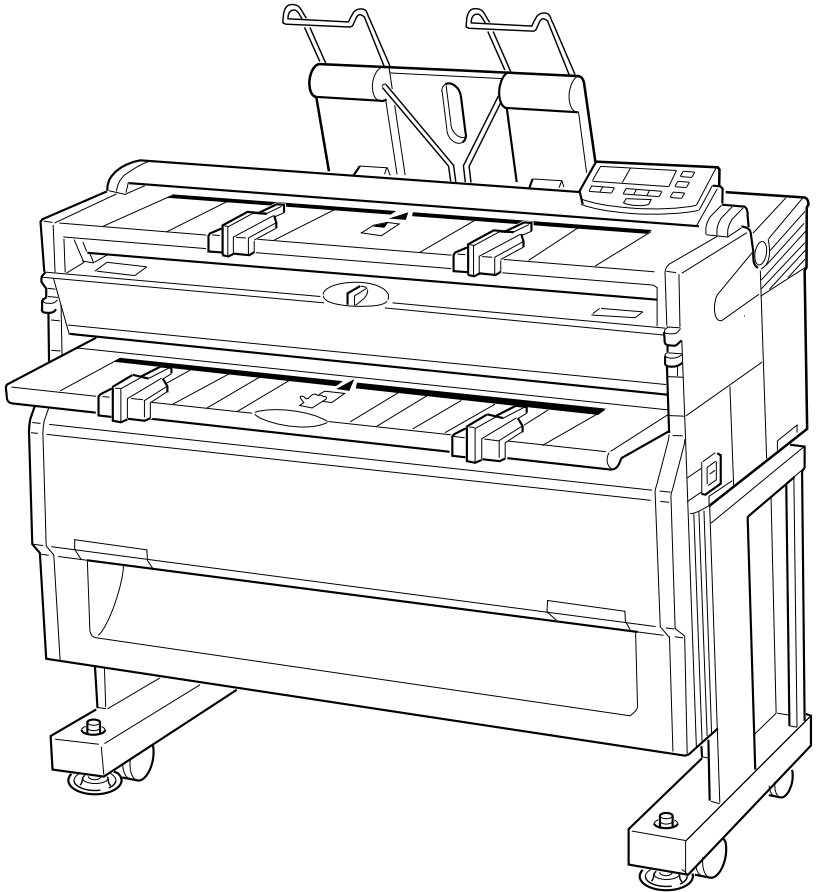


RICOH

FW740



Operating Instructions

© Copyright 1994 Ricoh Company, Ltd.

Power Source: 220 V, 230 V, 240 V, 50 Hz, more than 7 A

Please make sure to connect the power cord to a power source as above. For details about power source, see page 43.

Power Consumption: 1.4 kW

BESCHEINIGUNG DES HERSTELLERS/IMPORTEURS

Hiermit wird bestätigt, daß der/die/das

RICOH FW740

(Gerät, Typ, Bezeichnung) In Übereinstimmung mit den Bestimmungen der

163, Verfügung 1046/1984

(Amtsblattverfügung) funkenstört ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

RICOH COMPANY, LTD. (Name des Herstellers/Importeurs)


For good copy quality, Ricoh recommends that you use genuine Ricoh toner.

Ricoh shall not be responsible for any damage or expense that may result from the use of parts other than genuine Ricoh parts in your Ricoh office product.

In accordance with ISO Standard 7001, this machine uses the following symbols for the main switch:

 means POWER ON.

 means POWER OFF.

 means STAND BY

Note: Some illustrations may be slightly different from your machine.

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SAFETY INFORMATION

Safety During Operation

We've identified all safety messages in this manual with 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 properly.

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

WARNINGS

- Since some parts of the copier are supplied with high electrical voltage, touch only the parts specified in this manual.
- Do not modify or replace any parts other than the ones specified in this manual.
- Do not incinerate toner or toner containers. Toner dust could ignite when exposed to open flames.
- Do not store toner where it will be exposed to heat.
- Do not eat or swallow toner, and keep it out of reach of children.
- The fusing unit may be very hot. Be careful when handling it.
- When moving the copier across the room, push the copier table, not the copier itself.

Cautions

- While copying, do not turn off the main switch.
- While copying, do not open or close the original table, the upper unit, or any of the covers.


- ❑ While copying, do not unplug the power cord.
- ❑ Keep corrosive liquids, such as acid, off the machine.
- ❑ Do not allow paper clips, staples, or other small metallic objects to fall inside the machine.

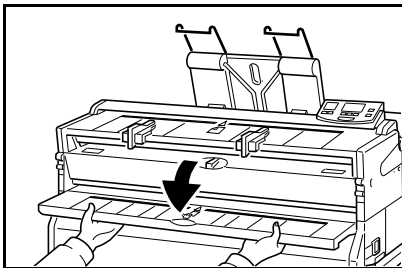
General Safety Information

- ❑ Always turn the copier off when you've finished copying for the day, but leave it plugged in.
- ❑ When the copier will not be used for a long period, disconnect the power cord.
- ❑ If the copier must be transported by vehicle, please contact your service representative.
- ❑ This copier can only be installed by a qualified service representative.
- ❑ When the copier is plugged in and the main switch is in the Stand-by position, the anti-condensation heaters are on. In case of an emergency, unplug the copier's power cord.

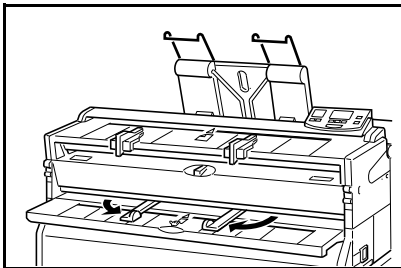
Making One Copy

To make a copy, you should first open the lower table of the copier (the copy table); then pull out the original guides at the exit; place the copy paper on the copy table; and last of all set the original on the top table of the copier (the original table). When you've set the original, the copier will take it in. Follow the steps below.

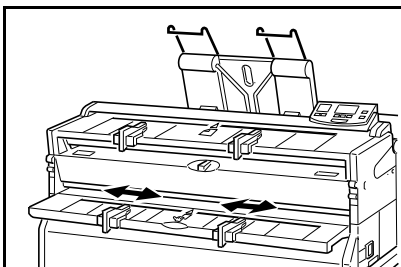
CAUTION: If during copying your original gets stuck in the copier, press the Emergency Stop key .



1. Open the copy paper table.

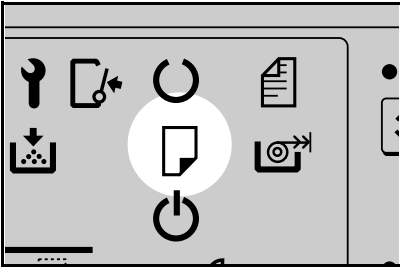


2. Open the original guides but do not force them.
3. If you want, set the image density (page 7) and the leading edge margin (page 8) or change the copy media setting (page 13).

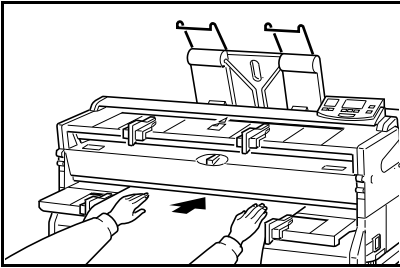


4. Set the copy and original guides (option) on the copy table to match the size of your copy paper and your original.

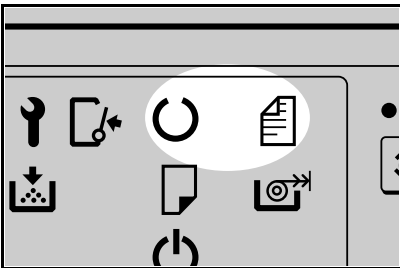
* *Original guides are shown closed to keep illustrations clear.*



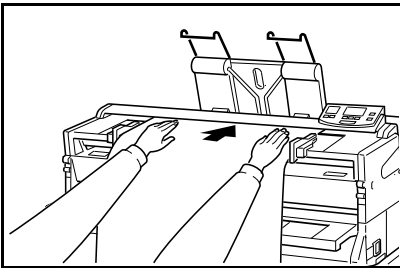
- 5. Wait until the **Set Paper** indicator lights up on the operation panel.



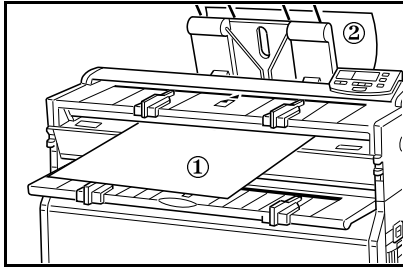
- 6. Place the sheet of copy paper on the copy table. Slide the paper straight into the copier until it stops. The copier will soon pull it in. Once the paper is set, the beeper will sound.



- 7. Wait until the **Set Original** indicator lights up on the operation panel.



- 8. Center your original face up on the original table. Slide the original straight into the copier until the copier pulls it in.



9. The original comes out from the opening just under the original table ①. The copy is delivered from the slot on top of the copier ②.


About the original guides...

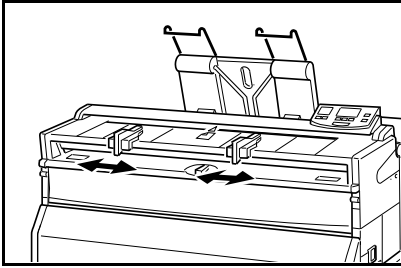
The original guides you pulled out at the exit keep the original from going into the copy paper entrance. Always use the original guides with originals thinner than 0.1 mm, with very long originals, or with very curly originals.

When sliding the original into the copier...

When inserting the original in the copier, slide it in carefully, but quickly. Otherwise, the original might skew as it goes through the machine.

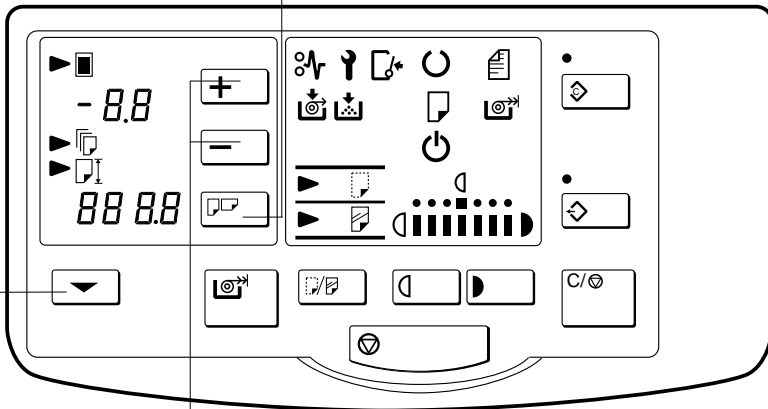
Copying With The Roll Feeder

To make a copy using the roll feeder option, you do not need to set paper on the copy table; the paper will be fed to the copier from the roll feeder. You should first input the paper length and other settings, then press the **RF Select** key , and lastly place the original on the top table (the original table). Follow the procedure below.

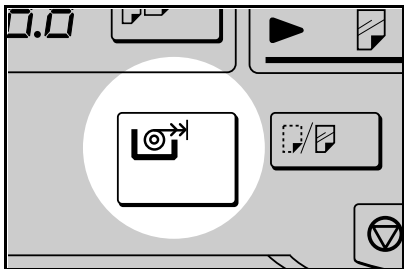



1. Set the original guides (option) to match the size of your original.
2. Follow the key strokes below.

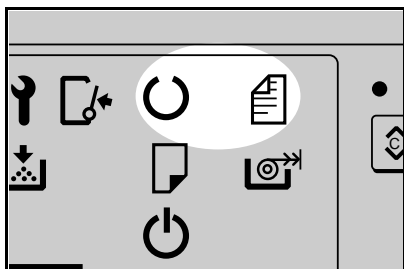
- ① Press the **Function Select** key until the arrow points at Paper Length. ② Press the **Preset Cut** key to choose a paper length. The length appears in the display, in millimeters.



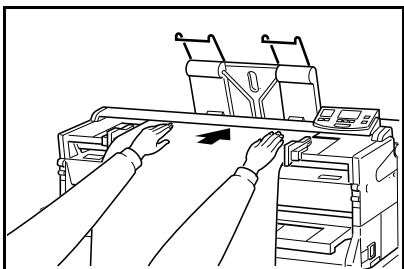
- ③ If you want to change the size, press the **+** and **-** keys until the size you want appears in the display. ④ If you want, set the image density (page 7) and the leading edge margin (page 8) or change the copy media setting (page 13).



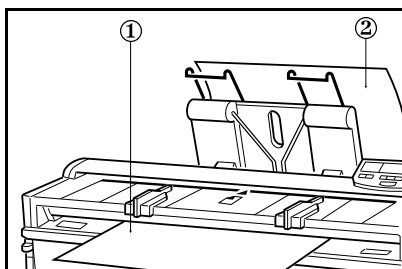
- When the **RF Select** indicator  lights up on the panel, press the **RF Select** key. The roll feeder starts. Once the copier has set the copy paper, the beeper will sound.



- Wait until the **Set Original** indicator lights up on the operation panel.



- Place your original face up on the original table. Slide the original straight into the copier until the copier pulls it in.



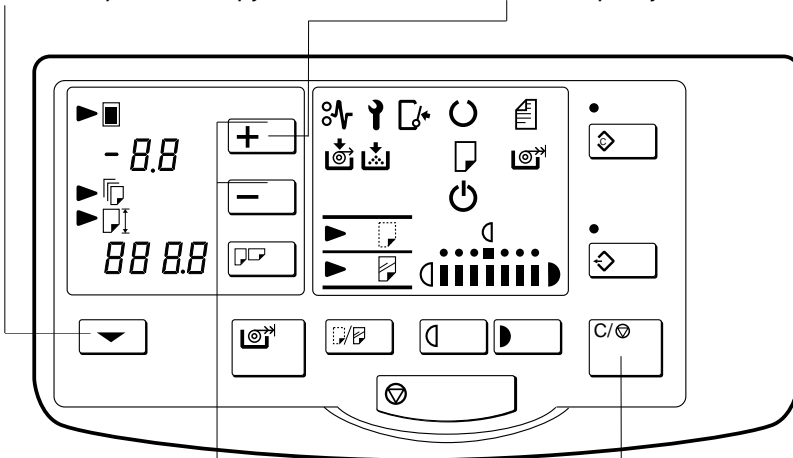
- The original comes out from the opening just under the original table ①. The copy is delivered from the slot on top of the copier ②.

Making Several Copies Of The Same Original



To make more than one copy of the same original, you have to reload the original after each copy. If you're not using the roll feeder option, you also have to set the copy paper for each copy.

1. Follow the key strokes below.

- 1 Press the **Function Select** key until the arrow points at Copy Counter.
- 2 Press the **+** key until you reach the number of copies you want to make.



- 3 If you want to change the number, press the **+** or **-** keys.
- 4 If you want to stop copying, press the **Clear/Stop** key. The copier will finish the copy being made, then stop.

2. Proceed as for a usual copy, with sheet paper (page 1) or with the roll feeder (page 4).
3. When the copy comes out, remove it and repeat step 2. Wait for the **Set Paper** indicator to light up before loading a new sheet of paper, and wait for the **Set Original** indicator ( ) to light up before reloading the original. You don't need to press the RF Select key again.

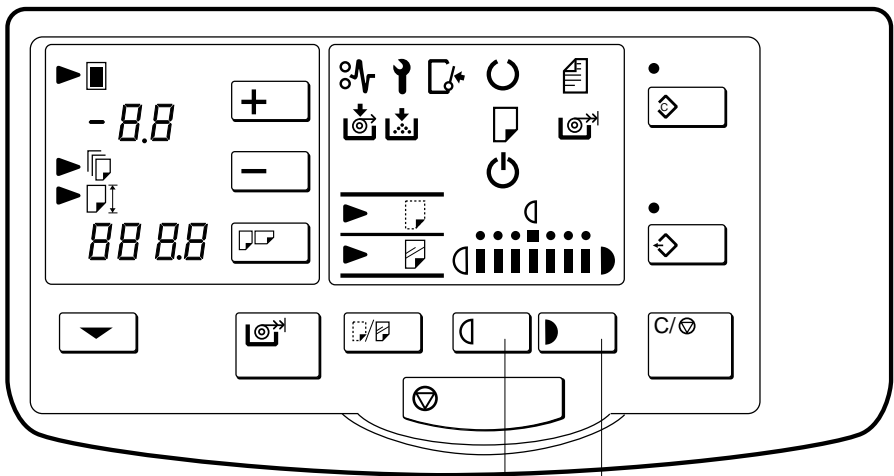
Making Copies Darker Or Lighter

To make darker or lighter copies, you should change the copier's density setting. There are 14 density levels: the standard density level, three darker levels, and 10 lighter levels. Set the density with the **Lighter** and **Darker** keys (☐ & ☐) under the density indicator.

The indicator shows seven levels at a time. When you start from the standard image density, the middle notch corresponds to the standard image density, the three right notches correspond to the darker densities, the three left notches to lighter densities.

The brighter notch shows which level is now set. If you go lower than the leftmost notch, the **Lighter Copy** indicator lights up. The notches on the indicator will then correspond to the seven lightest levels.

To set the image density, follow the keystrokes below *before* setting your original.

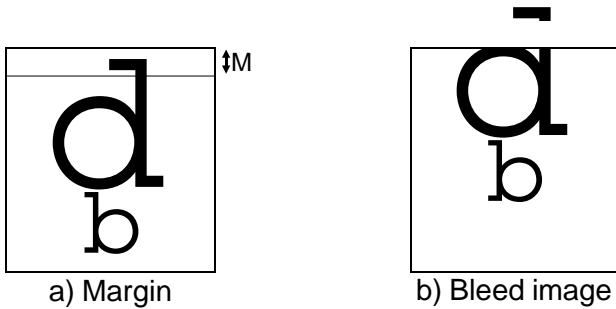


- ① Press the **Lighter** key to make the image lighter.
- ② Press the **Darker** key to make the image darker.

Leaving A Blank Margin At The Leading Edge

You can create a blank margin at the top of the copy (fig. a, the leading edge), or have the leading edge of the image bleed off the copy (fig. b). The copier does this by shifting the entire image backward or forward according to the margin you set.

With the roll feeder, the length of the margin does not affect the length of the paper. If you want to create a blank margin at the trailing edge, simply set the paper length a little longer than the total length of the original and lead margin. Set the margin *before* inserting the original.



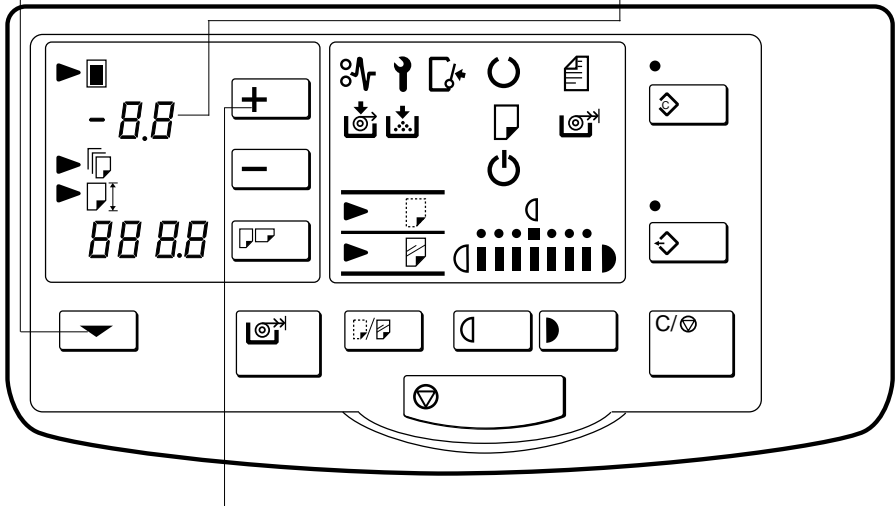
Example: Leaving a blank margin at the top of your copy

Suppose you are copying a vertical A2 size diagram (about 17" x 22") to a sheet of the same size. The diagram has a 5 cm (2") margin all around, but you want a 10 cm (4") margin at the top to give you space to write notes.

Make your copy following the instructions on page 1. When you reach step 3 on page 1, follow the key strokes on the next page.

❶ Press the **Function Select** key until the arrow points at Lead Margin.

❷ The margin is displayed here, in millimeters.



❸ Press the + key until the display shows 5.0.


When you have the margin you want, continue as for any other copy. You will obtain a copy with a 10 cm (4") blank margin at the top (5 cm set by you plus 5 cm on the original) and no margin at the bottom.

If the original had no blank margin surrounding it, you would have obtained a copy with a 5 cm blank margin at the leading edge, and with the bottom 5 cm of the original cut off the copy.

Example: Leaving a blank margin at the bottom of your copy

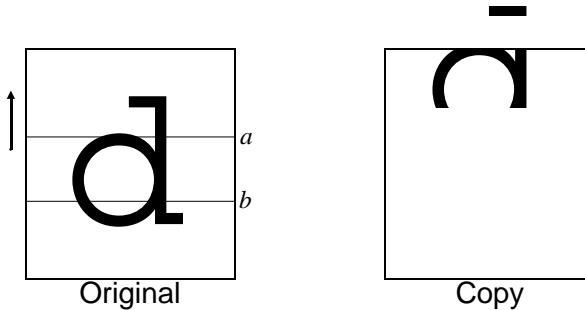
Suppose in the first example you had instead wanted the margin at the bottom of your copy instead of the top. In that case, in step ❸ above, you would have had to press the - key until -5.0 appeared in the display. The image would have been shifted forward on the copy and a 10 cm margin would have been left at the bottom of the copy (5 cm set by you plus 5 cm on the original) and no margin at the top.

