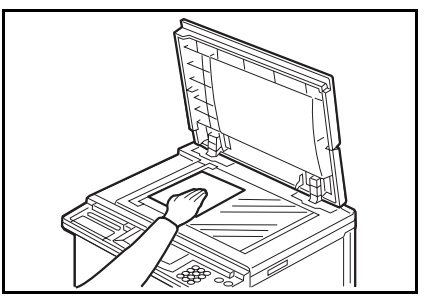


Standard Printing

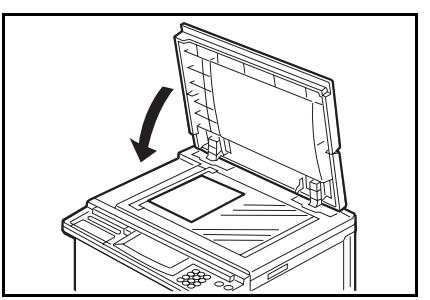
1 Open the platen cover.



2 Place the original face down on the exposure glass. The original should be centered according to the size marks on the left scale.

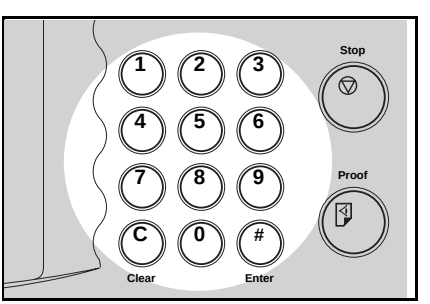


3 Lower the platen cover.



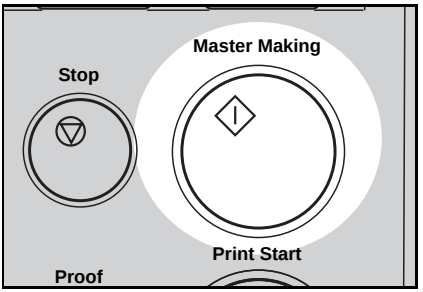
4 Enter the number of prints required using the **Number** keys.

- ❒ Up to 9999 prints can be entered at one time.
- ❒ To change the number entered, press the **Clear** key and then enter the new number.



5 Press the **Master Making** key.

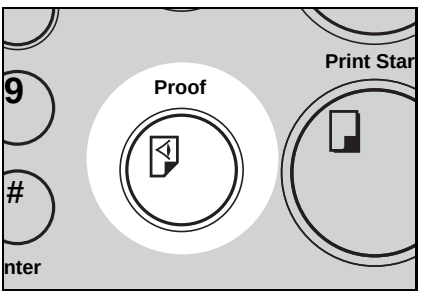
❒ A trial print is delivered to the paper delivery table.



6 Press the **Proof** key and check the image density and the image position of the proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys or the fine adjustment dial. (* See pages 21 and 22.)

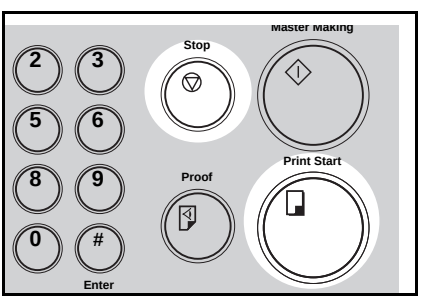
❒ If the image density is slightly dark or light, adjust the image density by pressing the **Speed** keys. (* See page 24.)



7 Press the **Print Start** key.

❒ After printing is completed, the same number of prints is automatically set for the next job.

❒ If you want to stop the machine during a print run, press the **Stop** key.



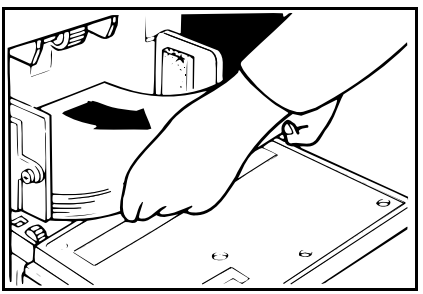
8 Remove the prints from the paper delivery table.

❒ To clear all the modes you have selected, press the **Clear Modes** key.

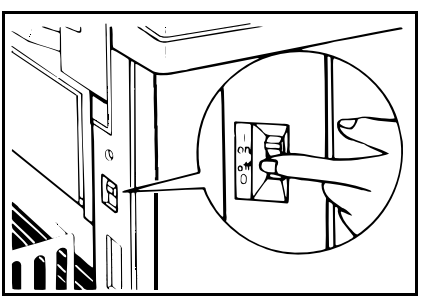
Restoring Paper Feed And Paper Delivery Tables

1 Remove the paper from the paper feed table.

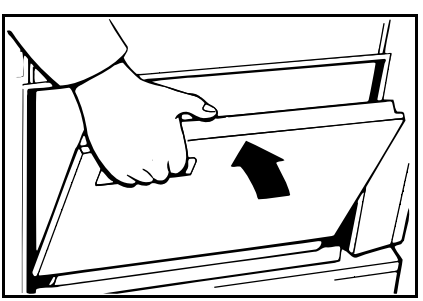
❒ The paper feed table will lower.



2 Turn off the main switch.

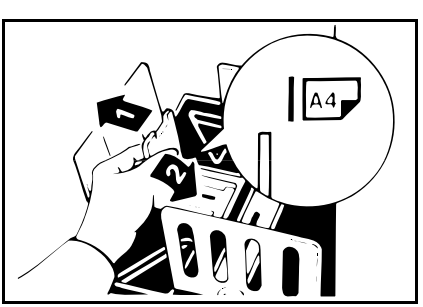


3 Close the paper feed table.



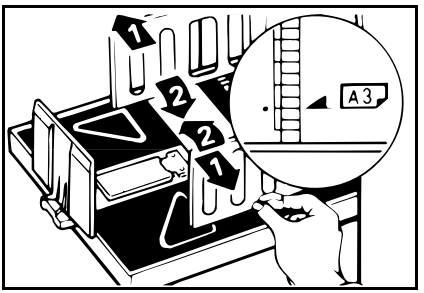
4 Push the small size paper delivery plate to the left, then lower it, if necessary.

Return the left and right guides to their original positions, if necessary.

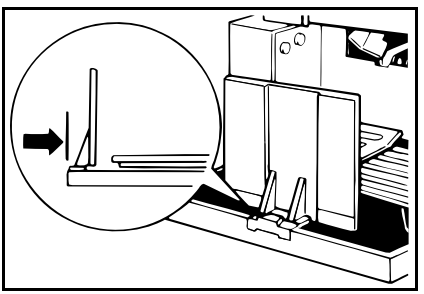


5 Move the side plates to the sides, then lower them.

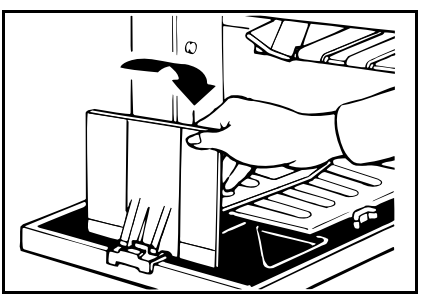
❒ Make sure that the side plates do not touch the small size paper delivery end plate.



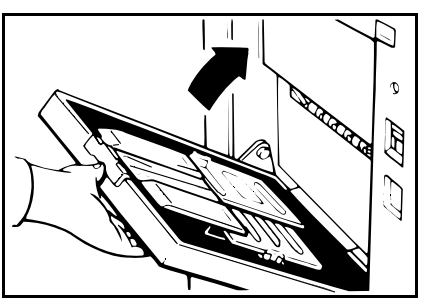
6 Move the end plate until the plate handle is flush with the end of the table.



7 Lower the end plate.

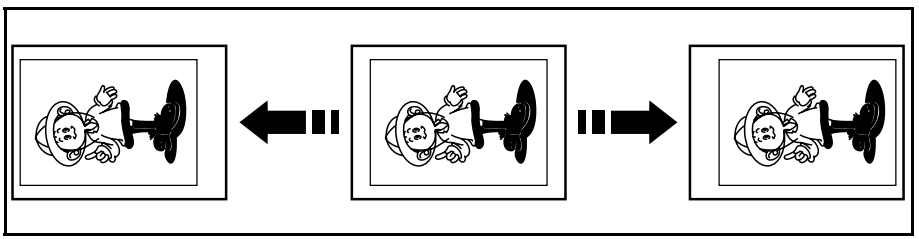


8 Close the table.

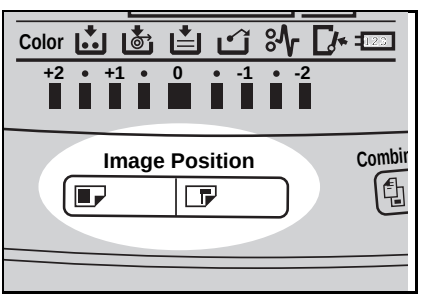


Adjusting The Image Position

Shifting the image position forward or backward

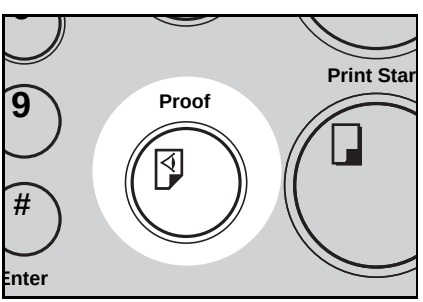


1 Press the right or left **Image Position** key.



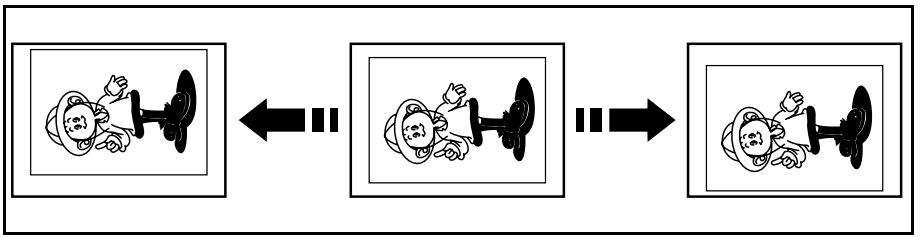
- When you shift the image forwards, leave a margin (more than 5 mm, 0.2") at the leading edge. If there is no margin, paper might wrap around the drum and cause a misfeed.
- The right or left **Image Position** keys shift the image about 0.5 mm, 1/50" each time they are pressed. When the indicator changes, the image position shifts about 5 mm, 1/5".

2 Press the **Proof** key. Check the image position again.



Shifting the image to the right or left

❒ When your machine is equipped with the optional large capacity tray, ☛ see page 88.

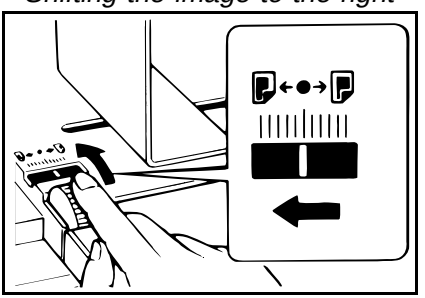


1 Turn the side plate fine adjusting dial as shown in the illustrations.

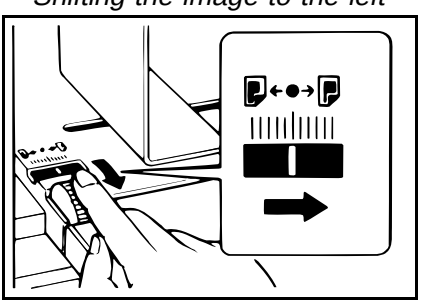
❒ The image position can be shifted up to about 10 mm, 2/5" each way. Each division on the scale is 2 mm, 0.08".

❒ If your machine is equipped with the optional sorter stapler, the image position is shifted to 3 mm, 0.12" for each division on the scale.

Shifting the image to the right

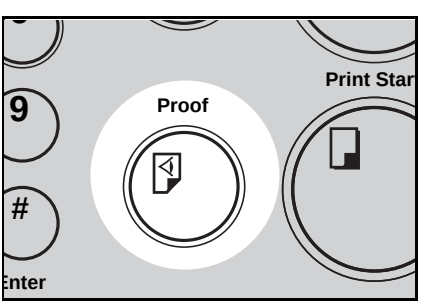


Shifting the image to the left



2 Adjust the paper delivery side plates to the print paper position.

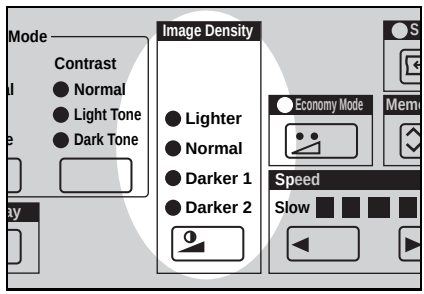
3 Press the **Proof** key. Check the image position.



Adjusting The Image Density

Before making a master

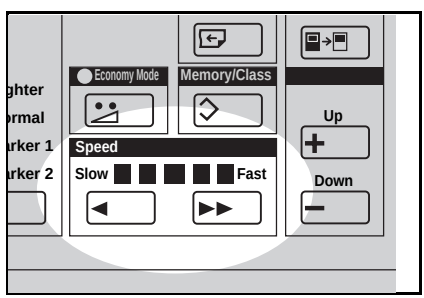
1 Use the **Image Density** key before pressing the **Master Making** key.



After making a master

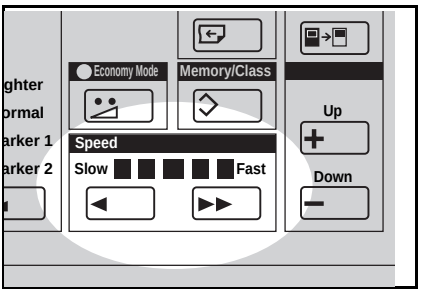
1 Press the **Speed** keys. To increase the speed, press the "▶▶" key. To reduce the speed, press the " ◀ " key.

- The faster the printing speed becomes, the lighter the printing density is. If you want darker prints, decrease the printing speed.
- If you use the Sort, Staple Sort, or Class Sort function, the setting should be Setting 1.



Changing The Printing Speed

Use the **Speed** keys to adjust the speed of the machine with the image density and printing paper.



Press the **Speed** keys. To increase the speed, press the "▶▶" key. To reduce the speed, press the " ◀ " key. The printing speed will be changed as follows:

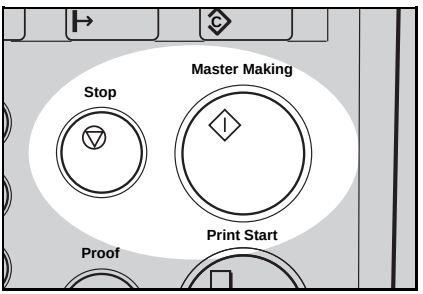
Setting 1: 60 sheets/minute
Setting 2: 75 sheets/minute
Setting 3: 90 sheets/minute
Setting 4: 105 sheets/minute
Setting 5: 120 sheets/minute

- ❒ When the main switch is turned on, Setting 3 is selected.
- ❒ The faster the printing speed becomes, the lighter the printing density is, and vice versa.
- ❒ If you use the Sort, Staple Sort, or Class Sort function, the setting should be Setting 1.

Stopping The Machine During A Print Run

When you want to stop the machine during a print run and print the next original

1. Press the **Stop** key.
2. Set the new original.
3. Enter the number of prints and press the **Master Making** key.

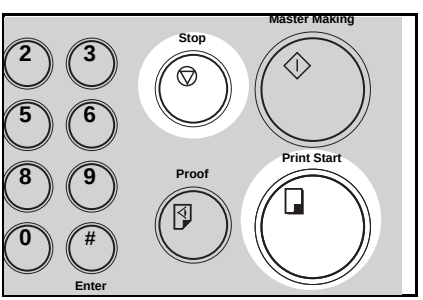


When you want to change the number of prints entered or check the completed prints

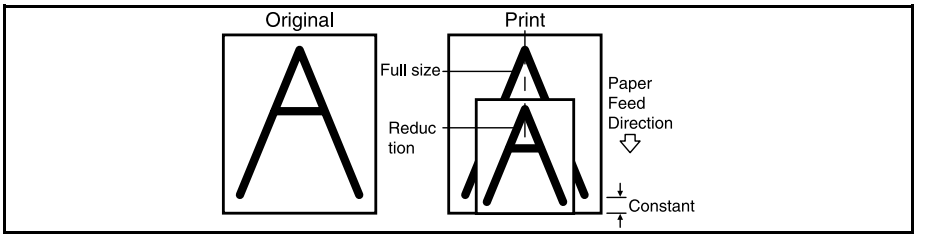
1. Press the **Stop** key.
2. Change the number of prints or check the completed prints.

- When you change the number of prints, you can re-enter the number using the **Number** keys after pressing the **Stop** key.

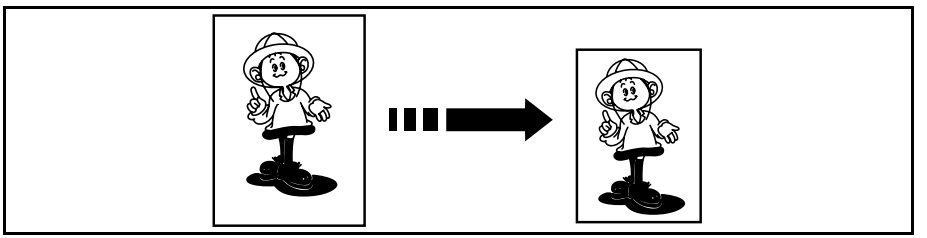
3. Press the **Print Start** key.



Reduce Printing



❒ The center and the leading edge of the print image do not shift when a print image is made with this function.



Prints can be reduced in size by using the **Reduce** key.

— Metric version —

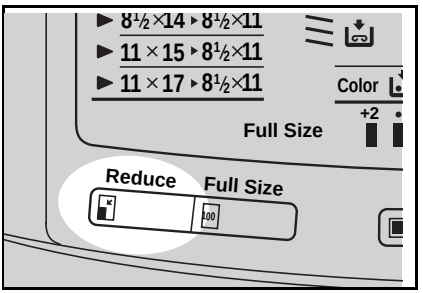
Reproduction Ratio	Original Size	Print Size
93 %	*	
87 %	A3	B4
	A4	B5
82 %	B4	A4
	B5	A5
71 %	A3	A4
	A4	A5
	B4	B5

— Inch version —

Reproduction Ratio	Original Size	Print Size
93 %	*	
77 %	8 1/2" x 14"	8 1/2" x 11"
74 %	11" x 15"	8 1/2" x 11"
65 %	11" x 17"	8 1/2" x 11"
	8 1/2" x 11"	5 1/2" x 8 1/2"

* Select this ratio when you make prints with a lot of edge margins.

1 Select the desired reduction ratio using the **Reduce** key.

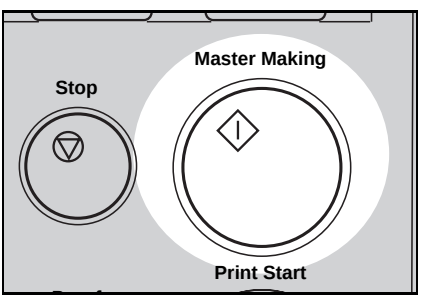


2 Make sure that the original and the print paper are the correct size.

3 Set your originals on the exposure glass or in the optional document feeder.

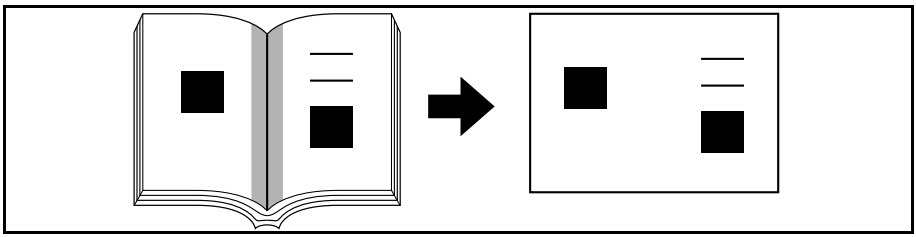
4 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).



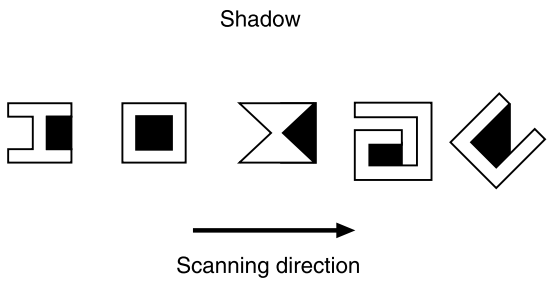
5 Make your prints.

Erasing Center And Edge Margins

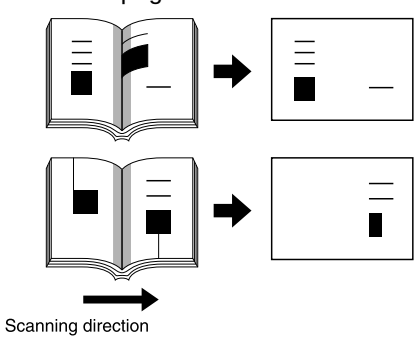


When printing from thick books, or similar originals, the binding margin at the center and the edges might appear on prints. To prevent this, follow the steps on the next page.

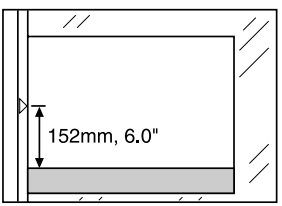
- The 1 mm, 0.02" margins on all four sides of the original will be erased. The width of the margins will change depending on the reduction ratios.
- Shadows near the book edge might not be erased completely.
- If the shape of the originals are as below, shadows might appear on the prints. In this case, make a master with the platen cover closed.



- If there is a line or solid image on the margin and you erase the center and the edges, the image might be erased as shown below. In this case, use the function described on page 31.

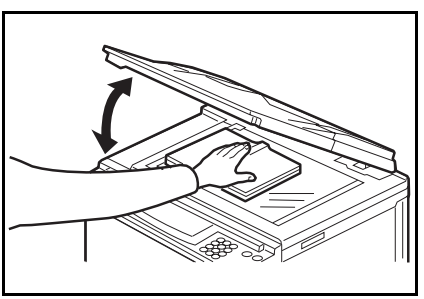


- If you do not press hard on the book while it is scanned, the margin at the center might not be erased completely.
- If the machine is installed under a strong light, such as a fluorescent light, a shadow might appear on the prints. In this case, close the platen cover a little to block the light or move the machine.
- If you set the original on the exposure glass as shown below, the screened image below will not be printed. Lines or solid images that run from the screened image below onto the original may also not be printed.

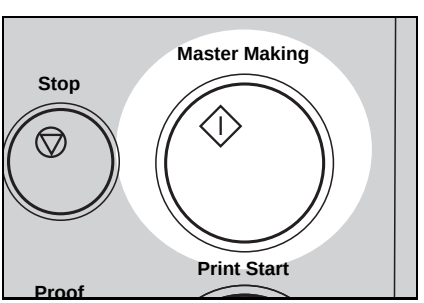


1 Set the book on the exposure glass.

2 Keep the platen cover at an angle of at least 25 degrees with the exposure glass.

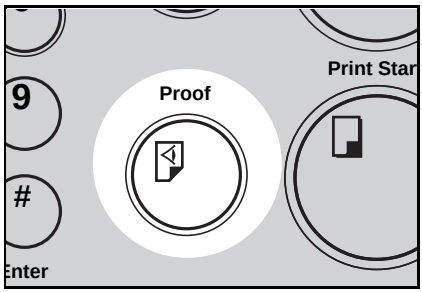


3 Press the **Master Making** key. Press hard on the book with your hand while it is scanned.



4 Check the image position of the trial or proof print.

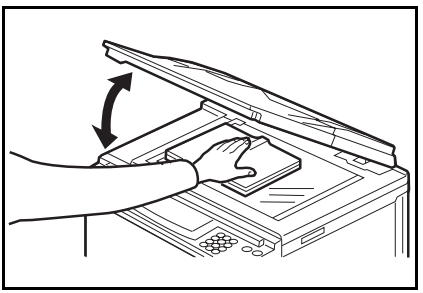
❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).



5 Make your prints.

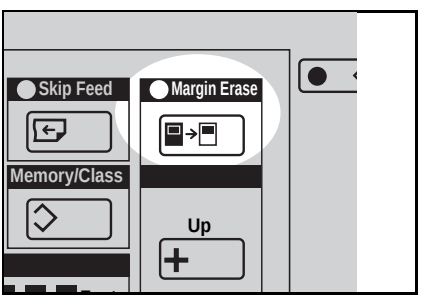
If you reproduce originals that have solid images at the edges, erasing the binding and edge shadows will also erase solid images at the edge. To reproduce the solid image, follow the steps below.

1 Set the original on the exposure glass.



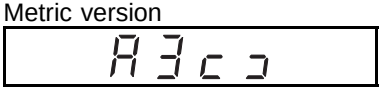
2 Enter the number of prints required using the **Number** keys.

3 Press the **Margin Erase** key.

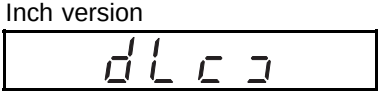


4 The following message will appear on the counter. The paper size and direction will be changed by pressing the **Up/Down** keys.

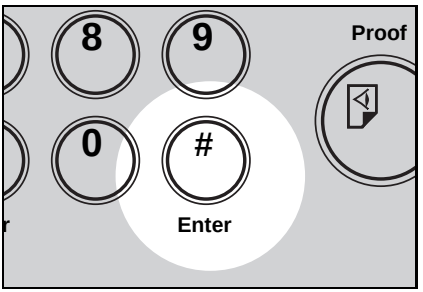
- Metric version



- Inch version

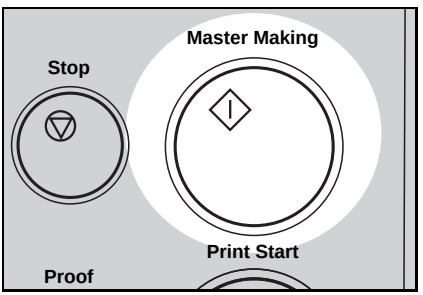


5 When you reach the desired paper size and direction, press the **Enter** key.



6 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).



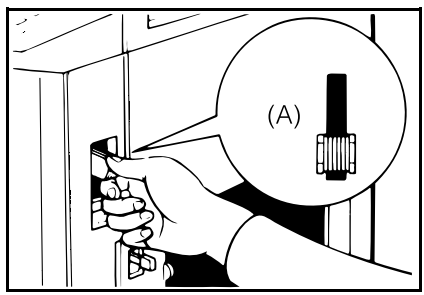
7 Make your prints.

Printing On Thick Or Thin Paper

When you make prints on thick (127.9 to 209.3 g/m^2, 34 to 55.6 lb) or thin (47.1 to 81.4 g/m^2, 12.5 to 21.6 lb) paper, perform the following steps.

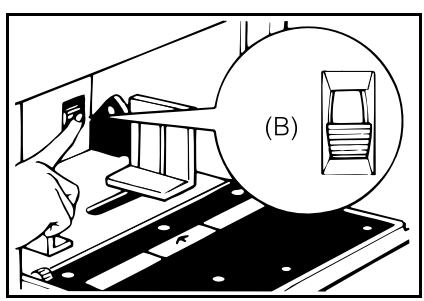
Printing on thick paper

1 When you use paper heavier than 127.9 g/m^2, 34.0 lb and lighter than 209.3 g/m^2, 55.6 lb, position the pressure lever (A) to the Thick paper position.



- When you use paper heavier than 64 g/m^2, 17 lb and lighter than 157.0 g/m^2, 41.7 lb, position the pressure lever (A) to the standard position.
- In the case of paper smaller than B5, 5 1/2" x 8 1/2" and heavier than 81.4 g/m^2 (21.6 lb), move the feed roller pressure lever to the Thin paper position.

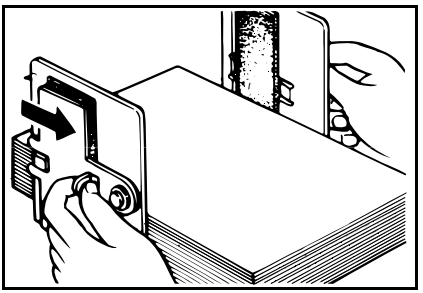
2 Push the pressure levers (B) down.



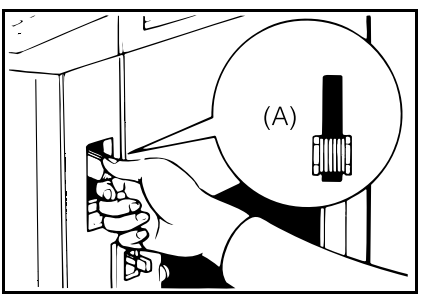
- There are two pressure levers (B). Make sure that both levers are down.
- If dog-eared or wrinkled prints are delivered, push the levers up.

Printing on thin paper

1 Set the side pads (move the side pad levers to the right).



2 Position the pressure lever (A) to the Thin paper position.



3 Push the pressure levers (B) down.

- ❒ If dog-eared or wrinkled prints are delivered, push the levers up.
- ❒ There are two pressure levers (B). Make sure that both levers are down.

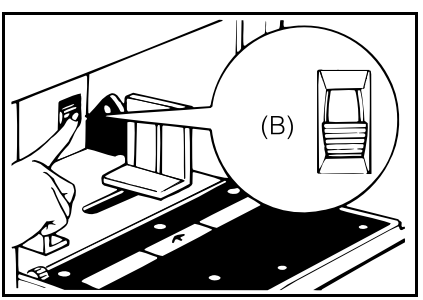


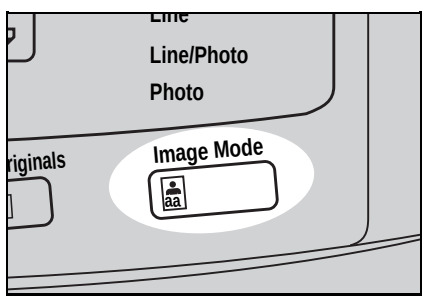
Photo Mode Printing

Original Photo mode Line mode Line/Photo mode

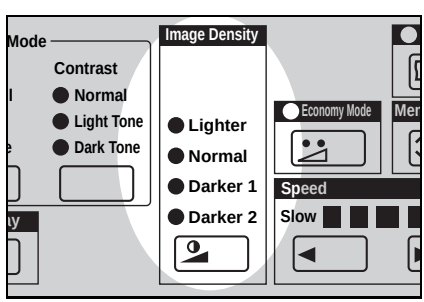
When printing a photograph or a color original, select Photo mode.

- ❒ Moire patterns may occur when screened originals are printed.
- ❒ When printing originals with both letters and photos using Photo mode, the image of the letters will be light. Select Line/Photo mode using the **Image Mode** key.

1 Press the **Image Mode** key to select Photo mode.

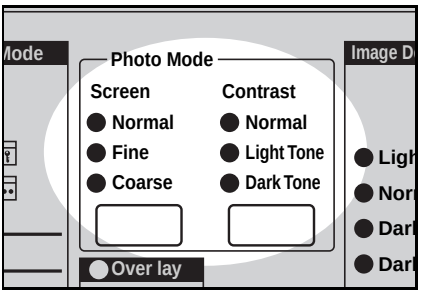


2 Press the **Image Density** key to adjust the image density.



3 If necessary, adjust the screen image by pressing the **Screen** key.

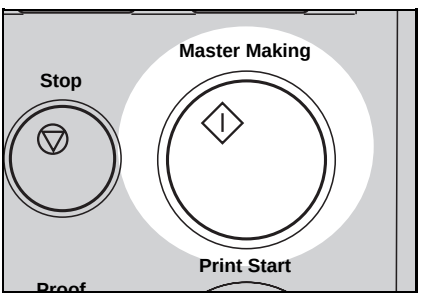
If necessary, adjust the contrast by pressing the **Contrast** key.



4 Set your originals on the exposure glass or in the optional document feeder.

5 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).



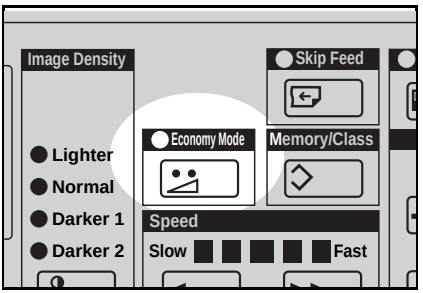
6 Make your prints.

Ink Saving (Economy Mode)

When you want to save ink, select Economy mode.

❒ The printing density may be light in this mode.

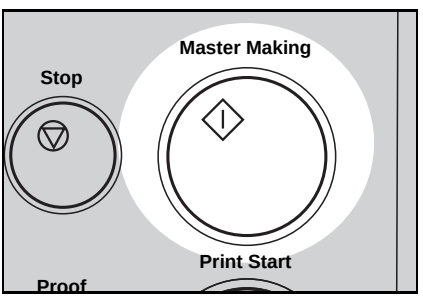
1 Press the **Economy Mode** key.



2 Set your originals on the exposure glass or in the optional document feeder.

3 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).



4 Make your prints.

Printing From Several Originals At Once

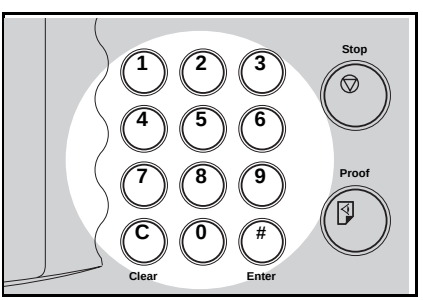
Use the **Auto Cycle** key to process masters and make prints at one stroke.

- ❒ When you use the optional document feeder, it is not necessary to place originals one by one. All originals are fed and prints are completed after you press the **Print Start** key.
- ❒ If you use the optional tape dispenser, the tape dispenser drops a strip of paper onto the top of the paper stack after the last page of each printing set is fed out to the paper delivery table. This marks the end of each printing group.

1 Set the original face down on the exposure glass or in the optional document feeder.

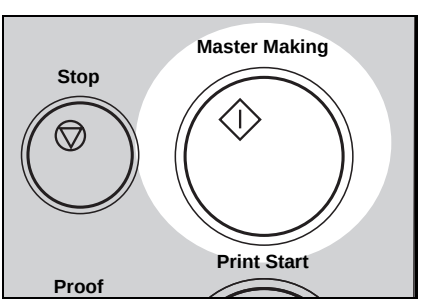
- ❒ You can set up to 20 originals into the optional 20 originals document feeder.
- ❒ You can set up to 50 originals into the optional 50 originals document feeder.

2 Enter the number of prints required using the **Number** keys.



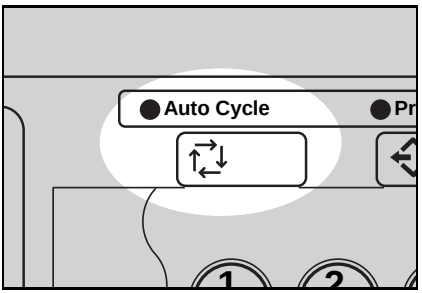
3 Press the **Master Making** key. Check the image position of the trial or proof print.

- ❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).

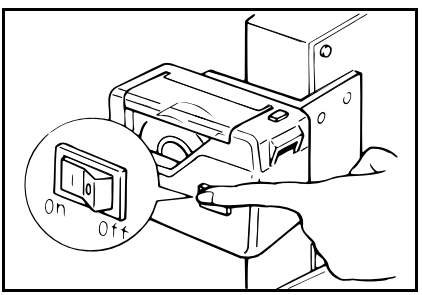


4 Press the **Auto Cycle** key.

❒ If you press the **Auto Cycle** key, you cannot make proof prints by pressing the **Proof** key.

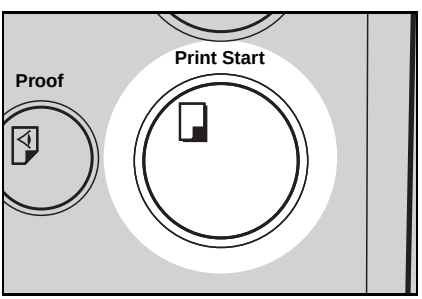


5 If you use the optional tape dispenser, turn on the power switch of the tape dispenser.



6 Press the **Print Start** key.

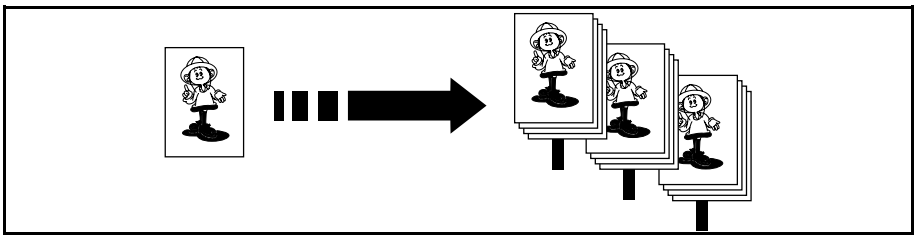
❒ If you set originals into the optional document feeder, originals are fed and prints are completed automatically.



7 Repeat steps 1 through 3 until all originals are printed when you set originals on the exposure glass.

❒ After the last page of each set is fed out to the paper delivery table, the optional tape dispenser drops a strip of paper on the top of the paper stack. The next cycle begins.

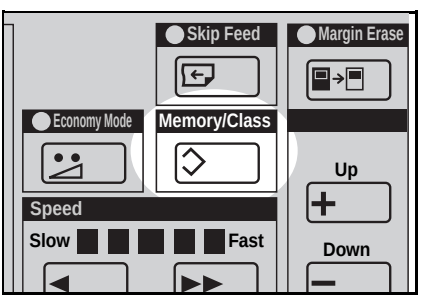
Group Printing From The Same Original (Class Mode)



Use the **Memory/Class** key to make sets of prints from the same original. The same number of prints is made for each set.

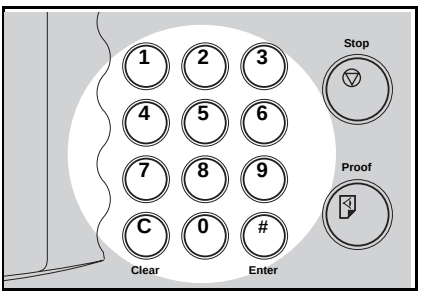
- The optional tape dispenser automatically feeds out strips of paper which separate the printing groups on the paper delivery table.
- Up to 99 sets of prints can be selected for one original.

1 Press the **Memory/Class** key to light the Class indicator.

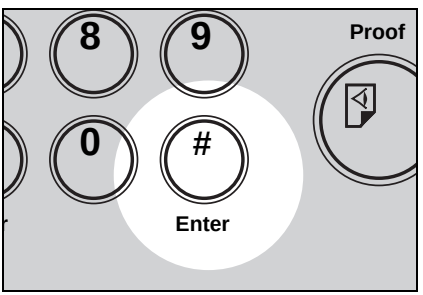


2 Set the original face down on the exposure glass or in the optional document feeder.

3 With the **Number** keys, enter the number of prints for each set to be made from the original.

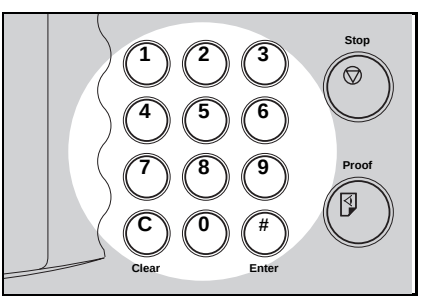


4 Press the **Enter** key.

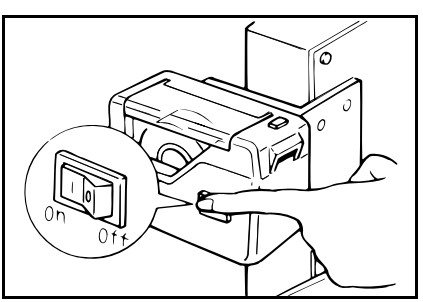


5 With the **Number** keys, enter the desired number of sets.

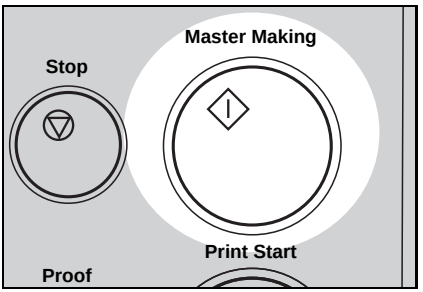
- The maximum number of sets that can be made is 99.



6 Turn on the power switch of the optional tape dispenser.

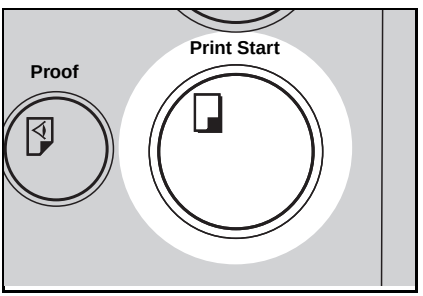


7 Press the **Master Making** key. Check the image position of the trial or proof print.



❒ If the image position is not correct, adjust it using the **Image Position** keys (* See page 21) or the side plate fine adjusting dial (* See page 22).

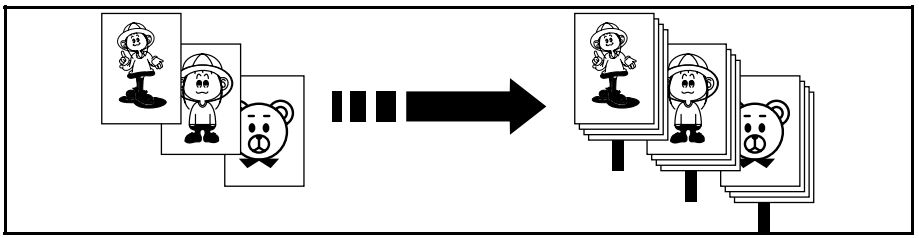
8 Make your prints.



❒ After the last page of each printing set is fed out to the paper delivery table, the tape dispenser drops a strip of paper on the top of the paper stack.

❒ If the power switch of the optional tape dispenser is turned off or the tape dispenser is not installed in your machine, the group printing cycle stops after each set is delivered. Remove the set of prints from the paper delivery table and press the **Print Start** key to start the next group printing cycle.

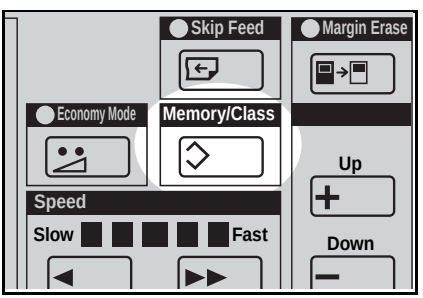
Group Printing From Different Originals (Memory Mode)



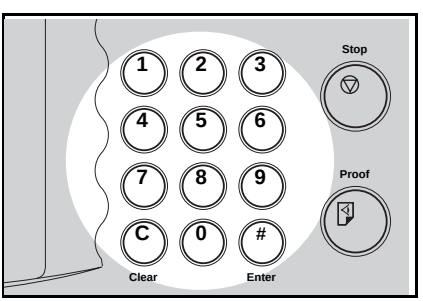
Use the **Memory/Class** key to make sets of prints from different originals.

- ❒ With the optional document feeder, you can set several originals and make prints of all of them at once. * See page 63.
- ❒ The optional tape dispenser automatically feeds out strips of paper which separate the printing groups on the paper delivery table.

1 Press the **Memory/Class** key to light the Memory indicator.

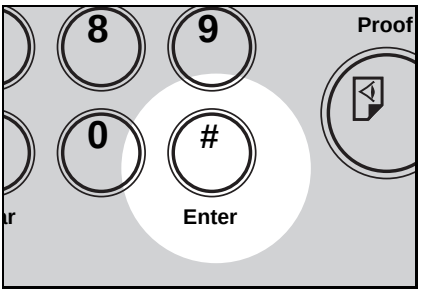


2 With the **Number** keys, enter the desired number of prints for the first original.



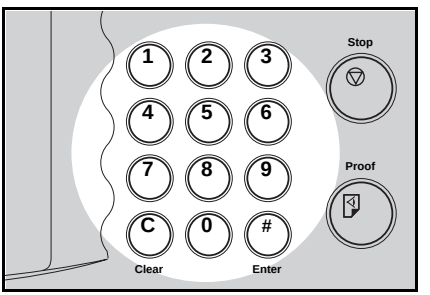
3 Press the **Enter** key. This stores the number of prints to be made for the first original in memory 1.

❒ When the number of prints in each set is the same, it is not necessary to input the number of prints for each group in memory. Simply select Auto Cycle mode and enter the desired number of prints once.



4 With the **Number** keys, enter the number of prints for the second original.

5 Press the **Enter** key. This stores the number of prints to be made for the second original in memory 2.

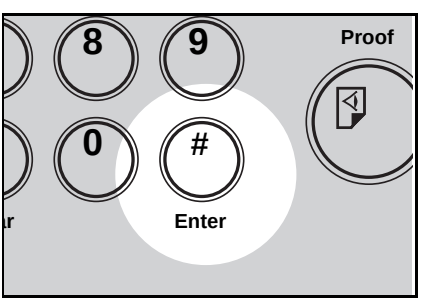


6 Repeat steps 4 and 5 for each original.

❒ The number of prints for up to 20 originals can be stored.

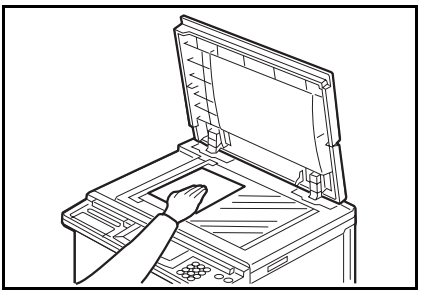
7 Press the **Enter** key again. The memory returns to memory 1.

❒ If you store the number of prints for 20 originals, the memory number returns to 1. It is not necessary to press the **Enter** key.



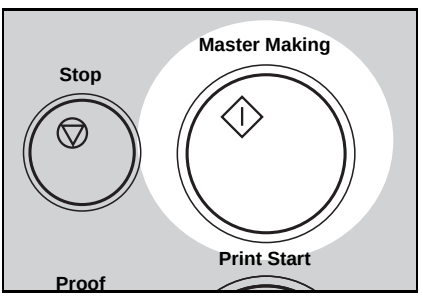
8 Set the first original face down on the exposure glass.

❒ Set originals one sheet at a time in the same order that you stored them in memory.

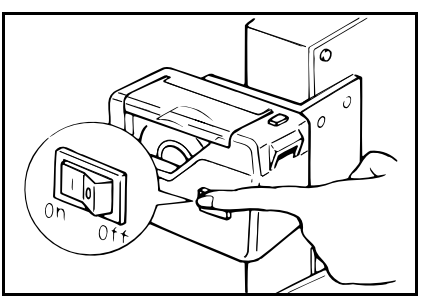


9 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).

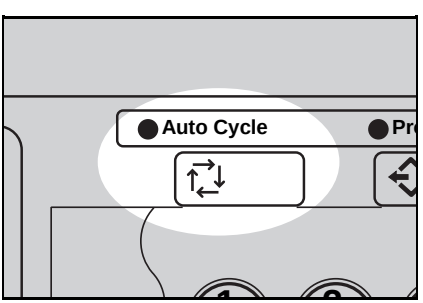


10 Turn on the power switch of the optional tape dispenser.



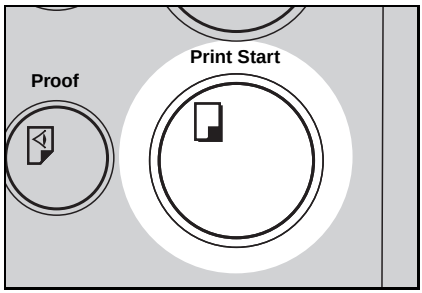
11 Press the **Auto Cycle** key.

❒ If you press the **Auto Cycle** key, you cannot make proof prints by pressing the **Proof** key.

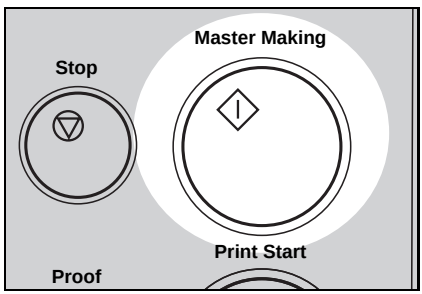


12 Press the **Print Start** key.

❒ After the first set is fed to the paper delivery table, the optional tape dispenser drops a strip of paper on the top of the paper stack.

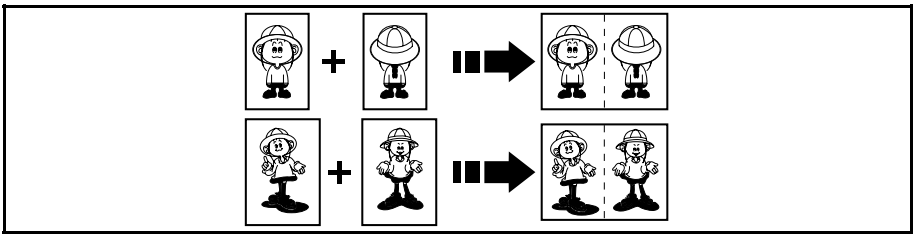


13 After the first set is completed, set the second original on the exposure glass and press the **Master Making** key.



14 Repeat step 13 until you have finished printing.

Combine 2 Originals



You can print 2 separate originals on a single sheet of paper. The following tables list the combinations that can be used when combining two originals.

— Metric version —

Original Size / Paper Size	A4 ▯	B5 ▯	A5 ▯	B6 ▯	A6 ▯
B4 ▯	87%	100%	—	—	—
A4 ▯	71%	82%	100%	—	—
B5 ▯	—	71%	87%	100%	—
A5 ▯	—	—	71%	82%	100%

— Inch version —

Original Size / Paper Size	8 1/2" x 11" ▯	5 1/2" x 8 1/2" ▯
8 1/2" x 14" ▯	77%	100%
8 1/2" x 11" ▯	65%	100%
5 1/2" x 8 1/2" ▯	—	65%

❒ If originals are longer than the maximum allowable length for combined prints, images do not completely appear on prints. The following table gives the maximum allowable combined original length for each print paper size.

Print paper size	Maximum allowable original length for combining prints
B4 ▭	182 mm
A4 ▭	148 mm
B5 ▭	128 mm
A5 ▭	105 mm
8 1/2" x 14" ▭	178 mm, 7.0"
8 1/2" x 11" ▭	140 mm, 5.5"
5 1/2" x 8 1/2" ▭	108 mm, 4.25"

Maximum allowable original length = actual original length x magnification ratio

❒ Any image closer than 5 mm, 0.2" to the leading edge of the first original will not be printed. Also, any image closer than 4 mm, 0.16" to the leading edge of the second original will not be printed. When the image is too close to the leading edge, use copies of the originals with the image shifted at least 5 mm, 0.2" for the first original (4 mm, 0.16" for the second original) from the leading edge.

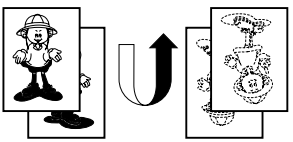
❒ You can select different kinds of image settings for the first and second original.

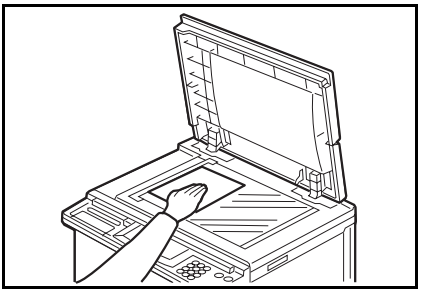
❒ When you use the optional document feeder with this function, * see page 61.

❒ Make sure that the paper feed side plates contact the paper lightly in the Combine 2 Originals function. Otherwise, the two original images do not appear at the proper position on the prints.

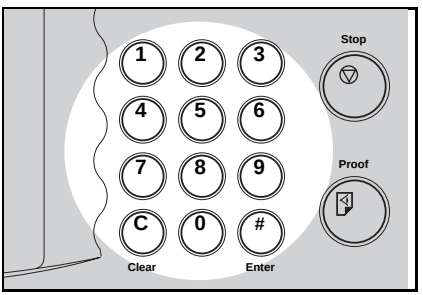
1 Set the first original face down and with the top toward the operating side.

❒ The first original will be printed on the leading part of the print.



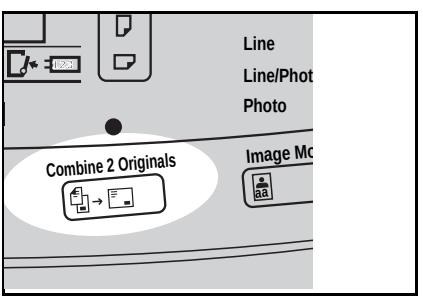


2 Enter the number of prints using the **Number** keys.

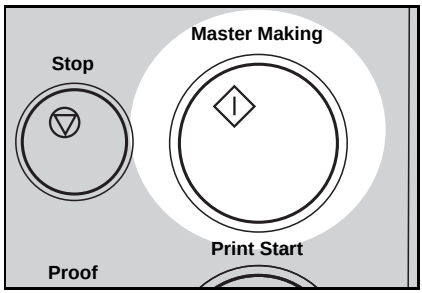


3 Check the print paper size and the reproduction ratio.

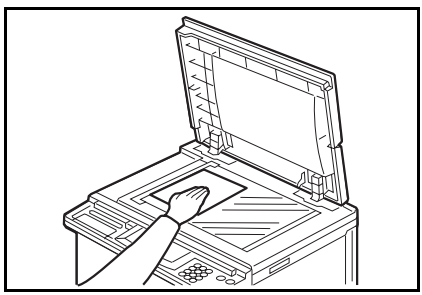
4 Press the **Combine 2 Originals** key.



5 Press the **Master Making** key.

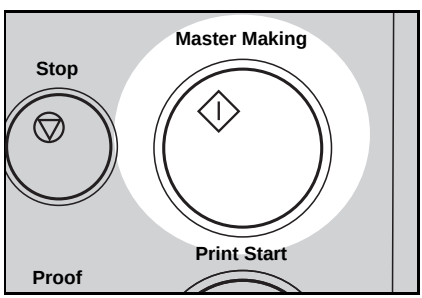


6 The beeper sounds after the first original is on the master. Set the second original face down and with the top toward the operating side.



7 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (* See page 21) or the side plate fine adjusting dial. (* See page 22.)



8 Make your prints.

Skip Feed Printing (Skip Feed Mode)

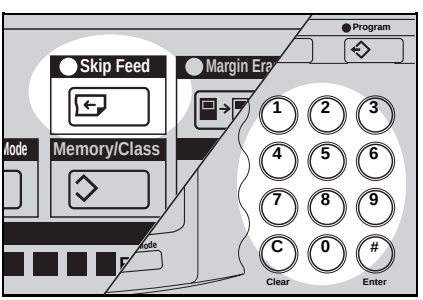
If the back of prints are dirty, you can increase the time between two prints using the **Skip Feed** key. In the default setting, when one sheet of paper is fed the drum rotates once. However, you can select the number of rotations of the drum. This gives you the chance to remove prints one by one from the paper delivery table or insert one sheet of paper between two prints. If you use this function, you can also use paper longer than 447 mm, 17.5" in spite of the maximum length limitations of paper.

- ❒ The maximum length of paper in Skip Feed mode is 590 mm, 23.2".
- ❒ When you use paper longer than 447 mm, 17.5", completed prints will not be delivered to the paper delivery table properly, so receive them by hand.

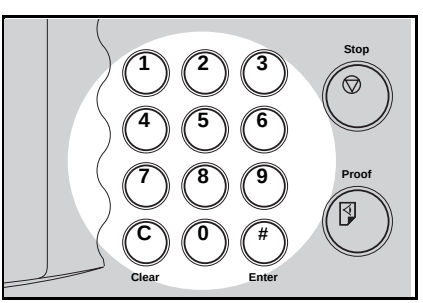
1 Set your originals on the exposure glass or in the optional document feeder.

2 While pressing the **Skip Feed** key, select the number of rotations of the drum while one sheet of paper is fed, using the **Number** key.

- ❒ You can select from 1 to 9 rotations.
- ❒ The beeper sounds after you set the number of rotations.

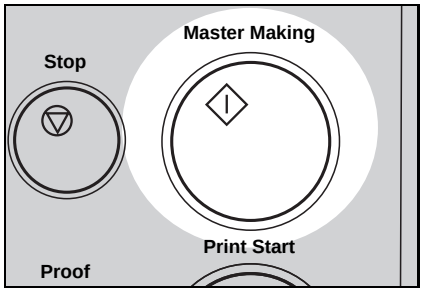


3 Enter the number of prints using the **Number** keys.



4 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).



5 Make your prints.

User Program

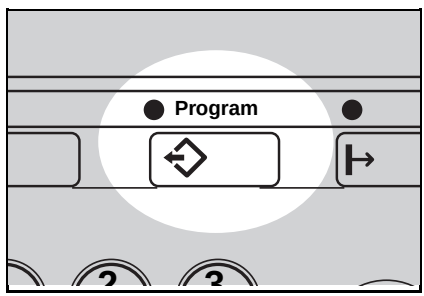
This User Program function allows you to store and recall up to 9 frequently used job setups.

❒ The stored programs are not cleared when you turn off the main switch.

How to input a user program

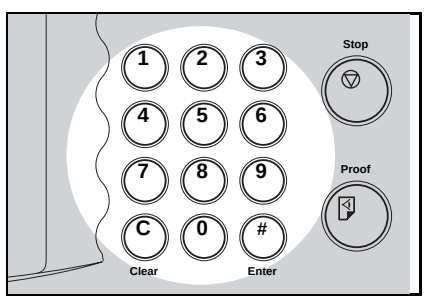
1 Select and enter the job settings you want to store in memory.

2 Press the **Program** key.



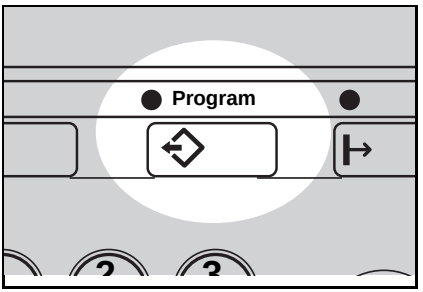
3 Select one of the program numbers (1 to 9). Then, continue pressing the **Number** key until the beeper sounds.

❒ Make sure that the previous job settings stored under the selected program number are overwritten.

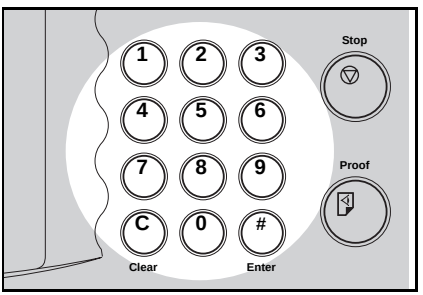


How to access a user program

1 Press the **Program** key.

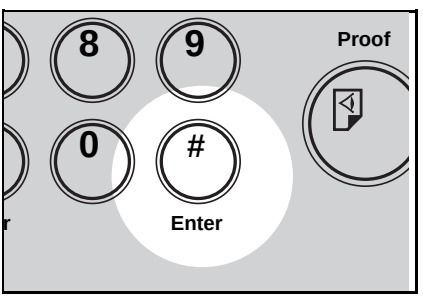


2 Using the **Number** keys, enter the number of the program that you want to access.



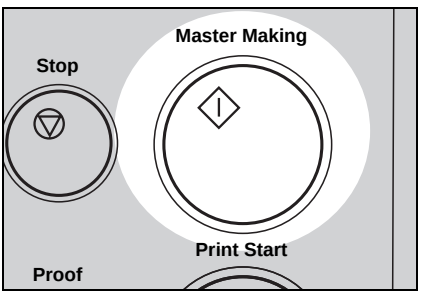
3 Press the **Enter** key.

❒ All stored job settings are recalled.



4 Set your originals on the exposure glass or in the optional document feeder.

5 Press the **Master Making** key.

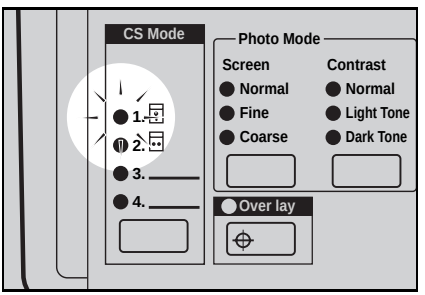


Printing Of Secret Documents (Security Mode)

This function prevents others from making prints of secret documents using its master.

1 Make your prints.

2 While pressing the **CS Mode** key, press "1" using the **Number** key.



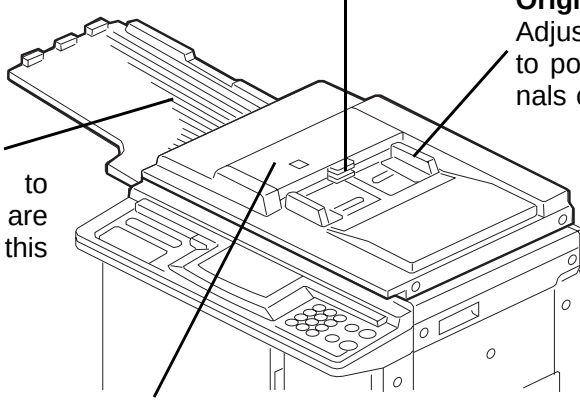
- If you press the **Proof** key or the **Print Start** key after finishing one print job, the beeper sounds and you cannot make prints.
- You cannot cancel Security mode even if you turn off the main switch.
- If you make the next master, Security mode is canceled.

OPTIONAL FUNCTIONS

Printing Using The Optional 20 Originals Or 50 Originals Document Feeder

Guide to document feeder components

❒ If you have optional sorter staplers and you want to have a document feeder, the optional 50 originals document feeder should be equipped with your machine.



ADF Unit Open Lever
Use to open the ADF unit.

Original Guides
Adjust these guides to position the originals correctly.

Original Tray
Originals used to make masters are delivered to this tray.

ADF Unit
Feeds the original to the master making position.

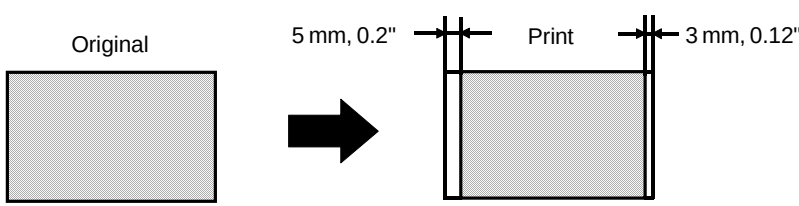
Originals

❒ The following types of originals are not recommended for use with the optional document feeder. Set these types of originals on the exposure glass.

ù Originals heavier than 127.9 g/m^2, 34 lb
ù Originals lighter than 40.7 g/m^2, 10.8 lb
ù Carbon coated originals
ù Damaged originals
ù Originals with glue on them
ù Originals perforated for ring binders
ù Book originals
ù Originals written with a pencil or ball-point pen
ù Originals smaller than 90 mm x 140 mm, 3.6" x 5.6"
ù Originals larger than 307 mm x 432 mm, 12.0" x 17.0"
ù Folded, curled, creased originals
ù Bound, stapled, or clipped originals

❒ If you use paste-up originals, make sure the pasted parts hold firmly to the base sheet. If the thickness of the paste-up original is more than 0.2 mm, 1/125" and the space between the pasted parts is less than 2 mm, 2/25", a shadow might appear on the prints.