Copying Only A Selected Portion Of The Original

You can copy a portion of the original instead of the entire original. Press and hold the **Function Select** key  for at least three seconds to tell the copier to copy only a portion of the original. A “P” (for Partial) will start blinking in the lead margin display. Then, proceed as for a usual copy, with a sheet of paper or with the roll feeder.

As the original is fed into the copier, press the **Function Select** key when the beginning of the part you want to copy (*a*) goes in; the “P” will stop blinking and stay on. Press the **Function Select** key again when the end of that part (*b*) goes in; the “P” will start blinking again.

Finally, press and hold the **Function Select** key for another 3 seconds to turn the function off.



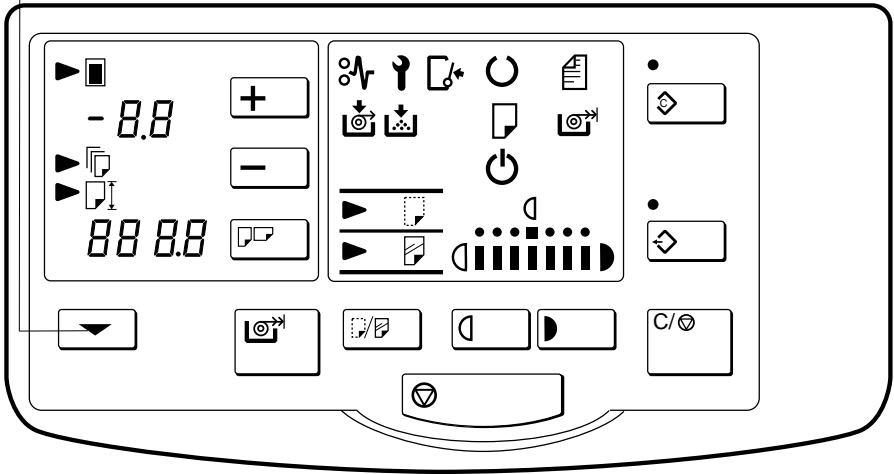
Notes

- To copy a portion of the original that includes its first 15 cm (6"), you must press the **Function Select** key for (*a*) before setting the original.
- To copy the bottom portion of the original, simply skip pressing the **Function Select** key at (*b*).
- You can't add a margin. The length of the margin affects where the copier starts and stops copying, so that with a margin, you can't set (*a*) and (*b*) accurately.

Example: copying the middle band of an A2 poster

Suppose you are copying an A2 size poster (about 17" x 22") of a sea-shell, as shown on the previous page, and you want to copy only the middle portion of the shell. Follow the steps below.

- ❶ Press and hold the **Function Select** key for three seconds, then proceed as for a usual copy. A "P" will blink in the lead margin display.
- ❷ When the beginning of the portion you want to copy goes under the cover, press the **Function Select** key. The "P" will stay on, not blinking.

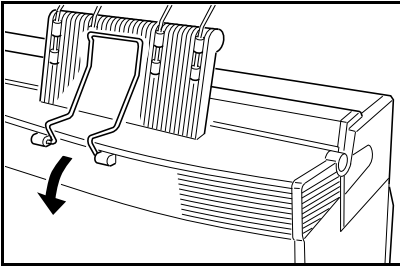


- ❸ When the end of the portion you want to copy goes under the cover, press the **Function Select** key again. The "P" will start blinking again.
- ❹ Press and hold the **Function Select** key for three seconds to turn the function off. The "P" will disappear.

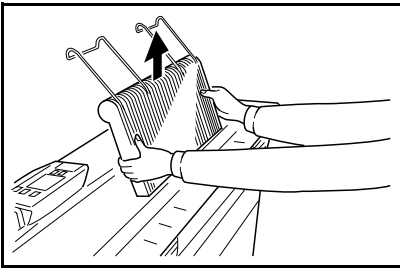
Using The Rear Table—Originals That Can't Be Bent

You can feed originals from the rear of the copier. This way, the original will not turn inside the machine, but will travel straight through. Use the rear table to copy originals that can't or shouldn't be bent.

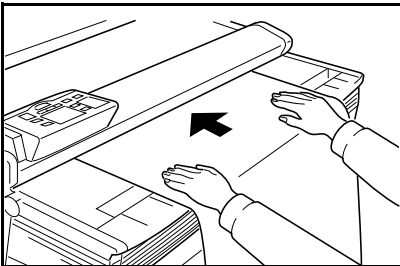
Do not insert originals thicker than 3mm (about 1/8").




1. Lower the exit copy guide.



2. Remove the exit copy holder.
3. Proceed as for a usual copy with or without the roll feeder. However, do not set the original on the original table. See step 4.







4. When the **Set Original** indicator  lights up on the operation panel, insert the original face down.
5. If your original is longer than 800 mm (31", larger than A0) hold it up as the copier takes it in.

Copying To Different Media

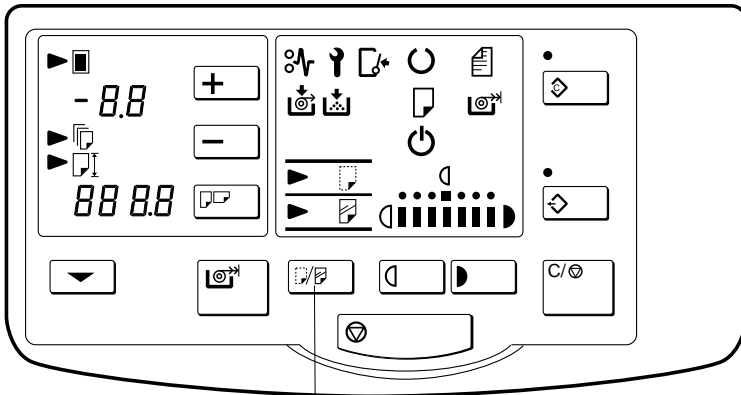
If you copy to film or vellum (translucent or tracing paper) you need to set the copy media, otherwise the copy might come out creased or wavy.

To make a copy, the copier deposits a layer of black resin powder, called toner, on the copy paper. It then applies heat so that the toner melts and fuses to the paper. Some papers require more heat to fuse well, others less. Press the copy media key to select a type of paper, but for most kinds of plain paper both indicators should be off.

Type of paper	Media setting
Plain paper	Both indicators off
Film	 on
Vellum	 on
Heavy paper	 on
Thin paper	No indicator, or if necessary,  on.


This list is not complete. If you are not sure of what type of paper you have, check the label on the paper package.

If these settings do not match your paper, try different settings.



Set the proper fusing temperature with the **Copy Media** key

Programming Settings You Often Use

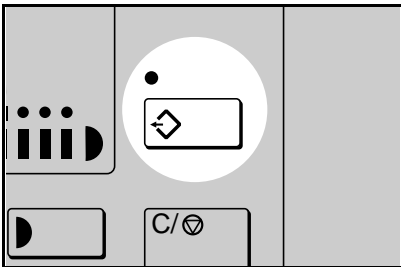
There are two ways of programming settings you often use. First, you can link a collection of settings to the **Program** key ; this way the copier will recall your settings whenever you press that key.

Second, you can change the copier's default settings so that those you want appear every time you turn the copier on or press the **Clear Modes** key.

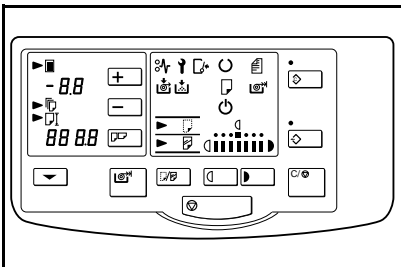
1–Programming a collection of settings

If you often find yourself using the same margin and density settings, you can have these settings appear at the stroke of a single key.

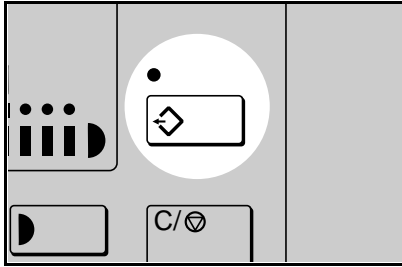
Press the **Program** key to tell the copier to store the following key strokes in memory. Input the settings you want to program, then make a copy to store the settings in memory.



1. Press the **Program** key.




2. Input the settings you want to program.
3. Make a copy, then press the **Program** key again.

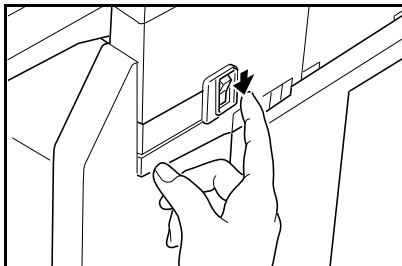


4. To retrieve the programmed settings, press the **Program** key before copying.

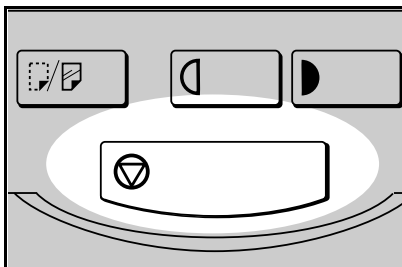
2—Changing The Copier’s Default Settings

You might find that you never use the copier’s default settings, that you always set a lead margin of 10 or 20 mm, or that you always use the roll feeder with a particular length of paper.

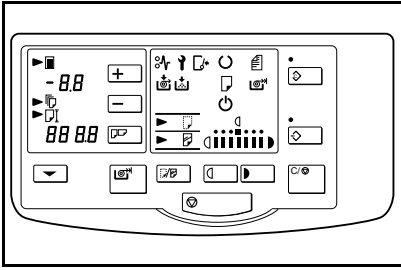
In this case, you might want to change the settings that appear when you turn on the copier or press the **Clear Modes** key . To do so, follow the steps below.



1. Turn the main switch off.



2. Press *and hold* the **Emergency Stop** key, then turn the copier back on. The jam and service indicators blink.




3. Input the settings you want.
4. Turn off the main switch.

The next time you turn the copier on or press the **Clear Modes** key, the settings you programmed in step 3 will be in effect.

What Your Service Representative Can Change

Your service representative can adjust some of your copier's features. Here's a list of changes the service representative can make for you.

- Copy media default:** The copy media setting can be adjusted to match the kind of paper you use.
- Count up and count down:** The copy counter can be made to count up or count down.
- Beeper:** The beeper can be turned off completely; can be turned off for setting the margin, multiple copies, and paper length; or it can be left on to emit a tone whenever a key is pressed.
- Paper feed out waiting time:** When the copier is ready to receive the original, it will wait for a preset length of time. If no original is set within this time, the copier will process the copy paper without copying. The time can be set to 1, 2, 3, 4, or 5 minutes.
- Manual feed start time:** After copy paper is set, the copier waits for a preset number of seconds before starting the rollers that will pull the paper in. This pause gives you a chance to align the paper. The time can be set to 0.7, 1, 2, 3, 4, or 5 seconds.

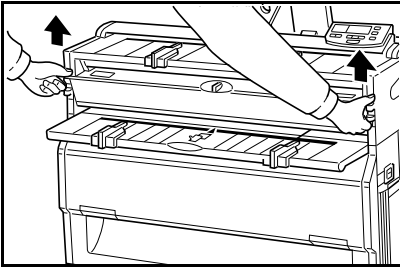
- ❑ **Lead edge increase/decrease speed:** The speed at which the lead edge setting scrolls up or down can be changed. The time for one increment (or decrement) can be set to 0.02, 0.05, 0.10, 0.25, or 0.5 second.
- ❑ **Auto clear time:** If the copier is left alone for a while, it will clear itself. The time needed can be changed to 1, 2, 3, 4, or 5 minutes. The function can also be turned off.
- ❑ **Energy saving:** The fusing unit needs to be hot for copying. When the copier is idle, the fusing unit can be kept hot to save time or it can be allowed to cool to save energy. The feature can be set to start automatically, but you can also turn it on yourself by pressing and holding the **Clear Modes/Stand-by** key  for three seconds.
- ❑ **Screen message:** When the copier is idle, the copy counter can be made to display a message. There are five possible messages: “Pre_heat”, “Sleeping”, “0123456789”, “Have a good day”, and “Hello I love you”. The feature can also be turned off.
- ❑ **Function step setting:** When changing the function setting (margin, multiple copies, or paper length) by holding down the + or - key, the setting will change by a preset value. This value can be changed to 1, 2, 3 or 10 units.
- ❑ **Paper length count up/down, Paper length up/down speed, and Paper size pattern:** When you press the preset length key, the copier scrolls through a selection of preset paper sizes. The copier can scroll through the preset lengths forward or backward, and at different speeds. There are many sets of sizes from which to choose. Ask your service representative for details.

MAINTAINING YOUR COPIER

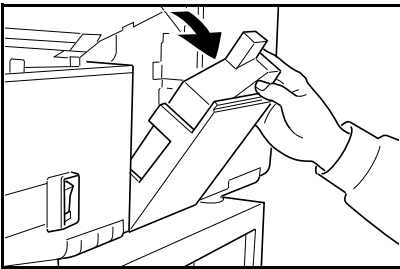
Changing The Toner Bottle *FULL*

WARNING: You must change the toner bottle whenever you see **FULL** in the copy counter. **NEVER** clear this condition by *only* opening and closing the copier or turning it on and off.

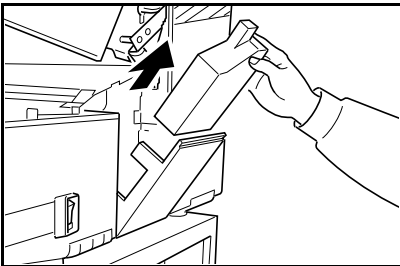
If the toner bottle overflows, toner particles could get inside the copier and cause damage. When you install a new bottle make sure it is perfectly set in its holder. Follow the steps below.



1. Open the upper unit of the copier.

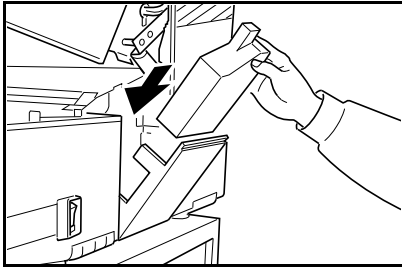


2. Open the door on the right side of the copier.

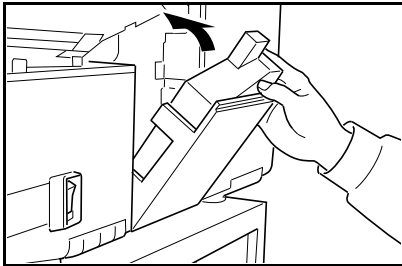


3. Carefully remove the plastic bottle and throw it away.

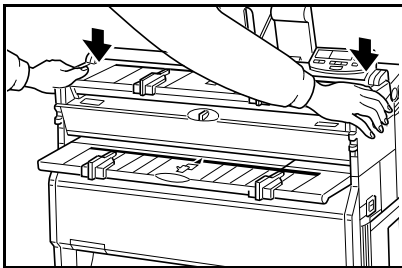
WARNING: Do not incinerate used toner.
Toner dust can ignite suddenly.



4. Place a new bottle in the copier (supplied by your service representative).



5. Close the door.

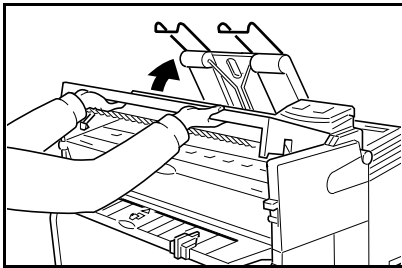


6. Close the upper unit.
7. If needed, turn the copier back on, and press the clear modes key to clear the FULL message.

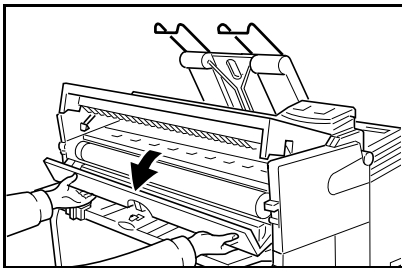
WARNING: Always change the toner bottle before clearing the FULL condition. Otherwise toner will overflow inside the copier and cause damage.

Adding Toner 

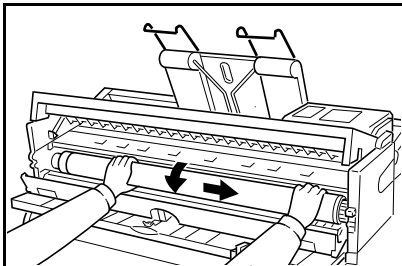
The add toner indicator blinks when toner is running short. When the indicator starts blinking, you can still copy about 16 m (about 53', or 27 A4 size copies). When the indicator stays on, you can't copy until a new cartridge is put in. Follow the steps below.



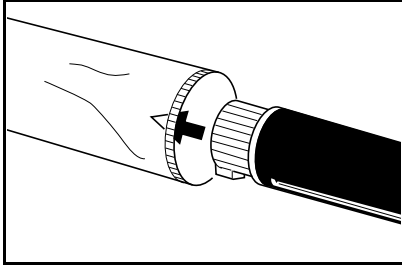
1. Lift the original table until it locks in place.



2. Open the toner cartridge cover.

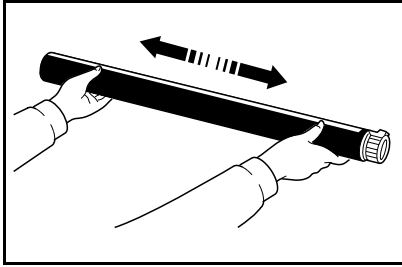


3. Turn the old cartridge towards you. Then, while pressing the cartridge to the right, lift the left end and remove the cartridge.

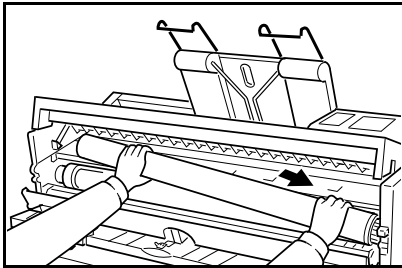


4. Put the old toner cartridge in a vinyl bag and discard it.

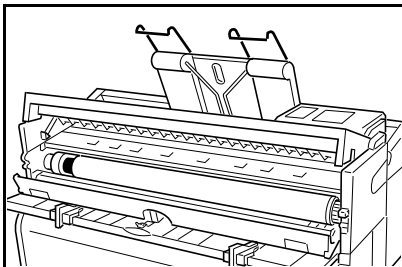
WARNING: Do not incinerate used toner cartridges. Toner dust can ignite suddenly.



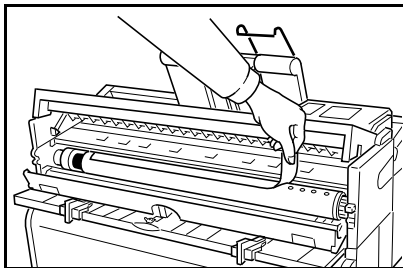
5. Shake the new toner cartridge lightly 5 to 6 times to remove lumps.



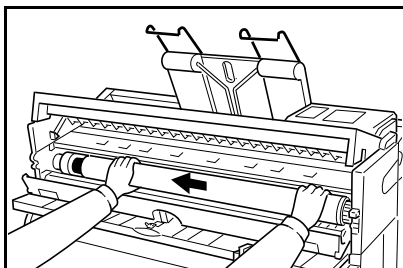
6. Install the new cartridge. Make sure that the white circle labeled 1 on the cartridge faces up.



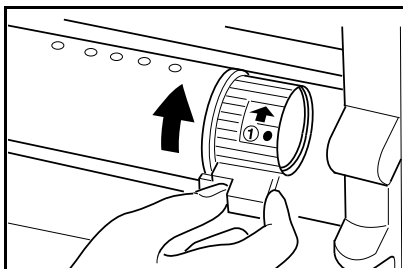
7. Make sure the cartridge is set well but don't push it in yet.



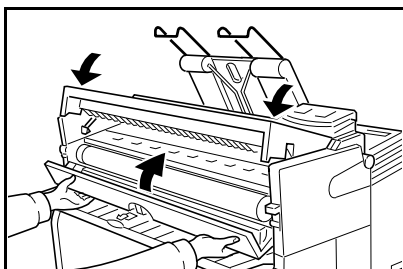
8. Take the right edge of the seal and slowly remove it.



9. Push the toner cartridge all the way to the left.



10. Turn the toner cartridge all the way in, as shown.

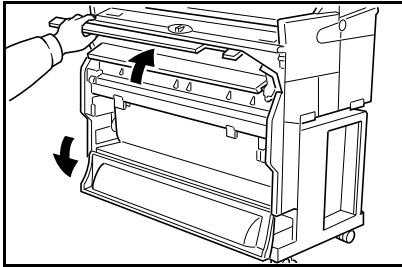


11. Close the toner cartridge cover and the original table. The copier will need a few moments to warm up before it is ready to copy.