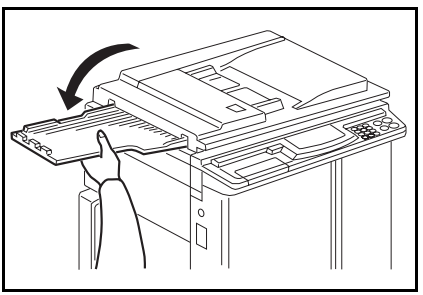
❒ The first 5 mm, 0.2", of the leading edge and the last 3 mm, 0.12", of the trailing edge cannot be printed. Make sure the leading edge margin is at least 5 mm, 0.2", and the trailing edge margin is at least 3 mm, 0.12".



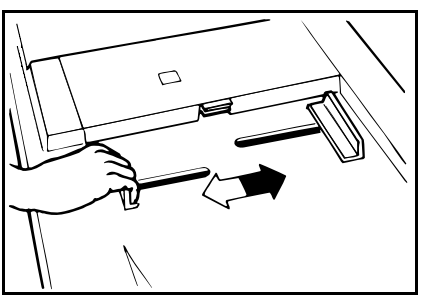
Setting originals into the document feeder

❒ If you set one original into the document feeder while another original is still on the exposure glass, the original set into the document feeder will be scanned first.

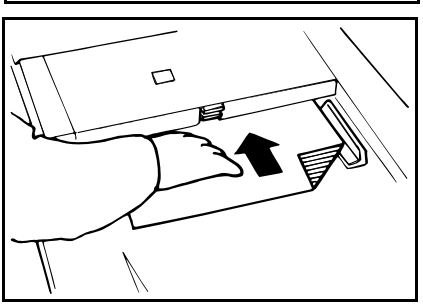
1 Set the original tray.



2 Adjust the original guides to the size of the originals.



3 Insert the originals face down in the document feeder until it stops.



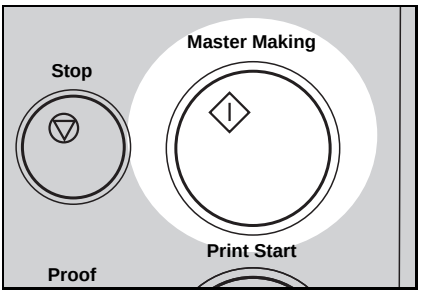
❒ Do not insert different size originals at the same time.

❒ Approximately 20 originals can be inserted at one time in the 20 originals document feeder. The first (bottom) original will be fed first.

❒ Approximately 50 originals can be inserted at one time in the 50 originals document feeder. The last (top) original will be fed first.

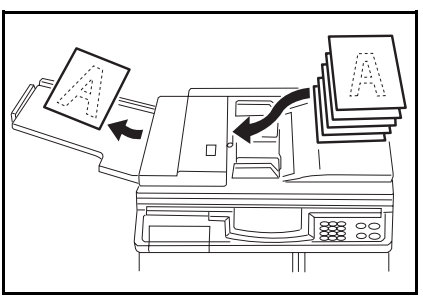
❒ The guides must fit snugly against both sides of the stack.

4 Set the required image settings and press the **Master Making** key.



5 Make your prints.

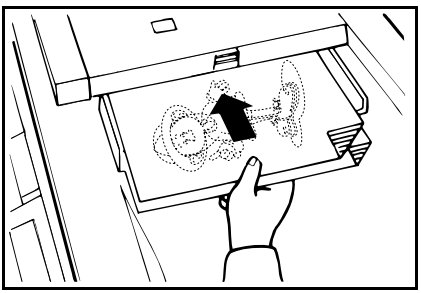
- If the next original has been set in the document feeder before the machine stops, that original is fed automatically and a trial print is delivered to the paper delivery table after the print of the first original is completed. Check the image position of the trial print of the next original. If necessary, make proof prints using the **Proof** key to check the image position again.
- When you set originals in the 50 originals document feeder, the last original (original set on the top of the original stack in the document feeder) will be delivered to the original tray first and the first original (original set at the bottom of the original stack in the document feeder) will be delivered to the original tray last. So, the order of originals is inverted as shown in the illustration. Reset the order of originals.



Combine 2 originals with the document feeder

❒ * See page 47 for details about the Combine 2 originals function.

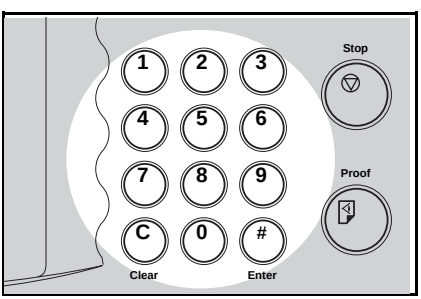
1 Insert the 2 originals face down and with the top toward the operation side.



❒ When you use the optional 20 originals document feeder, the bottom original will be printed on the leading part of print.

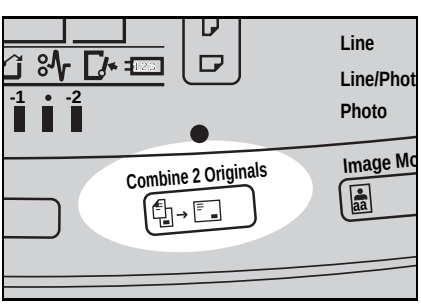
❒ When you use the optional 50 originals document feeder, the top original will be printed on the leading part of print.

2 Enter the number of prints using the **Number** keys.

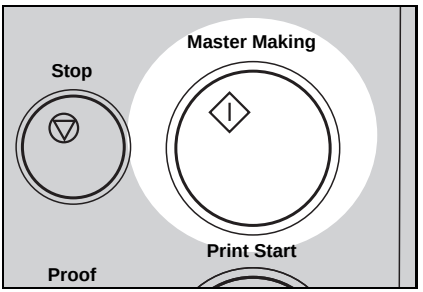


3 Check the print paper size and the reproduction ratio.

4 Press the **Combine 2 Originals** key.



5 Press the **Master Making** key. Check the image position of the trial or proof print.



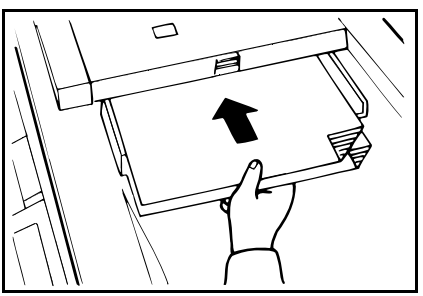
- If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).
- After the first original is on the master, the second original is fed.
- If you set only one original, the beeper sounds after the first original is on the master. Set the second original and the desired image settings. Then, press the **Master Making** key.

Group printing from different originals with the document feeder (Memory mode)

- ❒ To prevent original misfeed, do not set originals of different sizes.
- ❒ Do not set more than 20 originals at one time.

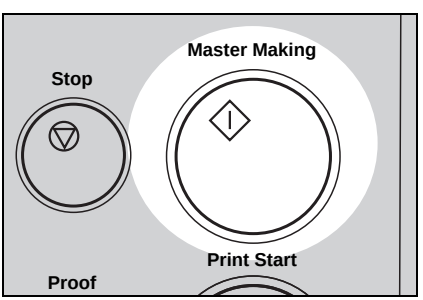
1 Follow steps 1 to 7 on page 43 and 44.

2 Set the originals face down into the document feeder.



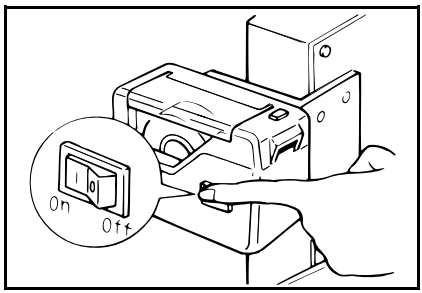
- ❒ When you use the optional 20 originals document feeder, the originals are fed from the bottom of the stack. Make sure that the originals are set in the correct sequence with the first original on the bottom.
- ❒ When you use the optional 50 originals document feeder, the originals are fed from the top of the stack. Make sure that the originals are set in the correct sequence with the first original on top.

3 Press the **Master Making** key. Check the image position of the trial or proof print.



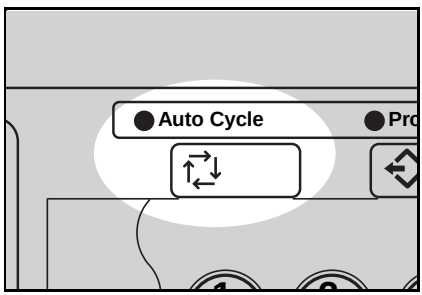
- ❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).

4 Turn on the power switch of the optional tape dispenser.



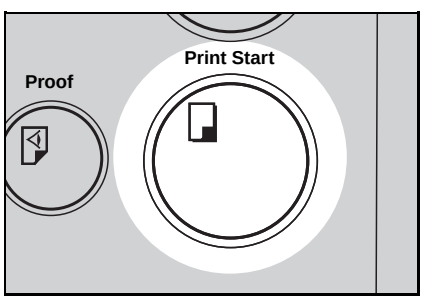
5 Press the **Auto Cycle** key.

❒ In Auto Cycle mode, printing starts automatically after a trial print is delivered.



6 Press the **Print Start** key.

❒ After the last page of each set is fed out to the paper delivery table, the tape dispenser drops a strip of paper on the top of the paper stack. The next cycle begins.



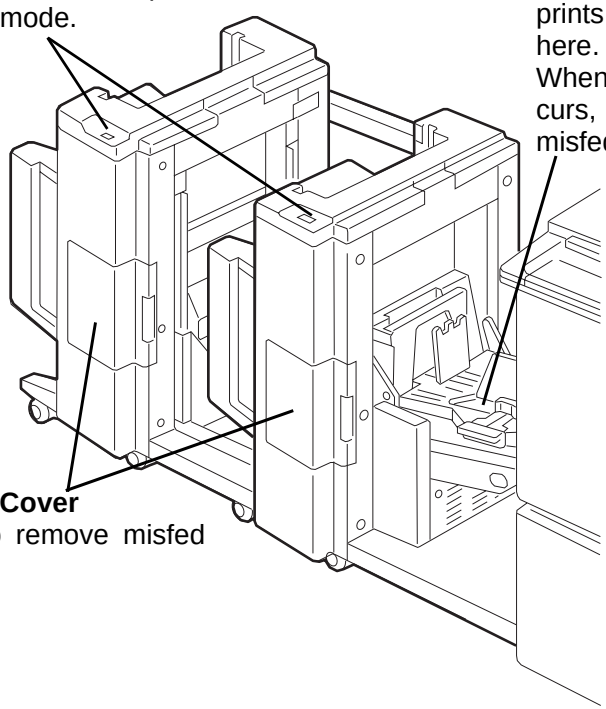
Printing Using The Optional Sorter Stapler

Guide to 20-bin sorter stapler components

- ❒ Up to 2 sorter staplers can be equipped with your machine.
- ❒ If you have optional sorter staplers and you want to have a document feeder, the optional 50 originals document feeder should be equipped with your machine.
- ❒ Sorter staplers and a tape dispenser cannot be equipped together.
- ❒ When you use the Sort, Staple Sort or Class Sort function, set the speed to Setting 1.

Staple Key
Press to set or cancel Staple mode.

Non-sort Tray
If you do not select Sort, Staple Sort or Class Sort mode, prints are delivered here.
When a misfeed occurs, open to remove misfed paper.

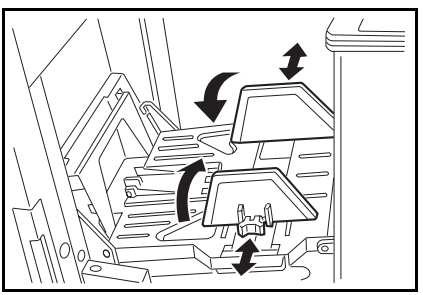


Stapler Cover
Open to remove misfed staples.

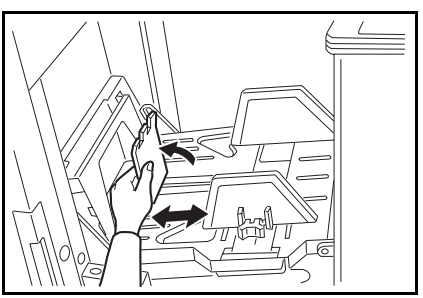
When you do not make prints in Sort, Staple, or Class Sort mode

When you have optional sorter staplers and you do not select Sort, Staple Sort, or Class Sort mode, the prints are delivered to the non-sort tray.

1. Lift the side plates of the non-sort tray and move them to match the paper size.

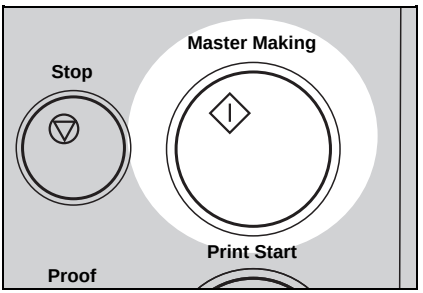


2. Lift the end plate of the non-sort tray and adjust it to the paper size.

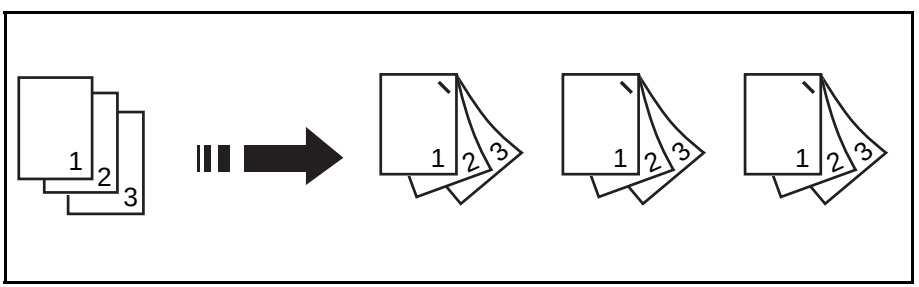


3. Set your originals on the exposure glass or in the optional document feeder.

4 Press the **Master Making** key. Then, make your prints.



Sorting into sets (123, 123, 123) (Sort mode)



One print of each original is delivered to each bin and prints are collated into sets.

❒ For Sorting, the following limitations apply:

Metric version:

Paper size	A3 ▭, B4 ▭, A4 ▭▭, B5 ▭▭, A5 ▭.
Paper weight	64 ~ 82 g/m^2
Maximum capacity of bins	Paper sizes described above with exception of A3: 50 sheets A3 and paper sizes other than the sizes described above: 25 sheets
Maximum number of sets	20 sets (per sorter stapler)
Paper that cannot be used	p Roughly-cut paper p Paper of different thickness in the same stack p Buckled or curled paper p Short grain paper

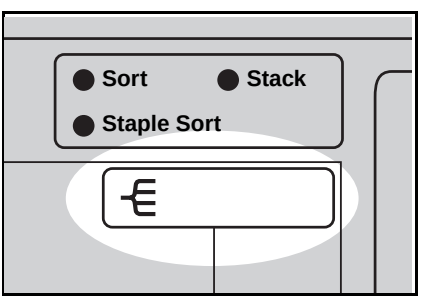
Inch version:

Paper size	11" x 17" ▭ , 8 1/2" x 14" ▭ , 8 1/2" x 11" ▯ ▭ , 5 1/2" x 8 1/2" ▭.
Paper weight	17.1 ~ 21.8 lb
Maximum capacity of bins	Paper sizes described above with exception of 11" x 17": 50 sheets 11" x 17" and paper sizes other than the sizes described above: 25 sheets
Maximum number of sets	20 sets (per sorter stapler)
Paper that cannot be used	p Roughly-cut paper p Paper of different thickness in the same stack p Buckled or curled paper p Short grain paper

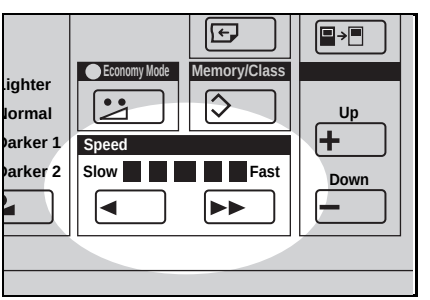
❒ Print sets over the maximum number of sets are delivered to the non-sort tray.

When you set originals on the exposure glass

1 Press the **Sorter** key to light the Sort indicator.

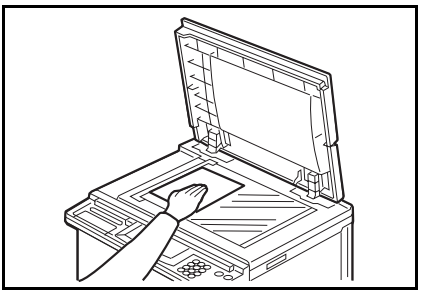


2 If the Speed function Setting 1 indicator and the Special Feature indicator blinks, set the speed to Setting 1.



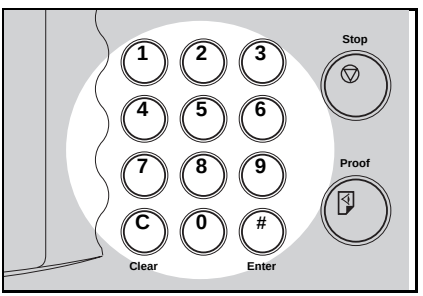
3 Set the last original on the exposure glass.

❒ Make sure that the last original is set first. Otherwise, prints are delivered to the bins in the wrong order.



4 Enter the number of sets required using the **Number** keys.

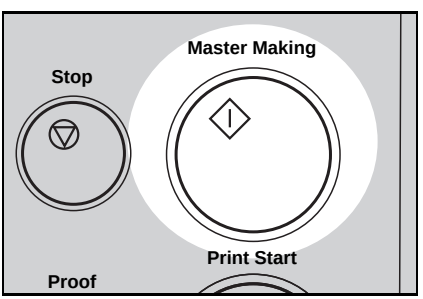
❒ For the maximum number of sets, * see page 67 or 68.



5 Press the **Master Making** key. Check the image position of the trial or proof print.

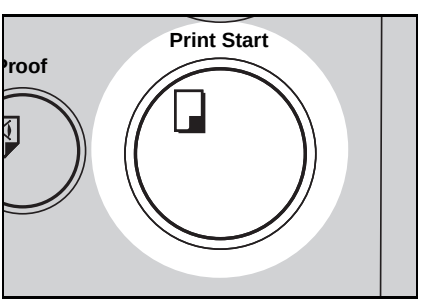
❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).

❒ The trial and proof prints are delivered to the non-sort tray.

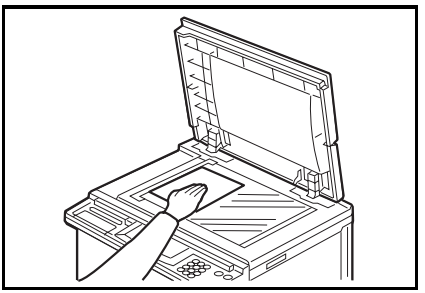


6 Make your prints.

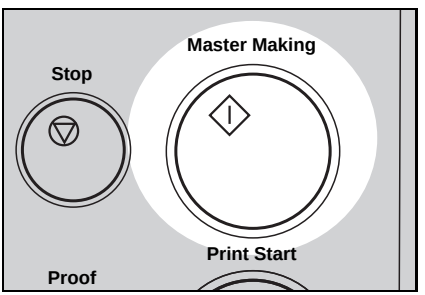
❒ Each print is delivered to each bin of the sorter stapler.



7 Set the second to last original on the exposure glass.



8 Press the **Master Making** key. Check the image position of the trial or proof print.



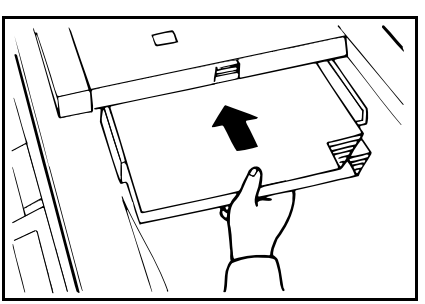
9 Make your prints.

10 Repeat steps 7 through 9 until you have finished printing.

When you set originals in the optional 50 originals document feeder

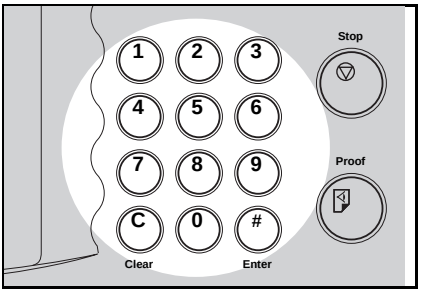
1 Follow steps 1 and 2 on page 68.

2 Set your originals in the optional document feeder.



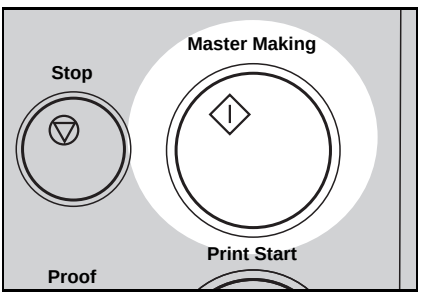
3 Enter the number of sets required using the **Number** keys.

- For the maximum number of sets, * see page 67 or 68.



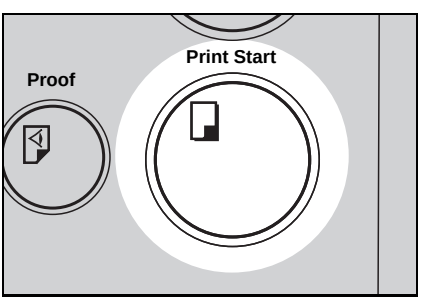
4 Press the **Master Making** key. Check the image position of the trial or proof print.

- If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).
- The trial and proof prints are delivered to the non-sort tray.
- If you press the **Auto Cycle** key, all sets of prints are delivered to the bins automatically after pressing the **Print Start** key. In this case, you cannot make proof prints for each original.



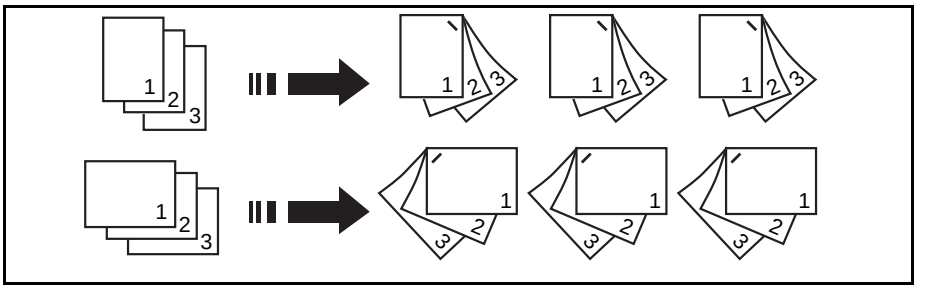
5 Make your prints.

- Each print is delivered to each bin of the sorter stapler. Then, the next original is fed and the machine makes its master automatically.



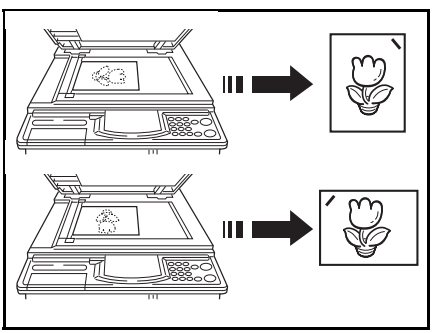
6 Repeat step 5 until you have finished printing.

Stapling prints (Staple Sort mode)



After prints are sorted into sets, they are stapled automatically.

❒ The original set direction and the staple position of the prints are as shown in the illustration.



❒ For Stapling, the following limitations apply:

Metric version:

Paper size	A3□, B4□, A4□ □, B5□.
Paper weight	64 ~ 82 g/m^2
Stapler capacity	64 g/m^2: 2 ~ 50 sheets 75 g/m^2: 2 ~ 42 sheets 80 g/m^2: 2 ~ 40 sheets
Maximum number of sets	20 sets (per sorter stapler)
Paper that cannot be used	p Roughly-cut paper p Paper of different thickness in the same stack p Buckled or curled paper p Short grain paper

Inch version:

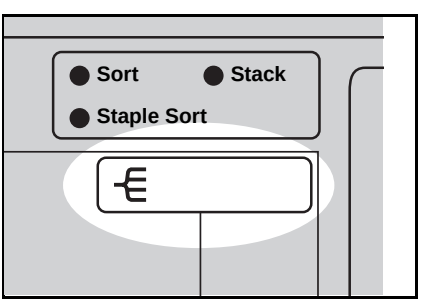
Paper size	11" x 17" ▱ , 8½" x 14" ▱ , 8½" x 11" ▯ ▱.
Paper weight	17.1 ~ 21.8 lb
Stapler capacity	17.1 lb: 2 ~ 50 sheets 20.0 lb: 2 ~ 42 sheets 21.8 lb: 2 ~ 40 sheets
Maximum number of sets	20 sets (per sorter stapler)
Paper that cannot be used	p Roughly-cut paper p Paper of different thickness in the same stack p Buckled or curled paper p Short grain paper

❒ Print sets over the maximum number of sets are delivered to the non-sort tray.

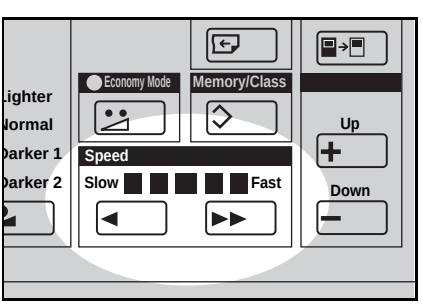
Setting stapling before printing (Auto Staple mode)

❒ This function can be used only when your machine is equipped with the optional 50 originals document feeder.

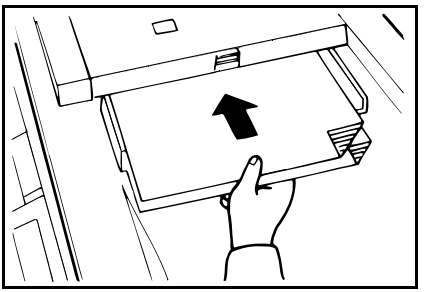
1 Press the **Sorter** key to light the Staple Sort indicator.



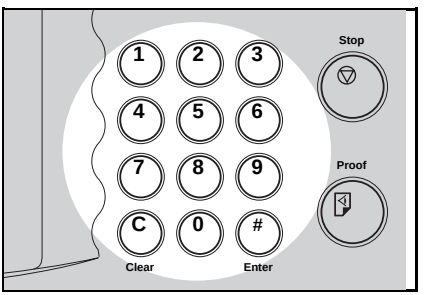
2 If the Speed function Setting 1 indicator and the Special Feature indicator blink, set the speed to Setting 1.



3 Set your originals in the optional 50 originals document feeder.

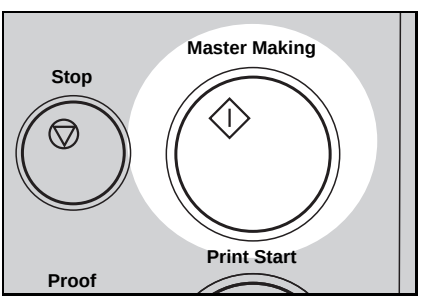


4 Enter the number of sets required using the **Number** keys.



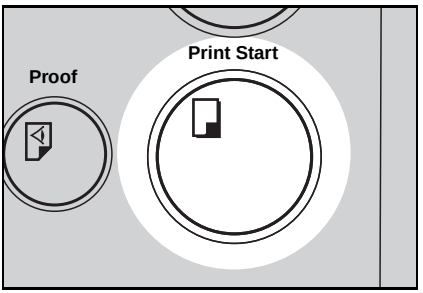
5 Press the **Master Making** key. Check the image position of the trial or proof print.

- If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).
- The trial and proof prints are delivered to the non-sort tray.
- If you press the **Auto Cycle** key, all sets of prints are delivered to the bins automatically after pressing the **Print Start** key. In this case, you cannot make proof prints for each original.



6 Make your prints.

❒ Each print is delivered to each bin of the sorter stapler. Then, the next original is fed and the machine makes its master automatically.

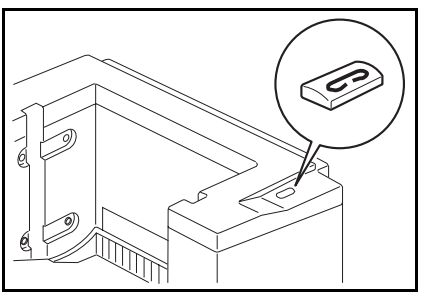


7 Repeat step 6 until you have finished printing.

Caution: Do not insert your hands in the bins during printing or stapling.

❒ After all prints are delivered to the bins, the machine starts stapling.

❒ To cancel Staple Sort mode, press the **Staple** key on the sorter stapler. If you press the **Staple** key again, the machine starts stapling prints again.

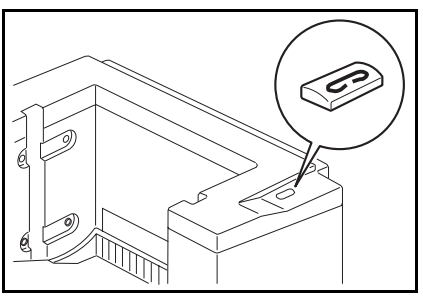


Setting stapling after printing (Manual Staple Mode)

1 When you set originals on the exposure glass, follow the steps 1 through 10 on pages 68, 69 and 70.

When you set originals in the optional document feeder, follow steps 1 through 6 on pages 70 and 71.

2 When you use 2 or more originals, the **Staple** key on the sorter stapler will be lit. Press the **Staple** key.



Caution: Do not insert your hands in the bins during printing or stapling.

❒ To cancel Staple Sort mode while stapling, press the **Staple** key again. If you want to restart stapling, press the **Staple** key once again.

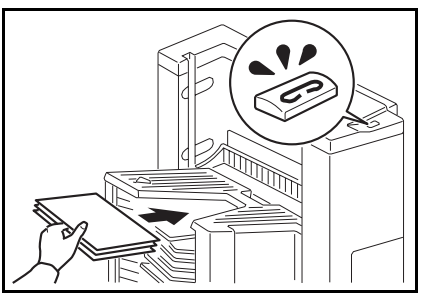
Bypass Feed Stapling

You can staple a stack of paper that is set on the first bin of the sorter stapler.

- ❒ Before setting paper on the first bin, make sure that no prints remain on any of the bins.
- ❒ For stapler capacity, * see page 72 or 73.

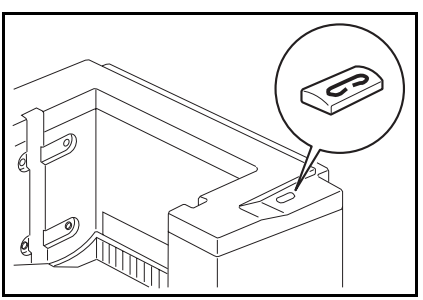
1 Set the stack of paper you want to staple on the first bin.

- ❒ Make sure that the **Staple** key on the sorter stapler is lit.
- ❒ The paper stack must make contact with the front cover and the fence inside of the bins.

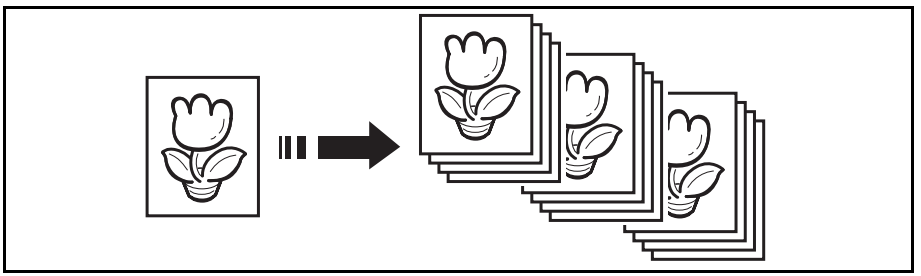


2 Press the **Staple** key.

Caution: Do not insert your hands in the bin during stapling.



Group printing from the same original with the sorter stapler (Class Sort mode)



Use this function to make sets of prints from the same original. The same number of prints is made for each set. They are delivered to the each bin of the sorter stapler.

❒ For Class Sorting, the following limitations apply:

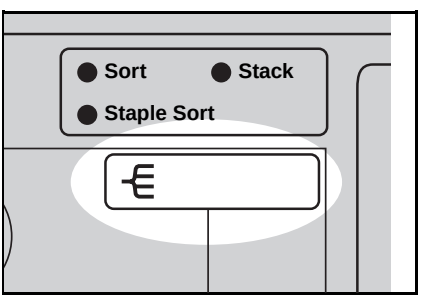
Metric version:

Paper size	A3 ▭, B4 ▭, A4 ▯ ▭, B5 ▯ ▭, A5 ▭.
Paper weight	64 ~ 82 g/m^2
Capacity of bins	A3 and paper sizes other than the sizes described above: 50 sheets Paper sizes described above with exception of A3: 25 sheets
Maximum number of sets	18 sets (When you have 1 sorter stapler) 38 sets (When you have 2 sorter staplers)
Paper that cannot be used	p Roughly-cut paper p Paper of different thickness in the same stack p Buckled or curled paper p Short grain paper

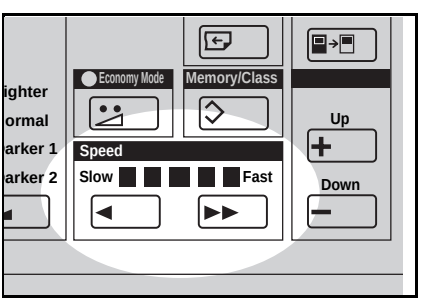
Inch version:

Paper Size	11" x 17" ▭ , 8½" x 14" ▭ , 8½" x 11" ▯ ▭ , 5½" x 8½" ▯
Paper Weight	17.1 ~ 21.8 lb
Capacity of bins	Paper sizes described above with exception of 11" x 17": 50 sheets 11" x 17" and paper sizes other than the sizes described above: 25 sheets
Maximum number of sets	18 sets (When you have 1 sorter stapler) 38 sets (When you have 2 sorter staplers)
Paper that cannot be used	p Roughly-cut paper p Paper of different thickness in the same stack p Buckled or curled paper p Short grain paper

1 Press the **Sorter** key to light the Stack indicator.

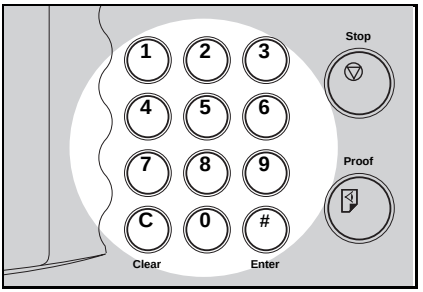


2 If the Speed function Setting 1 indicator and the Special Feature indicator blink, set the speed to Setting 1.

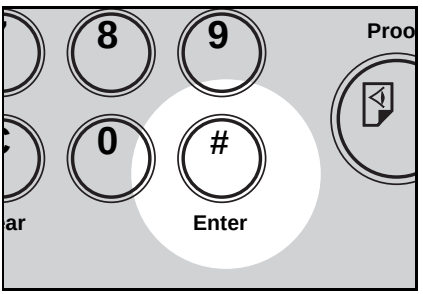


3 Set an original on the exposure glass or in the document feeder.

4 With the **Number** keys, enter the number of prints for each set to be made from the original.

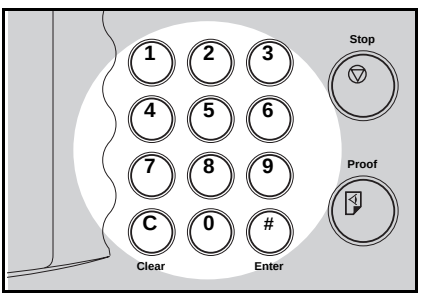


5 Press the **Enter** key.



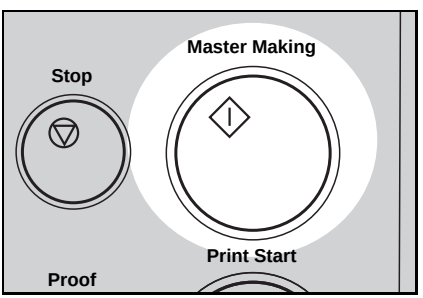
6 With the **Number** keys, enter the desired number of sets.

❒ For the maximum number of sets, * see page 78 or 79.



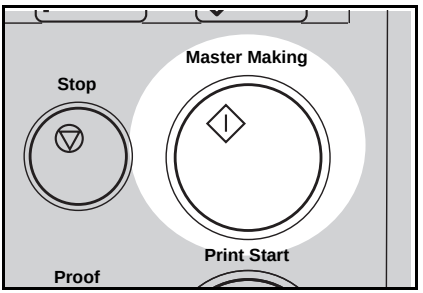
5 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).



6 Make your prints.

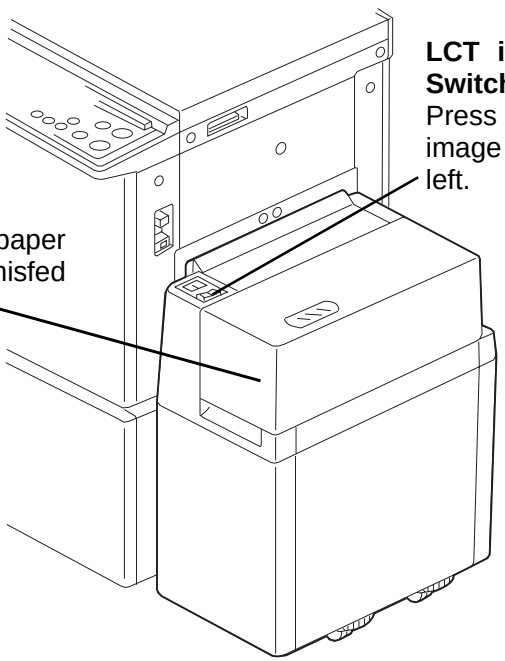
❒ When you want to make prints using another original, remove prints from the bins. Then, repeat steps 3 through 8.



Printing Using The Optional Large Capacity Tray (LCT)

Guide to large capacity tray components

❒ To install the large capacity tray, the LCT cabinet is required.



LCT image position Switch
Press to shift the print image to the right or left.

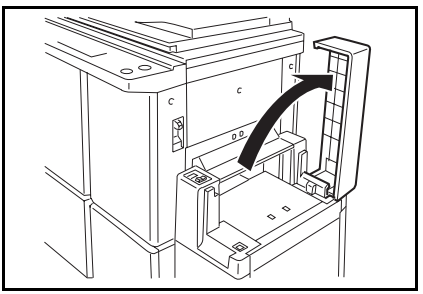
LCT Cover
Open to load paper or remove misfed paper.

Paper Cassette for LCT

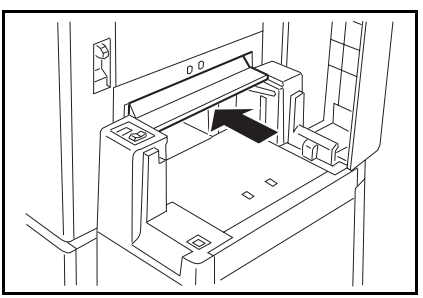
Loading paper

❒ Maximum paper capacity is as follows:
4,000 sheets (64 g/m^2, 17 lb)
3,000 sheets (80 g/m^2, 20 lb).

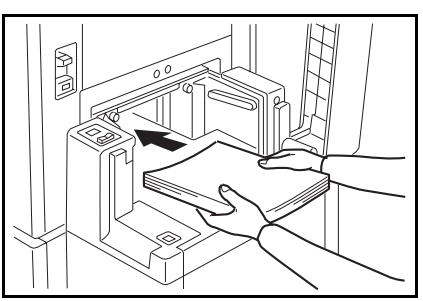
1 Open the LCT cover.



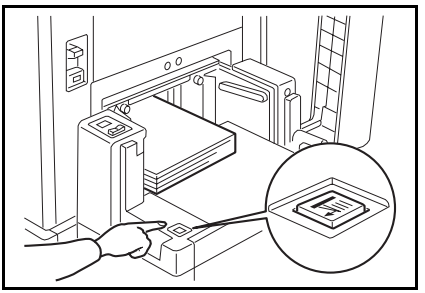
2 Push the slide cover in.



3 Load 500 sheets of paper at a time.

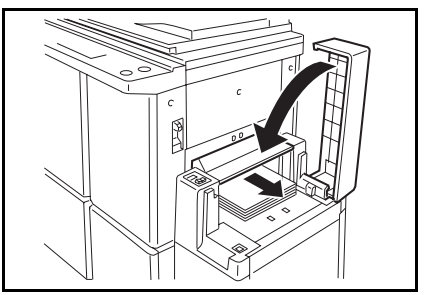


4 Press the **Down** key.



5 Repeat steps 3 and 4 until you have finished loading paper.

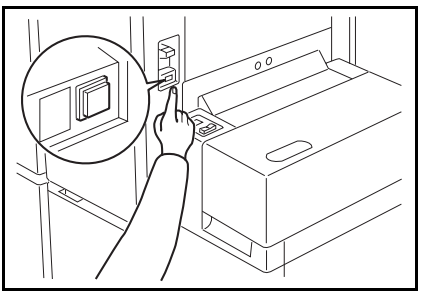
6 Close the slide cover and LCT cover.



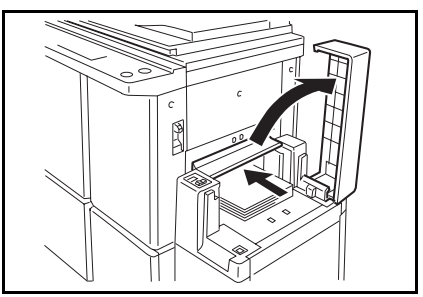
Changing paper size

❒ The following sizes can be set in the LCT.
Metric version : A3 ▭, B4 ▭, A4 ▭▭, B5 ▭▭, A5 ▭.
Inch version : 11" x 17" ▭, 8 1/2" x 14" ▭, 8 1/2" x 11" ▭▭.

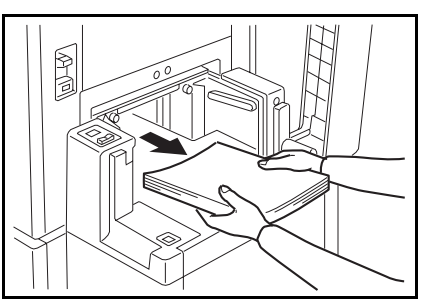
1 Press the **Change Paper** key with the LCT cover closed.



2 After the beeper sounds, open the LCT cover and push the slide cover in.

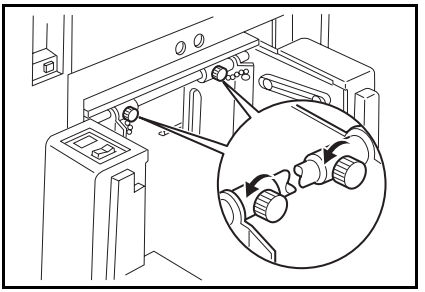


3 Remove paper from the LCT.

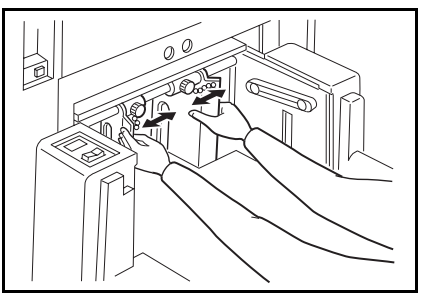


4 Repeat steps 1 through 3 until no paper remains in the LCT.

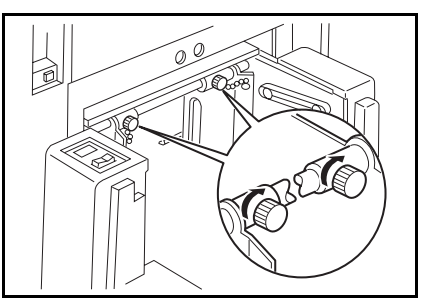
5 Loosen the screws of the side plates.



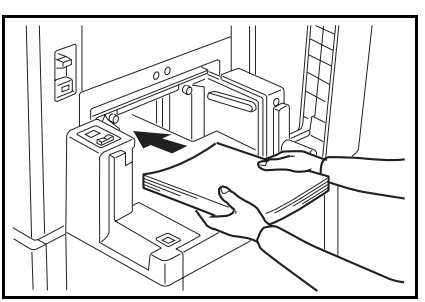
6 Adjust the side plates to match the paper size.



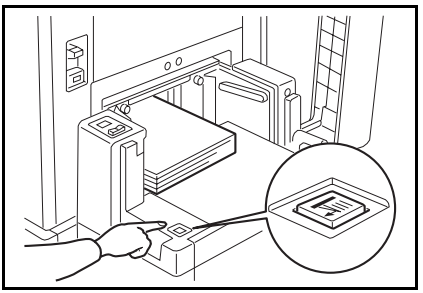
7 Secure the side plates with the screws.



8 Load 500 sheets of paper at a time.

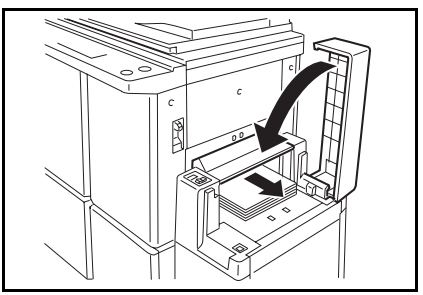


9 Press the **Down** key.



10 Repeat steps 9 and 10 until you have finished loading paper.

11 Close the slide cover and LCT cover.

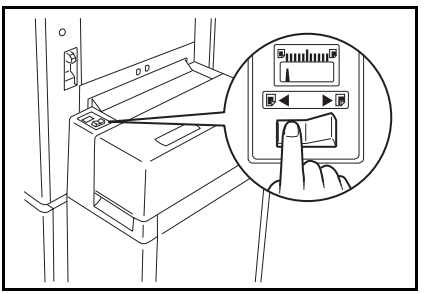


Adjusting the image position to the right or left

- ❒ The image position can be shifted up to about 10 mm, 2/5" each way. Each division on the scale is 2 mm, 0.08".
- ❒ If your machine is equipped with the optional sorter stapler, the image position is shifted to 3 mm, 0.12" for each division on the scale.

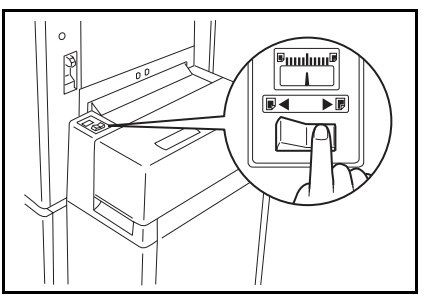
Shifting the image to the right

1. Press the LCT image position switch as shown in the illustration.



Shifting the image to the left

1. Press the LCT image position switch as shown in the illustration.



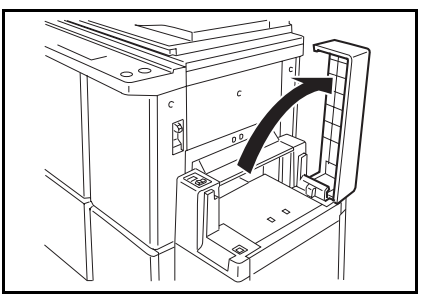
Printing using the paper cassette for LCT

While you make prints using the optional large capacity tray, you can change paper size temporarily using the paper cassette for LCT.

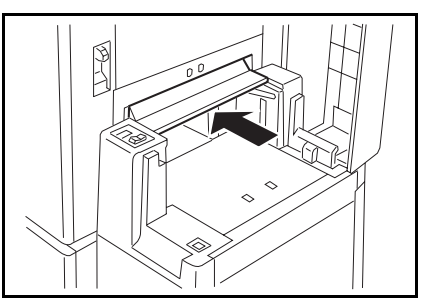
❒ Maximum paper capacity is as follows:
500 sheets (64 g/m^2, 17 lb)
400 sheets (80 g/m^2, 20 lb).

Loading paper

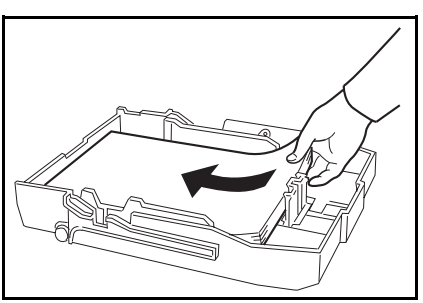
1 Open the LCT cover.



2 Push the slide cover in.

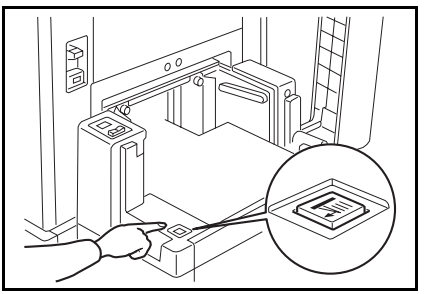


3 Load paper in the paper cassette for LCT.

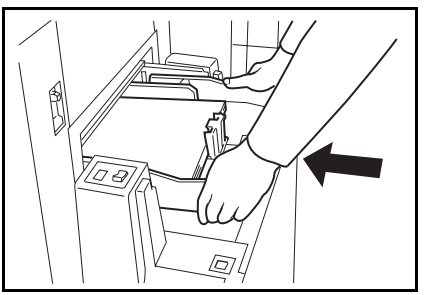


4 Press the **Down** key for about 2 seconds.

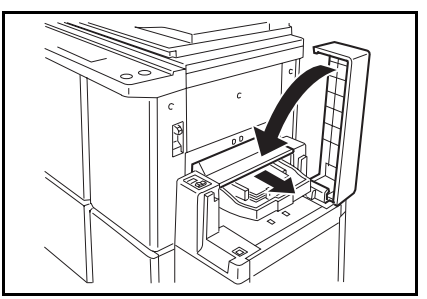
❒ Make sure that the **Down** key is not lit.



5 Push the cassette forward until it stops.

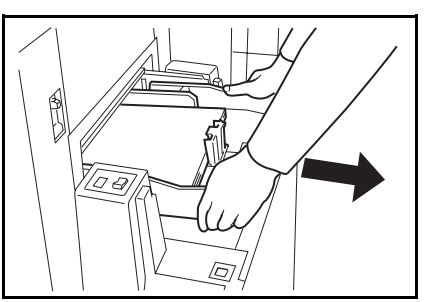


6 Close the slide cover and LCT cover.



7 Make your prints.

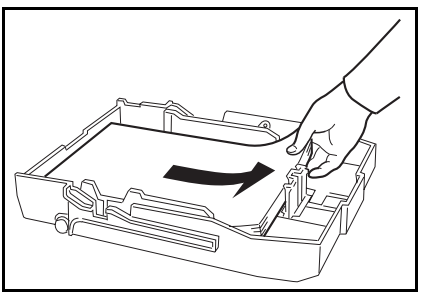
8 After printing is finished, remove the cassette and close the slide cover and LCT cover.



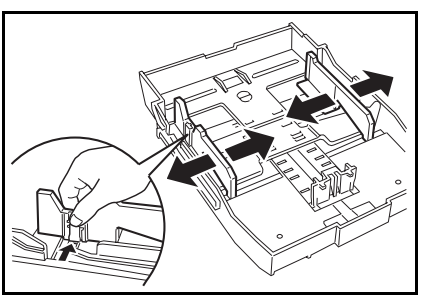
Changing paper size

❒ The following sizes can be set in the paper cassette for LCT.
Metric version: A3 ▭, B4 ▭, A4 ▭▭, B5 ▭▭, A5 ▭, A6 ▭.
Inch version: 11" x 17" ▭, 8 1/2" x 14" ▭, 8 1/2" x 11" ▭▭.

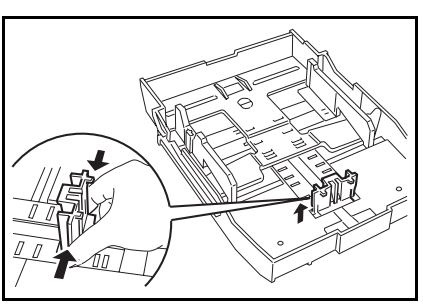
1 Remove paper from the cassette.



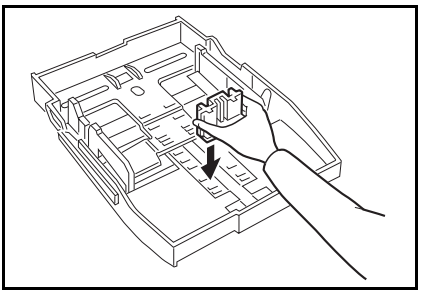
2 While pressing the release lever on the left guide, adjust the left and right side guides to match the paper size.



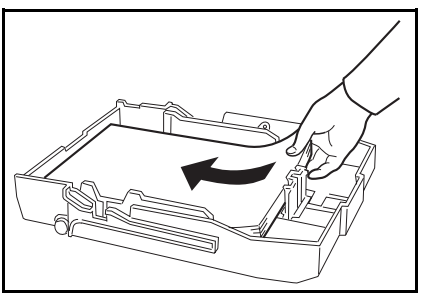
3 Remove the end plate as shown in the illustration.



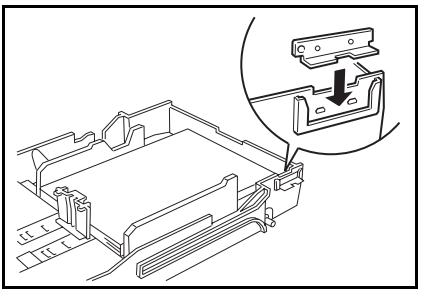
4 Set the end plate to match the paper size as shown in the illustration.



5 Load paper in the cassette.



6 Set the paper size selector to match the paper size and direction.



❒ The indicators on the paper size selector and their equivalent paper size are as following.

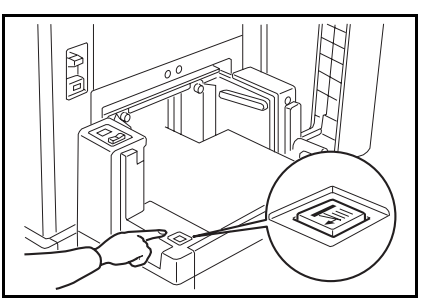
Metric version:

Indicators	Paper size
A3	A3 ▭
B4	B4 ▭
A4	A4 ▯
A4R	A4 ▭
B5	B5 ▯
B5R	B5 ▭
A5R	A5 ▭
A6R	A6 ▭

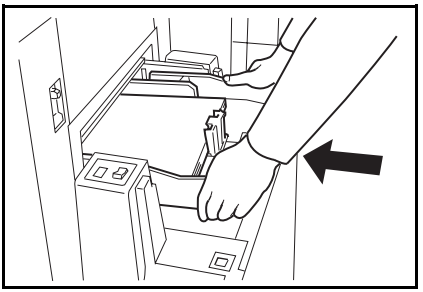
Inch version:

Indicators	Paper size
11 x 17	11" x 17" ▭
8 1/2 x 14	8 1/2" x 14" ▭
11 x 8 1/2	8 1/2" x 11" ▯
8 1/2 x 11R	8 1/2" x 11" ▭

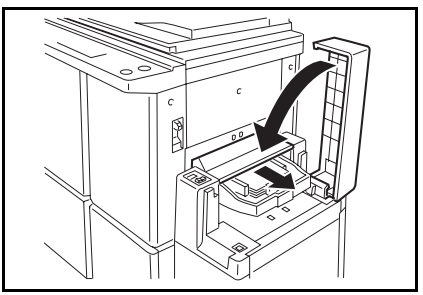
7 Continue pressing the **Down** key until the **Down** key is not lit.



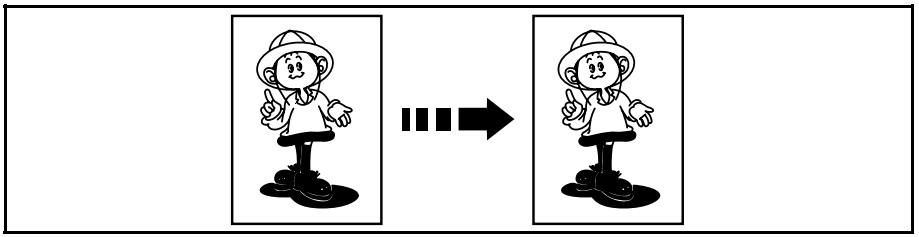
8 Push the cassette forward until it stops.



9 Close the slide cover and LCT cover.



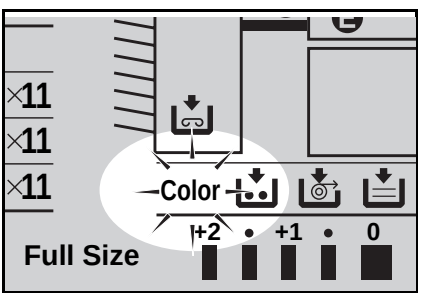
Color Printing Using The Optional Color Drum



Color drum units (red, blue, green, brown, yellow, purple, navy, and maroon) are available as options in addition to the standard black unit. For making color prints, a separate drum unit is necessary for each color.

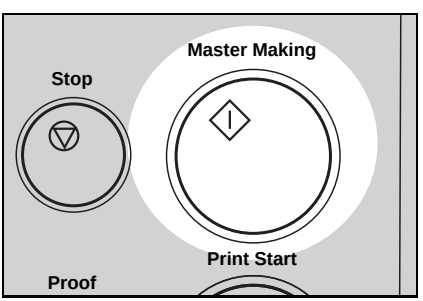
Making color prints

1 Make sure that the Color Print indicator is lit.



2 Press the **Master Making** key. Check the image position on the trial or proof print.

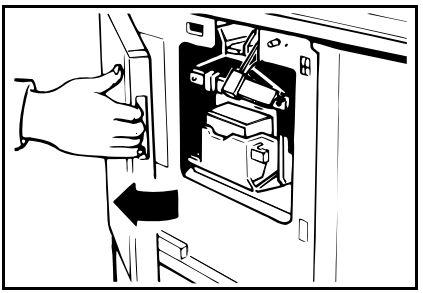
- If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or side plate fine adjusting dial (* see page 22).



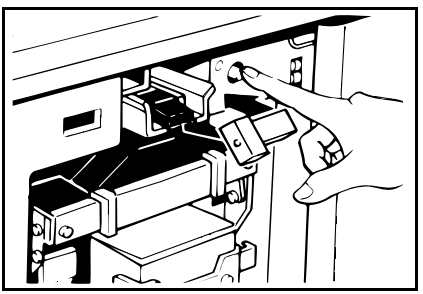
3 Make your prints.

Changing the drum unit for color printing

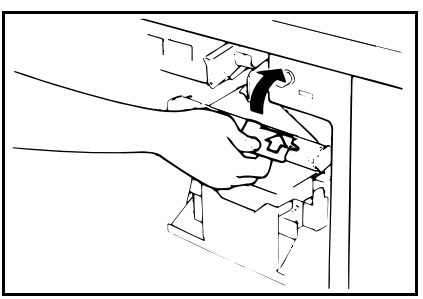
1 Open the front door.



2 Make sure that the lamp of the drum rotation button is green. If this lamp is red, press the drum rotation button until the beeper sounds and the lamp turns green.

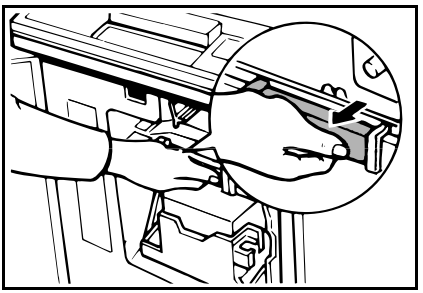


3 Lift the lock lever until it locks in position.

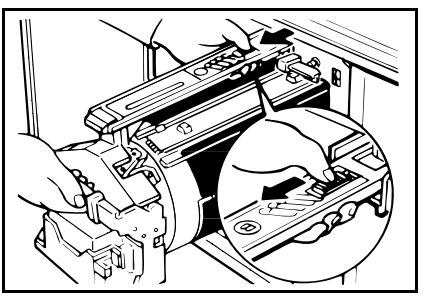


4 Pull out the drum unit handle while pressing the release bar inside the green handle.

❒ If you cannot pull out the drum unit even when the lamp of the drum rotation button is green, push the drum unit handle, then pull out the drum unit.

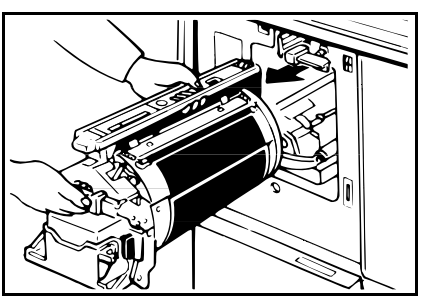


5 Hold the rail on the drum and slide out the drum while pulling the release towards you.

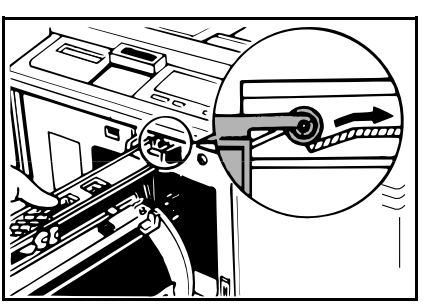


6 Remove the drum unit from the machine while holding the upper drum stay.

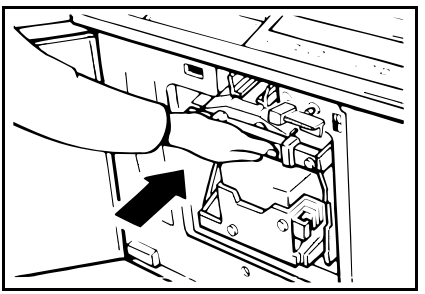
Caution: Be careful not to let the drum unit fall.



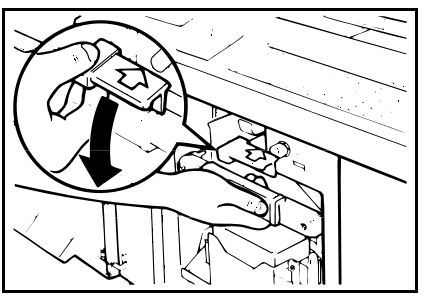
7 Insert the color drum unit along the guide rail.



8 Slide in the drum unit until the drum unit locks in position.



9 Lower the drum unit lock lever.



10 Close the front door.

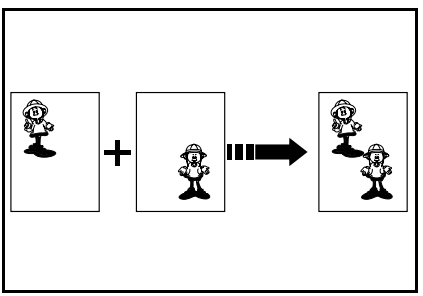
❒ Make sure that the Cover Open indicator turns off, and the Color Drum indicator lights.

Printing in two colors

After printing in one color, you can print in another color on the same side of the print.

- ❒ You cannot print in two colors at one time.
- ❒ Leave the prints for a while before printing on them again to let the ink dry.

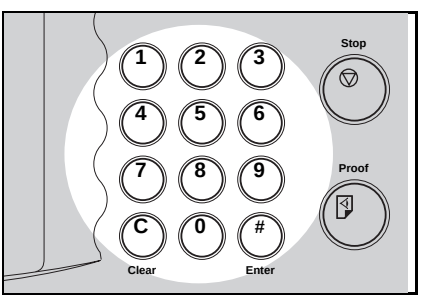
1 Prepare the two originals. Set the first original on the exposure glass.