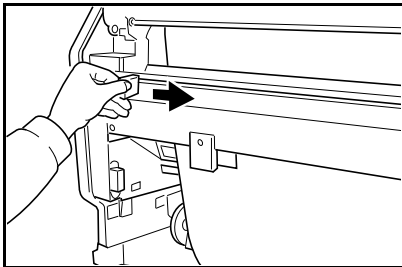
Loading A Roll Of Paper

When the load paper indicator lights, it's time to install a new roll of paper. You'll need to open the top and bottom covers of the roll feeder, remove any remaining paper, take the old roll out and take it off the spool, insert the spool in a new roll, and finally load the new roll into the roll feeder.

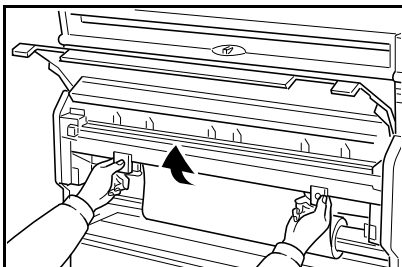
CAUTION: Rolls of paper can be heavy, so you should be careful when loading one. Don't strain yourself. Ask for help if you think you need it.



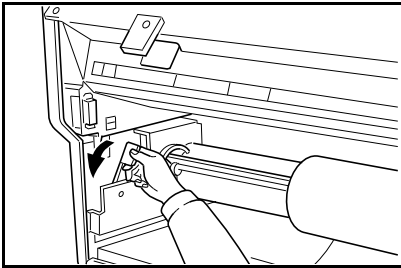
1. Open the top and bottom covers of the roll feeder.



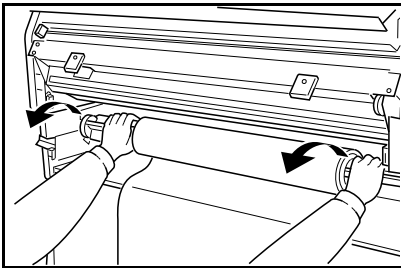
2. If there is paper left, slide the blade from side to side and gently pull the paper out of the copier.



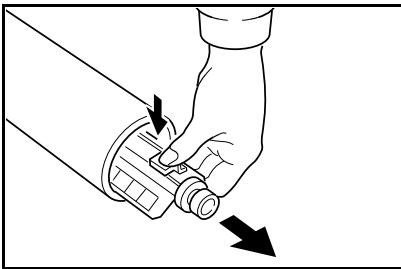
3. Unlock and lift the top unit of the roll feeder.
 - a) Hold the handles on each side.
 - b) Squeeze and hold the lock on the left.
 - c) Raise the unit just a bit.
 - d) Hold on to the unit, but let go of the lock.
 - e) Raise the unit until it locks in place.



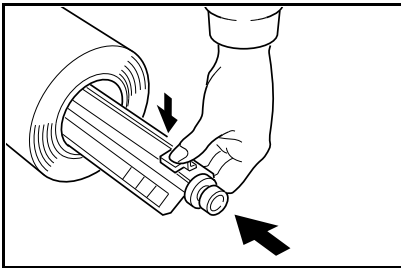
4. Flip the two latches on each side of the paper spool.



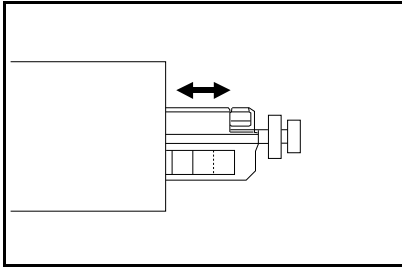
5. Remove the spool.



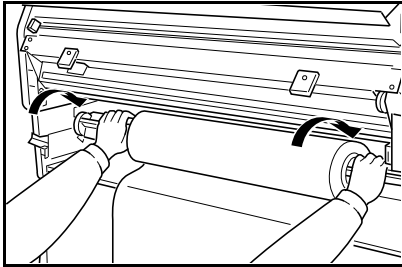
6. Press and hold the lock on the spool and pull the spool out of the roll. Throw the old roll away.



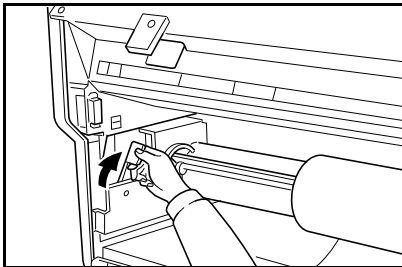
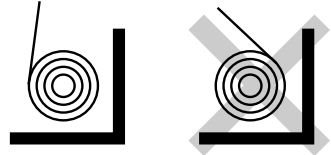
7. Press and hold the lock on the spool and insert the spool into a new roll.



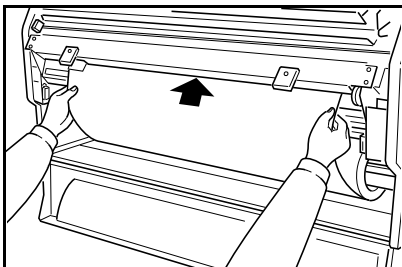
8. While holding the lock down, align the paper roll with the size marks on the spool.



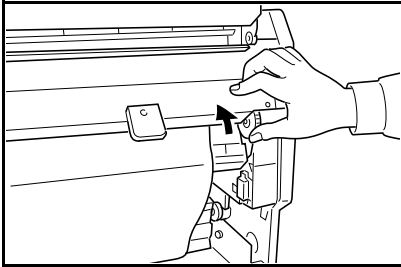
9. Load the spool back in the roll feeder so that the paper comes off the roll from the front, not from the rear, as shown below.



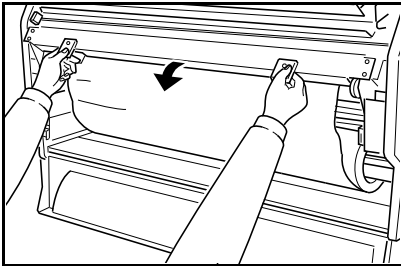
10. Make sure the spool is pushed all the way in the grooves and flip the two latches back in place.



11. Pull the leading edge of the paper roll and slide the paper into the slot just under the top unit locks. Make sure the paper is aligned with the marks on the unit.

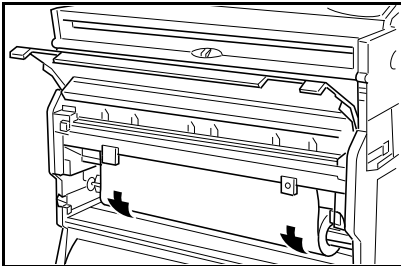


12. Turn the wheel on the right side to bring the paper further in.

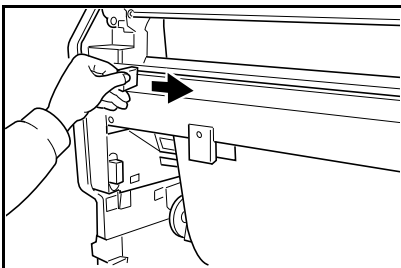


13. Lower the top unit of the roll feeder.

- a) Hold the two handles.
- b) Squeeze and hold the lock on the left.
- c) Lower the unit just a bit.
- d) Hold on to the unit, but let go of the lock.
- e) Lower the unit until it locks in place.



14. Spin the paper roll a bit to tighten the paper.

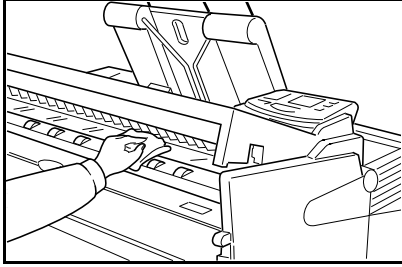


15. Slide the blade from side to side and gently pull the paper out of the copier.

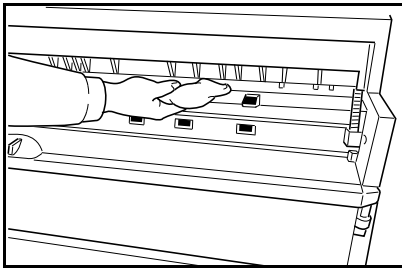
16. Close the roll feeder covers.

Things To Do Every Day

Clean the exposure glass & the platen roller



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



Clean the platen with a damp cloth, then wipe it with a dry cloth.

Also, you should clean the copy and original tables with a damp cloth, then wipe them with a dry cloth.







TROUBLESHOOTING

If Something Goes Wrong

If you have problems with your copier, consult the following pages. If a service indicator lights up, read the section below; if the original or the copy is stuck in the copier, see page 29; if the copier won't start, or if copies don't look right, see page 34.

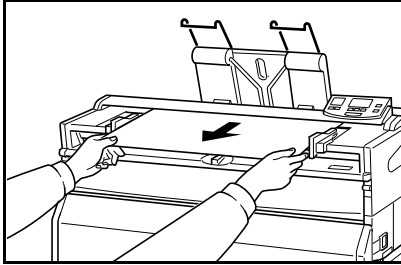
If A Service Indicator Lights Up

If one of the service indicators shown below appears on the operation panel, turn to the appropriate page and follow the instructions described there.

What appears	What it means	What to do
	The original or copy paper is jammed somewhere.	See the following section.
	The copier needs a technician.	Call your technical service center.
	A cover or unit was left open.	Close it. See page 40 for a complete list of the places to check.
	The paper roll is finished.	Put in a new roll of paper. See page 23.
	The toner cartridge is empty, or almost empty.	Replace the toner cartridge. See page 20.
	Wait until the ready indicator lights.	Wait. If it stays on for an unusually long time, call your technical service center.
<i>FULL</i>	The used toner bottle is full.	Empty the used toner bottle. See page 18.

If Jams Occur

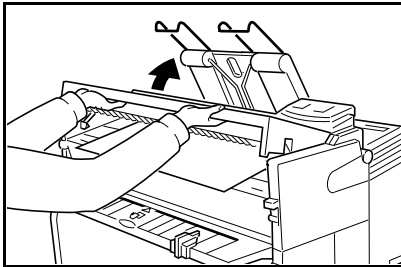
If the original is jammed in the feed-in slot



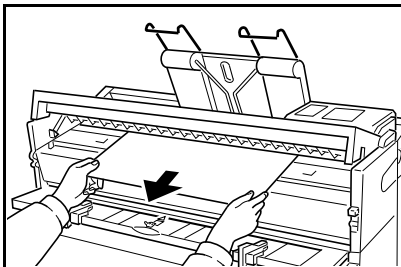
Very gently pull the original out of the feed-in slot. Be careful not to tear it.

CAUTION: *If the original sticks in the machine, or if you don't think you can remove it without tearing, remove the original from the exit instead. See below.*

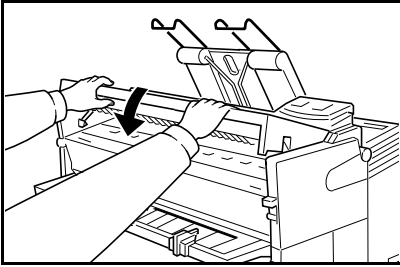
If the original is jammed at the exit



1. Lift the original table.

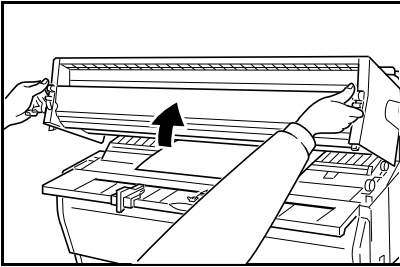


2. Very gently pull the original out of the feed-out slot. Be careful not to tear it.

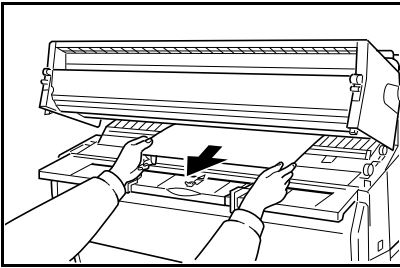


3. Close the original table. Press firmly on both sides until it clicks into place.

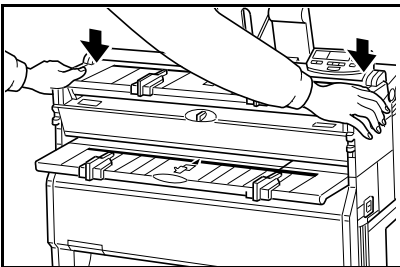
If sheet paper is jammed in the feed-in slot



1. Squeeze the locks on each side of the copier and lift the unit.

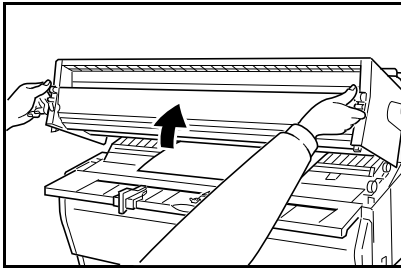


2. Pull out the copy paper. Do not leave any scraps of paper in the copier.

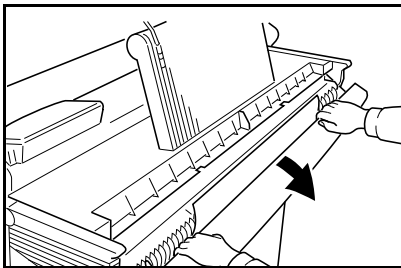


3. Close the unit. Press firmly on both sides until it clicks into place.

If sheet paper is jammed at the paper exit

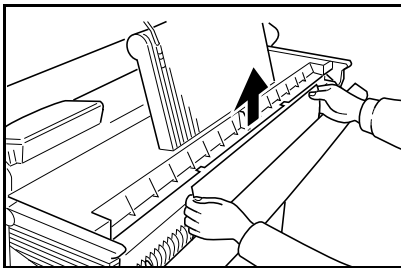


1. Squeeze the locks on each side of the copier and lift the middle unit between the original table and the copy table.

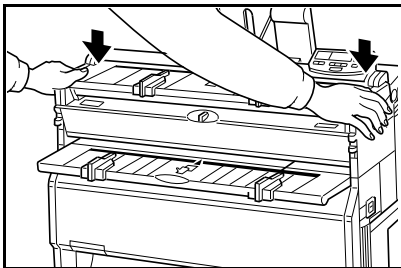


2. Open the fusing unit cover.

CAUTION: *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*



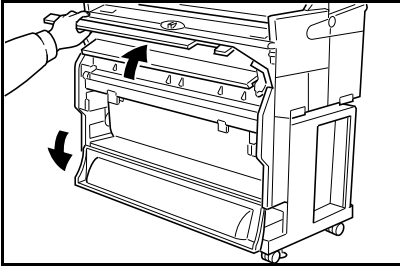
3. Slowly pull the paper out. If there are scraps left inside, open the inner cover, wait for the copier to cool, and remove the scraps.



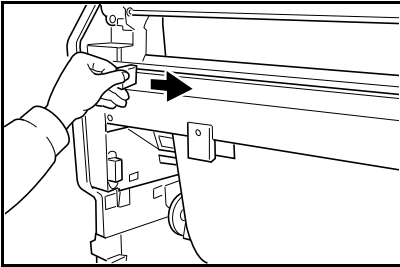
4. Close the unit and all covers. Press firmly on both sides until it clicks into place.

If roll paper jams

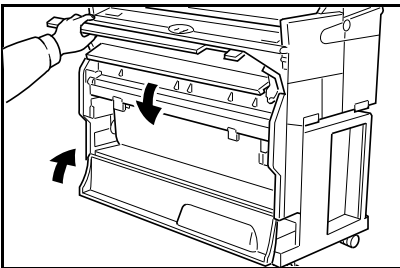
If roll paper jams anywhere in the machine, you still might need to check everywhere to remove the entire length of paper.



1. Open the roll feeder top cover.

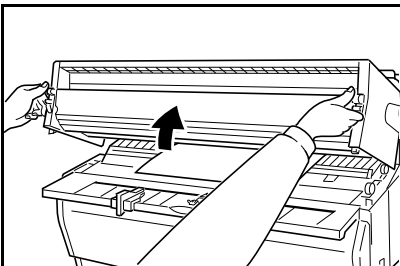


2. Slide the blade across.
3. If you can, pull the paper out of the copier.

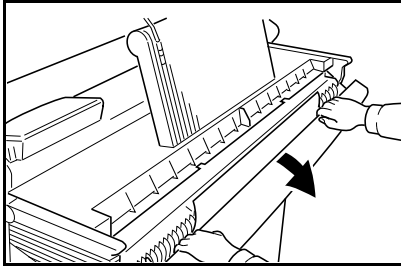


4. Close the roll feeder top cover.

If your were able to remove all the paper, stop here.

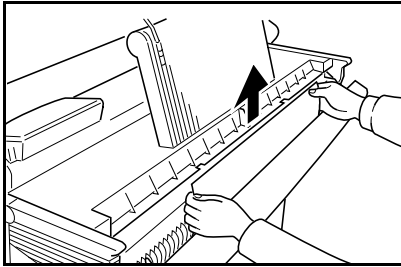


5. Squeeze the locks on each side of the copier and lift the unit.

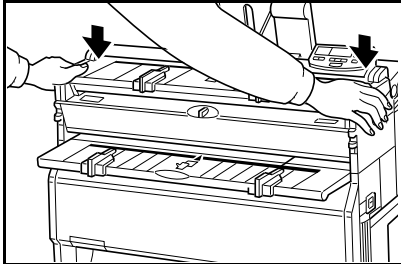


6. Open the fusing unit cover.

CAUTION: *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*



7. Slowly pull the paper out. If there are scraps left inside, open the inner cover, wait for the copier to cool, and remove the scraps.



8. Close the unit and all covers. Press firmly on both sides until it clicks into place.

Others

If a puzzling or recurring problem occurs, check the following before calling a service representative. It's also a good idea to check the Do's and Don'ts section on page 36 to make sure the paper and originals match what the copier can handle.

Absolutely nothing happens

- Is the main switch on?
- Is the cord plugged in?
- Did a breaker or a fuse blow out?

Something happens, but the and indicators never light up

- Check the indicators on the control panel. If any of them are lit, turn to page 28. Check that all covers and units are closed.

If Jams Occur Frequently

- Is your paper creased, damp, or otherwise damaged? See the Do's and Don'ts section on page 36.
- Are there visible bits of paper or other objects stuck in the machine? If there are, remove them.
- Are you inserting the paper and original in straight? Always feed paper in straight.

If Copies Look Wrong

- Are copies too dark or too light? Adjust the density (see page 7).
- Is the background dirty no matter what kind of original you are copying? Make sure the exposure glass and platen are clean (see page 27).

- Is the image skewed? Make sure to insert the paper and the original straight into the machine. If you have the original and copy guides (option), use them.

White spots appear

- On the copy: try setting your copy paper with the other side facing up.
- At the leading edge: try setting your copy paper sideways.
- At the trailing edge: try giving a rising curl to the trailing edge. The curl should go up, not down.

Creases

- Try setting your copy paper sideways.
- If long runny creases appear on copies, try setting your copy paper sideways, or try changing the copy media setting.
- If creases appear on copies made to transparent film, try setting your film sheets sideways.

Copies come out dog eared

- Try setting your copy paper with the other side facing up.
- Make sure your copy paper is undamaged.

Black streaks appear on copies

- Check that the exposure glass is clean.

DO'S & DON'TS

Copying

- Do not set more than one sheet of paper at a time on the copy paper table.
- Center your paper on the copy table using the size marks. Then slide the paper straight into the copier until it stops.
- When copying to a long sheet of paper, lightly hold the sheet as the copier pulls it in so that it goes in well.
- Do not make two sided copies.
- If you open the unit make sure you close it within 5 minutes to keep light from damaging the copy drum.
- When copying to sheets of 90 cm x 115 cm (35" x 45") or more, make sure the paper does not drag directly on the floor as the copier pulls it in. (You can spread some paper on the floor for this.)
- If your paper has an uneven or slanted edge, do not insert this edge in first.
- Do not make copies longer than 2 m (80").
- Do not insert originals made of paper less than 52.3 g/m² (13.9 lb, or 0.07 mm). For such originals, please use the optional carrier sheet.

Toner

- Store toner cartridges horizontally in a cool and dark place.
- Do not leave toner cartridges in your car on a hot day for a long period of time, or anywhere the toner could be subjected to temperatures of over 35° C (95° F).
- Keep toner out of the reach of children.
- Do not refill toner cartridges. Always use new cartridges.

Paper

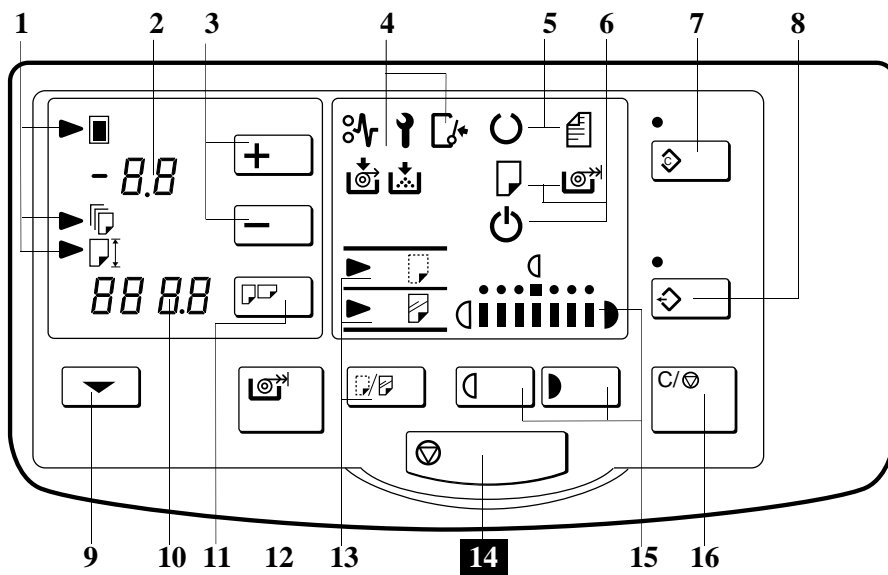
- Keep open reams of paper in the package and store as you would unopened packages.
- Avoid storing paper in humid areas. When it's hot and humid, store paper in a vinyl bag.
- Do not use copy media made of a material other than paper, vellum, or film. Don't copy to metallic or coated paper.
- Do not use paper with strong curls at the edges or corners. (Curls rising more than 5 mm [1/4 inch] or falling more than 20 mm [3/4 inch] over a 40 mm [1.5 inch] radius.)
- If copying to natural tracing paper (all pulp, translucent paper) at a relative humidity of 35% or less then:
 - a) If the paper was left out of its package for 5 minutes or more, remove the first 700 mm before copying.
 - b) If copies come out wavy or with white spots, use vellum tracing paper instead of natural tracing paper.
 - c) Always keep the paper in a bag when not using it.




Originals









- Do not feed in torn, wavy, creased, dog-eared, or otherwise damaged originals.
- Do not feed in two originals at a time. Do not feed in folded originals.
- Do not feed in stapled, or clipped originals. Do not feed in glued or taped originals (such as a collage), or perforated originals.
- If your original has an uneven or slanted edge, do not insert this edge in first.
- Do not feed in originals with strong curls (see above, under Paper).
- If copying an original that you touched up with correction fluid, wait until the correction is dry before inserting it in.
- Do not feed in originals made of a material other than paper, vellum, or film. Don't copy from metallic or coated paper.
- Do not feed in damp originals.

WHERE IS IT & WHAT IS IT

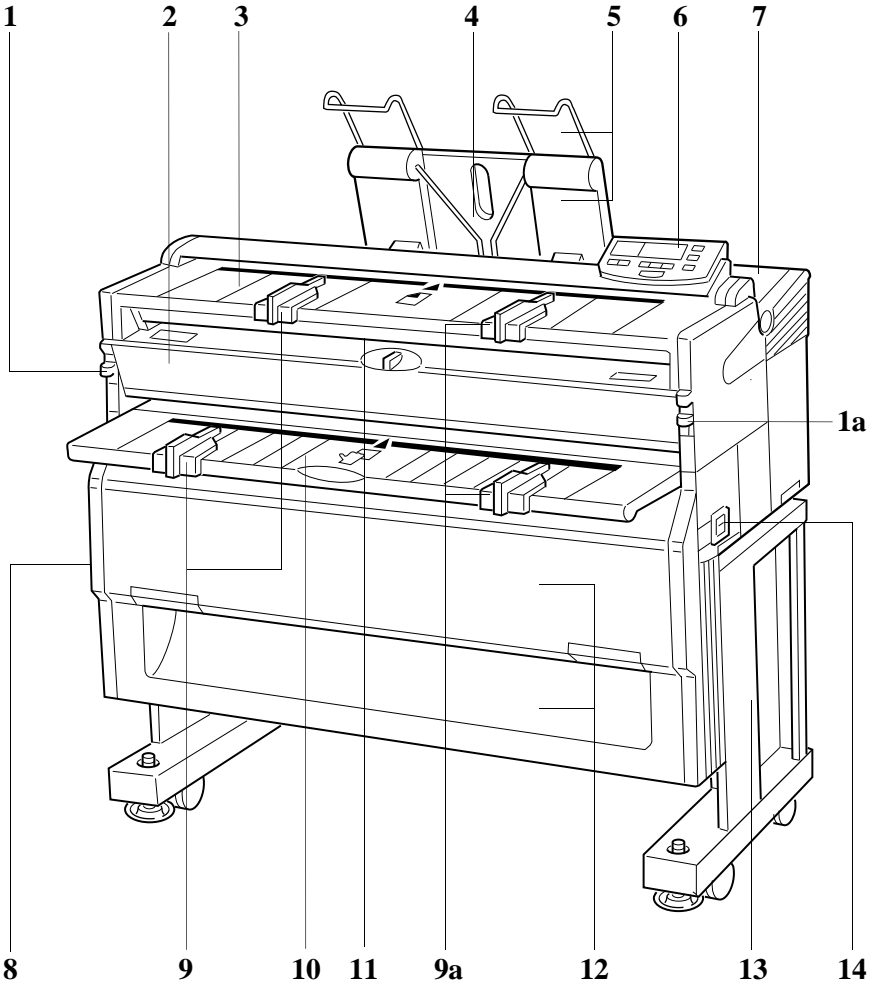
Displays and Keys



Ref.	What it is	What it does
1	Function indicators   	The top indicator lights when the lead margin is being set. Select with key 9.
		The middle indicator lights when the number of copies is being set. Select with key 9.
		The bottom indicator lights when the paper length is being set. Select with key 9.
2	Lead Margin display	Displays the lead margin in millimeters. Also indicates the state of the copier during partial copying.
3	Plus and minus keys	The plus key (+) increments the value being set for one of the above functions.
		The minus key (-) decrements the value being set for one of the above functions.
4	Troubleshooting	See page 28 for details.
5	Ready/Set Original indicator	Lights up when the copier is ready to receive the original, after the paper has been set or the roll feeder selected.

Ref.	What it is	What it does
6	Set Paper and RF Select indicators  	These usually light up together. They light when you can set paper on the table or select and start the roll feeder. If you don't have the roll feeder option, the RF Select indicator will not light.
	Wait indicator	Shows that the copier is not yet ready to copy.
7	Clear Modes/Stand-by key	Returns the copier to the default settings. Press and hold 3 sec. to let the fusing unit cool down. This saves energy, but increases the waiting time at the next copy job.
8	Program key	Allows you to recall or set a program.
9	Function Select key	Lets you switch your input from, the lead margin, the copy counter, or the paper length. (See 1.) Also used for copying a selected portion of the original.
10	Paper Length indicator & Copy Counter	1) Shows the length of paper the roll feeder will send. 2) Shows the number of copies to make. 3) Displays FULL when the used toner bottle needs to be emptied.
11	Preset Cut key	Scrolls through the preset paper lengths for the roll feeder.
12	RF Select key	Selects the roll feeder as the source of copy paper.
13	Copy Media key 	Tells the copier what kind of copy paper you are using. The copier will apply more or less heat accordingly.
	Vellum 	Shows when vellum is the selected copy media.
	and Film 	Shows when film is the selected copy media.
	indicators	When both indicators are off, the copier is set for plain copier paper.
14	Emergency Stop	Pressing this key will stop the copying process immediately. Use if your original is getting stuck in the copier.
15	Density indicator 	Shows the density level the copies will have.
	Darker key 	The Darker key will increase the density.
	Lighter key 	The Lighter key will decrease the density.
16	Clear Stop key	Tells the copier to stop copying and clear the copier. (The copier will finish the copy, feed out the original, and stop.)

The Outside Of The Copier



Ref.	What it is	What it does
1, 1a	Locks	Squeeze both locks to open the unit. Open the unit to empty the used toner bottle and to remove jammed paper.
2	Front cover	Open this cover (and the unit) to access the toner cartridge.
3	Original table	Place your original here, <u>face up</u> . If you want to copy a stiff original that can't be bent, use the rear table (see 7).
4	Holder for the operating instructions	Place this booklet here when you're not reading it.*
5	Copy exit guide	Makes sure the copies don't fall off as they come out.
6	Operation panel	See page 38.
7	Rear table	1) Place stiff originals here, <u>face down</u> . 2) Open to remove jammed paper from fusing unit.
8	Roll feeder (option)	Feeds paper from a roll to the copier.
9, 9a	Guides (option)	Use the guides to keep the original and copy paper going straight as you feed them into the copier.
10	Copy table	Open this table if you are copying to sheets, changing the toner cartridge, or if you have to open the unit.
11	Original exit	The original will come out from here after it is copied.
12	Roll feeder covers	Open these covers to change the roll of paper and to clear paper jams.
13	Copier table (option)	Holds your copier and roll feeder.
14	Main switch	Turn on to start the copier and off when you're done for the day. The copier will need about 5 minutes to warm up if it's been turned off for a long time.

**Please!*

WHERE TO PUT YOUR COPIER

Your copier needs to be installed by a qualified technician. If you need to transport your copier to a distant location, call your service center before the move.

You can of course move your copier around your office without calling the service center. If you do, remember that the temperature, humidity, and cleanliness of the area around the copier may affect its performance. Choose the new location with care and follow the guidelines below.

Optimal environment

- Temperature: 15° to 30° C (59° to 86° F)
- Humidity: 20 to 80 % RH
- To avoid possible ozone build-up make sure to install this copier in a large well ventilated room ensuring an air turnover of at least 30 m³/hour/person (1000 ft³).
- Set your copier on a strong and level base. The copier must be level within less than 5 mm (1/4") left to right and less than 10 mm (1/2") front to rear.

Environments to avoid

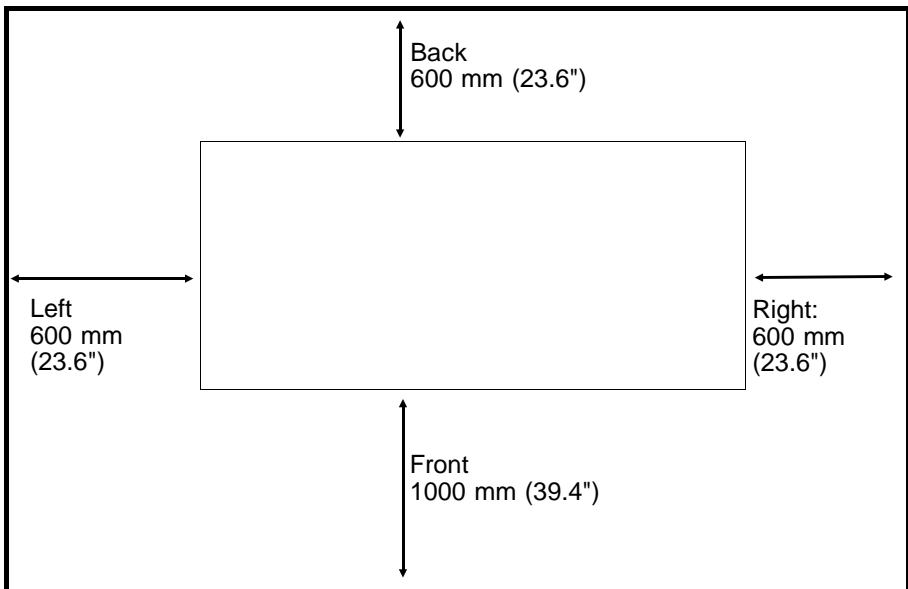
- Locations exposed to direct sunlight or strong light (more than 1500 lux);
- Dusty areas;
- Areas with corrosive gases present;
- Altitudes of over 2000 m (6500 ft) above sea level;
- Areas prone to strong vibrations;
- Locations directly exposed to cool air from an air conditioner or heat from a nearby heater. (Sudden temperature changes may lead to condensation within the copier.)

Power connection

- Connect the copier to a power source meeting the specifications given on the inside front cover of this manual.
- Do not set anything on the power cord.
- Voltage must not fluctuate more than 10%.
- Make sure the copier is grounded.
- Avoid multiwiring.
- Make sure the plug is firmly inserted into the power outlet.
- Make sure the power outlet is close to the copier and easily accessible at all times.

Clearance

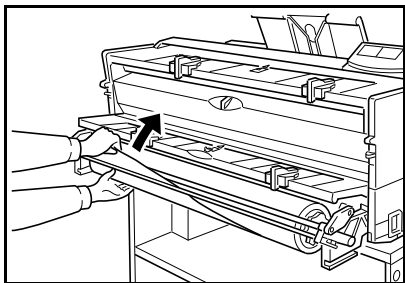
Place the copier near a power source and provide clearance as shown below.



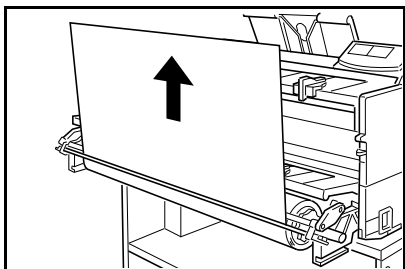
APPENDIX: PAPER CUTTING RAIL

Cutting a Sheet of Paper

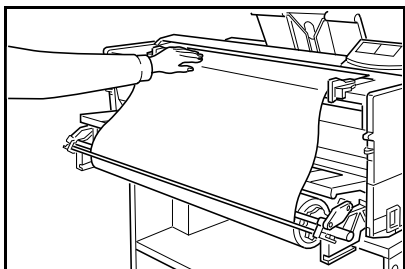
The paper cutting rail allows you to buy paper in rolls and cut your own sheets. Follow the steps below.



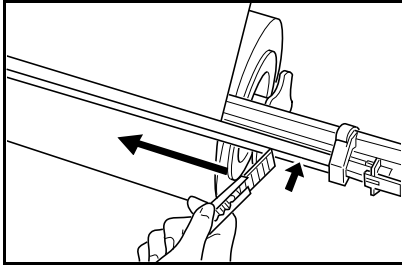
1. Pull a bit of paper out and insert it between the rail and the double rod.



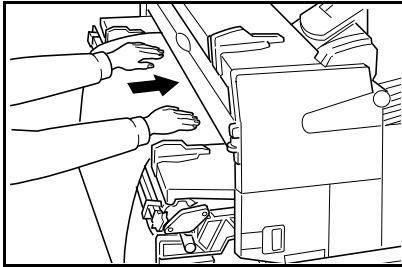
2. Pull the length of paper you want.



3. With one hand, hold the paper firmly against the original table.

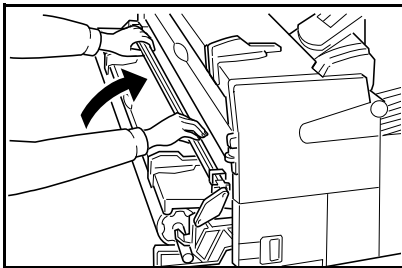


4. With your other hand, insert the blade of a paper knife between the two rods and slide across the length of the rail.

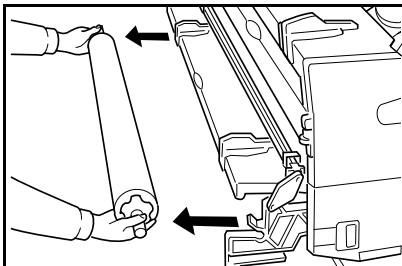


5. Make your copy as shown on page 1. Make sure the curl of the paper faces down.

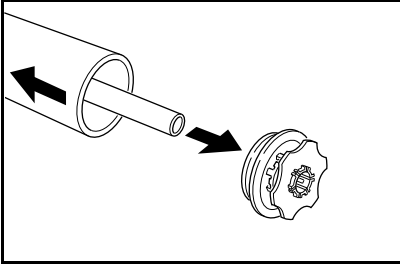
Loading a New Roll



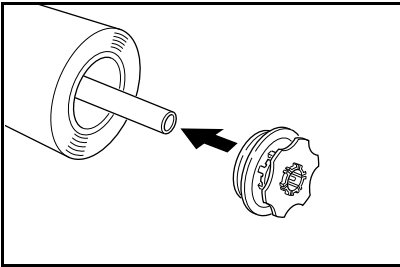
1. Lift the rail.



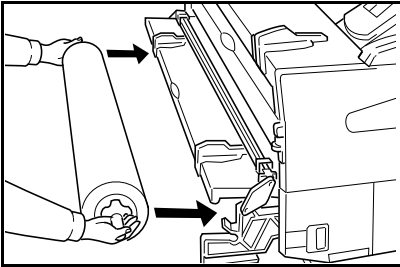
2. Remove the spool from its support.



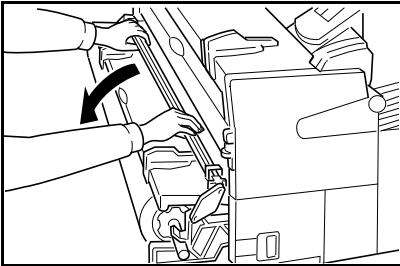
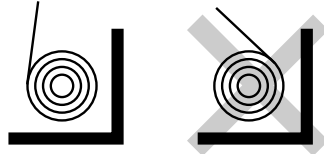
3. Remove one of the end caps and slide the old roll off the spool.



4. Slide the new roll on the spool and put the cap over the end of the roll.



5. Place the spool on the holder so that the paper rolls off the front. Push it all the way in.



6. Lower the rail.

SPECIFICATIONS

Configuration:	Table top
Copy process:	Electrostatic transfer system
Scanning:	Original moving over a fixed fiber optics array.
Originals:	Sheet
Original size:	Maximum, 914 x 2000 mm (36" x 80") Minimum, A4 (8.5" x 11") lengthwise
Copy size:	Maximum, 914 x 2000 mm (36" x 80") Minimum, 210 x 280 mm (8.5" x 11")
Copying speed:	3 meters per minute(118.1" per minute)
First copy:	24 seconds (A1 [23" x 35"], sideways)
Warm-up time:	Within 5 minutes at a room temperature of 23° C (74° F)
Automatic reset:	2 minutes (can also be turned off or set to 1, 3, 4, or 5 minutes)
Reproduction ratio:	1 to 1
Toner replenishment:	Cartridge system
Paper feeding:	Manual feed, optional roll feeder
Self-diagnostic codes:	LED indicators
Power source:	See inside this manual's front cover.
Power consumption:	See inside this manual's front cover.

SPECIFICATIONS

Noise emission:

Measurements made following ISO 7779

Stand by, less than 57 dB
Copy cycle, less than 72 dB
(copier only)

Dimensions (W x D x H):

1080 mm x 570 mm x 490 mm
(42.1" x 22.2" x 19.1")

Weight:

76 kg (167.4 lb)

Optional equipment:

Roll feeder,
Paper cutting rail,
Original and copy guides,
Copier table

INTRODUCTION

This copier is a console plain paper copier carefully manufactured to exacting standards of high performance. It consistently yields high contrast copies with a superior finish.

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

Please read the next section before using this copier. It contains important information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.

SAFETY INFORMATION

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

Safety During Operation

In this manual, the following important symbols are used:

 **WARNING:**


Ignoring this warning could cause serious injury or even death.

 **CAUTION:**


Ignoring this caution could cause injury or damage to property.

Examples Of Indications




Symbol  mean a situation that requires you take care.




Symbol  mean "Hot surface".



Do NOT carry out the operation represented by this symbol .
This example means "Do not take apart".



Symbols  mean you MUST perform this operation.
This example means "You must remove the wall plug".

⚠ WARNING:



- *Only connect the machine to the power source described on the inside front cover of this manual.*
- *Avoid multi-wiring.*
- *Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.*
- *Do not plug or unplug the power cord with your hands wet. Otherwise, an electric shock might occur.*



- *Make sure the wall outlet is near the machine and freely accessible so that in event of an emergency it can be unplugged easily.*



- *Do not remove any covers or screws other than those specified in this manual. Some parts of the machine are at a high voltage and could give you an electric shock. Also, if the machine has laser systems, direct(or indirect)reflected eye contact with the laser beam may cause serious eye damage. When the machine needs to be checked, adjusted, or repaired, contact your service representatives.*
- *Do not take apart or attempt any modifications to this machine. There is a risk of fire, electric shock, explosion or loss of sight. If the machine has laser systems, there is a risk of serious eye damage.*



- *If the machine looks damaged or breaks down, smoke is coming out, there is a strange smell or anything looks unusual, immediately turn off the operation and main power switches then unplug the power cord from the wall. Do not continue using the machine in this condition. Contact your service representative.*
- *If metal, liquid, or foreign matter falls into the machine, turn off the operation and main power switches, and unplug the main power cord. Contact your service representative. Do not keep using the machine with a fault or defect.*



- *Do not put any metal objects or containers holding water(e.g. vases, flowerpots, glasses) on the machine. If the contents fall inside the machine, a fire or electric shock could occur.*



- ***Do not incinerate used toner, toner bottles or toner cartridges. Toner dust might ignite when exposed to an open flame. Dispose of the used toner cartridges according to local regulations for plastics.***

⚠CAUTION:



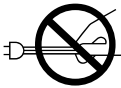
- *Keep the machine away from humidity and dust. A fire or an electric shock might occur.*
- *Do not place the machine on an unstable or tilted surface. If it topples over, it could cause injury.*



- *After you move the machine, fix it with the caster fixture. Otherwise, the machine might move or come down to cause a personal injury.*



- *When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.*
- *When the machine will not be used for a long time, unplug the power cord.*



- *When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.*



- *If you use the machine in a confined space, make sure there is a continuous air turnover.*



- *Do not reuse stapled paper. Do not use aluminium foil, carbon containing paper or other conductive paper. Otherwise, a fire might occur.*



- *When removing misfed paper, do not touch the fusing section because it could be very hot.*



- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*



- *Do not eat or swallow toner.*
- *Keep toner(used or unused) and toner cartridges out of reach of children.*



- *This equipment is only to be installed by a qualified service personnel.*



- *Deliver to collection point for waste products. Do not be disposed of via domestic refuse collection.*

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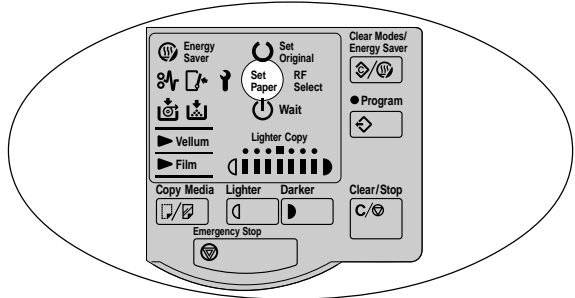
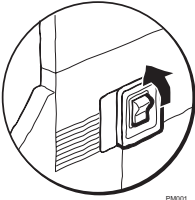
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1. GETTING STARTED

HOW TO USE THIS COPY MACHINE

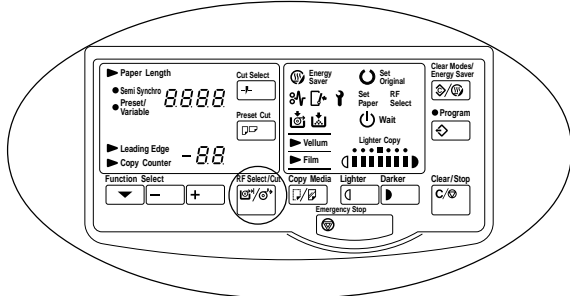
- 1 Turn the machine switch on.