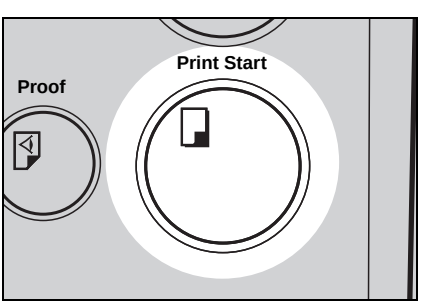
2 Enter the number of prints using the **Number** keys.

3 Press the **Master Making** key. Check the image position of the trial or proof print.

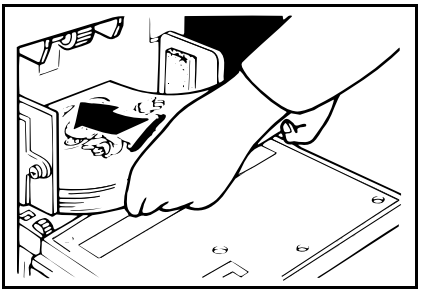
- ❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).



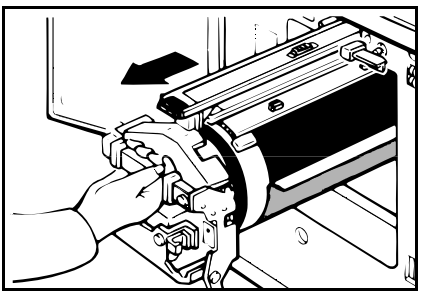
4 Press the **Print Start** key.



5 Remove the prints from the paper delivery table and set them on the paper feed table again as shown in the illustration.

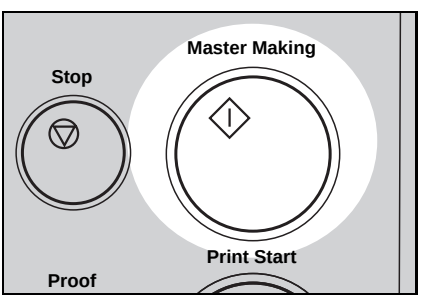


6 Exchange the drum unit. * See page 96.



7 Set the second original and press the **Master Making** key. Check the image position.

8 Press the **Print Start** key.



CHANGING DEFAULT SETTINGS (SERVICE PROGRAM MODE)

Printing needs may vary. To suit your applications, you can adjust the settings for certain functions.

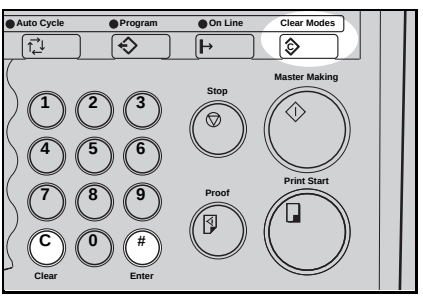
How To Access Service Programs

The service programs can be set by following this procedure.

❒ For the service program menu, * see page 116.

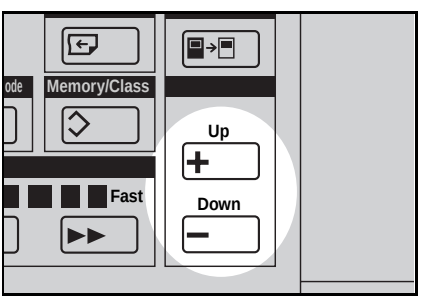
1 Press the keys on the operation panel in the following order:
(1) **Clear Modes** key
(2) **Clear** key
(3) **Enter** key.

❒ If you press the wrong key, try pressing the above keys from the beginning.



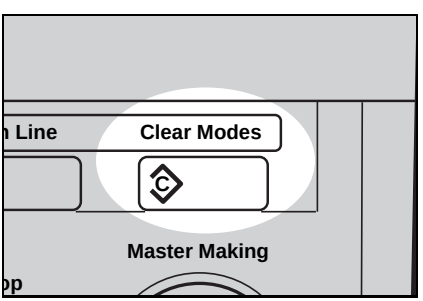
2 "01" will blink on the Memory/Class indicators. Set the required service program number (SP No.) using the **Up** or **Down** key.

❒ * For the SP No., refer to page 116.



3 When you want to leave the Service Program mode, press the **Clear Modes** key.

If you want to change the settings of a selected service program, * see page 102.



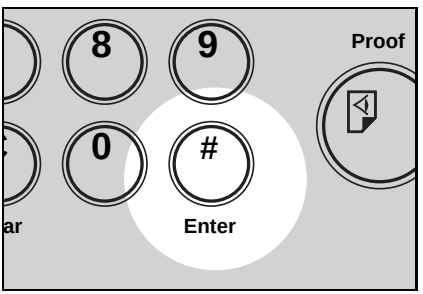
How To Change Settings of Service Programs

❒ If you register SP No. 01, 02, 03, 04, 05 or 06 and their setting in the **CS Mode** key (* see page 104.), you cannot change their settings using the procedure 1.

Procedure 1

1 After entering the desired SP No., press the **Enter** key. The setting set at the factory will be displayed on the counter.

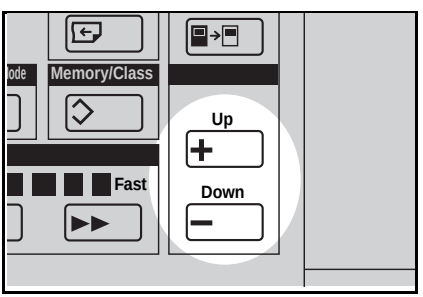
❒ If you designate the wrong SP No., press the **Clear Modes** key. Then, re-enter the desired SP No..



2 Set the required setting using the **Up** or **Down** key.

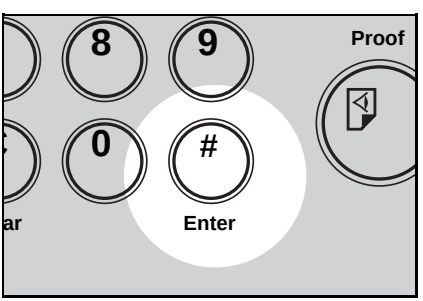
❒ For the setting of each SP No., * see page 116.

❒ You can see the selected setting on the counter.

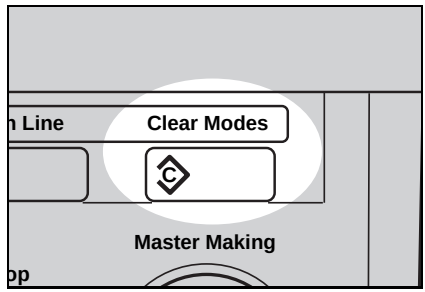


3 Press the **Enter** key to store the desired setting.

❒ If you enter the wrong setting, press the **Clear Modes** key. Then, restart operation from step 1.



4 When you want to leave the Service Program mode, press the **Clear Modes** key twice.



Procedure 2

You can change the settings of the following 6 service programs using procedure 2.

SP No.	Mode
01	Tint mode setting
02	Auto double copy mode selection
03	Memory stack mode
04	Auto class mode
05	Paper size detection selection
06	Quality Start setting

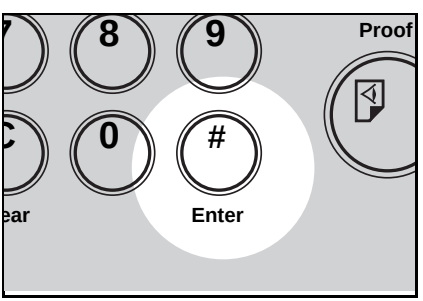
Up to 3 service programs and their settings among the above 6 service programs can be registered in the **CS Mode** key. You can recall registered service programs and their settings and make prints using the **CS Mode** key.

*How to register SP modes and settings in the **CS Mode** key*

1. Enter the service program mode and select the service number you want to register. * See page 101.

2. Press the **Enter** key.

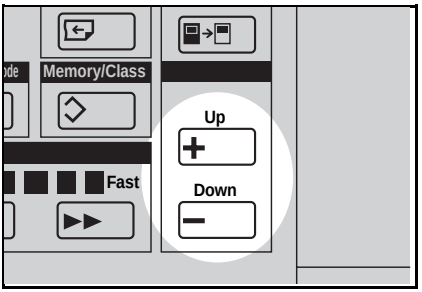
❒ If you designate the wrong SP No., press the **Clear Modes** key. Then, re-enter the desired number.



3 Enter the desired setting as follows:

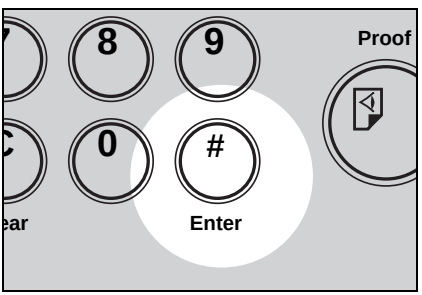
When you want to select "ON", press the **Up** key.

When you want to select "OFF", press the **Down** key.



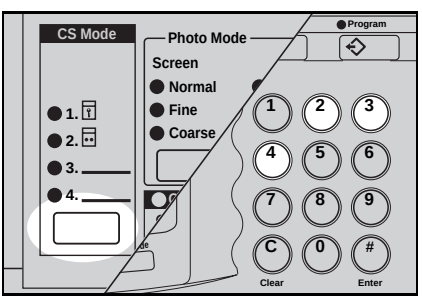
4 Press the **Enter** key.

❒ If you enter the wrong setting, press the **Clear Modes** key. Then, restart operation from step 3.

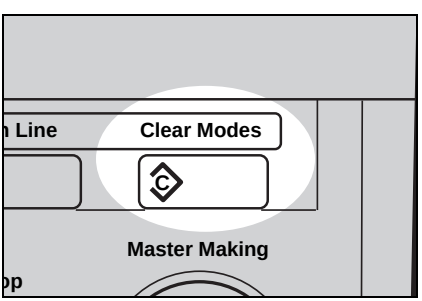


5 While pressing the **CS Mode** key, press 2, 3 or 4 using the **Number** key until the beeper sounds.

❒ Make sure that the previous function registered under the selected number (2, 3 or 4) are overwritten.



6 Press the **Clear Modes** key twice.

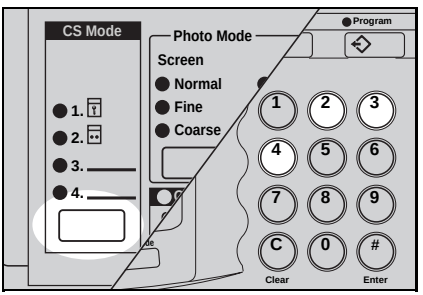


*How to make prints with the **CS Mode** key*

Tint mode setting

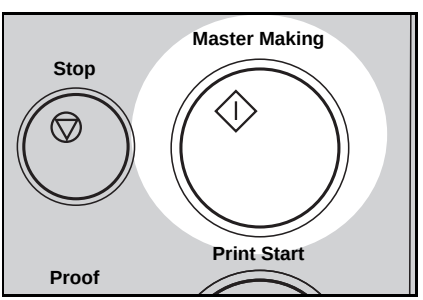
1 Set your originals on the exposure glass or in the optional document feeder.

2 While pressing the **CS Mode** key, press the number under which you registered Tint mode and its setting using the **Number** key.



3 Enter the number of prints using the **Number** keys.

4 Press the **Master Making** key.

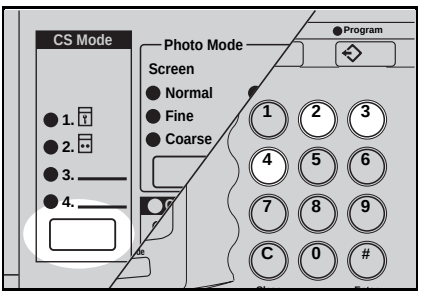


5 Make your prints.

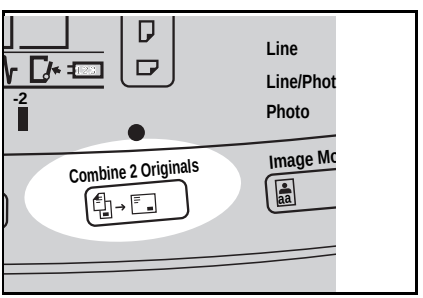
Auto double copy mode

1. Set your originals on the exposure glass.

2. While pressing the **CS Mode** key, press the number under which you registered Auto double copy mode and its setting using the **Number** key.

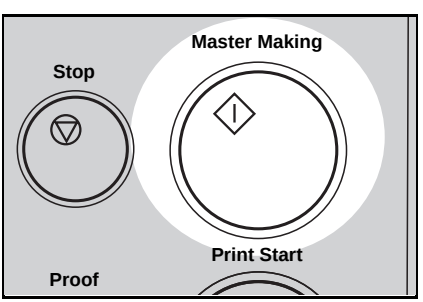


3. Press the **Combine 2 Originals** key and enter the number of prints using the **Number** keys.



4. Press the **Master Making** key.

5. Make your prints.



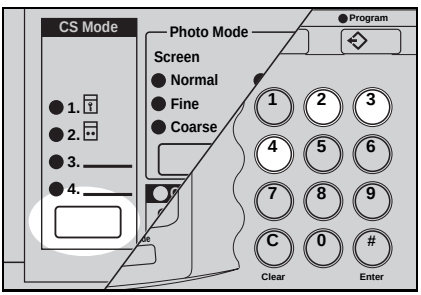
Memory Stack mode

❒ You can use this function when your machine is equipped with the optional tape dispenser.

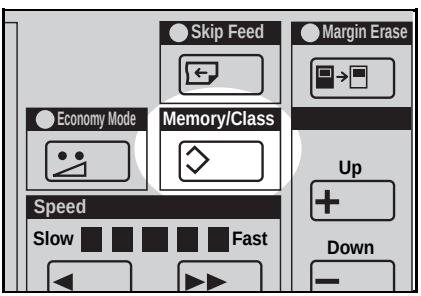
1 Set the original on the exposure glass.

❒ You cannot set originals in the optioinal document feeder in this function.

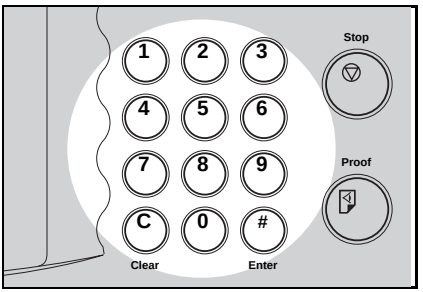
2 While pressing the **CS Mode** key, press the number under which you registered Memory Stack mode and its setting using the **Number** key.



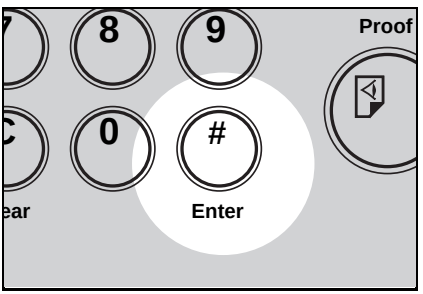
3 Press the **Memory/Class** key to light the Memory indicator.



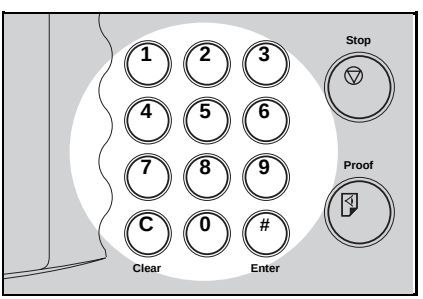
4 With the **Number** keys, enter the desired number of prints for the first set of prints.



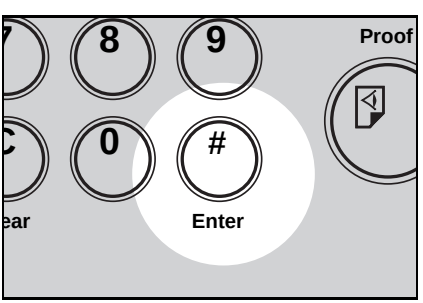
5 Press the **Enter** key.



6 With the **Number** keys, enter the number of prints for the next set of prints.



7 Press the **Enter** key.

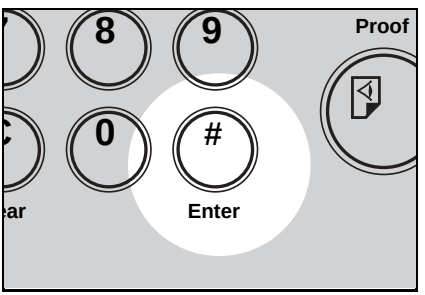


8 Repeat steps 6 and 7 until number of prints for the registered number of sets are stored.

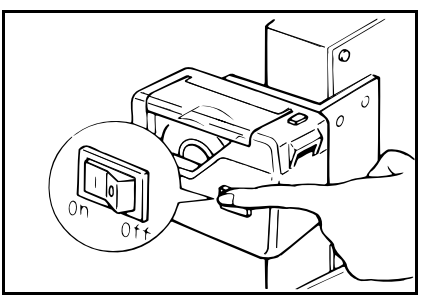
❒ Up to 20 sets can be stored in memory for the number of prints.

9 Press the **Enter** key again. The Memory returns to memory 1.

❒ If you store the number of prints for 20 sets, the memory number returns to 1. It is not necessary to press the **Enter** key.

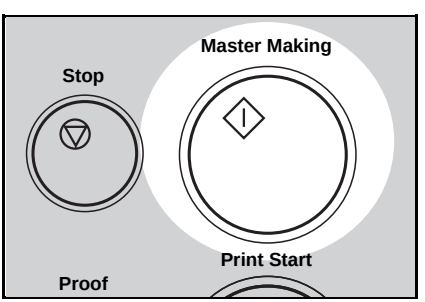


10 Turn on the power switch of the optional tape dispenser.



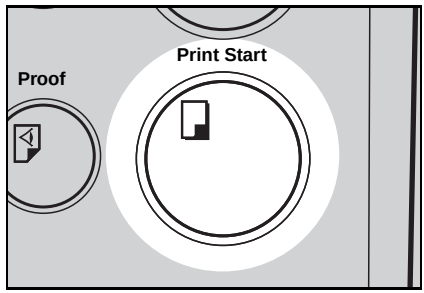
11 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).



12 Make your prints.

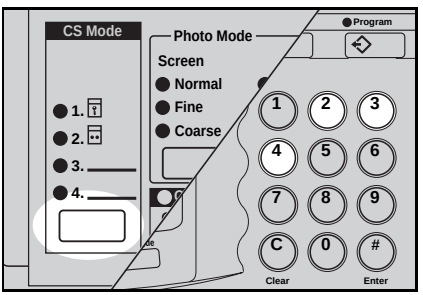
❒ After the first set is fed to the paper delivery table, the tape dispenser drops a strip of paper on the top of the paper stack.



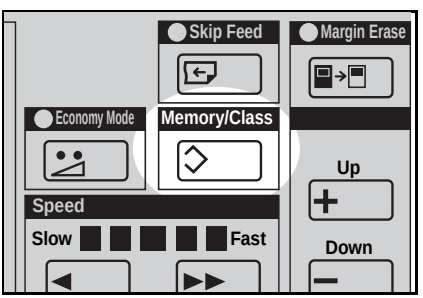
Auto Class mode

1 Set your originals on the exposure glass or in the optional document feeder.

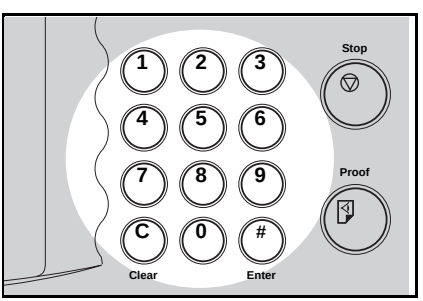
2 While pressing the **CS Mode** key, press the number under which you registered Auto Class mode and its setting using the **Number** key.



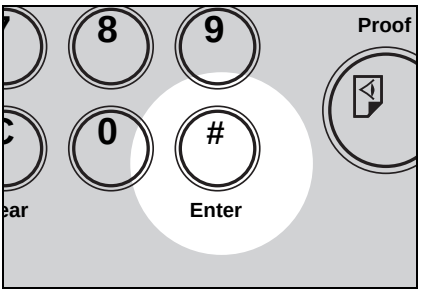
3 Press the **Memory/Class** key to light the Class indicator.



4 With the **Number** keys, enter the number of prints for each set to be made from the original.

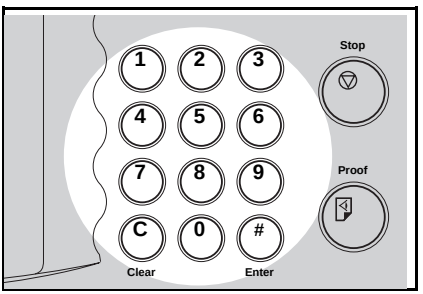


5 Press the **Enter** key.

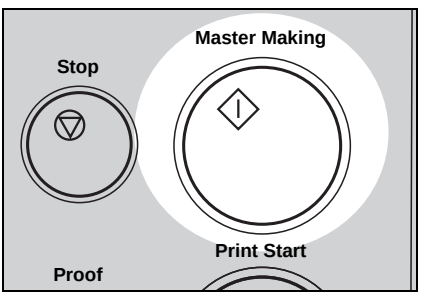


6 With the **Number** keys, enter the desired number of sets.

- The maximum number of sets that can be made is 99.

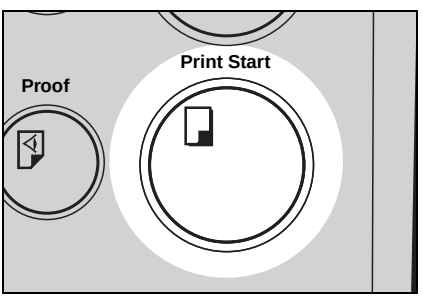


7 Press the **Master Making** key.



8 Make your prints.

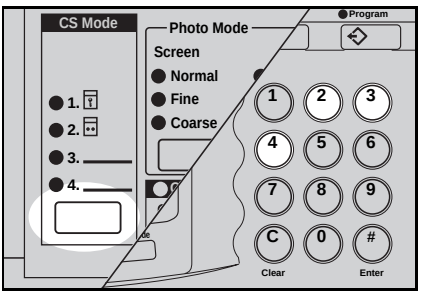
- The machine stops printing for 2 seconds after the first set is fed to the paper delivery table.



Paper size detection selection

1 Set your originals on the exposure glass or in the optional document feeder.

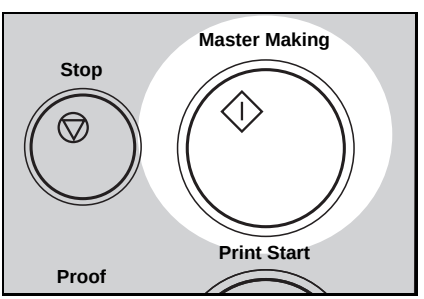
2 While pressing the **CS Mode** key, press the number under which you registered Paper size detection selection mode and its setting using the **Number** key.



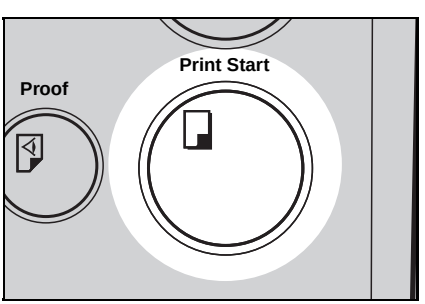
3 Enter the number of prints using the **Number** keys.

4 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).



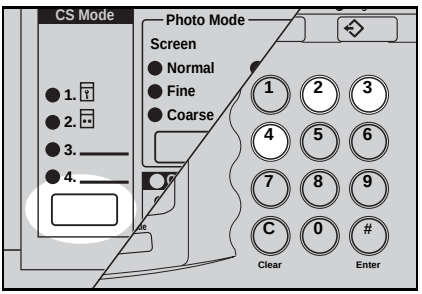
5 Make your prints.



Quality Start setting

1 Set your originals on the exposure glass or in the optional document feeder.

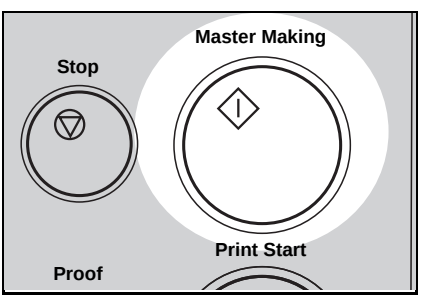
2 While pressing the **CS Mode** key, press the number you registered Quality Start setting and its setting using the **Number** key.



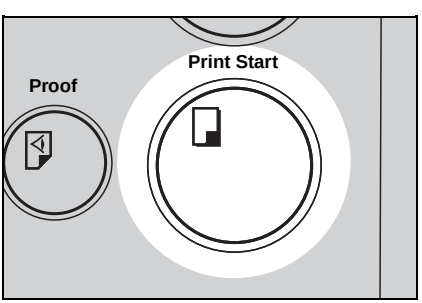
3 Enter the number of prints using the **Number** keys.

4 Press the **Master Making** key. Check the image position of the trial or proof print.

❒ If the image position is not correct, adjust it using the **Image Position** keys (* see page 21) or the side plate fine adjusting dial (* see page 22).



5 Make your prints.



Service Program Menu

SP No.	Mode	Function
01	Tint mode setting	Reproduce tint image. ❒ Default: OFF ❒ Adjustment value: ON: Tint mode OFF: Not Tint mode
02	Auto Double Copy mode selection	If you set an original on the exposure glass and press the **Combine 2 originals** key and **Master Making** key, Combine 2 Originals mode is selected automatically. ❒ Default: OFF ❒ Adjustment value: ON: Auto Double Copy mode OFF: Combine 2 Originals mode ❒ For how to make prints in Auto Double Copy mode, follow the steps 1 and 3 through 5 on page 107. ❒ You cannot set an original in the optional document feeder in Auto Double Copy mode.
03	Memory Stack mode	In Memory mode, you set several original each of which a different number of sets can be printed. In Memory Stack mode you can print several different stacks from one original. ❒ Default: OFF ❒ Adjustment value: ON: Memory Stack mode OFF: Memory mode ❒ For how to make prints in Memory Stack mode, follow the steps 1 and 3 through 12 on pages 108, 109, 110 and 111. ❒ You can use this function when your machine is equipped with the optional tape dispenser. ❒ You cannot set originals in the optional document feeder in Memory Stack mode.

SP No.	Mode	Function
04	Auto Class mode	In this function, the machine stops printing for 2 seconds after one set of prints are completed in Class mode. This gives you the chance to separate each set when you do not have an optional tape dispenser. For example, you can remove prints one by one from the paper delivery table or insert one sheet of paper between the prints. ❒ Default: OFF ❒ Adjustment value: ON: Auto Class mode OFF: Class mode
05	Paper size detection selection	The machine determines the print area size according to the reproduction ratio and the size of paper set on the paper feed table. If you are making prints on non-standard paper and the original image does not entirely appear on the print, set paper size detection to off. ❒ Default: ON ❒ Adjustment value: ON: Detect paper size OFF: Not detect paper size
06	Quality Start setting	If the machine is not used for a long period of time the image density might decrease because the ink on the drum might dry. Printing quality can be regained by making a few prints. The Quality Start function recovers the image density quality and it prevents you from making extra prints. Contrary to the Auto Quality Start function (SP 12), this function can be activated before 8 hours have passed if it is set to ON. When you set the Quality Start function to be "ON", the bold letters or solid images may be light. To get the image density, you need to make a few prints. ❒ Default: OFF ❒ Adjustment value: ON: Quality Start mode is for every master making. OFF: Auto Quality Start mode is not set.

SP No.	Mode	Function
10	Beeper ON/OFF setting	Turns the key beeper on or off. ❒ Default: OFF ❒ Adjustment value: ON: Beeper sounds. OFF: Beeper does not sound.
11	Adjust background image in Photo or Line/Photo mode	When you select Photo or Line/Photo mode, moire patterns may occur on the background of the prints. You can remove a moire pattern with this function. ❒ Default: OFF ❒ Adjustment value: ON: Adjust background image OFF: Not adjust background image
12	Auto Quality Start setting	If the machine is not used for a long period of time, the image density might decrease because the ink on the drum might dry. The Auto Quality Start function (default is ON) automatically recovers image density quality after a time period of 8 hours has passed, regardless of the number of times the machine is used. If Auto Quality Start is set to off you can regain print quality by making a few extra prints. ❒ Default: ON ❒ Adjustment value: ON: Auto Quality Start mode is set. OFF: Auto Quality Start mode is not set.
20	Minimum print quantity setting	Specifies the minimum number of prints. Example: If you specify 20 as the minimum number of prints, runs of 20 or more copies will be accepted, runs of less than 20 copies will not be accepted. ❒ Default: 0 ❒ Adjustment value: 0, 1, 10, 15, 20

SP No.	Mode	Function
21	Skip paper feed setting	When you use the Skip Feed Printing function, you can select how many times the drum rotates while one sheet of paper is fed. ❒ Default: 2 times ❒ Adjustment value: 1 to 10 times
22	Auto Reset mode setting	Sets the auto reset time. The machine automatically returns to the default settings if no keys are pressed during this time period. This mode can be turned off. ❒ Default: no: Auto reset is turned off. ❒ Adjustment value: no, 1 to 5 minutes

REPLENISHING SUPPLIES

Loading Paper On The Paper Feed Table

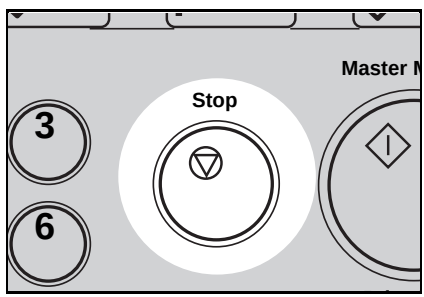
The Load Paper indicator (🖷) blinks when the paper feed table runs out of paper.

- ❒ For how to load paper in the optional large capacity tray, * see page 83.
- ❒ For how to load paper in the optional paper cassette for LCT, * see page 89.

Replenishing paper

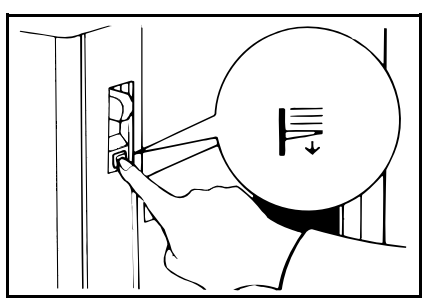
1 Press the **Stop** key.

- ❒ This step is necessary only if you want to pause a print run to replenish paper.



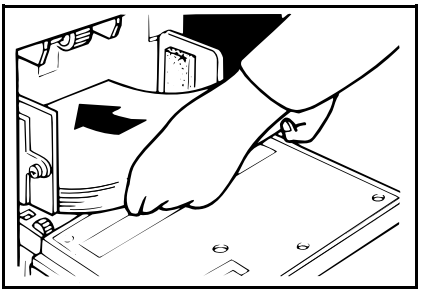
2 Press the **Lower Paper Feed Table** key.

- ❒ The paper feed table will lower without the key being pressed when the printing paper runs out.
- ❒ The top sheet might remain between the feed rollers. In this case, remove the top sheet.

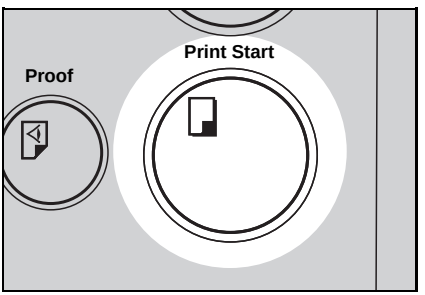


3 Load paper on the paper feed table.

- ❒ Release the pads of the feed side plates before loading paper. Reset the pads after the paper is set.
- ❒ Correct paper curl before setting the paper.



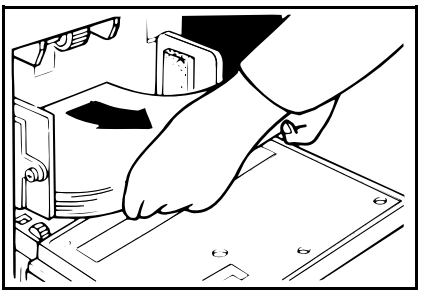
4 Press the **Print Start** key to resume printing.



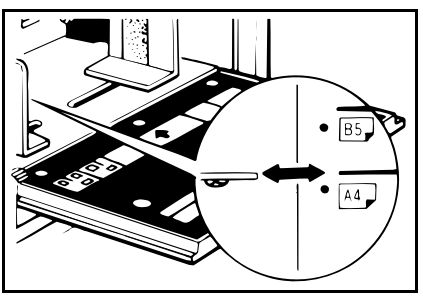
Changing the paper size

1 Remove the paper from the paper feed table.

- ❒ The paper feed tray will lower.

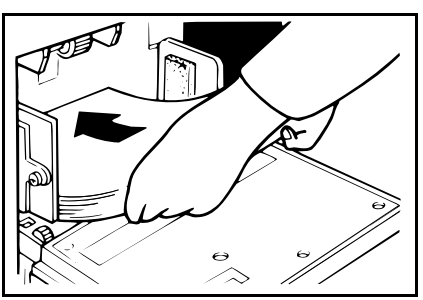


2 Adjust the paper feed side plates to match the paper size.

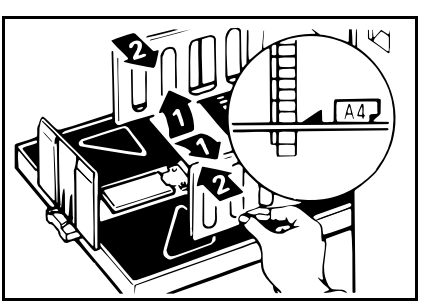


3 Place the paper on the paper feed table.

- ❒ Correct any paper curl before setting the paper.
- ❒ Make sure that the side plates contact the paper lightly.



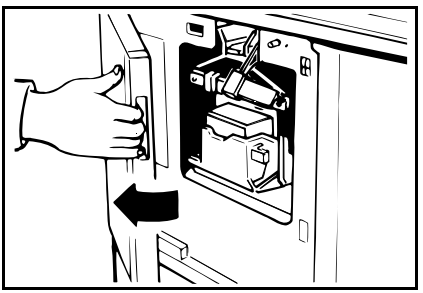
4 Adjust the side plates and the end plate and if necessary, the small size end plate at paper delivery table.



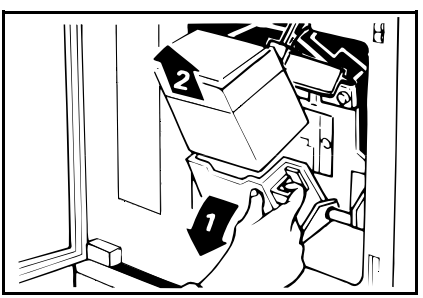
Supplying Ink

The Add Ink indicator (🖋) and the Reset indicator blink when it is time to supply ink.

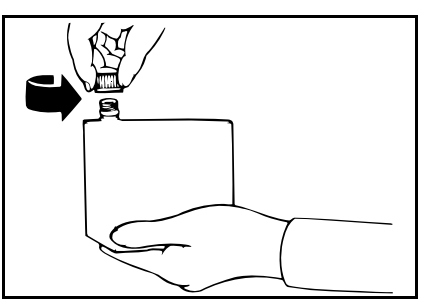
1 Open the front door.



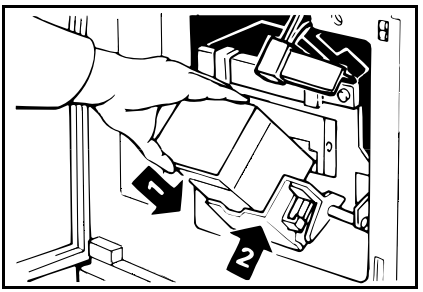
2 Lower the ink holder and remove the used ink cartridge.



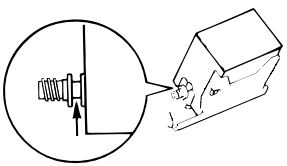
3 Remove the cap of the new ink cartridge.



4 Insert the new cartridge into the ink holder. Return the ink holder to its original position until it clicks.



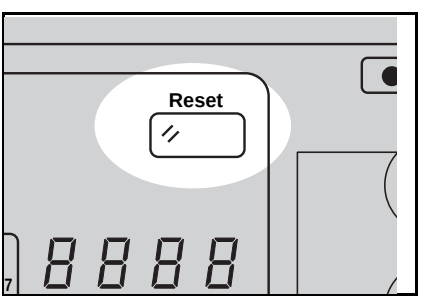
- ❒ Always supply ink of the same color.
- ❒ Make sure to firmly insert the part indicated by the arrow mark into the guide.



5 Close the front door.

6 Press the **Reset** key.

- ❒ The machine will start idling to supply ink to the drum. It will stop when the correct amount of ink reaches the drum.

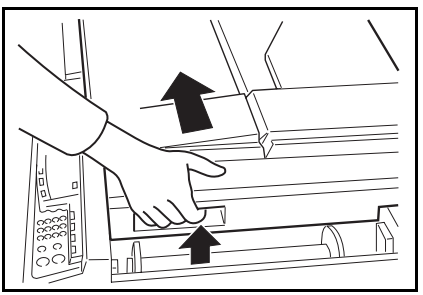


Master Roll Replacement

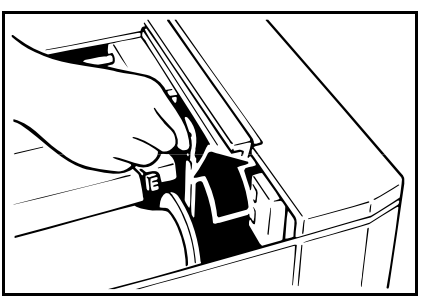
The Master End indicator ( ) blinks when it is time to replace the master roll.

1 Open the original table.

❒ Lift the original table release lever and slide the original table all the way to the left.

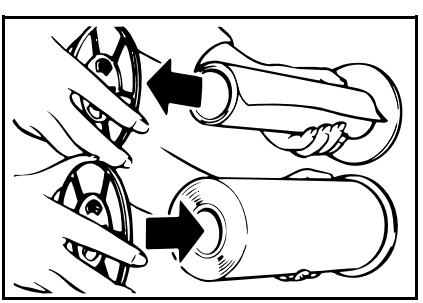


2 Lift the pressure release lever in the direction of the arrow to release the feed roller pressure.

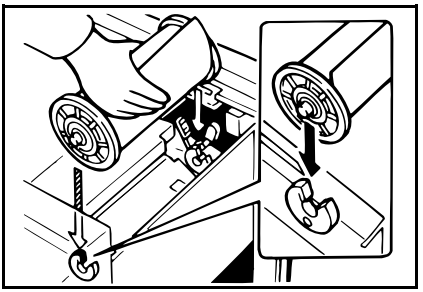


3 Remove the used master roll and pull out both spools. Then, insert both spools into a new master roll.

❒ When the Master End indicator lights, it is necessary to replace the master roll even if some master remains on the old roll.



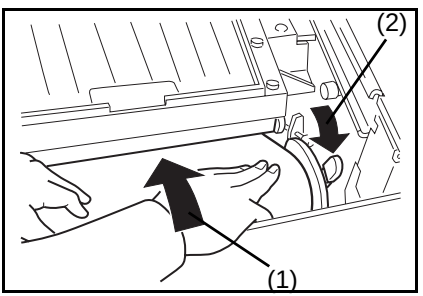
4 The new master roll must be positioned as shown in the illustration.



5 Insert the paper edge of the master roll under the arrow mark (1) until you can see the leading edge under the transparent cover.

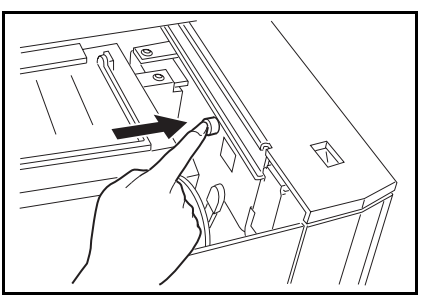
6 Return the pressure release lever to its original position (2).

❒ Rotate the spools backward to take up any slack in the master.



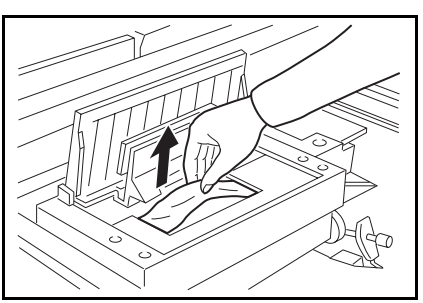
7 Press the master cut button to cut the leading edge of the master roll.

Caution: When the master cut button is pressed, the master roll will rotate. Do not touch the master roll.



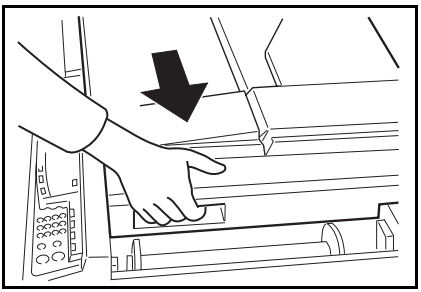
8 After the beeper sounds, open the transparent cover and remove the cut-off portion of the master roll.

❒ Remove the cut-off master completely to prevent master misfeed.



9 Return the original table to its original position.

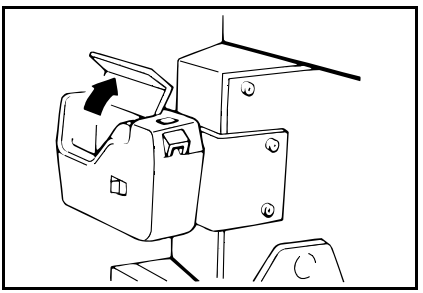
❒ Slide the original table to the right until it stops.



Placing A New Roll Of Tape In The Tape Dispenser (Option)

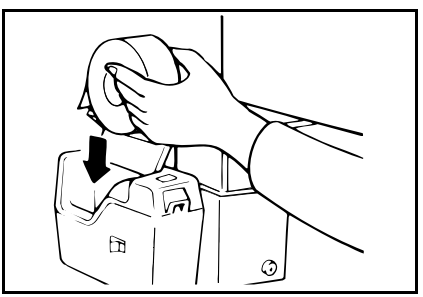
❒ Make sure that the main switch is turned on and the tape power switch is off.

1 Open the cover of the tape dispenser.



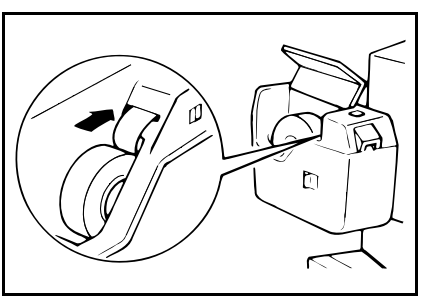
2 As shown, put the roll in the dispenser.

❒ Make sure that the tape is installed in the proper direction. If it is not in the correct direction, the tape dispenser will not work correctly.

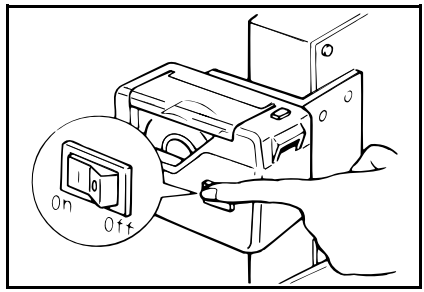


3 Feed the leading edge of the roll in the dispensing slot until it stops.

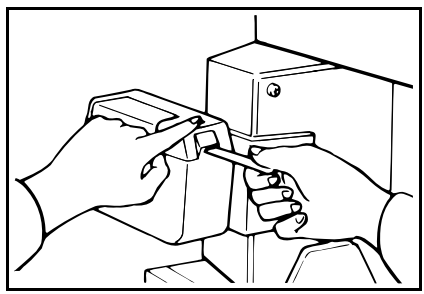
❒ Push the tape as far as possible through the slot.



4 Turn on the power switch of the tape dispenser.



5 Press the manual cut button to trim off the leading edge of the tape.



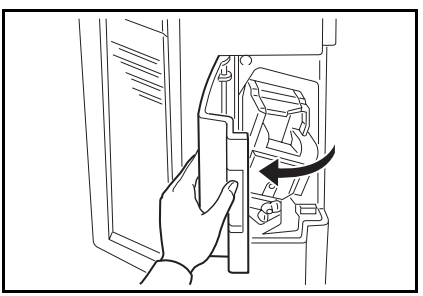
Adding Staples

The Staple (🖶) and "H" indicators blink when the optional sorter stapler runs out of staples. When your machine is equipped with the 2 sorter staplers, the sorter stapler on which the **Staple** key is blinking has run out of staples.

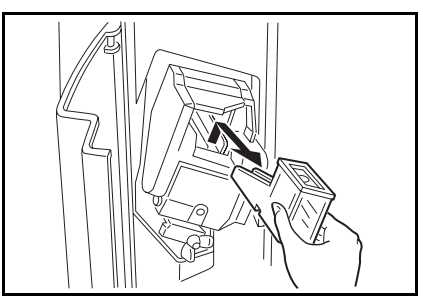
Caution: Do not remove the staple cartridge from the stapler except for adding staples.

❒ Do not remove staple plate. It should remain in the stapler unit when you remove the empty staple cartridge.

1 Open the stapler unit cover.

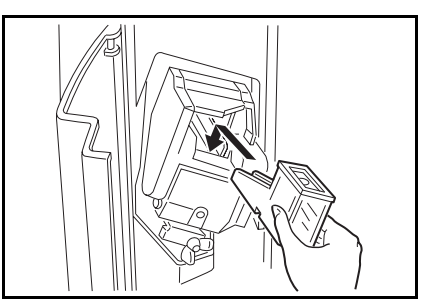


2 Lift the empty staple cartridge a little and remove it from the stapler unit.

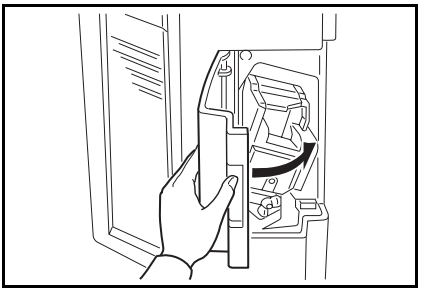


3 Set the new staple cartridge and push it until it clicks.

❒ If any staples extend from the mouth of the new staple cartridge, push them back into the cartridge.



4 Close the stapler unit cover.



5 After changing the staple cartridge, make sure that you can staple documents using the bypass feed stapling (* see page 77). When you cannot staple documents even if you try 4 or 5 times, follow the steps below.

” Reset the staple cartridge. Then, retry stapling.

‹ If the stapler unit does not work properly, staple misfeed may occur. Remove misfed staples. * See page 167.

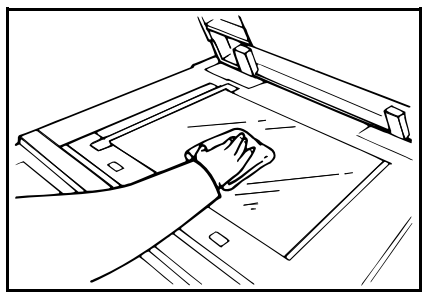
DAILY MAINTENANCE

To maintain high print quality, clean the following parts and units regularly.

Exposure Glass

Clean the exposure glass with a damp cloth and wipe it with a dry cloth.

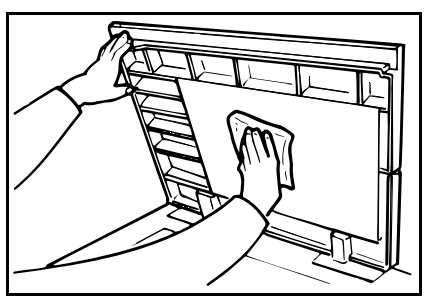
- If you do not clean the exposure glass, marks on the glass will be printed.



Platen Cover

Clean the platen cover with a damp cloth and wipe it with a dry cloth.

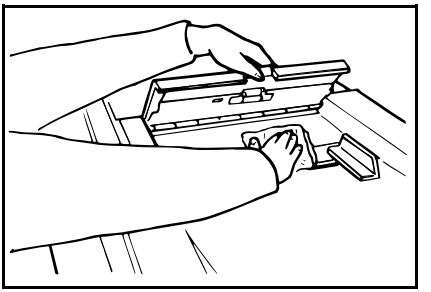
- If you do not clean the platen cover, marks on the cover will be printed.



Separation Roller (Optional Document Feeder)

Clean the separation roller with a damp cloth and wipe it with a dry cloth.

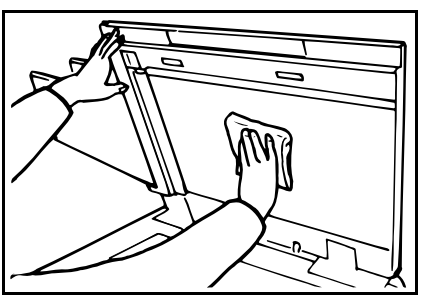
- ❒ If you do not clean the separation roller, original misfeeds tend to occur.



Sheet (Optional Document Feeder)

Clean the sheet with a damp cloth and wipe it with a dry cloth.

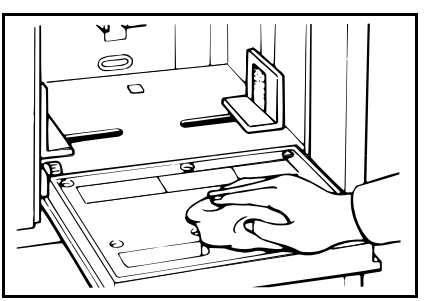
- ❒ If you do not clean the sheet, marks on the sheet will be printed.



Paper Size Detection Sensors (Paper Feed Table)

Wipe off the paper dust on the paper size detection sensors with a dry cloth.

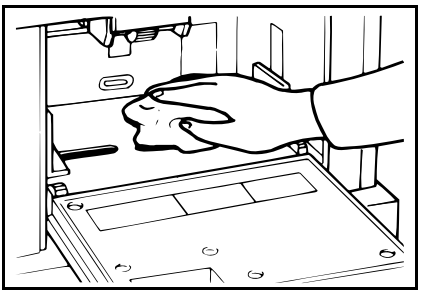
- ❒ If you do not clean the paper size detection sensors, parts of the image will not be printed.



Paper End Sensor (Paper Feed Table)

Wipe off the paper dust on the paper end sensor with a dry cloth.

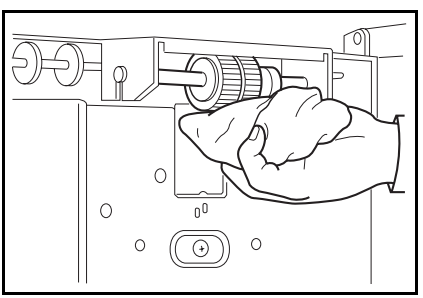
- If you do not clean the paper end sensor, the Load Paper indicator might not light when paper runs out.



Paper Feed Roller (Paper Feed Table)

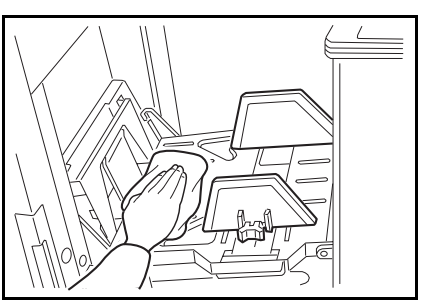
Wipe off the paper dust on the paper feed roller with a damp cloth, then wipe it with a dry cloth.

- If you do not clean the paper feed roller, paper misfeeds tend to occur.



Non-sort Tray (Optional Sorter Stapler)

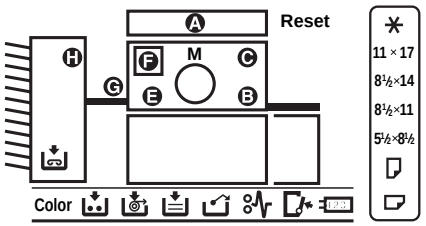
Clean the non-sort tray with a damp cloth and wipe it with a dry cloth.



TROUBLESHOOTING

If a malfunction or a misfeed occurs within the machine, the following indicators will blink or light.

Monitor



When the misfeed indicator (⚠) blinks

Monitor	Meaning and action	Page
⚠ + A + Reset	Original misfeed „ Remove misfed original.	141
⚠ + B + Reset	Paper feed misfeed „ Remove misfed paper.	143
⚠ + C + Reset	Master feed misfeed „ Remove misfed master.	149
⚠ + E + Reset	Paper wrap misfeed „ Remove misfed paper.	151
⚠ + E + B + Reset	Paper wrap misfeed „ Remove misfed paper.	154
⚠ + F + Reset	Master eject misfeed „ Remove misfed paper.	157
⚠ + G + Reset	Delivery misfeed „ Remove misfed paper.	159
⚠ + H + Reset	Sorter Stapler misfeed „ Remove misfed paper.	160

Warning: Be careful not to cut yourself on any sharp edges when you reach inside the machine to remove misfed sheets of paper or masters.

Caution: Remaining bits of misfed paper or masters will cause more misfeeds and may eventually cause a serious failure. If you tear the paper when removing it, make sure to remove all the torn pieces.

Caution: Do not turn off the main switch while removing the misfed items.

When the open cover/unit indicator (□/·) blinks

Monitor	Meaning and action	Page
□/·	Original table unit is open. „ Close the original table unit.	161
	Front door is open. „ Close the front door.	
	Master eject unit is open. „ Close the master eject unit.	
	ADF cover is open. „ Close the ADF cover.	162
	LCT cover of the optional LCT is open. „ Close the LCT cover.	
	The drum is not set. „ Set the drum completely.	
	Paper feed table is closed. „ Open the paper feed table.	
□/· + H	The non-sort tray of the optional sorter stapler is open. „ Close the non-sort tray.	163
	The stapler unit cover of the optional sorter stapler is open. „ Close the stapler unit cover.	
	There are obstacles on the non-sort tray. "SU 4" is displayed on the counter at the same time. „ Remove obstacles from the non-sort tray.	

When the supply/exchange indicators blink

Monitor	Meaning and action	Page
	The machine has run out of paper. „ Load paper.	120
+ Reset	The machine has run out of ink. „ Supply ink.	123
	The machine has run out of master. „ Replace the master roll.	125
+ Reset	The master eject box is full. „ Remove the used master.	164
	The master eject box is not set. „ Set the master eject box.	
+ H	The sorter stapler has run out of staples. „ Set the new staple cartridge.	130

When other indicators blink

Monitor	Meaning and action	Page
M	When you press the **Print Start** key, the master is not wrapped around the drum. „ Set the original on the exposure glass or in the optional document feeder. Then, press the **Master Making** key.	166
123	The optional key counter is not set. „ Set the key counter.	
	The optional color drum unit is set.	
A	Originals are not changed. „ When you want to use the original set on the exposure glass again, press the **Master Making** key. „ When you want to use the next original, change originals.	
	The original size you set in the optional document feeder is not suitable for the paper size. „ Set a suitable original and paper size.	
	Originals are set in the optional document feeder with the document feeder open. „ Close the document feeder completely.	
H + Reset	Staple misfeed has occurred in the optional sorter stapler. „ Remove misfed staples.	167

When SU-XX is displayed on the counter

When the following codes are displayed on the counter while using the optional sorter stapler, take action as follows:

Code	Meaning and action
SU 1	The power cord of the sorter stapler may not be plugged in. „ Plug it in firmly.
	Connection between the machine and the sorter stapler is wrong. „ Contact your service representative.
SU 2	When you use paper other than the designated paper size (* see page 72 or 73), you cannot use Auto staple or Manual Staple mode. „ Use the proper paper size described in page 72 or 73.
SU 3	Paper remains on the bins. „ Remove paper from the bins.
SU 4	There are obstacles on the non-sort tray. "□- + H" is blinking at the same time. „ Remove obstacles from the non-sort tray.
SU 5	Sheets of paper over the maximum capacity of bins (* see page 67 or 68) have been delivered to the bins. „ Remove paper from the bins.
SU 6	You cannot staple different sized paper when you use Auto staple or Manual Staple mode. „ Make prints on the same sized paper. „ Staple prints using Bypass Feed Staple function.
SU 7	Sheets of paper over the maximum staple capacity of bins (* see page 72 or 73) have been delivered to the bins. You cannot staple prints except in Bypass Feed Stapling function. „ Reduce the number of prints. If you still want to staple prints, use Bypass Feed Stapling.
SU 8	Staples have been misfed. „ Remove misfed staples. * See page 167.

When a service code (E-XX) is displayed in the counter

Turn the main switch off and on. If a service code appears again, contact your service representative.

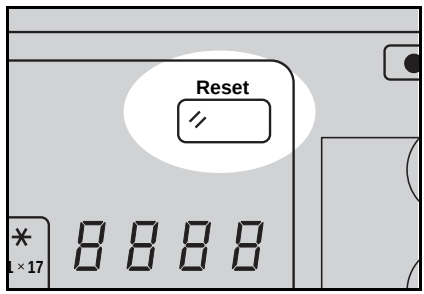
Caution: If a service code appears on the counter after you turn the main switch off and on a few times, do not continue turning it on and off. Leave the machine off.

When The Misfeed Indicator (⚠) Blinks

After clearing misfeeds

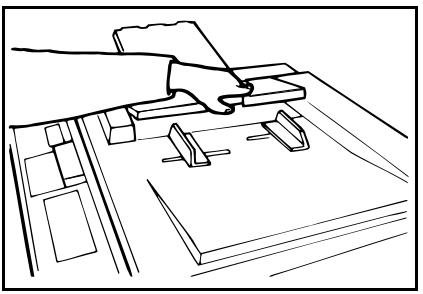
Press the **Reset** key to reset the error indicators.

- ❒ Do not turn off the main switch when removing misfeeds.

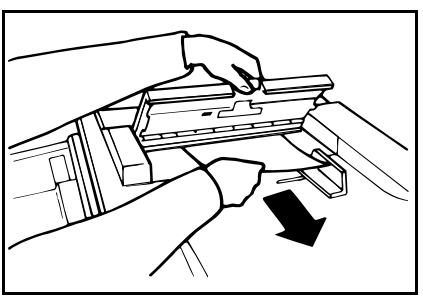


"⚠ + A" Original misfeed occurs when using the optional document feeder

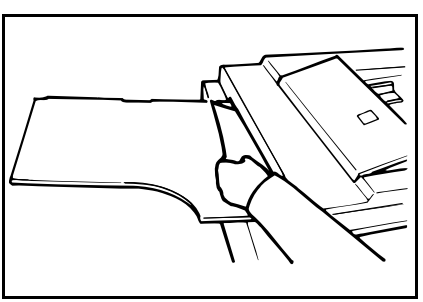
1 Press the ADF unit open lever and open the ADF unit.



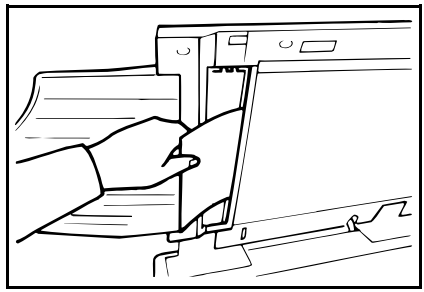
2 Pull out the original gently.



3 If you cannot remove the misfed original, pull out the original from the side of the original tray and remove the original.



4 If you still cannot remove the misfed paper, open the document feeder and remove the original.



5 Close the ADF unit until it locks in position.

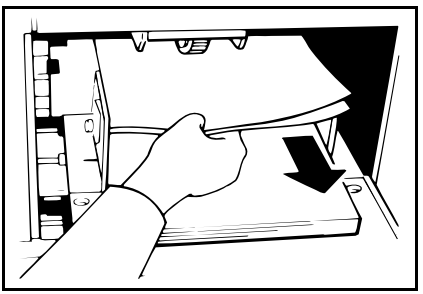
To prevent original misfeeds:

- ❒ Set the following kinds of originals on the exposure glass.
  - ù Originals heavier than 127.9 g/m^2, 34 lb
  - ù Originals lighter than 40.7 g/m^2, 10.8 lb
  - ù Carbon coated originals
  - ù Damaged originals
  - ù Originals with glue on them
  - ù Originals perforated for ring binders
  - ù Folded, curled, or creased originals
  - ù Bound, stapled, or clipped originals
  - ù Originals larger than 307 mm x 432 mm, 12.0" x 17.0"
  - ù Originals smaller than 90 mm x 140 mm, 3.6" x 5.6"
- ❒ Do not mix different sizes of originals in the optional document feeder.
- ❒ Clean the separation roller if it is dirty. (A dirty separation roller may slip and cause original misfeeds.)
- ❒ Remove staples or clips of originals. Fan originals that have had staples or clips removed.

"⚠ + B" Paper misfeed in paper feed section

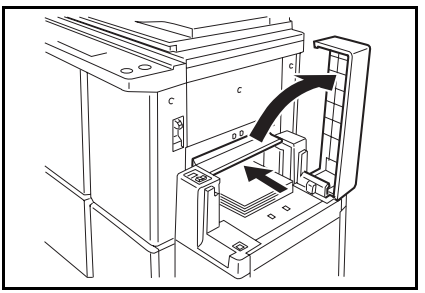
When you load paper on the paper feed table

1 Remove the misfed paper.

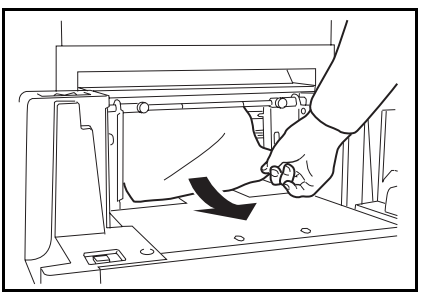


When you load paper in the optional large capacity tray

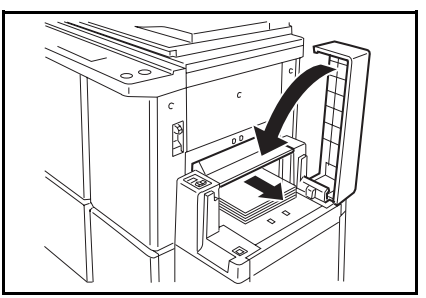
1 Open the LCT cover and push the slide cover in.



2 Remove misfed paper.

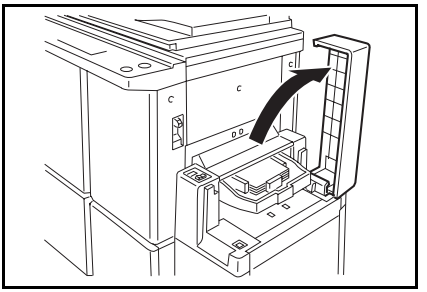


3 Close the slide cover and LCT the cover.

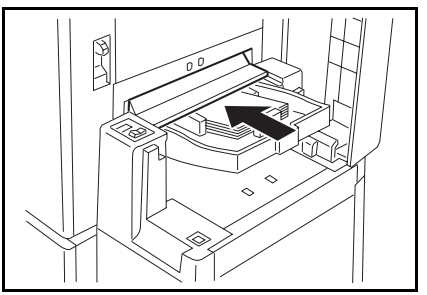


When you load paper in the paper cassette for LCT

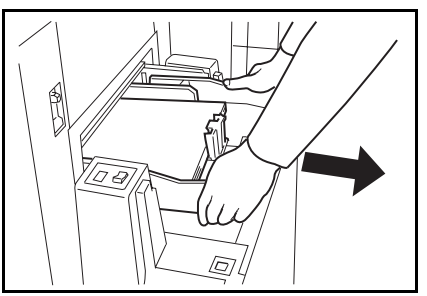
1 Open the LCT cover.