When the "Wait" indicator goes off and the "Set Paper" indicator goes on, the copier enters the ready condition.

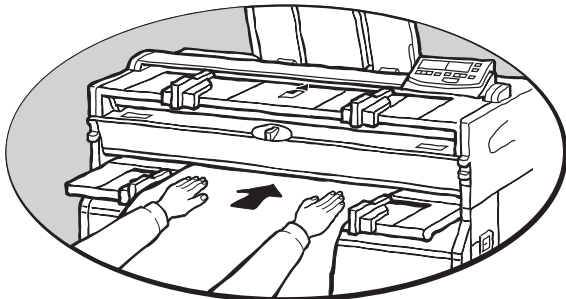


- 2 Select any copy settings you require, such as the media type or copy density.

If you have Roll Feeder (option), press the R/F Select key to select "Roll Feeder".

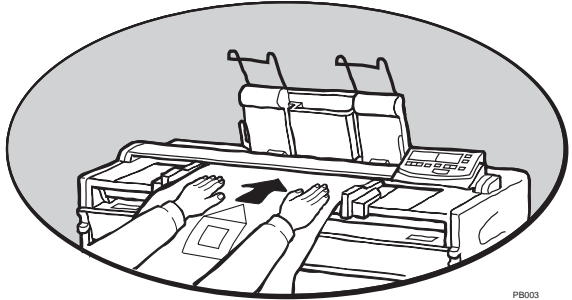
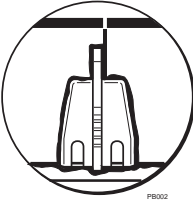


- 3 Center the paper **face up** on the Copy Paper Table and slide the paper straight into the copier.

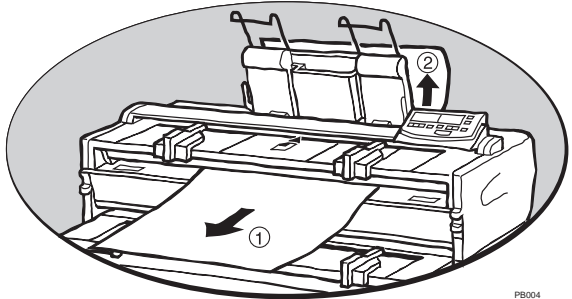


- These illustrations show the copier with the Original Guides, the Paper Guides, and other optional equipment.

- 4 Set the Original Guides (option) to match the original size mark. Set the original **face up** and slide it straight into the copier along the Original Guides.



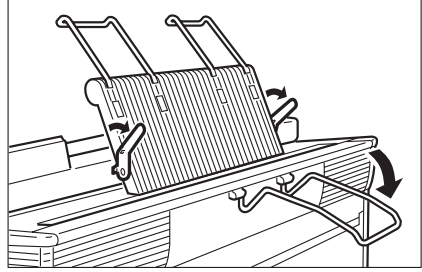
- 5 The original comes out from the opening just under the original table ①. The copy is delivered from the slot on top of the copier ②.



If you make several copies of the same original, when the copy comes out, remove it and repeat from step 3.

Notes

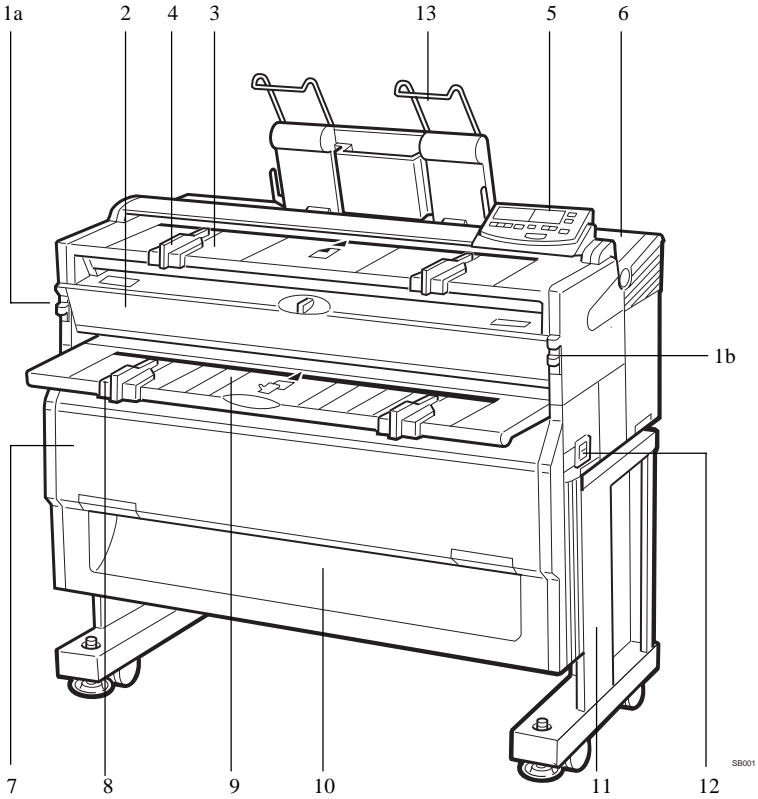
- If you want to catch copies the back of the machine, change the copy delivery directions as shown in the figure.



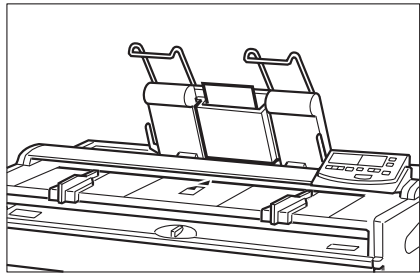
SB011

WHERE IT IS & WHAT IT IS

Copier Exterior

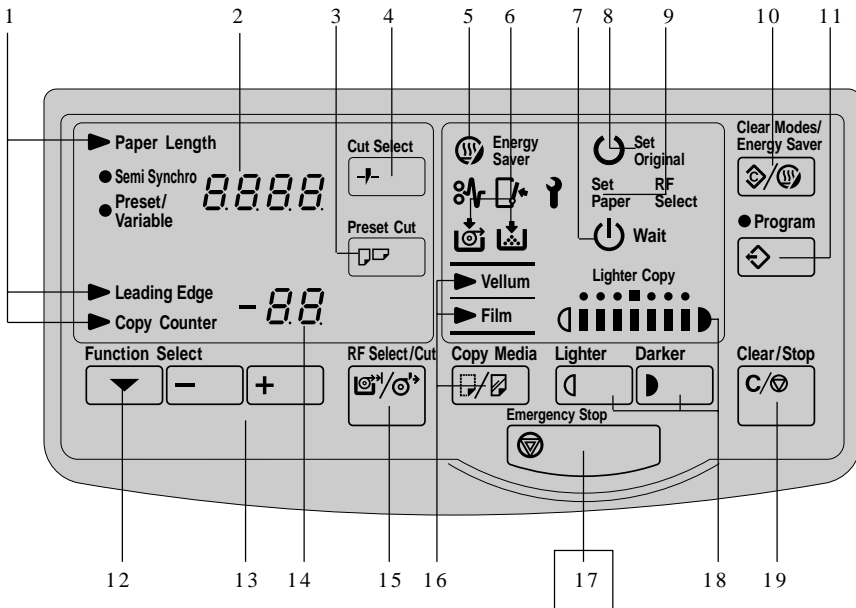


Set the Manual Pocket as shown in the figure.



- | | |
|-----------------------------|--|
| 1a & 1b Locks | Squeeze both locks to open the unit. Open the unit to empty the used toner bottle and to remove jammed paper. |
| 2. Front Cover | Open the cover(and the unit) to access the toner cartridge. |
| 3. Original Table | Place your original here, <u>face up</u> . If you want to copy a stiff original that can't be bent, use the Rear Table (see 6). |
| 4. Original Guides (option) | Use the guide to keep the original going straight as you feed the original into the copier. |
| 5. Operation Panel | See page 6. |
| 6. Rear Table | Place stiff originals here, <u>face down</u> . |
| 7. Roll Feeder (option) | Feeds paper from a roll to the copier. |
| 8. Paper Guides (option) | Use the guides to keep the copy paper going straight as you feed the into the copier. |
| 9. Copy Paper Table | Open this table if you are copying to sheets, changing the toner cartridge, or if you have to open the copier. |
| 10.Roll Feeder Covers | Open these covers to change the roll of paper and to clear paper jams. |
| 11.Table (option) | Holds your copier and the Roll Feeder. |
| 12.Main switch | Turn to start the copier and off when you're done for the day. The copier will need about 5 minutes to warm up, if it's been turned off for a long time. |
| 13.Copy Exit Guide | Makes sure the copies don't fall off as they come out. |

Operation Panel



- | | |
|---------------------------|---|
| 1. Function indicators | These indicators show which setting you are currently editing, Press the Function key to cycle through them.
The top indicator lights when the paper length is being set.
The middle indicator lights when the lead margin is being set.
The bottom indicator lights when the number of copies is being set. |
| 2. Paper length display | Shows the length of paper the Roll Feeder will send. |
| 3. Preset Cut key | Scrolls through the preset paper lengths for the Roll Feeder. |
| 4. Cut Select key | Turns Semi synchro Cut, or Preset/Variable Cut on/off. |
| 5. Energy Saver indicator | Shows that it is in a state of wait (Energy Saver). Press key 10. |
| 6. Troubleshooting | See page 51 for details. |
| 7. Wait indicator | Shows that the copier is not yet ready to copy. |
| 8. Ready/Set Original | Lights up when the copier is ready to receive an original. |

- | | |
|---|--|
| 9. Set Paper or RF Select indicator | The Set Paper indicator on the left lights when the copier is ready to receive an paper. The RF Select indicator on the right lights when you select the Roll Paper. |
| 10. Clear Modes/Energy Saver key | <p>Cancels all of current settings. When you hold down this key for three seconds or more, the copier enters the Energy Saver mode allowing you to conserve power.</p> <p>To exit Energy Saver mode, press this key again.</p> |
| 11. Program key | Allows you to recall or set a program. |
| 12. Function Select key | <p>Press to change which setting you are editing. The current selection is shown by the indicators above: Paper Length
Leading Edge
Copy Counter</p> <p>Also used for copying a selected portion of the original.</p> |
| 13. Plus and minus key | <p>Press to increase the setting being edited.</p> <p>Press to decrease the value being edited.</p> |
| 14. Leading Edge/Copy Counter indicator | Displays the margin settings and the number of copies made. |
| 15. RF Select/Cut key | Selects the paper feed type (when the Roll feeder option is installed). Also press to stop a copy job. |
| 16. Copy Media key | <p>Press to select the type of copy paper you are using.</p> <p>The copier will apply more or less heat accordingly.</p> |
| 17. Emergency Stop key | <p>Press to stop the copying process immediately.</p> <p>Use if your original is getting stuck in the copier.</p> <p>If you stop the operation by pressing this key, remove both the original and paper.</p> |
| 18. Density indicator Density keys | <p>Shows the density level the copies will have.</p> <p>Press the left key to make copies lighter.</p> <p>Press the right key to make copies darker.</p> |
| 19. Clear/Stop key | <p>While entering numbers, press to cancel a number to have entered.</p> <p>While copying, press to stop copying.</p> |

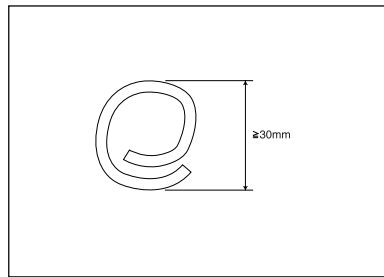
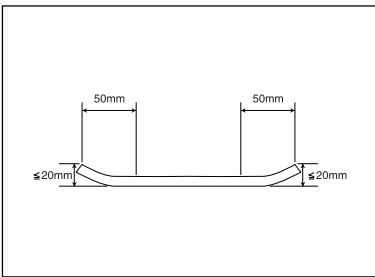
RECOMMENDED ORIGINALS

- ❑ You can set originals with weight in the range 21g/m², 6 lb to 157 g/m², 41 lb in this copier.
- ❑ Feedable size is between 914×2,000mm (W×L), 36"×80" (maximum width that can be fed: 960mm, 38.4") and 210×297mm (W×L), 8.5"×11" for minimum.
- ❑ You can not use the Repeated Copying function in the following cases.

When using the Carrier Sheet (option)

When setting an original longer than 1200mm (47")

- ❑ Fix the curl of original to within the following range.
 - For the curl of the leading edge and the trailing edge: R50mm (2.0") or more, H20mm (0.8") or less
 - For the curl of the whole area of the paper: Ø30mm (1.2") or more



- ❑ When you copy the following originals, set them in the Rear Table:
 - ⇒ See page 18, "Using the Rear Table"
 - Thick originals (0.19mm, 35μ~1mm)
 - Originals which cannot be folded.
 - Originals less than 297mm (12") in width and more than 1200mm (47") in length.

- ❑ When you copy the following originals, use the Carrier Sheet (option) to set them:
 - Piled originals
 - Taped or pasted originals
 - Dog-eared originals
 - Wavy originals
 - Originals whose leading edge is not straight
 - Folded originals
 - Originals which have a hole near the leading edge 40mm (1.6") to the right or left of the center
 - Creased, torn, or clipped-out originals
 - Pasted originals
 - Curled originals

Non-recommended originals

The following types of originals are not recommended.

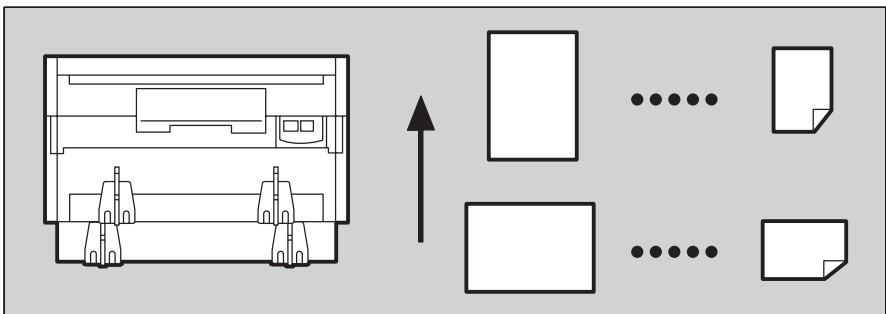
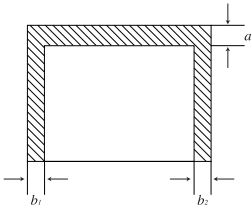
- Wet originals
- Originals with cardboard stuck on the leading edge
- Originals with clips or staples
- Originals with wet ink or white-out
- Carbon paper
- Originals made of materials other than paper or film (thermosensitive paper, aluminum foil, etc)

Notes For Originals

Margins on the leading and side edges of originals are not copied as shown in the illustration.

$$a=0\pm 3\text{mm}(0.12'')$$

















$$b1+b2<0\pm 2\text{mm}(0.08'')(A1\text{□})$$



SB042

RECOMMENDED PAPER

Standard paper sizes that can be used in this copier are shown below.

Metric version	Inch version	Bypass	Roll Feeder
A0	E (36" × 48")		
A1	D (24" × 36")	 	 
A2	C (18" × 24")	 	 
A3	B (12" × 18")	 	 
A4	A (9" × 12")		

- When you make a copy on a non-standard size of paper, set the paper on the Copy Paper Table.
- Weight of paper suitable for this copier: 51g/m², 14lb to 134g/m², 36lb.
- Do not use the following kinds of paper or a paper jam might occur.
 - Bent, folded, or creased paper
 - Torn paper
 - Perforated paper
 - Non-smooth paper
 - Slippery paper
 - Thin paper that has low stiffness
- Do not make a copy on paper with any kind of coating, such as thermosensitive paper, art paper, aluminium foil, and carbon paper.
A fault might occur.
- Do not use paper with strong curls at the edges or corners. (Curls rising more than 5mm(1/4") or falling more than 20mm (3/4") over a 40mm (1.5") radius.)
- When you make copies on film, take out the copies delivered to the copy guide one sheet at a time and place them on a flat surface.

- If copying to natural tracing paper (all pulp, translucent paper) at a relative humidity of 35% or less.
 - a) If the paper was left out of its package for 5 minutes or more, remove the first 700mm(28") before copying.
 - b) If copies come out wavy or with white spots, use vellum tracing paper instead of natural tracing paper.
 - c) Always keep the paper in a bag when not using it.
- Store the paper in a sealed polyvinyl bag if not used for a long period.
If it gets humid, paper will curl or wave causing a paper jam or part of the image not to be copied.
- When you use paper in high humidity under hot conditions, take out only the necessary amount of paper at a time from the bag. Do not take all the paper out of the bag.

Dehumidifying Heater

- Under humid conditions, the copier turns on the dehumidifying heater. It is turned on automatically even when the main switch is off. Do not unplug the power.

TONER

Handling Toner

WARNING:



- *Do not incinerate used toner, toner bottle or toner cartridge.*
- *Toner dust might ignite when exposed to an open flame.*
- *Dispose of the toner bottle and the used toner cartridge according to local regulations for plastics.*

Caution:



- *Do not eat or swallow toner.*
- *Keep toner(used or unused), toner bottle, and toner cartridge out of reach of children.*

Caution:



- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

- If you use toner other than that recommended, a fault might occur.
- If you want to add toner, see ⇒ P.42 "ADDING TONER"

Toner Storage

- Store toner cartridge horizontally in a cool, dark place.
- Do not leave toner cartridge in your car on a hot day for a long period of time, or anywhere the toner could be subjected temperatures of over 95°F (35°C).
- Never store toner where it will be exposed to heat.
- Do not lay heavy objects on toner bottles.

Used Toner

- Used toner cannot be re-used.

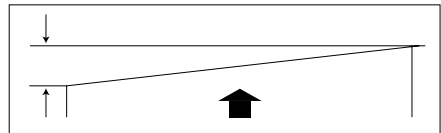
2. COPYING

BASIC COPYING (COPYING TO SHEETS)

Use the Copy Paper Table to copy onto paper.

Notes

- For acceptable types of original and paper see ⇒ page 8 and 10.
- Set one sheet of paper at a time on the Copy Paper Table. Never insert more than one sheet of paper.
- If the copy paper is curled, set it with curl facing downwards.
- When you set A0 size(36" × 48") paper, to make sure the ends do not touch the floor and get dirty, lay a wide piece of paper or some other covering on the floor.
- Do not use the paper which is cut obliquely, when the difference between the right side and the left side of the paper is more than 5mm (4/5"), creasing or a paper jam might occur.



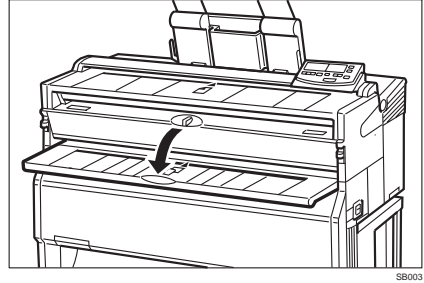
- You cannot copy to both sides of the paper at a time.
- It takes about 5 minutes until you can start copying after you turn the copier on. The machine is warming up when the "Wait" indicator is lit, but you can still edit settings, insert copy paper or insert your original.
- You can set either paper or an original first. When you have set both of them, the copier starts copying automatically.
- Do not lean on the copy table or lay heavy objects on it.

CAUTION : If during copying your original gets stuck in the copier, press the Emergency Stop key.

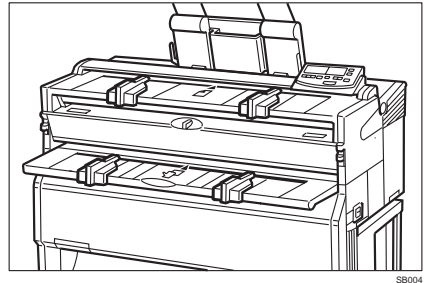


If you stop the operation by pressing this key, remove both the original and paper.

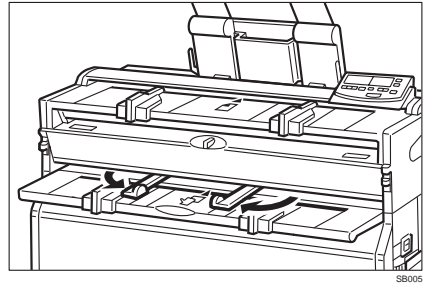
- 1 Pull down the Copy Paper Table.



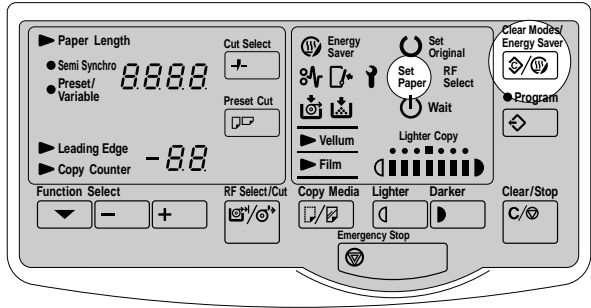
- 2 Set the Paper Guides (options) on the Copy Paper Table, and set the Original Guides (option) on the Original Table.



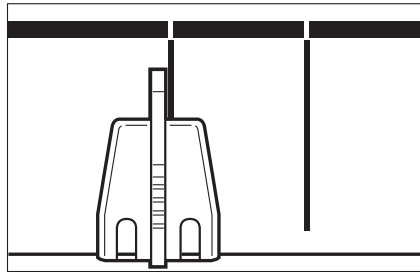
- 3 Open the guides to keep original away from the paper entrance so that the edge cannot slip into the paper entrance.



- 4 Make sure that the “Set Paper” indicator is lit.
If it is off, press the Energy Saver key to exit Energy Saving mode.
- 5 If any previous settings remain, press the Clear Modes key.
- 6 Set the density, the number of copies, and other optional settings you require such as Leading Edge.

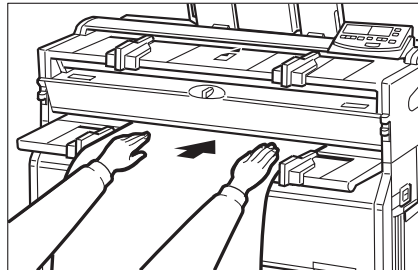


- 7 Set the paper along the size indication on the Copy Paper Table. Or set the Paper Guides (option), to match the paper width.



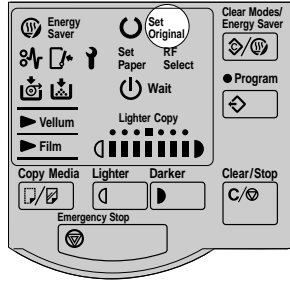
SB007

- 8 Slide the paper straight into the copier until it stops. The copier will soon pull it in.

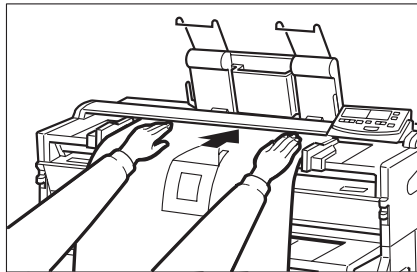


SB008

- 9 Set your original along the size indication on the Original Table. Or set the Original Guides (option) to match the original width.
- 10 Make sure that the “Set Original” indicator is lit.

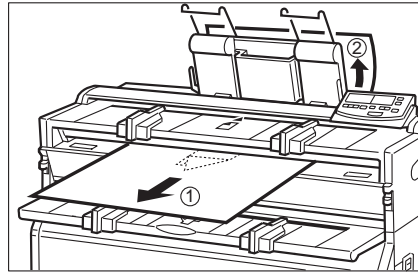


- 11 Center your Original **face up** on the Original Table. Slide the original straight into the copier until the copier pulls it in.



SB009

- 12 The original comes from the opening just under the Original Table ①. The copy is delivered from the slot on top of the copier ②.



SB010

Notes

- Do not hold down or pull out the original during copying. Do not put pressure on the original cover.
- If you do not insert the original at a certain time after you have inserted the paper, the paper will exit automatically.
- If you do not insert the paper at a certain time after you have inserted the original, the original will exit automatically.
- If the copier is idle at a certain time after you have used it, the machine resets itself to the initial settings (Auto Clear). If applicable, the copier will enter the Energy Saver mode automatically.
- You can preset the initial settings of the copier ⇒ see page 35 "Changing The Default Setting"
- If the copier is not used for a long period, it will turn itself off.

Using the Rear Table

When you copy the following originals, set them in the Rear Table.

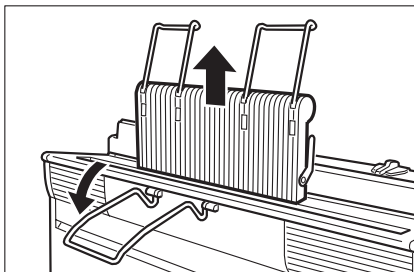
- Thick originals (0.19mm, 35 μ ~ 1mm).
- Originals which cannot be folded.
- Originals less than 297mm (12") in width and more than 1200mm (47") in length.

Notes

You cannot use the following function using the Rear Table.

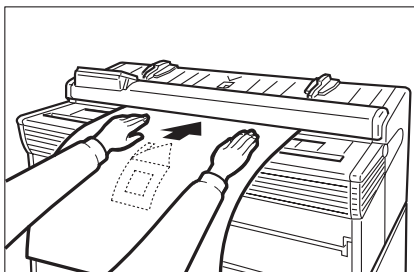
- Repeated Copying
- Semi Synchro Cut with roll paper
- Partial Copying

- 1 Choose any copy setting you require.
- 2 For manual copying, set paper.
- 3 Pull up the holder and turn in the copy exit guide.



SB012

- 4 Insert the original **face down** from the Rear Table.
- 5 Hold and take the original which has been read and delivered in the front of the copier.



SB013

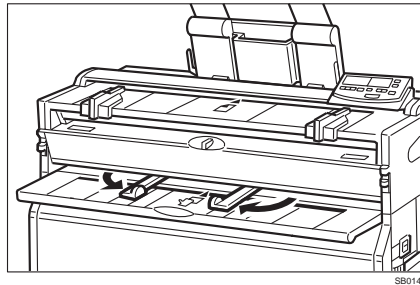
COPYING ONTO ROLL PAPER (OPTION)

To make a copy using the Roll Feeder option, you do not need to set paper on the Copy Paper Table; the paper will be fed to the copier from the Roll Feeder. You can copy onto roll paper using the following techniques:

- Semi Synchro cutting
- Preset cutting
- Variable cutting

Notes

- If unused roll paper is left in the copier, cut 700mm (28") from the edge of the paper before you start copying.
- When you want to copy the long original, the curled originals, or the thin originals (less than 0.1mm) which can be easily bent down, open the guide to keep the original away from the paper entrance.



SB014

CAUTION : If during copying your original gets stuck in the copier, press the Emergency Stop key.



If you stop the operation by pressing this key, remove both the original and paper.

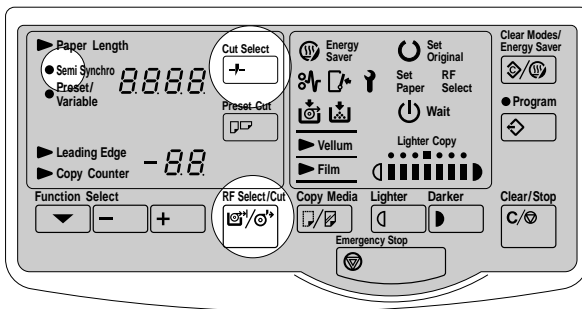
Semi Synchro Cut

This feature lets you cut the roll paper manually to a length that approximates to that of the original. This saves you having to measure and enter the length of every original.

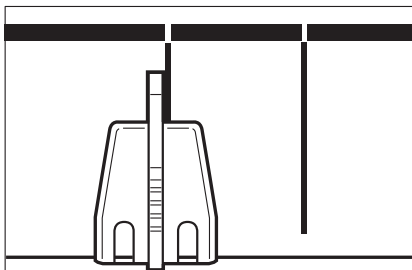
Notes

- Semi Synchro Cut can handle the cut length in the range 410 ~ 2000mm, 16.5" ~ 80.0".
- If you set the number of copies, Semi Synchro Cut can handle automatically by the length at your setting for first copy.

- 1 Press the Cut Select key to turn on the "Semi Synchro" indicator.
- 2 Choose any copy settings you require.
- 3 Press the RF Select key to turn on the "RF Select" indicator.
- 4 Make sure that the "Set Original" indicator is lit.

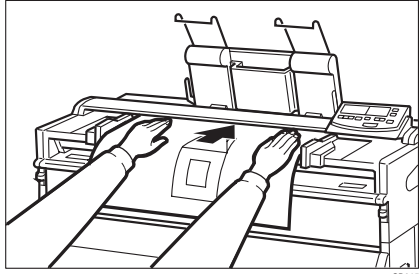


- 5 Set your original along the size indication on the Original Table, or set the Original Guides (option) to match the original width.

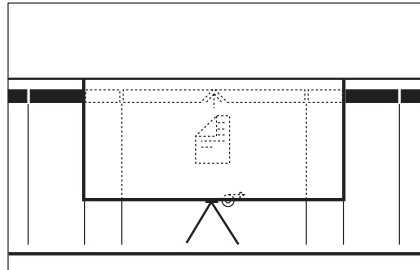


SB007

- ❏ Center your original **face up** on the Original Table. Slide the original straight into the copier until the copier pulls it in.



- ❏ Just as the trailing edge of the original passes the horizontal line of the Semi-auto synchro cut mark, press the Cut key.



Notes

- ❑ To cancel copying, press the Clear/Stop key. The copier finishes the operation in progress, and delivers the copy and the original.
- ❑ To call off on-going copying, for example, when you have inserted a wrong blueprint, press the Cut key. The machine interrupts the operation in progress, and delivers the copy and the original.

Preset Cutting

This function cuts roll paper to a selected length. The paper is cut to this length regardless of the original size.

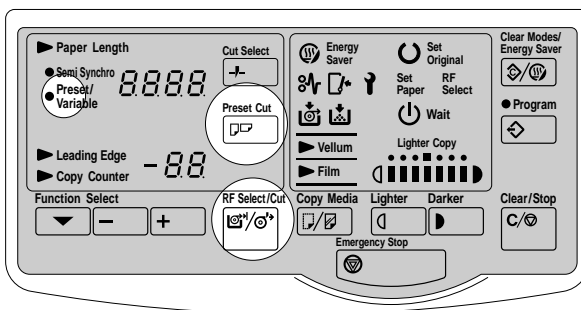
Notes

By the default Preset Cut length is as follows. For the change of the Preset Cut length pattern, please contact your service representatives.

Metric Version: 1189mm, 841mm, 594mm, 420mm, 297mm

Inch Version: 48.0", 42.0", 36.0", 24.0", 18.0", 12.0"

- 1 Press the Preset Cut key. The "Preset/Variable" indicator lights up and the "Paper Length" display shows the default Preset Cut length. (1189mm, or 48.0").
- 2 Press the Preset Cut key several times until the indicator shows the value you want.
- 3 Choose any copy settings you require.
- 4 Press the RF select key to turn on the "RF Select" indicator.



- 5 Continue from step4 of P. 20.

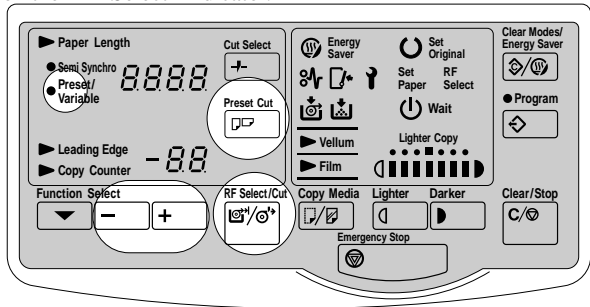
Variable Cutting

This function cuts roll paper in a length you specify.

Notes

The variable cut can handle the cut length from 245 to 2,000mm, 9.6" to 78.7".

- 1 Press the Preset Cut key. The "Preset/Variable" indicator lights up and the "Paper Length" display shows the default Preset Cut length. (1189mm, or 48.0").
- 2 Press the Preset Cut key to display the nearest value you want.
- 3 Press + key or - key to specify the most appropriate length.
- 4 Choose any copy settings you require.
- 5 Press the RF select key to turn on the "RF Select" indicator.

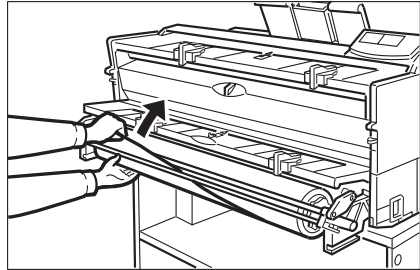


- 6 Continue from step4 of P. 20.

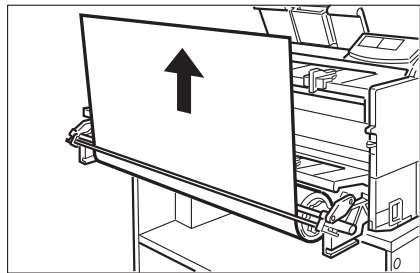
USING THE ROLL CUTTING RAIL (OPTION)

The ROLL Cutting Rail allows you to buy paper in rolls and cut your own sheets.

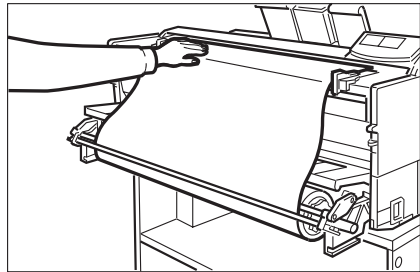
- 1 Pull a bit of paper out and insert it between the rail and the double rod.



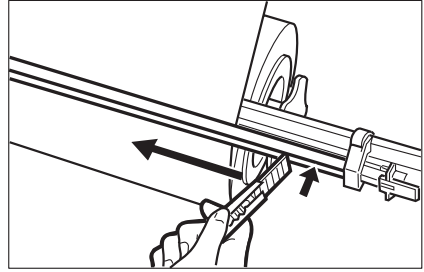
- 2 Pull the length of paper you want.



- 3 With one hand, hold the paper firmly against the Original Table.

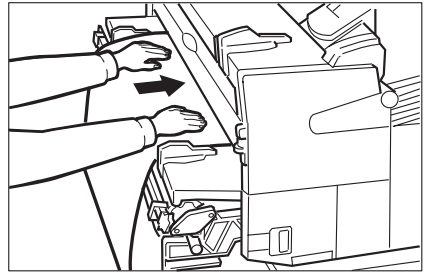


- 4 With your other hand, insert the blade of a paper knife between the two rods and slide across the length of the rail.



SB020

- 5 Make your copy as shown on page 14. Make sure the curl of the paper faces **down**.



SB021

3. COPY SETTINGS

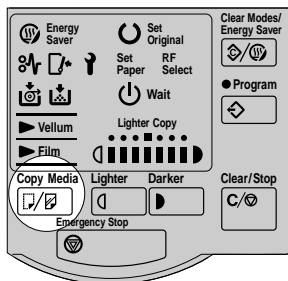
COPYING ONTO OTHER MEDIA

To copy onto vellum (translucent or tracing paper) or film, select the Copy Media function to match the paper type (see below).

Type of paper	Media setting
Plain paper	Both indicators off
Film	Film indicator on
Vellum	Vellum indicator on
Heavy paper	Vellum indicator on
Thin paper	No indicator, or film, if necessary.

This list is not complete. If you are not sure of what type of paper you have, check the label on the paper package.

- 1 Press the Copy Media key to turn on the “Vellum” or “Film” indicator. The “Wait” indicator goes on and either the “Vellum” or “Film” indicator lights.
- 2 When the “Wait” indicator goes off and the “Ready” indicator goes on, the copier enters the ready condition.



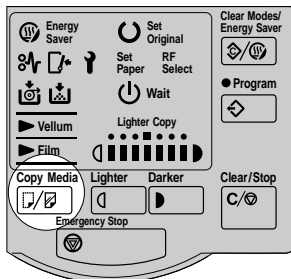
Notes

- Even if you have set the Copy Media function correctly, creasing might occur depending on temperature or humidity. If this happens, adjust the fusing temperature manually. See the next page.

Adjusting the Fusing Temperature Manually

- 1 Press the Copy Media key to turn on the “Vellum” or “Film” indicator that you want.
- 2 Hold down the Copy Media key for at least 3 seconds.

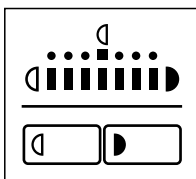
The “Lighter Copy” display will show the current fusing temperature. The unlit indicator shows the current temperature.



- 3 Press the Lighter key to decrease the temperature, and press the Darker key to increase the temperature.

The number of temperature levels available depends on the paper type:

Plain paper	: 1234567
Vellum	: 1234
Film	: 1234



- 4 After you have finished the setting, press the Copy Media key.
- 5 Choose any copy settings you require, then start copying.

Notes

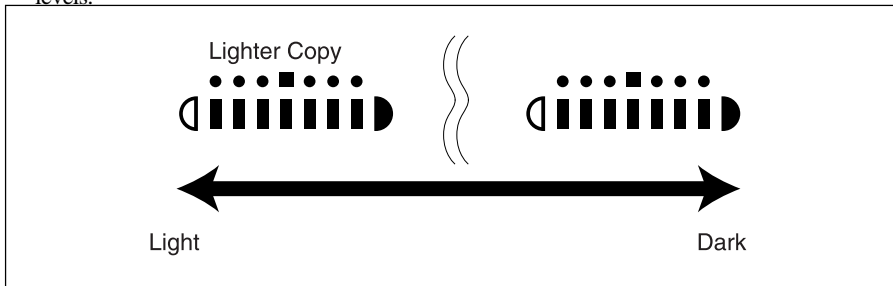
- The new fusing temperature for the selected paper type is cleared when you press the Clear Modes key or turn off the main switch.

ADJUSTING COPY IMAGE DENSITY

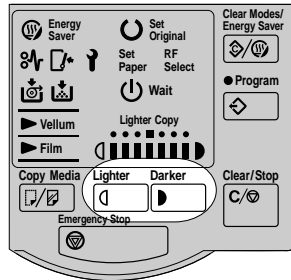
To make copies darker or lighter, change the density setting. There are 14 density levels: the standard density level, three darker level, and 10 lighter levels. Set the density with the Lighter and Darker keys under the density indicator.

Notes

- ❑ The indicator shows seven levels at a time. When you start from the standard image density, the middle notch corresponds to the standard image density, the three right notches correspond to darker densities, the three left notches to lighter densities.
- ❑ The brighter notch shows which level is now set. If you go lower than the leftmost notch, the words Lighter Copy light up. The notches on the indicator correspond to the seven lightest levels.



- 1 Press the Lighter or Darker key to adjust copy density.



- 2 Each time you press the Lighter key, the indicator moves one step to the left. When the indicator reaches the left edge, it returns to the right edge and the "Lighter Copy" indicator lights.

MAKING SEVERAL COPIES OF THE SAME ORIGINAL

Repeated copying means making two or more copies of a original. To make more than one copy of the same original, you have to reload the original after each copy. If you're not using the Roll Feeder (option), you also have to set the copy paper for each copy.

Notes

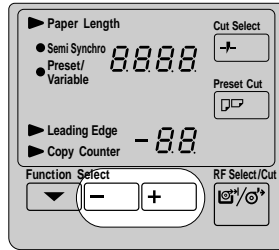
- ❑ with this feature, the image might be copied at a slant. Whether this happens depends on the original size, type, and condition(e.g., curled, wavy, originals). In such a case, make one copy at a time.
- ❑ You cannot use the repeated copy function in the following cases:
 - When using the Carrier Sheet (option).

1 Press the + and - keys to specify the number of copies.

When you press the Clear/Stop key, the number of copies returns to "1".

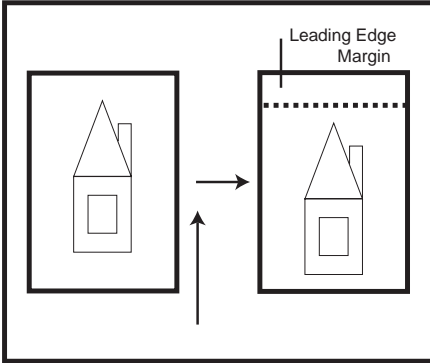
2 Proceed as for a usual copy, with sheet paper (page 13), or with the Roll Feeder (page 19).

3 When the copy comes out, remove it and repeat step2. wait for the "Set Paper" indicator to light up before loading a new sheet of paper, and wait for the " Set Original" indicator to light up before reloading the original.

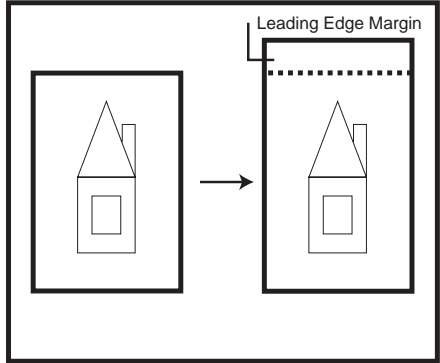


SETTING A LEADING EDGE MARGIN

You can set a margin at the leading edge of the copy.