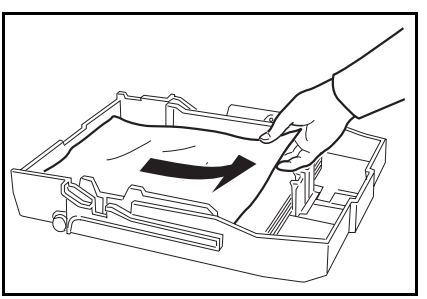
2 Push the slide cover in.



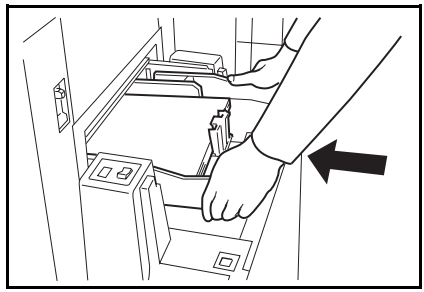
3 Remove the cassette from the large capacity tray.



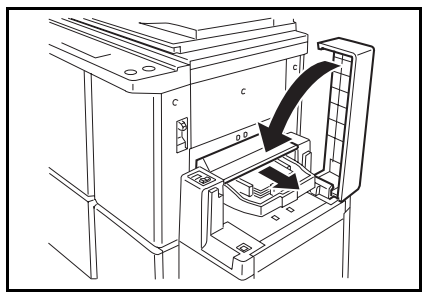
4 Remove misfed paper.



5 Push the cassette forward until it stops.



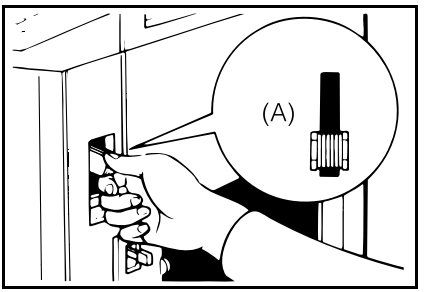
6 Close the slide cover and the LCT cover.



Check the following adjustments before restarting the printing run.

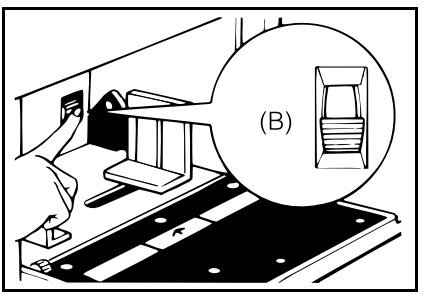
1 Is the paper feed pressure properly adjusted?

Pressure lever position	Paper weight
Thin paper	47.1 to 81.4 g/m^2, 12.5 to 21.6 lb
Standard	64 to 157.0 g/m^2, 17 to 41.7 lb
Thick paper	127.9 to 209.3 g/m^2, 34.0 to 55.6 lb



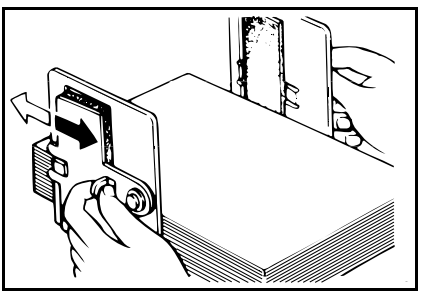
2 Is the separation roller pressure properly adjusted?

❒ The standard position of the separation pressure levers is the lower position. If dog-eared or wrinkled prints are delivered, push the levers up.



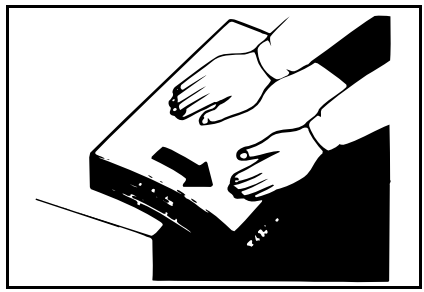
3 Are the side plate pads in the correct positions?

❒ To print on thin paper (47.1 to 52.3 g/m^2, 12.5 to 13.9 lb), slide the levers (behind the paper feed side plates) in the direction of the arrow (see illustration).

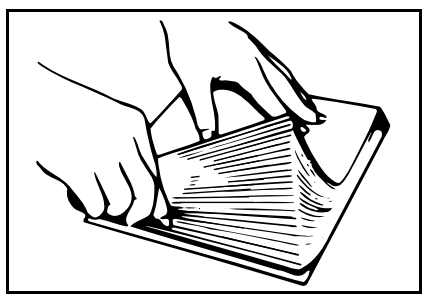


To prevent paper feed misfeeds:

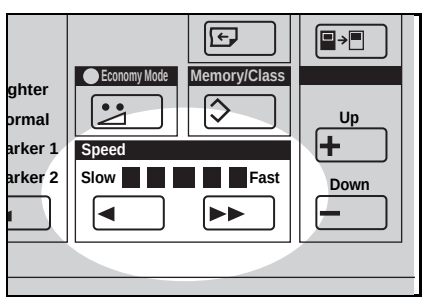
When paper is curled, correct the curl as shown.



When paper edges stick together, shuffle the paper as shown.



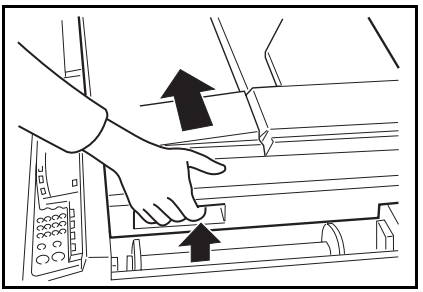
When you use post cards and thick paper, lower the printing speed to step 2 or 1. (* See page 24.)



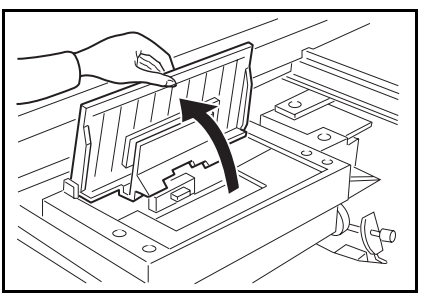
"⚠ + C" Master misfeed in master feed section

1 Open the original table.

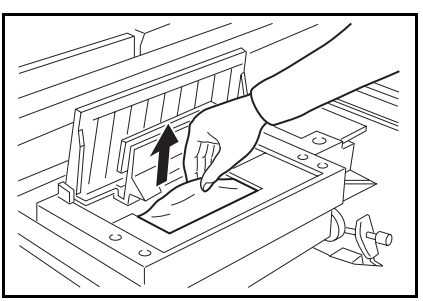
❒ Lift the original table release lever and slide the original table all the way to the left.



2 Open the transparent cover.

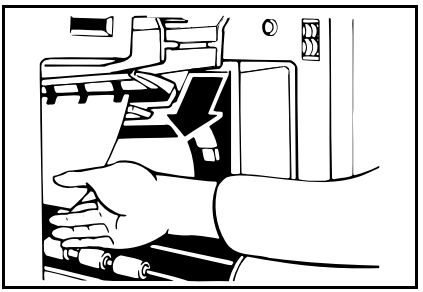


3 Pull the misfed master up and remove it.

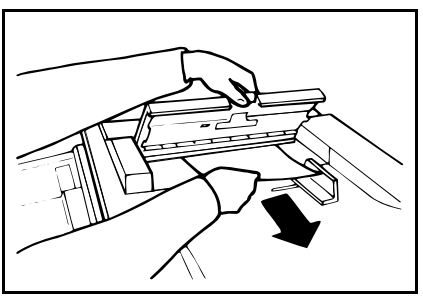


4 If you could not remove the misfed master in steps 2 and 3, take out the drum and remove the misfed master from the inside.

❒ For how to take out the drum unit, * see page 96.



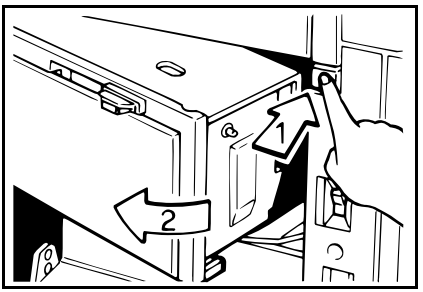
5 If the original misfeeds in the optional document feeder, press the ADF open lever and open the ADF unit to remove the misfed sheet.



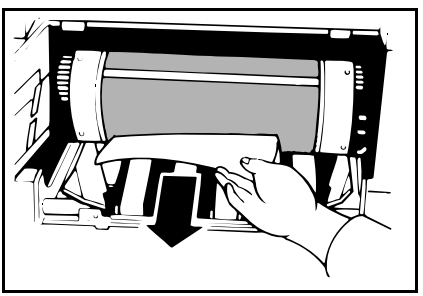
6 Return the original table to its original position.
If you follow step 4, set the drum unit and close the front door.
If you follow step 5, close the ADF unit.

"⚠ + E" Paper wrapped around the drum

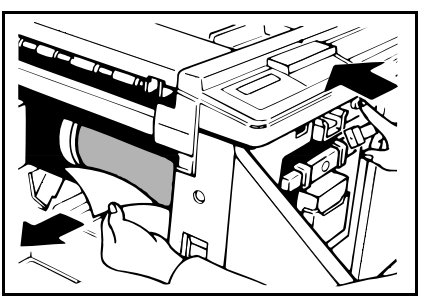
1 Push the master eject unit open button and open the master eject unit.



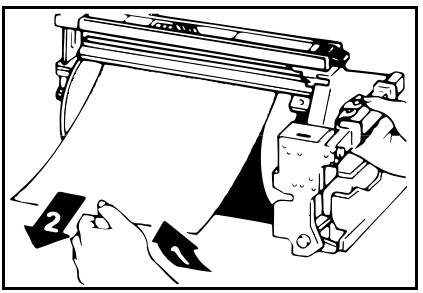
2 Remove the misfed paper.



3 If the paper is completely wrapped around the drum, peel off the edge of the paper. Then, close the master eject unit and press the drum rotation button until the lamp turns green again. And then, open the master eject unit and remove the misfed paper.



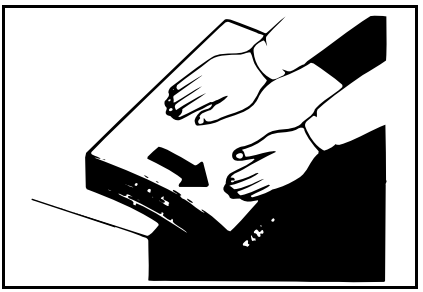
4 If you cannot remove the misfed paper, pull out the drum unit after confirming that the lamp is green, and remove the misfed paper from the drum.



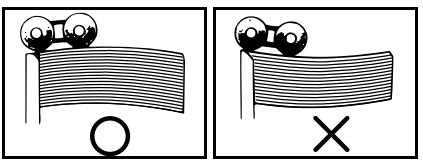
5 Close the master eject unit. If you follow step 3 or 4, close the front door.

If the paper is curled or the original's leading edge margin is too narrow, the following action is necessary.

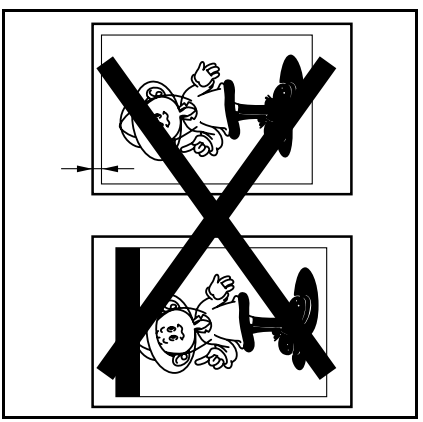
When you use curled paper, correct the curl as shown.



If you cannot correct the paper curl, stack the paper with the curl face down as shown.



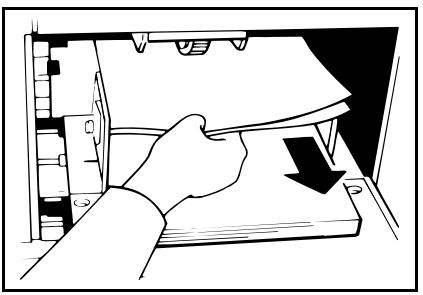
When the leading edge margin of the original is less than 5 mm, 0.2" or there is a solid image on the leading edge, insert the original with the widest margin first or make a leading edge margin by making a copy.



"⚠ + E + B" Misfeed in paper feed section Paper wrapped around the drum

Misfeed in the paper feed section

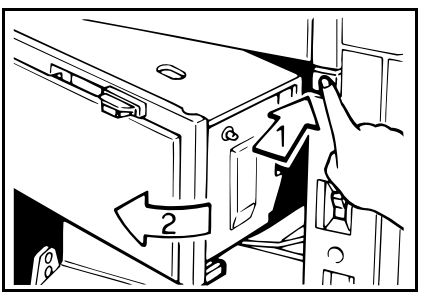
1 Slowly but firmly pull out the paper.



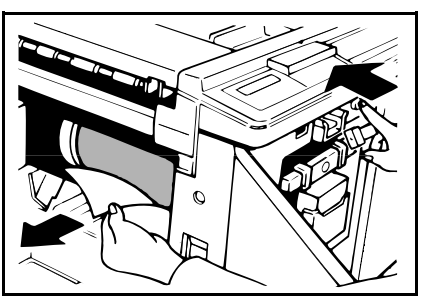
Paper is wrapped around the drum

1 Push the master eject unit open button and open the master eject unit.

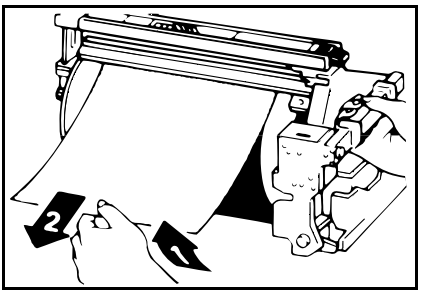
2 Remove the misfed paper.



3 If the paper is completely wrapped around the drum, peel off the edge of the paper. Then, close the master eject unit and press the drum rotation button until the lamp turns green again. And then, open the master eject unit and remove the misfed paper.



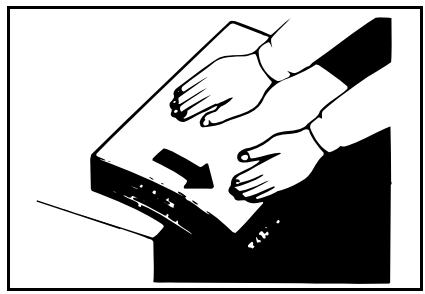
4 If you cannot remove the misfed paper, pull out the drum unit after confirming the lamp is green, and remove the misfed paper from the drum.



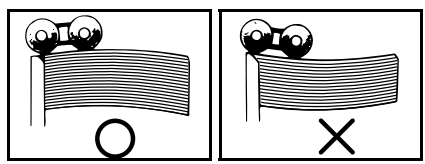
5 Close the master eject unit. If you follow step 3 or 4, close the front door.

If the paper is curled or the originals leading edge margin is too narrow, the following action is necessary.

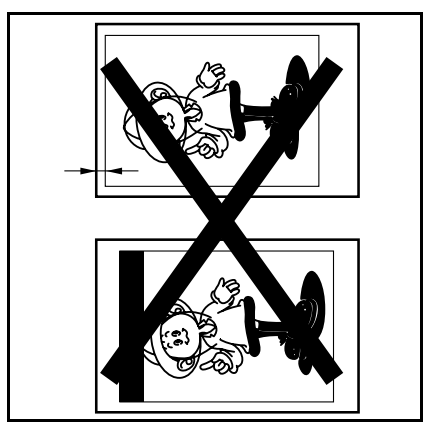
When you use curled paper, correct the curl as shown.



If you cannot correct the paper curl, stack the paper with the curl face down as shown.



When the leading edge margin of the original is less than 5 mm, 0.2" or there is a solid image on the leading edge, insert the original with the widest margin first or make a leading edge margin by making a copy.

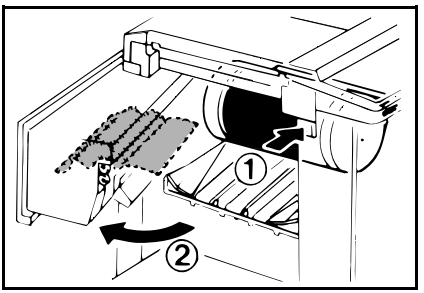


"⚠ + F" Master misfeed in the master eject section Master wrapped around the drum

Check where the misfeed is occurring

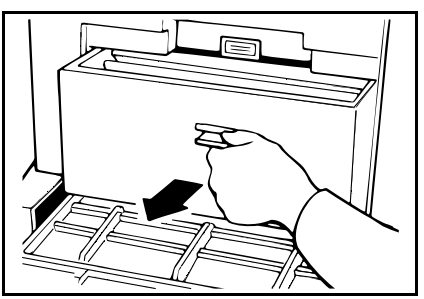
1. Press the master eject unit open button and open the master eject unit.

2. Check where the misfed master is. Remove the misfed master as follows.



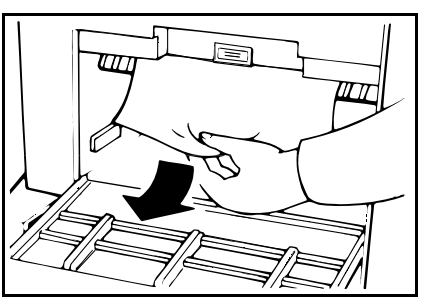
When a master misfeed occurs in the master eject section

1. Open the master eject container cover. Then, pull out the master eject box.



2. Remove the misfed master.

❒ Be careful not to stain your hands with ink when you touch used masters.

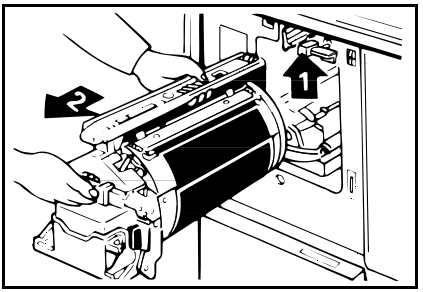


3. Return the master eject box to its original position and close the master eject container cover.

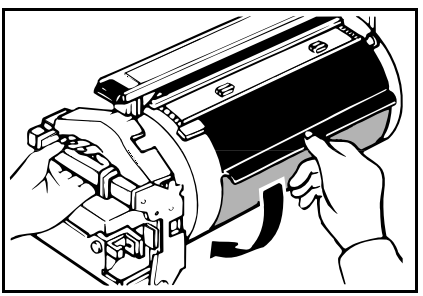
When a master misfeed occurs on the drum

1 Lift the lever to unlock the drum unit and pull out the unit.

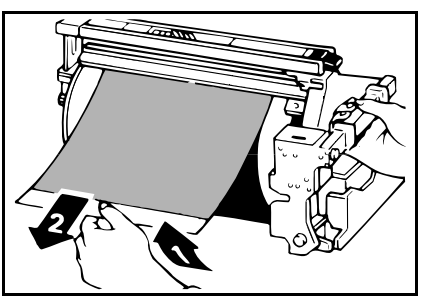
❒ For how to remove the drum unit, * see page 96.



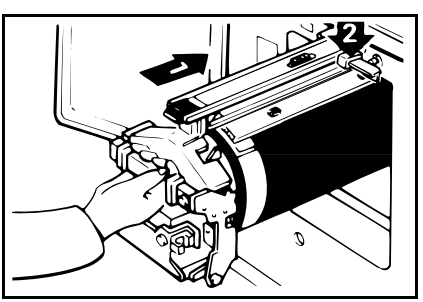
2 Grasp the drum unit handle and remove the master from the drum.



3 Pull the master out of the master clamp.

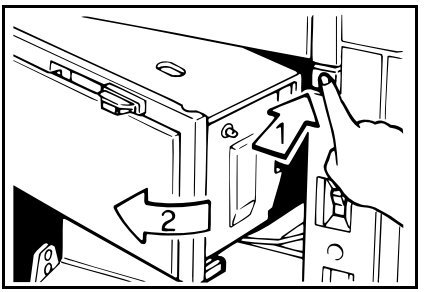


4 Re-insert the drum unit until the drum unit locks in position and put the lever back in place.

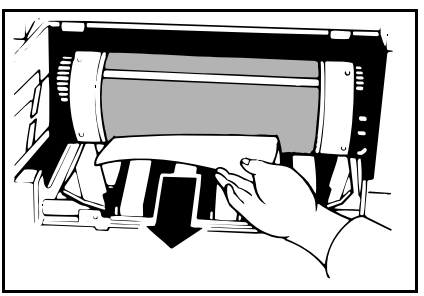


"⚠ + G" Paper misfeed in the paper exit section

1 Push the button to open the master eject unit.



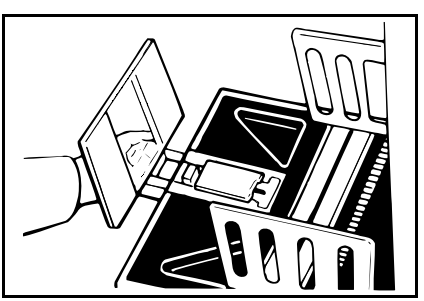
2 Remove the misfed paper.



3 Close the master eject unit.

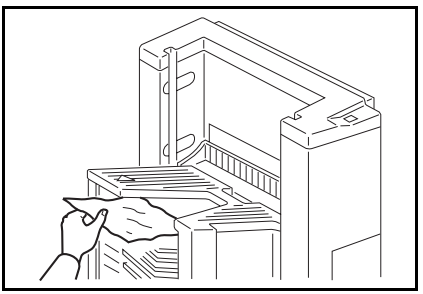
Check the following adjustment before restart operation

Is the paper delivery end plate in the correct position?



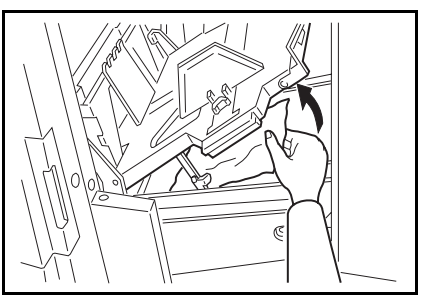
"⚠ + H" Paper Misfeed In The Optional Sorter Stapler

1 Remove the misfed paper from the bins.

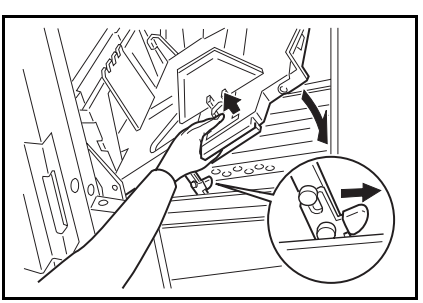


2 Open the non-sort tray. If you cannot remove misfed paper, remove misfed paper under the non-sort tray.

❒ Even if you can remove misfed paper in step 1, you should open the non-sort tray.



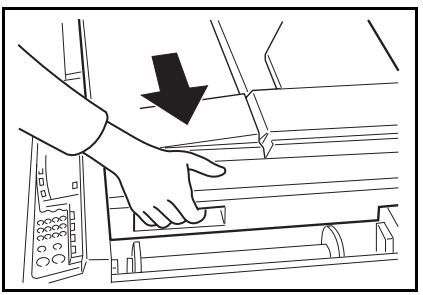
3 While lifting the non-sort tray, lower the knob to the right. Then, close the non-sort tray.



When The Open Cover/Unit Indicator (⎕/) Blinks

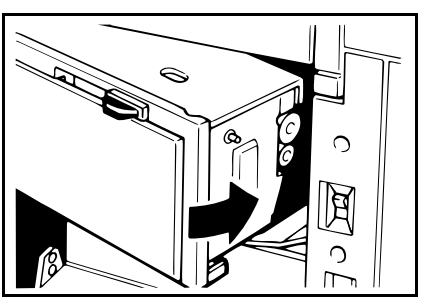
⎕/ Make sure that the following door/units are closed.

Original Table
Slide the original table until it locks in position.

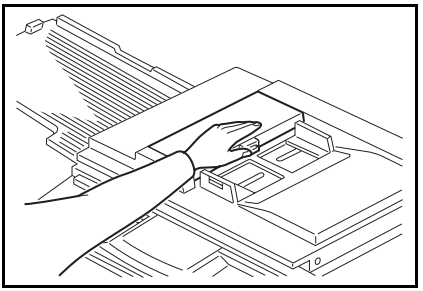


Front Door
Close the front door completely.

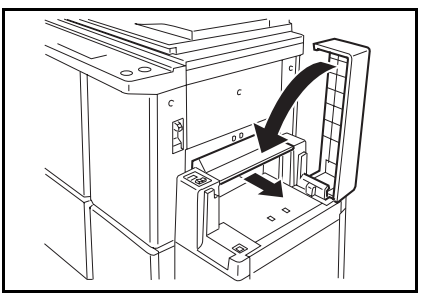
Master Eject Unit
Close the master eject unit until it locks in position.



ADF Unit *(Option)*
Close the ADF unit until it locks in position.

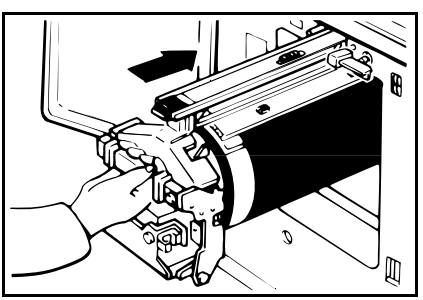


LCT Cover (Option)
Close the slide cover and LCT cover completely.



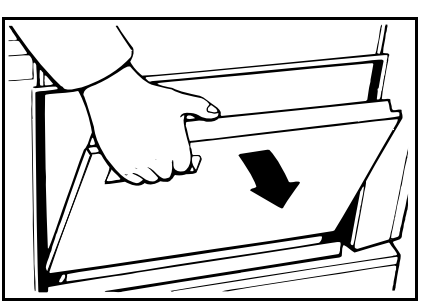
Make sure that the drum is completely set in position.

Set the drum completely until it locks in position.



Make sure that the paper feed table is open.

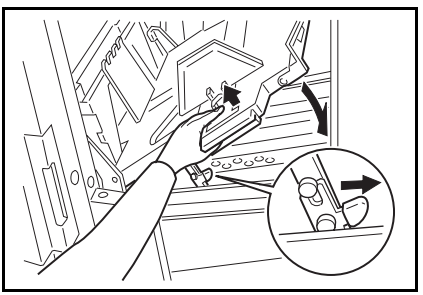
Open the paper feed table.



" + H" Close the non-sort tray
Close the stapler unit cover
Remove obstacles from the non-sort tray

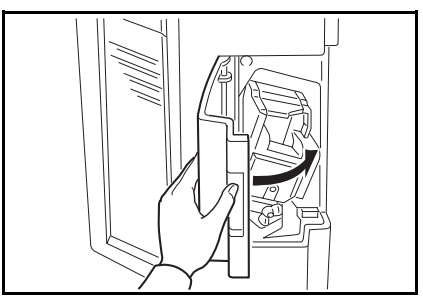
non-sort tray

While lifting the non-sort tray, lower the knob to the right. Then, close the non-sort tray.



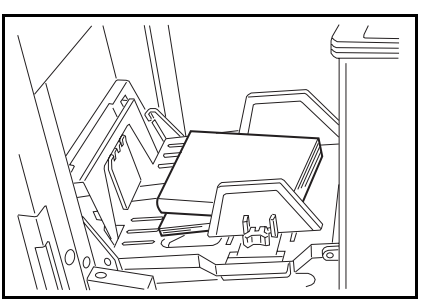
stapler unit cover

Close the stapler unit cover.



non-sort tray

When obstacles are on the non-sort tray, SU 4 is displayed on the counter. Remove obstacles from the non-sort tray.



When A Supply/Exchange Indicators Blink

Load paper

* See page 120.

+ Reset Load new ink cartridge

* See page 123.

Load new master roll

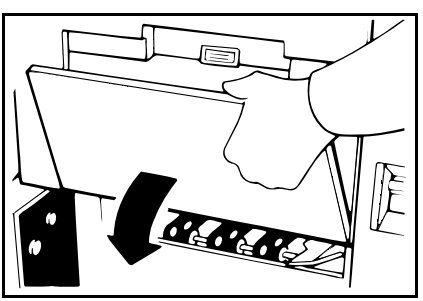
* See page 125.

+ H Set the new staple cartridge

* See page 130.

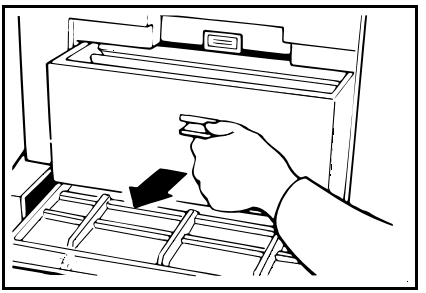
+ Reset Empty master eject box
Set the master eject box

1 Open the master eject container cover.

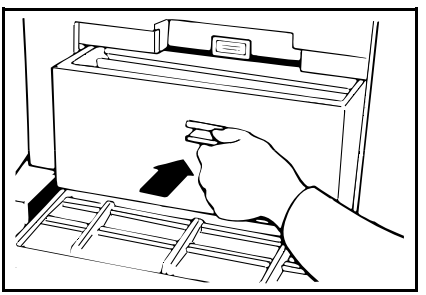


2 Take out the master eject box and remove the used masters.

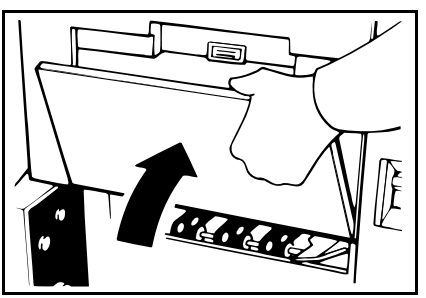
❒ Spread an old newspaper, then turn the master eject box upside down on it to remove the used masters. Then, throw away the masters.



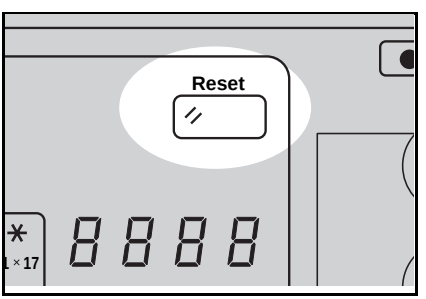
3 Reinstall the master eject box. Push in the box until it touches the inside bracket.



4 Close the cover of the master eject container.



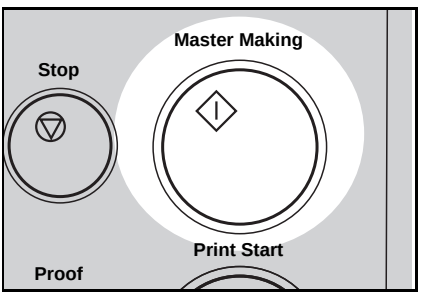
5 Press the **Reset** key.



When Other Indicators Blink

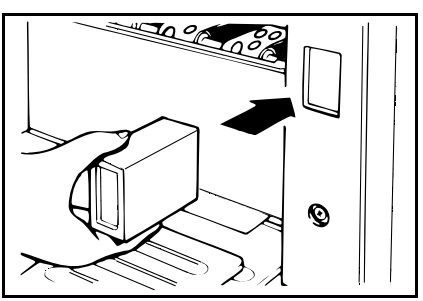
M Master is not wrapped around the drum

Set the original on the exposure glass and press the **Master Making** key.