Using the Copy Paper Table, or in the Preset Cut mode, Variable cut mode



In the Semi Synchro Cut mode

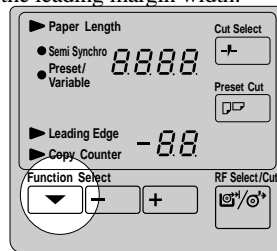
Notes

- ❑ You can set up to $\pm 99\text{mm}$, $\pm 4.0''$ margin in 1mm, 0.1" steps at the leading edge.
- ❑ The copy image is shifted to the trailing edge, when you make a copy using the Copy paper table, or in the Preset Cut mode, Variable Cut mode.
- ❑ In the Semi Synchro Cut mode, the paper extend by the leading margin width.

- 1 Press the Function Select key until the "Leading Edge" or "Trailing Edge" indicator is lit.
- 2 Press the + key and - key to specify a edge margin.

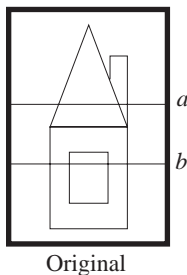
To zero the value, press the Clear/Stop key.

- 3 Insert the original from the leading edge.
You can get same results using the Rear Table.

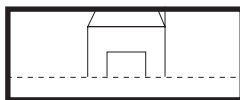


PARTIAL COPYING

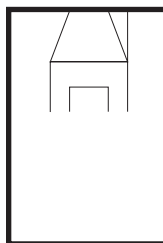
The Partial Copy function copies only a part of an original.
 You need to enter start and end points in the original feed direction.



Original



Semi Synchro Cut Mode

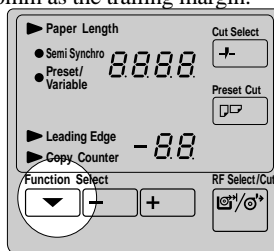


Copy Paper Table
 Preset/Variable Cut Mode

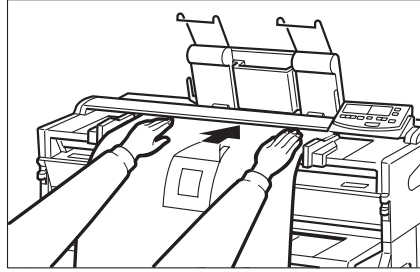
Notes

- You cannot use the Partial Copying function using the Rear Table.
- You cannot use the Partial Copying function for originals shorter than 150mm.
- You can use the Partial Copying function for originals longer than 1270mm.
- If you set the start point within 130 mm from the leading edge of the original, the copier will regard the leading edge as the start point.
- The minimum available space between the start point and the end point is 30 mm.
- If you do not set the end point after setting the start point, the copier will regard the trailing edge of the original as the end point.
- In the Semi Synchro Cutting function, the paper extend by 140mm from the end point. if you do not set the end point, the paper extend by 270mm as the trailing margin.

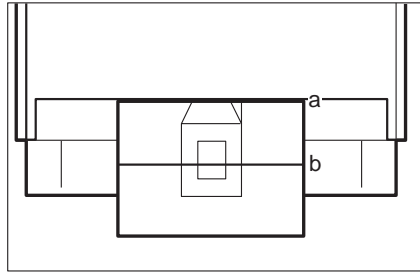
- I** Hold down the Function Select key for three seconds.
 A "P" will blink in the copy counter display.



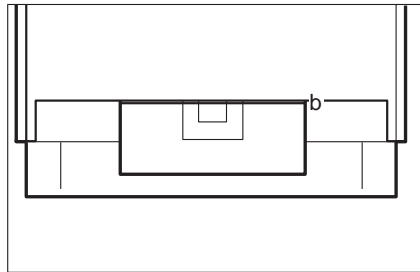
- 2 Slide the paper straight into the copier until it stops, or press the RF Select key to turn on the “RF Select “ indicator.
- 3 Set the original.



- 4 Press the Function Select key when the leading edge of the area to be copied comes to the position where it is covered with the original table cover.
The “P” will stay on, not blinking.
The copier starts copying.



- 5 Press the Function Select key when the trailing edge of the area to be copied comes to the position where it is covered with the original table cover.
The “P” will start blinking again.



- 6 After the paper has been delivered, hold down the Function Select key for three seconds to turn the function off.
The “P” will disappear.

PROGRAMMING SETTING YOU OFTEN USE

There are two ways of programming settings you often use.

- A) Store the settings in the Program key. When you press this key, the settings will be restored instantly.
- B) Change the default settings to those you use most frequently. Whenever you turn on the machine or press the Clear Modes key, these settings will be ready to use.

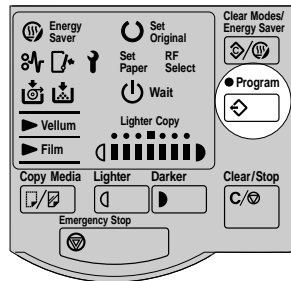
A) Program key

Storing Setting In The Program Key

Notes

- The number of copies is not stored in the Program key.

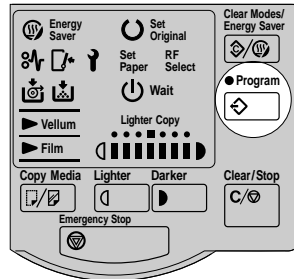
- 1 Press the Program key.
- 2 Input the settings you want to store.



- 3 Make a copy, then press the Program key.

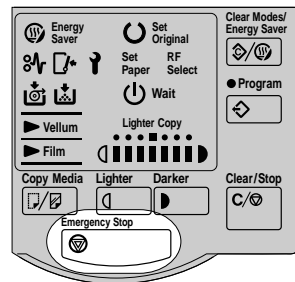
Recalling Settings Stored In The Program key

- 1 Press the Program key before copying.
- 2 Enter the number of copies required with the plus and minus key.
- 3 Make a copy.



B) Changing The Default Setting

- 1 Turn the main switch off.
- 2 Hold down the Emergency Stop key, then turn the copier back on.
The jam and service indicators will blink.
- 3 Input the settings you want.
- 4 Turn the main switch off.



The next time you turn the copier on or press the Clear Modes key, the settings you programmed in step 3 will take effect.

USER TOOLS

Access the User Tools to make the following adjustments:

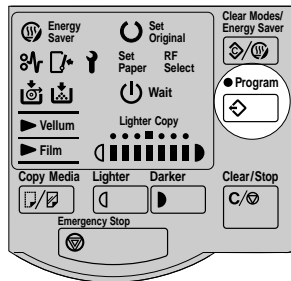
A1) Not in use

A2) Semi Synchro Cut Adjustment; Allows you to adjust the cut length.

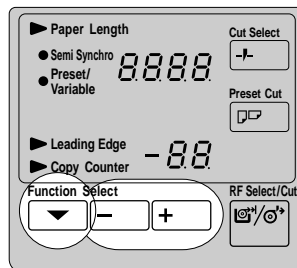
-25 ~ +25mm (-1.0" ~ -1.0") (by 1mm, or 0.1")

Without the Roll Feeder, A2) is not in use.

- 1 Hold down the Program key for at least 3 seconds.
“A.1” blinks on the “Copy Counter” display.



- 2 Press + key, “A2” blinks on the display
- 3 Press the Function Select key.
The “Paper Length” display shows the current value.
- 4 Use the + and - key to change the value
- 5 Press the Program key to return to step 2.
- 6 Press the Clear Modes key to exit this mode.



WHAT YOUR SERVICE REPRESENTATIVE CAN CHANGE

Your service representative can adjust some of your copier's features. Here's a list of changes the service representative can make for you.

- Copy media default:** The copy media setting can be adjusted to match the kind of paper you use.
- Count up and count down:** The copy counter can be made to count up or count down.
- Beeper:** The beeper can be turned off completely; can be turned off for setting the margin, multiple copies, and paper length; or it can be left on to emit a tone whenever a key is pressed.
- Paper feed out waiting time:** When the copier is ready to receive the original, it will wait for a preset length of time. If no original is set within this time, the copier will process the copy paper without copying. The time can be set to 1, 2, 3, 4, or 5 minutes.
- Manual feed start time:** After copy paper is set, the copier waits for a preset number of seconds before starting the rollers that will pull the paper in. This pause gives you a chance to align the paper. The time can be set to 0.7, 1, 2, 3, 4, or 5 seconds.
- Lead edge increase/decrease speed:** The speed at which the lead edge setting scrolls up or down can be changed. The time for one increment (or decrement) can be set to 0.02, 0.05, 0.10, 0.25, or 0.5 second.
- Auto clear time:** If the copier is left alone for a while, it will clear itself. The time needed can be changed to 1, 2, 3, 4, or 5 minutes. The function can also be turned off.
- Energy saving:** The fusing unit needs to be hot for copying. When the copier is idle, the fusing unit can be kept hot to save time or it can be allowed to cool to save energy. The feature can be set to start automatically, but you can also turn it on yourself by pressing and holding the Clear Modes/Stand-by key for three seconds.
- Screen message:** When the copier is idle, the copy counter can be made to display a message. There are five possible messages: "Pre_heat", "Sleeping", "0123456789", "Have a good day", and "Hello I love you". The feature can also be turned off.
- Function step setting:** When changing a function setting (margin, multiple copies, or paper length) by holding down the + or -key, the setting will change by a preset value. This value can be changed to 1, 2, 3, or 10 units.

- Paper length count up/down, Paper length up/down speed, and Paper size pattern:** When you press the preset length key, the copier scrolls through a selection of preset paper sizes. The copier can scroll through the preset lengths forward or backward, and at different speeds. There are many sets of sizes from which to choose. Ask your service representative for details.

- Auto off time:** You can set the machine waits after the last operation before switching itself off automatically. The time can be set by minute from 1 to 240 minutes.

4. MAINTAINING YOUR COPIER

CHANGING THE TONER BOTTLE

When “FULL” is displayed, it is time to changing the Toner Bottle.

WARNING:



Do not incinerate used toner, toner bottle or toner cartridge. Toner dust might ignite when exposed to an open flame. Dispose of the toner bottle and the used toner cartridge according to local regulations for plastics.



You must change the toner bottle whenever you see FULL in the copy counter. NEVER clear this condition by only opening and closing the copier or turning it on and off.

Caution:



Do not eat or swallow toner. Keep toner(used or unused), toner bottle, and toner cartridge out of reach of children.


Caution:

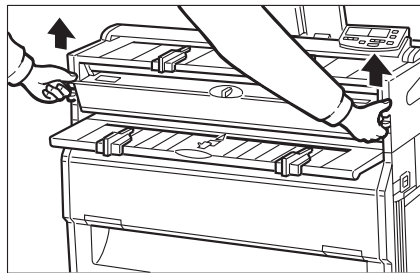


This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.

Notes

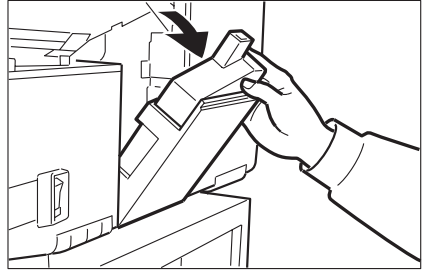
- If the toner bottle overflows, toner particles could get inside the copier and cause damage when you install a new bottle, make sure it is perfectly set in its holder.
- Do not use used toner. This will damage the machine.

-  Open the upper unit of the copier.

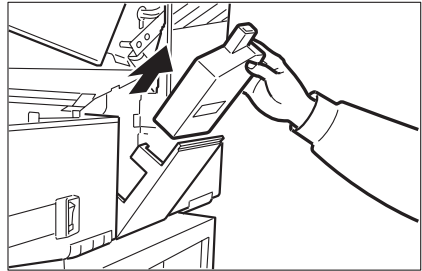


SB022

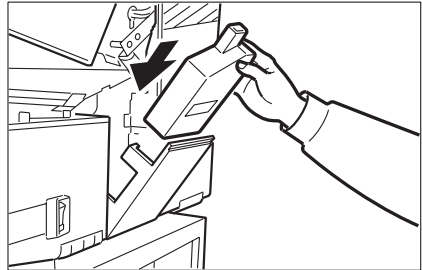
- 2 Open the door on the right side of the copier.



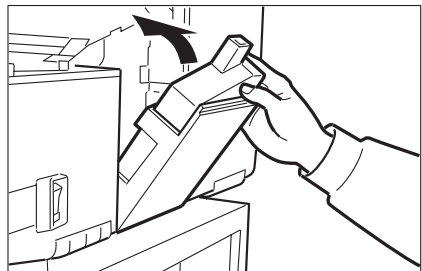
- 3 Carefully remove the plastic bottle and put the used toner in a vinyl bag. Dispose it according to local regulations for plastics.



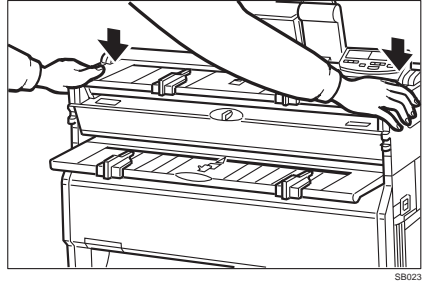
- 4 Place the bottle in the copier.




- 5 Close the door.



- 6 Close the upper unit.
- 7 If needed, turn the copier back on, and press the Clear Modes key to clear the FULL message.



ADDING TONER

When  is displayed, it is time to supply toner.

When the indicator starts blinking, you can still copy about 53 feet of paper (16 m, 27 8½”×11” size copies). When the indicator stays on, you can't copy until a new cartridge is put in.

WARNING:



- **Do not incinerate used toner, toner bottle or toner cartridge. Toner dust might ignite when exposed to an open flame. Dispose of the toner bottle and the used toner cartridge according to local regulations for plastics.**

Caution:



- Do not eat or swallow toner.
- Keep toner(used or unused), toner bottle, and toner cartridge out of reach of children.


Caution:

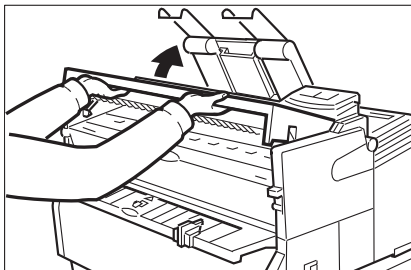


- This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.

Notes

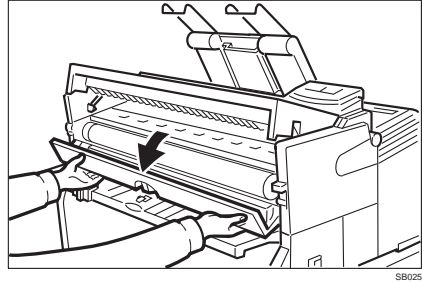
- If you use toner other than that recommended, a fault might occur.
- When adding toner, do not turn off the main switch. If you do, your settings are cleared.
- Always add toner after the machine instructs you to add toner.
- Do not use used toner. This will damage the machine.

-  Pull down the Bypass Table. Then lift the original table until it locks in place.

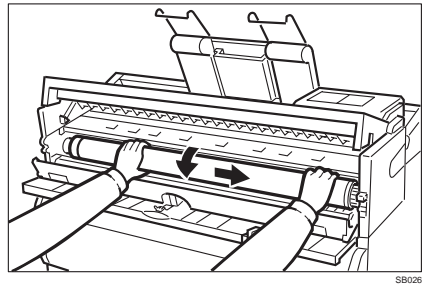


SB024

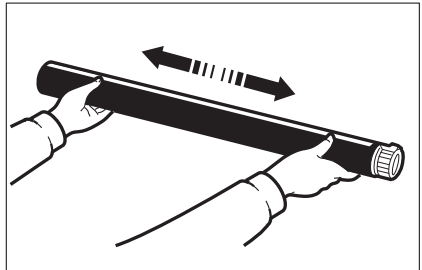
- 2 Open the toner cartridge cover.



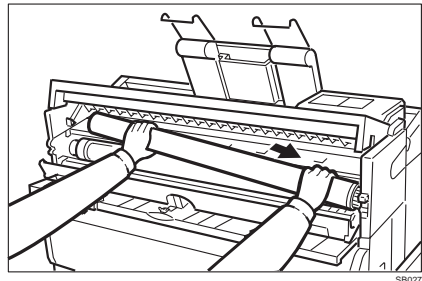
- 3 Turn the old cartridge towards you. Then, while pressing the cartridge to the right, lift the left end and remove the cartridge.
- 4 Put the old toner cartridge in a vinyl bag and dispose it according to local regulations for plastics.



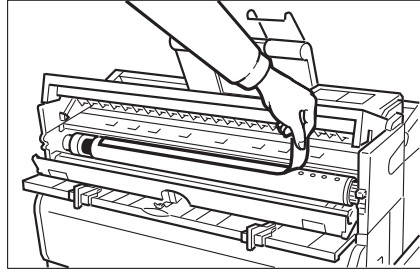
- 5 Shake the new toner cartridge lightly 5 to 6 times to remove lumps.



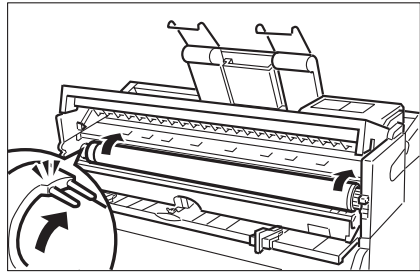
- 6 Install the new cartridge. Make sure that the white circle labeled 1 on the cartridge faces up. Make sure the cartridge is set well but don't push it in yet.



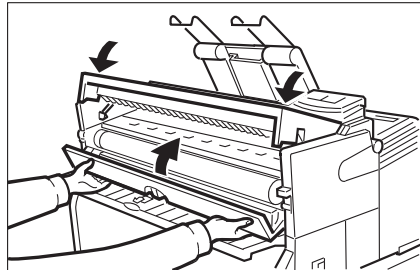
- 7 Take the right edge of the seal and slowly remove it.




- 8 Push the toner cartridge all the way to the left. Then turn the toner cartridge all the way in, as shown.



- 9 Close the toner cartridge cover and the Original Table. The copier will need a few moments to warm up before it is ready to copy.



LOADING A ROLL OF PAPER

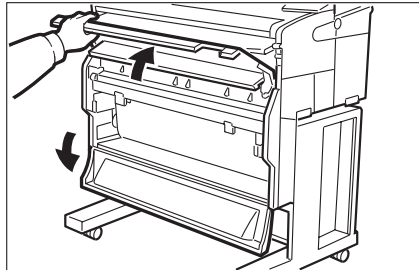
When  is displayed, it is time to install a new roll of paper.

⚠ CAUTION:



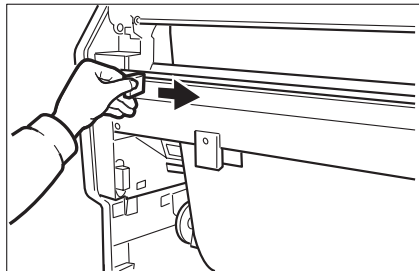
- *Rolls of paper can be heavy, so you should be careful when loading one.
Don't strain yourself. Ask for help if you think you need it.*

- 1** Open the top and bottom covers of the Roll Feeder.



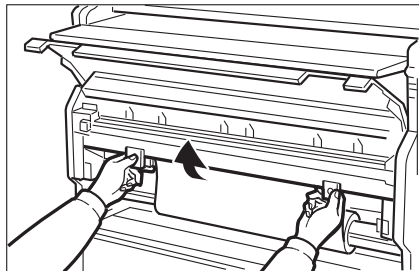
SM026

- 2** If there is paper left, slide the blade from side to side and gently pull the paper out of the copier.



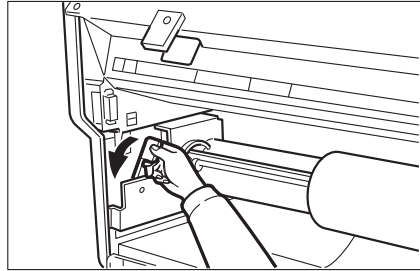
SM027

- 3** Unlock and lift the top unit of the Roll Feeder.
- a) Hold the handles on each side.
 - b) Squeeze and hold the lock on the left.
 - c) Raise the unit just a bit.
 - d) Hold on to the unit, but let go of the lock.
 - e) Raise the unit until it locks in place.



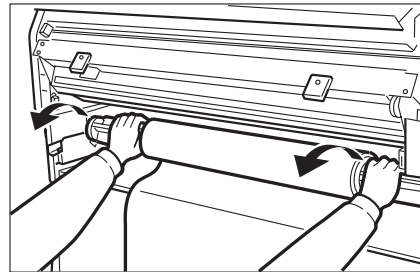
SM028

- 4 Flip the two latches on each side of the paper spool.



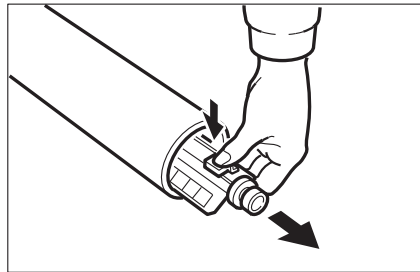
SM029

- 5 Remove the spool.



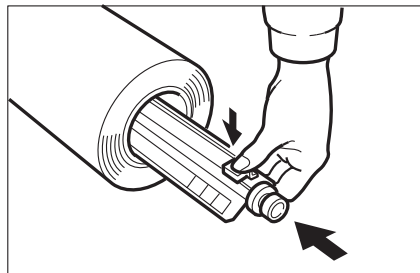
SM030

- 6 Press and hold the lock on the spool and pull the spool out of the roll. Throw the old roll away.