123 Set the key counter

The key counter (option) is not set. Insert the key counter.



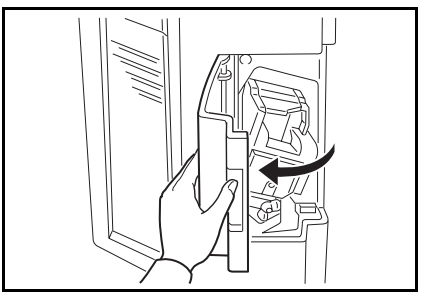
Color
(Inch version) **Color drum unit is installed**

(Metric version)

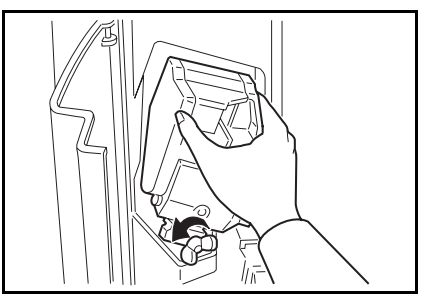
H + Reset Staple misfeed in the optional sorter stapler

- When a staple misfeed occurs, SU 8 is displayed on the counter.
- When staples do not come out at all and SU 8 is not displayed on the counter, there may be misfed staples in the stapler unit.

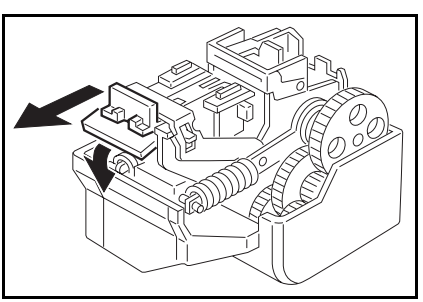
1 Open the stapler unit cover.



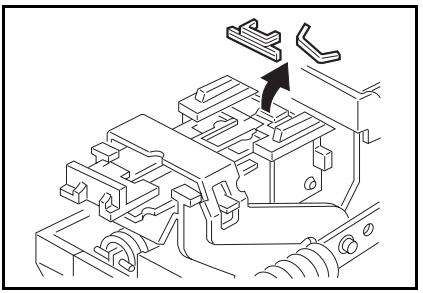
2 Loosen the screw by turning it counterclockwise. Then, remove the stapler unit.



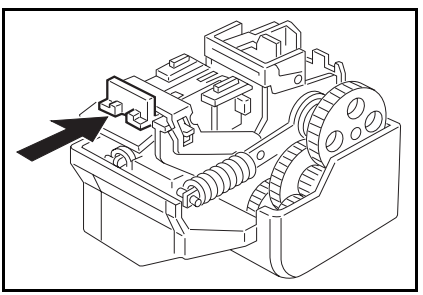
3 While pushing the stopper down, push the knob to your side. Then, open the stapler unit cover.



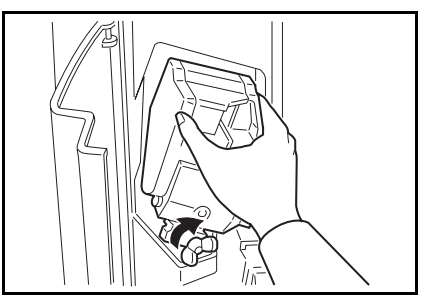
4 Remove misfed staples.



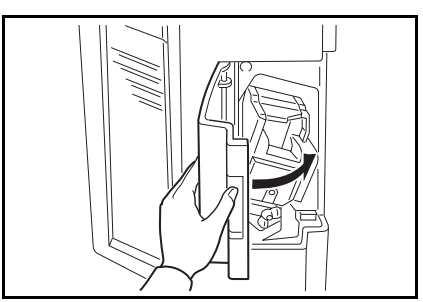
5 Close the stapler unit cover by pushing the knob to the other side.



6 Return the stapler unit to its original position and secure the screw.

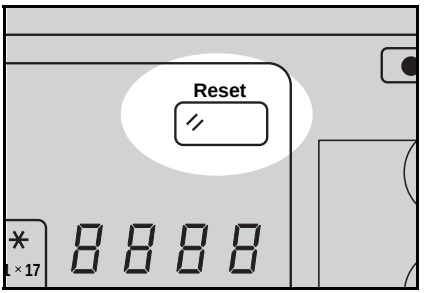


7 Close the stapler unit cover.



8 Press the **Reset** key.

❒ When you try to staple the next prints, staples may not come out. Try stapling 5 or 6 times.



9 When you use Auto staple or Manual Staple mode.

” Make sure that the **Staple** key is green.

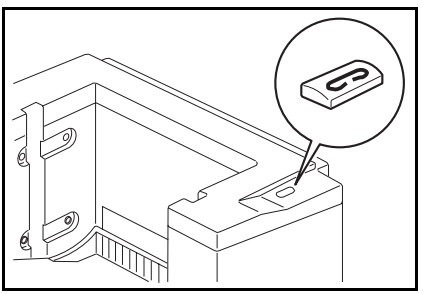
‹ Press the **Staple** key.

When you use Bypass Feed Stapling.

” Reset documents in the bin.

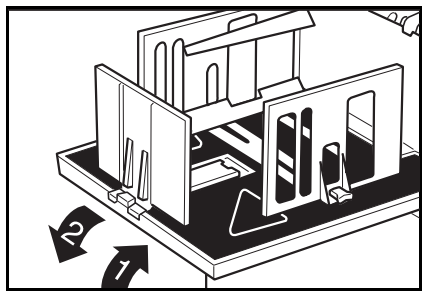
‹ Make sure that the **Staple** key is green.

› Press the **Staple** key.

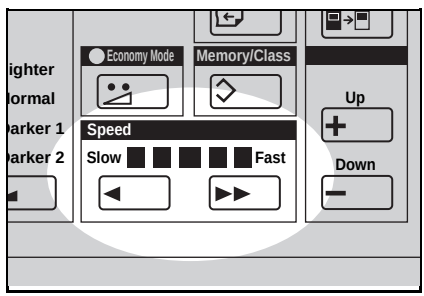


When The Prints Are Not Delivered In A Neat Stack, Or The Prints Are Thrown Over The Paper Delivery Table

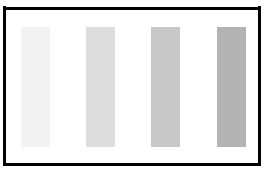
1 Lift the paper delivery table a little and bring it down until it clicks.



2 Reduce the printing speed by pressing the " ◄ " key.



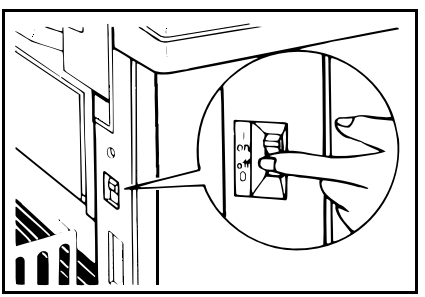
Poor Printing



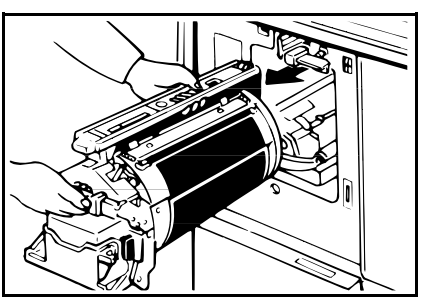
Dirty Background

- ❒ When you use paper smaller than the original, select the proper reduction ratio. Otherwise, you might get dirty background prints.
- ❒ When you use postcards and the like, the background might be dirty because postcards do not absorb ink well.
- ❒ You might get prints with dirty background when printing at high speed and under high temperature.

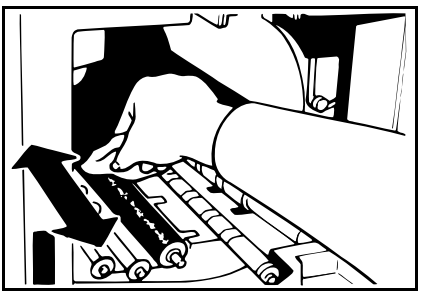
1 Turn off the main switch.



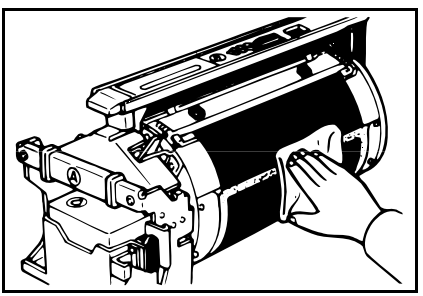
2 Pull out the drum unit. * Refer to page 96 for the details.



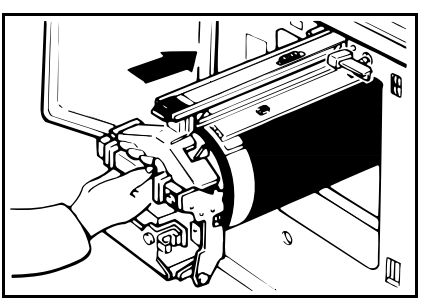
3 Clean the pressure roller with a clean cloth.



4 Remove with a clean cloth any ink that has accumulated on the trailing edge of the drum unit.

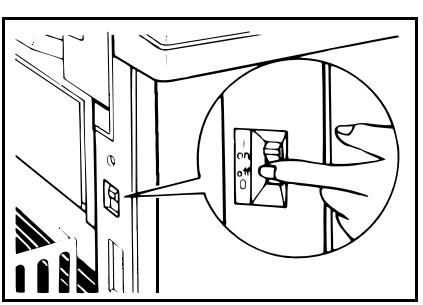


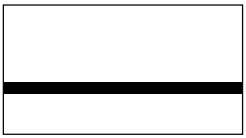
5 Insert the drum unit until it locks in position, then lower the drum unit lock lever.



6 Close the front door.

7 Turn on the main switch.





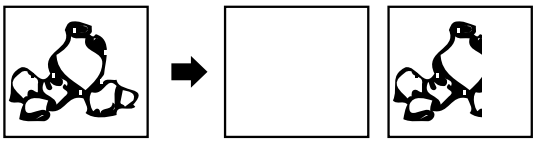
Black line/stain

❒ If there is no margin or if there is a solid image area near the leading edge of the original, make a margin of at least 5 mm, 0.2" at the leading edge. Otherwise, the paper exit pawl might become dirty and cause black lines on prints.

Check the following parts and clean them if they are dirty.

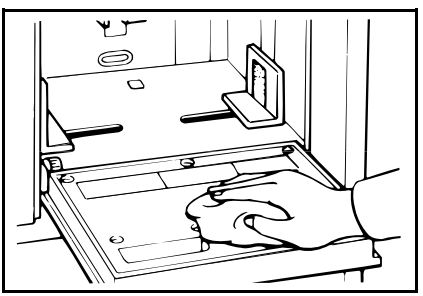
Platen cover. (* See page 132.)
Exposure glass. (* See page 132.)
Sheet. (* See page 133.)

When black lines or stains still appear on prints even if you clean the above, contact your service representative.

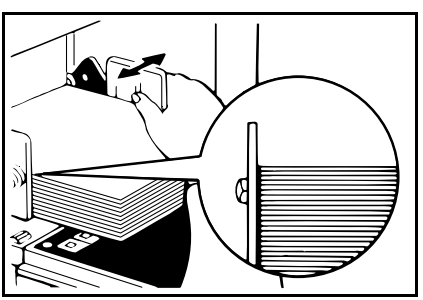


White prints or incomplete prints

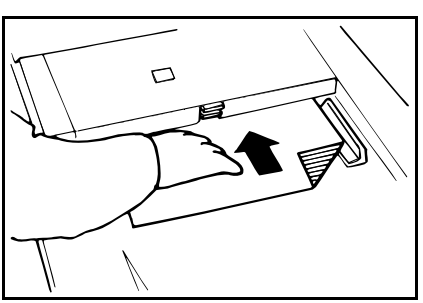
Check the paper size detection sensor and clean it if dirty.



Make sure that the paper feed side plates contact the paper lightly.

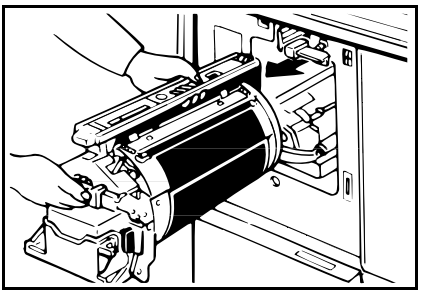


When you use the optional document feeder, make sure that the original guides contact the originals lightly.

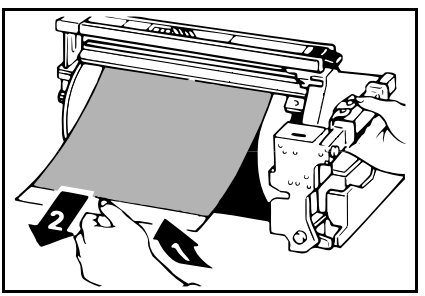


When you get white or incomplete prints even if you check the items on the previous page, perform the following procedure.

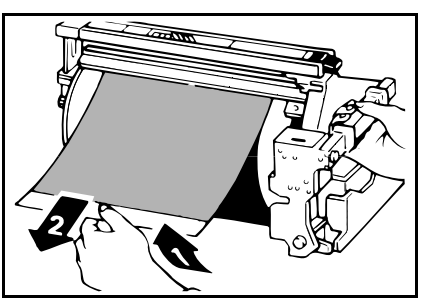
1 Pull out the drum unit. * Refer to page 96 for the details.



2 Remove the master from the drum.

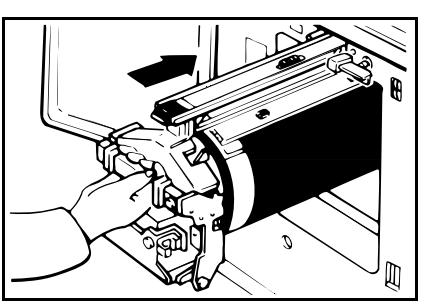


3 Remove paper that is stuck to the drum.



4 Insert the drum unit until it locks in position, then lower the drum unit lock lever.

5 Close the front door.



OPERATION NOTES

General Cautions

- ❒ Make sure to make a few trial prints to check the image position because the image position of the trial print might not correspond with that of the original.
- ❒ If the image registration is not consistent, slow the printing speed down to Setting 1 or 2.
- ❒ When performing duplex or multicolored printing, leave the printed paper for a while before the next printing in order to let the ink dry on the printed paper. If this is not done, feed roller marks will appear on the print image.
- ❒ If the machine is not used for a long period, the image density might decrease because the ink on the drum might dry. Make extra prints until the image density recovers.
- ❒ When the machine is used in low temperature conditions, the image density might decrease. In this case, slow the printing speed down to step 1 or 2.
- ❒ When making duplex prints, misdetection of paper wrapping may occur if the paper delivery sensor detects a black area at the leading edge of the back side. Keep at least an 5 mm, 0.2" margin at the leading edge of the back side of the printing paper.
- ❒ Press the **Proof** key to perform a test print as the first few prints may be light.
- ❒ The top sheet might remain between the feed rollers when you press the **Lower Paper Feed Table** key. In this case, remove the top sheet.
- ❒ When making duplex prints or when using non-white printing paper, the paper size detection sensors might malfunction and some part of the image might not appear on the print. In this case, place a blank sheet under the printing paper on the paper feed table.
- ❒ When making duplex prints or when using non-white printing paper, the paper end sensor might malfunction and fail to detect the paper. In this case, place a blank sheet under the printing paper on the paper feed table.
- ❒ The outer portion of the image might not be printed under low temperature. In this case, slow the printing speed down to step 1 or 2, or increase the room temperature.
- ❒ The paper exit pawl might contact the printing paper and cause black lines on the prints. In this case, increase the printing speed or make a new master with lighter image density mode.

- ❒ If you cannot pull out the drum, press the drum rotation button until it becomes green.
- ❒ The leading edge of the prints might become stained if the edge touches the image of prints on the paper delivery table.
- ❒ The ink of the print on the paper delivery table might stick to the back side of the next print.
- ❒ When the machine is on and the power source is less than 90% of the specified amount, printing quality will decrease. Therefore, make sure the supply from your electrical outlet is at least 90% of the required amount.
- ❒ As various kinds and qualities of paper exist, some paper might be wrapped around the drum or cause misfeeds.
- ❒ If your hands are stained with ink:

  ù Avoid prolonged or repeated contact with skin.
  ù Cleanse skin thoroughly after contact, before breaks and meals, and at the end of the work period.
  ù Ink is readily removed from skin by waterless hand cleaners followed by washing with soap and water.

- ❒ Also, be careful not to get any ink on your clothing while emptying the master eject box or while loading a new ink cartridge.
- ❒ The image density varies according to the printing speed and the room temperature. So, adjust the printing speed or increase the room temperature.
- ❒ When you make a lot of prints from a small image, ink may ooze out from the edges of the master, especially under high temperature and when printing in two or more colors. In this case, make a new master.
- ❒ Use ink made within one year. Ink stored for a long period tends to dry slowly and yield lower image density.
- ❒ While making a master, do not leave the platen cover or optional document feeder open.
- ❒ When you store 1,000 ml/pack ink, make sure to sore it upright with the cap pointing up.

Print Paper

- ❒ When you use non-standard paper, some parts of the image might not appear on the print. In this case, set the machine not to detect paper size using the Service Programs. * See page 117.

- When the paper is curled, stack the paper with the curl face down, otherwise the paper might wrap around the drum or stains may appear.
- Postcards and the like do not absorb ink well. Offset images might appear on the rear side of subsequent prints. Solid image originals will cause offset image prints.

Originals

- If there is no margin or if there is a solid image area near the leading edge of the original, make at least a 5 mm, 0.2", margin at the leading edge; otherwise, the paper might wrap around the drum or the paper exit pawl might become dirty and cause black lines on prints.
- If you use originals that have bold letters or solid images at the leading edges, you might get prints with dirty edges. In this case, insert the widest margin first, or raise the printing speed.
- If you use paste-up originals, make sure that the pasted parts hold firmly to the base sheet. If the thickness of the paste-up originals is more than 0.2 mm, 2/250" and the space between the pasted parts is less than 2 mm, 2/25", a shadow might appear on the print.
- Under the following conditions, the machine might not detect the original on the exposure glass. If you press the **Master Making** key again, the machine will start making a master anyway:

  ù When you set a dark original on the exposure glass.
  ù When the original is not centered according to the size marks on the left scale.
  ù If you do not open the platen cover at an angle of more than 25 degrees with the exposure glass when you replace originals.
  ù If the machine is installed under a strong light.

Misfed Paper

- After removing the misfed paper in the paper feed section, press the drum rotation button until the beeper sounds. Then, press the **Reset** key.
- When printing a large solid area on A3, 11" x 17" paper, the sides of the print tend to curl up after the print is fed out to the paper delivery table. The next sheet that feeds out pushes against the curled sheet and a paper misfeed occurs. In this case, slow the printing speed down (1 or 2 steps).

Optional Sorter Stapler

- ❒ Do not remove the staple cartridge from the stapler except for setting a new staple cartridge.
- ❒ Do not put obstacles under the bins.
- ❒ Do not put your hands or legs on the non-sort tray.
- ❒ Do not insert your hands in the bins during printing or stapling.
- ❒ Do not push or lean against the sorter stapler.
- ❒ Do not put your hands under the master eject unit during printing or stapling.
- ❒ When prining solid images in Sort, Staple Sort or Class Sort mode, the bottom prints delivered to the bins might be dirty. In this case, reduce the number of prints delivered to the bins.
- ❒ When prining solid images in Sort, Staple Sort or Class Sort mode, the top prints delivered to the bins might be dirty if the back of the previous bin is dirty. In this case, reduce the number of prints delivered to the bins or clean the back of the bins.
- ❒ In case of emergency, unplug the sorter stapler's power cord.

Optional Large Capacity Tray

- ❒ The top sheet might remain the feed rollers when you press the **Down** key. In this case, remove the top sheet.
- ❒ When you remove the paper cassette for LCT from the LCT, the top sheet might remain between the feed rollers. In this case, reset the remaining paper in the cassette.
- ❒ When you use bad quality paper under high temperature and humidity, do not set more than 1,000 sheets of paper in the LCT at a time and set new paper stack after running out old paper.

COMBINATION CHART

This combination chart shows which modes can be used together.

m: means that these modes can be used together.
7 : means that these modes cannot be used together.
M: means that some functions in these modes cannot be used together.

		1	2	3	4	5	6	7	8	9	10	11	12	13
1	Reduction		m	m	m	m	m	m	m	m	m	m	7	7
2	Auto Cycle	m		m	m	m	m	m	m	m	m	m	m	m
3	Memory/Class	m	m		m	m	m	m	m	7	7	7	M	m
4	Combine 2 Originals	m	m	m		m	m	m	m	m	m	m	7	7
5	Margin Erase	m	m	m	m		m	m	m	m	m	7	7	m
6	Image mode	m	m	m	m	m		m	m	m	m	m	M	m
7	Image Density	m	m	m	m	m	m		m	m	m	m	M	m
8	Skip Paper Feed	m	m	m	m	m	m	m		m	m	m	m	m
9	Sort	m	m	7	m	m	m	m	m		7	7	m	m
10	Staple	m	m	7	m	m	m	m	m	7		7	7	7
11	Class Sort	m	m	7	m	m	m	m	m	7	7		7	7
12	On-Line	7	m	M	7	7	M	M	m	m	7	7		m
13	Overlay	7	m	m	7	m	m	m	m	m	7	7	m	

SPECIFICATIONS

Main Frame

Configuration:	Desk top
Printing Process:	Full automatic one drum system
Original Type:	Sheet/Book
Original Size:	Maximum 307 mm x 432 mm, 12.0" x 17.0"
Pixel Density:	300 dpi
Image Mode:	Photo mode (Sand pattern) Line mode (Standard mode) Line/Photo mode
Reproduction Ratio:	Inch version: 93%, 77%, 74%, 65% Metric version: 93%, 87%, 82%, 71%
Printing Area:	More than 250 mm x 355 mm, 9.8" x 14.0"
Print Paper Size:	Maximum 297 mm x 432 mm, 11.6" x 17.0" Minimum 90 mm x 148 mm, 3.6" x 5.9"
Leading Edge Margin:	5 mm ± 3 mm, 0.2" ± 0.12"
Print Paper Weight:	47.1 g/m^2 to 209.3 g/m^2, 12.5 lb to 55.6 lb
Print Speed:	60 - 120 rpm (5 steps)
First Copy Time **(Master Process time):**	Less than 20 seconds (B4, 8 1/2" x 14") 17 æ 1 seconds (A4, 8 1/2" x 14")
Second Copy Time **(First Print Time):**	Less than 22 seconds (B4, 8 1/2" x 14") 19 æ 1 seconds (A4, 8 1/2" x 11")
Color Printing:	Drum unit replacement system (red, blue, green, brown, yellow, purple, navy, and maroon)

Image Position:
Vertical:
More than 20 mm, 0.79" (for either side)
Side:
10 æ 2 mm, 0.39" æ 0.08" (for either side)
More than 20 mm, 0.79" (on both sides)

Paper Feed Table Capacity:
Table mode: 1,000 sheets (80 g/m^2, 20 lb)

Paper Delivery Table Capacity:
1,000 sheets (66.3 g/m^2, 17.6 lb)
840 sheets (80 g/m^2, 20 lb)

Master Eject Box Capacity:
More than 50 masters under low temperature
More than 60 masters at 23^{o}C, 73^{o}F
More than 60 masters under high temperature

Dimensions (W x D x H):

	Width	Depth	Height
Stored	719 mm, 28.4"	698 mm, 27.5"	646 mm, 25.5"
Stored with document feeder	719 mm, 28.4"	698 mm, 27.5"	676 mm, 26.7"
Set up	719 mm, 28.4"	698 mm, 27.5"	644 mm, 25.4"
Set up with cabinet	719 mm, 28.4"	698 mm, 27.5"	1,072 mm, 42.3"
Set up with document feeder	1,331 mm, 52.5"	698 mm, 27.5"	666 mm, 26.3"
Set up with cabinet and document feeder	1,331 mm, 52.5"	698 mm, 27.5"	1,092 mm, 43.0"

Weight:
Machine: 122 kg, 269 lb

Noise Emission:
(Sound pressure level*) * = The measurements are to be made according to ISO 7779.

Printing Speed	
60 rpm	58 dB
90 rpm	62 dB
120 rpm	65 dB

Power Source:
Master Making:
AC 120 V, 50/60 Hz, less than 3.1 A
Printing:
AC 120 V, 50/60 Hz, less than 2.2 A

Power Consumption:
Master Making: Less than 380 W
Printing: Less than 230 W

Optional Equipment:
Drum unit: Color Drum
(B4, 8 1/2" x 14") - red, blue, green, brown, yellow, purple, navy, and maroon
Key Counter
Tape Dispenser
Cabinet
20 Originals Document Feeder
50 Originals Document Feeder
20-Bin Sorter Stapler (Up to 2 sorter staplers can be equipped with the main frame.)
Large Capacity Tray

20 Originals Document Feeder

Original Type:
Sheet

Original Weight:
40.7 g/m^2 to 127.9 g/m^2, 10.8 lb to 34 lb

Original Size:
Max. 307 mm x 432 mm, 12.0" x 17.0"
Min. 90 mm x 140 mm, 3.6" x 5.6"

First Print Time:
Less than 23.5 seconds (B4, 8 1/2" x 14")
Less than 20.5 æ 1 seconds (A4, 8 1/2" x 11")

Original Capacity:
20 sheets (66 g/m^2, 17.6 lb)
18 sheets (80 g/m^2, 20 lb)
1.8 mm, 0.07" height

50 Originals Document Feeder

Original Type:	Sheet
Original Weight:	40.7 g/m^2 to 127.9 g/m^2, 10.8 lb to 34 lb
Original Size:	Max. 307 mm x 432 mm, 12.0" x 17.0" Min. 90 mm x 140 mm, 3.6" x 5.6"
First Print Time:	Less than 23.5 seconds (B4, 8 1/2" x 14") Less than 20.5 æ 1 seconds (A4, 8 1/2" x 11")
Original Capacity:	50 sheets (66 g/m^2, 17.6 lb) 42 sheets (80 g/m^2, 20 lb) 4.0 mm, 0.15" height

Large Capacity Tray (LCT)

Paper Size:	The following sizes can be set in the large capacity tray and the cassette for LCT. A3 ▭, B4 ▭, A4 ▭▭, B5 ▭▭, A5 ▭, 11" x 17" ▭, 8 1/2" x 14" ▭, 8 1/2" x 11" ▭▭ The following sizes can be set in the cassette for LCT. A6 ▭
Paper Capacity:	LCT: 4,000 sheets (64 g/m^2, 17 lb) 3,000 sheets (80 g/m^2, 20 lb) Cassette: 500 sheets (64 g/m^2, 17 lb) 400 sheets (80 g/m^2, 20 lb)
Power Source:	(DC) 24V, 5V
Power Consumption:	Less than 100 W
Weight:	Less than 37 kg, 82 lb
Dimensions: (W x D x H)	550 x 500 x 688 mm, 21.7" x 19.7" x 27.1"

20-Bin Sorter Stapler

Number of Bins: 20 bins + non-sort tray

Paper Size:

on non-sort tray	Maximum: 320 x 447 mm, 12.6" x 17.6"
	A3 ▭, B4 ▭, A4 ▭▭, B5 ▭▭, 11" x 17" ▭, 8 1/2" x 14" ▭, 8 1/2" x 11" ▭▭
in Sort mode	Maximum: 300 x 432 mm, 11.9" x 17.1"
	A3 ▭, B4 ▭, A4 ▭▭, B5 ▭▭, A5 ▭ 11" x 17" ▭, 8 1/2" x 14" ▭, 8 1/2" x 11" ▭▭
in Staple mode	Maximum: 300 x 432 mm, 11.9" x 17.1"
	A3 ▭, B4 ▭, A4 ▭▭, B5 ▭, 11" x 17" ▭, 8 1/2" x 14" ▭, 8 1/2" x 11" ▭▭
in Class mode	Maximum: 300 x 432 mm, 11.9" x 17.1"
	A3 ▭, B4 ▭, A4 ▭▭, B5 ▭▭, A5 ▭ 11" x 17" ▭, 8 1/2" x 14" ▭, 8 1/2" x 11" ▭▭, 5 1/2" x 8 1/2" ▭

Paper Weight:

on non-sort tray	47 ~ 210 g/m^2, 12.6 ~ 55.8 lb
in Sort mode	64 ~ 82 g/m^2, 17.1 ~ 21.8 lb
in Staple mode	64 ~ 82 g/m^2, 17.1 ~ 21.8 lb
in Class mode	64 ~ 82 g/m^2, 17.1 ~ 21.8 lb

Printing Speed: on non-sort tray: 60 ~ 120 rpm
in Sort, Staple, or Class mode: 60 rpm

Non-sort Tray Capacity: 300 sheets
(Less than 64 g/m^2, 17.0 lb)

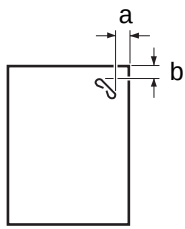
200 sheets
(Less than 157 g/m^2, 41.7 lb)

150 sheets
(Less than 210 g/m^2, 55.8 lb)

Bin Capacity:

Sorting:
50 sheets
(64 ~ 82 g/m^2, 17.1 ~ 21.8 lb, smaller than B4, 8 1/2" x 14")
25 sheets
(64 ~ 82 g/m^2, 17.1 ~ 21.8 lb, smaller than A3, 11" x 17" and the paper size other than the size described in "Paper size" section)

Stapling Position:



a = 5 æ 2.5 mm, 0.2" æ 0.1"
b = 5 æ 2.5 mm, 0.2" æ 0.1"

Stapler Capacity:

50 sheets (64 g/m^2, 17.1 lb)
40 sheets (80 g/m^2, 20 lb)
42 sheets (75 g/m^2, 20 lb)

Staple replenishment: Cartridge exchange (5,000 pieces/cartridge)

Dimensions (only sorter stapler):

	Width	Depth	Height
Stored one sorter stapler	908 mm, 35.8"	597 mm, 23.6"	926 mm, 36.5"
Set up one sorter stapler	908 mm, 35.8"	597 mm, 23.6"	1,082 mm, 42.6"
Stored two sorter staplers	1,507 mm, 59.4"	617 mm, 24.3"	926 mm, 36.5"
Set up two sorter staplers	1,507 mm, 59.4"	617 mm, 24.3"	1,082 mm, 42.6"

Weight:

57.5 kg, 127 lb (One sorter stapler)
106.5 kg, 235 lb (Two sorter staplers)

Power Source:

AC 100 ~ 120 V, 60 Hz, 2.5A
(1st sorter stapler)
DC 24 V
(2nd Sorter Stapler, from the 1st Sorter Stapler)

Power Consumption: 160 W

Noise Emission: Less than 70 dB(A)
(Soundpressurelevel*)
* = The measurements are to be made according to ISO 7779.

Consumables

Name	Size	Remarks
Master:	Length: 125m, 410 ft/roll Width: 280 mm, 11.0" 2 Rolls/case	257 masters can be made per roll
Ink-Black	1,000 ml/pack, 600 ml/pack, 5 packs/case	
Ink-Red	600 ml/pack, 5 packs/case	
Ink-Blue	600 ml/pack, 5 packs/case	
Ink-Green	600 ml/pack, 5 packs/case	
Ink-Brown	600 ml/pack, 5 packs/case	
Ink-Yellow	600 ml/pack, 5 packs/case	
Ink-Purple	600 ml/pack, 5 packs/case	
Ink-Navy	600 ml/pack, 5 packs/case	
Ink-Maroon	600 ml/pack, 5 packs/case	
Tape for Tape dispenser	35m (114.8ft)/roll	

❒ Specifications are subject to change without notice.

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