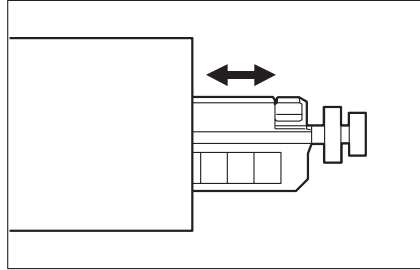
SM031

- 7 Press and hold the lock on the spool and insert the spool into a new roll.



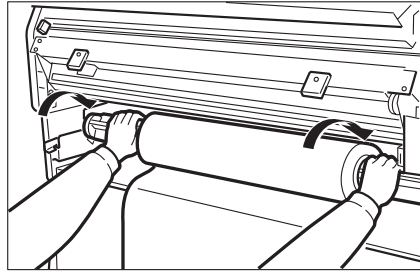
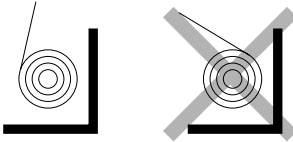
SM032

- 6 While holding the lock down, align the paper roll with the size marks on the spool.



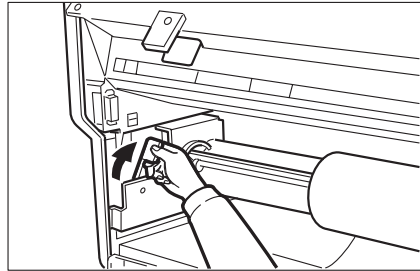
SM033

- 7 Load the spool back in the Roll Feeder so that the paper comes off the roll from the front, not from the rear, as shown below.



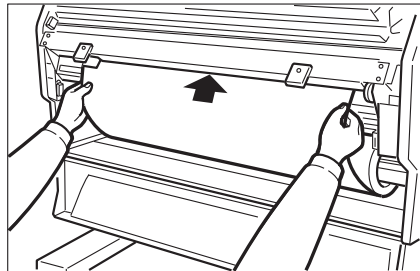
SM034

- 8 Make sure the spool is pushed all the way in the grooves and flip the two latches back in place.



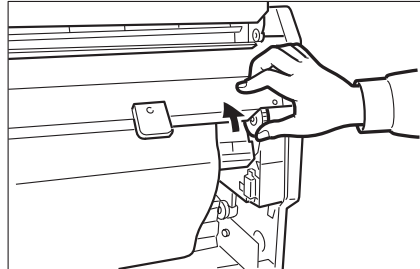
SM035

- 9 Pull the leading edge of the paper roll and slide the paper into the slot just under the top unit locks. Make sure the paper is aligned with the marks on the unit.



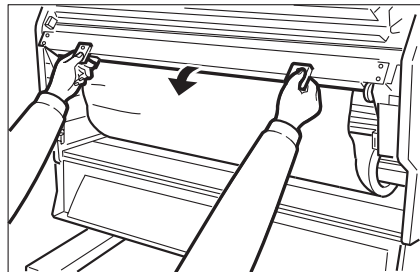
SM036

- 12 Turn the wheel on the right side to bring the paper further in.



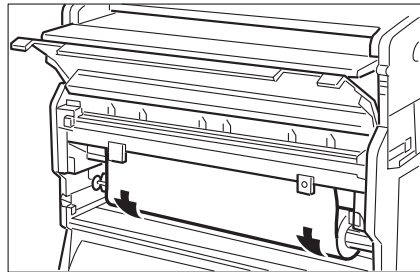
SM037

- 13 Lower the top unit of the Roll Feeder.
 - a) Hold the two handles.
 - b) Squeeze and hold the lock on the left.
 - c) Lower the unit just a bit.
 - d) Hold on to the unit, but let go of the lock.
 - e) Lower the unit until it locks in place.



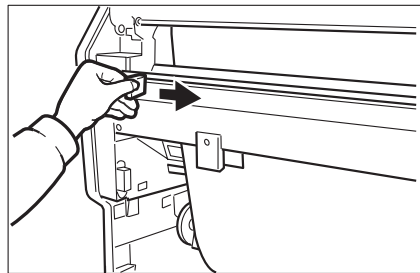
SM038

- 14 Spin the paper roll a bit to tighten the paper.



SM039

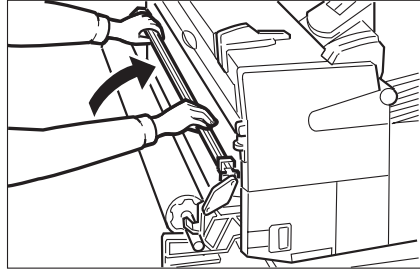
- 15 Slide the blade from side to side and gently pull the paper out of the copier.
- 16 Close the Roll Feeder covers.



SM027

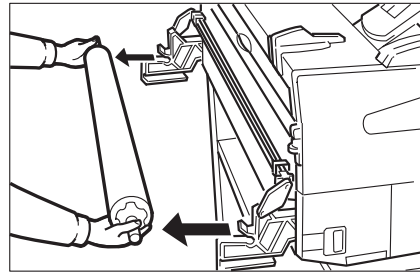
LOADING A NEW ROLL (ONTO PAPER CUTTING RAIL)

1 Lift the rail.



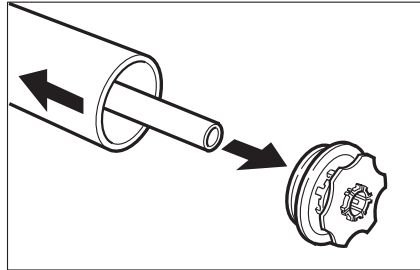
SB045

2 Remove the spool from its support.



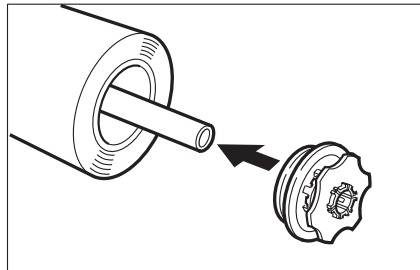
SB046

3 Remove one of the end caps and slide the old roll off the spool.



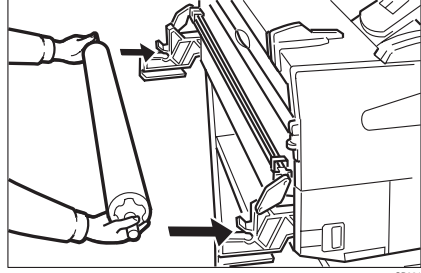
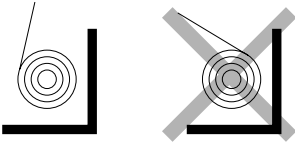
SB047

4 Slide the new roll on the spool and put the cap over the end of the roll.



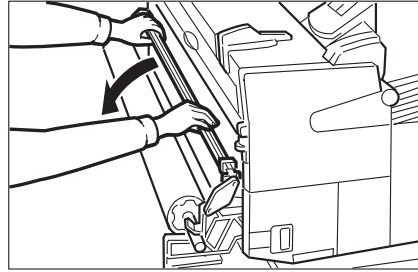
SB048

- 5 Place the spool on the holder so that the paper rolls off the front. Push it all the way in.



SB021

- 6 Lower the rail.



SB050







5. TROUBLESHOOTING

If Something Goes Wrong

If you have problems with your copier, consult the following pages. If a service indicator lights up, read the section below; if the original or the copy is stuck in the copier; see page 52; if the copier won't start, or if copies don't look right, see page 58.

If A Service Indicator Lights Up

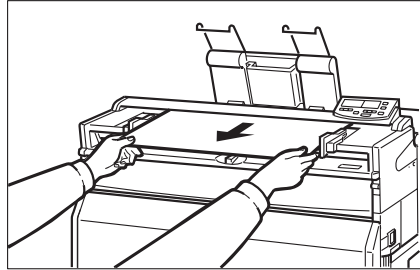
If one of the service indicators shown appears on the operation panel, turn to the appropriate page and follow the instructions described there.

What appears	What it means	What to do
	The original or copy paper is jammed somewhere.	See the following section.
	The copier needs a technician.	Call your technical service center.
	A cover, unit, or the fusing unit cover was left open.	Close it. Press firmly.
	The paper roll is finished.	Put in a new roll of paper. See page 45.
	The toner cartridge is empty, or almost empty.	Replace the toner cartridge. See page 42.
	Wait until the ready indicator lights.	Wait. If it stays on for an unusually long time, call your technical service center.
FULL	The used toner bottle is full.	Empty the used toner bottle. See page 39.

IF JAMS OCCUR

If the original is jammed in the feed-in slot

Very gently pull the original out of the **feed-in** slot. Be careful not to tear it.



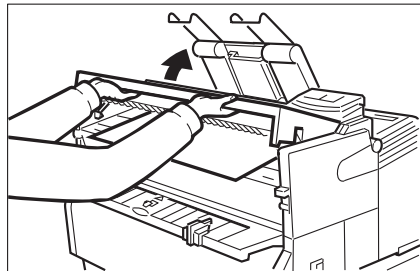
⚠ CAUTION:



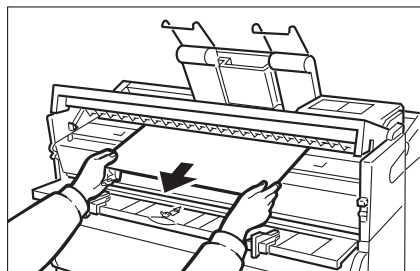
- If the original sticks in the machine, or if you don't think you can remove it without tearing, remove the original from the exit instead. See below.

If the original is jammed at the exit

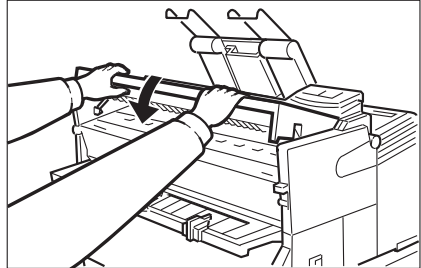
- 1 Lift the Original Table.



- 2 Very gently pull the original out of the **feed-out** slot. Be careful not to tear it.

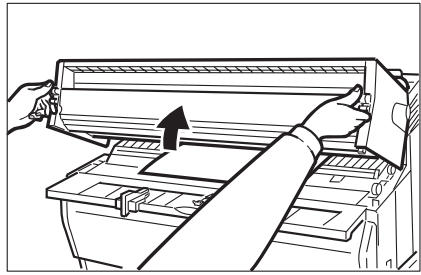


- Close the original table. Press firmly on both sides until it clicks into place.

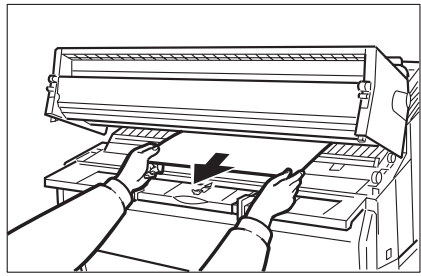


If sheet paper is jammed in the feed-in slot

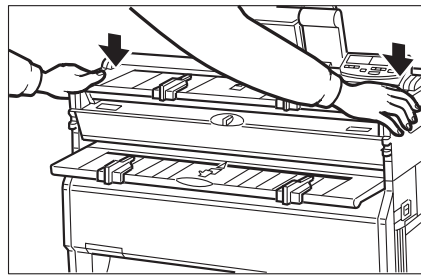
- Squeeze the locks on each side of the copier and lift the unit.



- Pull out the copy paper. Do not leave any scraps of paper in the copier.



- Close the unit. Press firmly on both sides until it clicks into place.



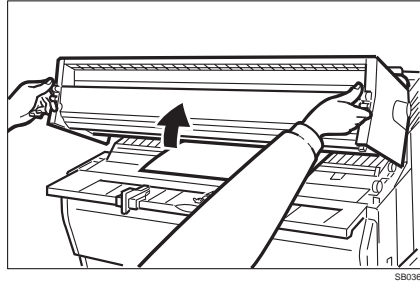
If sheet paper is jammed at the paper exit

⚠ CAUTION:

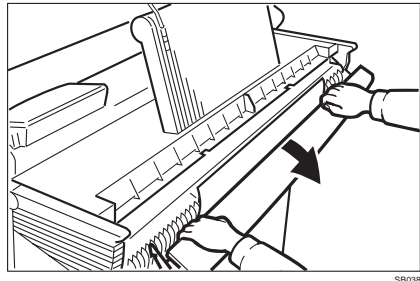


- *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*

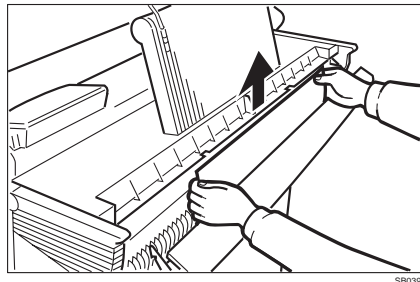
- 1 Squeeze the locks on each side of the copier and lift the middle unit between the Original Table and the Copy Paper Table.



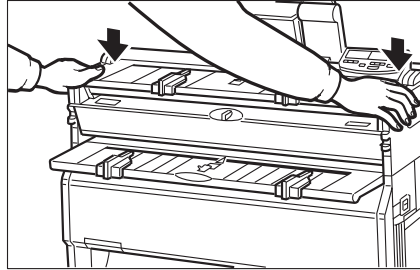
- 2 Open the fusing unit cover.



- 3 Slowly pull the paper out. If there are scraps left inside, open the inner cover, wait for the copier to cool, and remove the scraps.



- 4 Close the unit and all covers. Press firmly on both sides until it clicks into place.



SR025

If roll paper jams

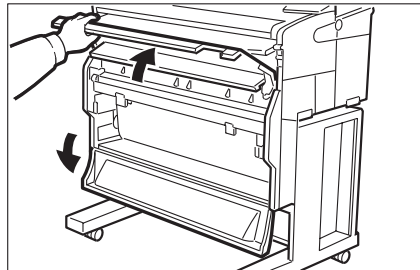
If roll paper jams anywhere in the machine, you still might need to check everywhere to remove the entire length of paper.

CAUTION:



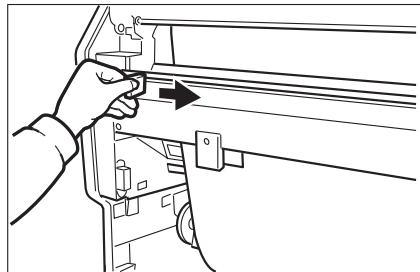
- *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*

- 1 Open the roll feeder top cover.



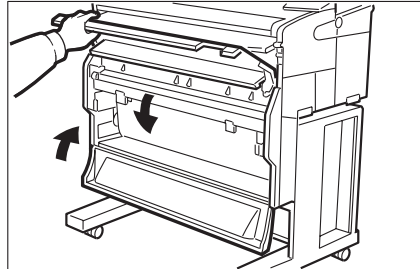
SM026

- 2 Slide the blade across.
- 3 If you can, pull the paper out of the copier.



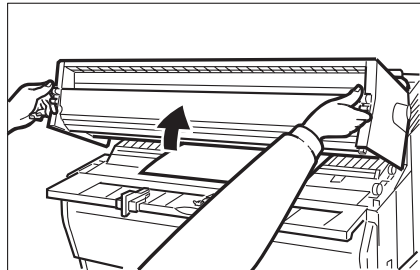
SM027

- 4 Close the roll feeder top cover.
If you were able to remove all the paper, stop here.



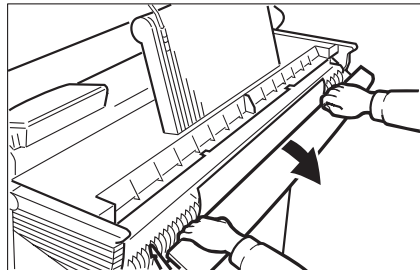
SB056

- 5 Squeeze the locks on each side of the copier and lift the unit.



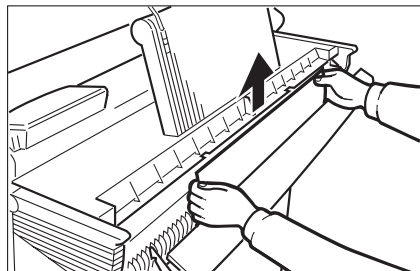
SB036

- 6 Open the fusing unit cover.



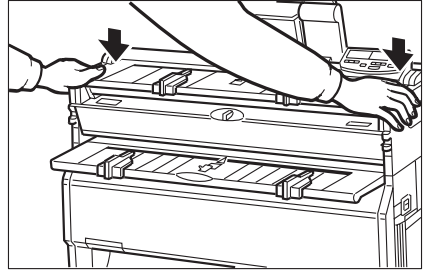
SB038

- 7 Slowly pull the paper out. If there are scraps left inside, open the inner cover, wait for the copier to cool, and remove the scraps.



SB039

- 8 Close the unit and all covers. Press firmly on both sides until it clicks into place.



SB023

OTHERS

If a puzzling or recurring problem occurs, check the following before calling a service representative. It's also a good idea to check the Do's and Don'ts section on page 61 to make sure the paper and originals match what the copier can handle.

Absolutely nothing happens

- Is the main switch on?
- Is the cord plugged in?
- Did a breaker or a fuse blow out?

Something happens, but Set Paper or RF Select never appear

- Check the indicators on the control panel. If any of them are lit, turn to page 51. Check that all covers and units are closed.

If Jams Occur Frequently

- Is your paper creased, damp, or otherwise damaged? See page 10.
- Are there visible bits of paper or other objects stuck in the machine? If there are, remove them.
- Are you inserting the paper and original in straight? Always feed paper in straight.

If Copies Look Wrong

- Are copies too dark or too light? Adjust the density (see page 29).
- Is the background dirty no matter what kind of original you are copying? Make sure the exposure glass and platen are clean (see page 60).
- Is the image skewed? Make sure to insert the paper and the original straight into the machine. If you have the Original and Copy Guides (option), use them.

White spots appear

- On the copy: try setting your copy paper with the other side facing up.
- At the leading edge: try setting your copy paper sideways.
- At the trailing edge: try giving a rising curl to the trailing edge. The curl should go up, not down.

Creases

- Try setting your copy paper sideways.
- If long runny creases appear on copies, try setting your copy paper sideways, or try changing the copy media setting.
- If creases appear on copies made to transparent film, try setting your film sheets sideways.

Copies come out dog eared

- Try setting your copy paper with the other side facing up.
- Make sure your copy paper is undamaged.

Black streaks appear on copies

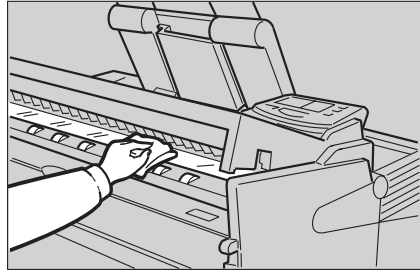
- Check that the exposure glass is clean.

THINGS TO DO EVERY DAY

Clean the exposure glass & the platen plate

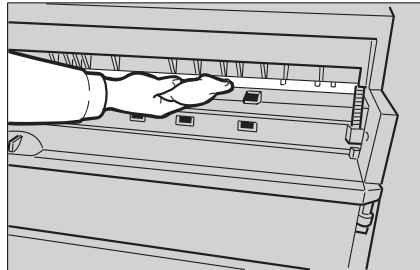
you should clean the copy and original tables with a damp cloth, then wipe them with a dry cloth.

Clean the exposure glass and the Original Drive Roller with a damp cloth, then wipe it with a dry cloth.



SB040

Clean the platen plate with a damp cloth, then wipe it with a dry cloth.



SB041

DO'S & DON'TS

⚠ CAUTION:



- *When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.*
- *When the machine will not be used for a long time, unplug the power cord.*

- Do not touch areas on or around the fusing unit. These areas get hot.
 - After making copies continuously, you may feel the exposure glass is heated. But this is not a malfunction.
 - You may feel warm around the ventilation hole. This is caused by exhaust air, and not a malfunction.
 - Do not turn off the main switch while copying. When turning off the main switch, make sure that copying is completed.
 - The machine might fail to produce good copy images if there should occur condensation inside caused by temperature change.
 - Do not open the covers of machine while copying. If you do, misfeeds might occur.
 - Do not move the machine while copying.
 - Supplier shall not be liable for any loss or damages resulting from a failure on the machine, loss of machine settings, and use of the machine.
-
- Do not set more than one sheet of paper at a time on the copy paper table.
 - Center your paper on the copy table using the size marks. Then slide the paper straight into the copier until it stops.
 - When copying to a long sheet of paper, lightly hold the sheet as the copier pulls it in so that it goes in well.
 - Do not make two sided copies.
 - If you open the unit make sure you close it within 5 minutes to keep light from damaging the copy drum.
 - When copying to sheets 35" × 45" (90 cm × 115 cm) or more, make sure the paper does not drag directly on the floor as the copier pulls it in. (You can spread some paper on the floor for this.)
 - If your paper has an uneven or slanted edge, do not insert this edge in first.
 - Do not make copies longer than 80 inches (2 m).
 - Do not insert originals made of paper less the 52.3 g/m² (13.9 lb, or 0.07 mm). For such originals, please use the optional Carrier Sheet.

WHERE TO PUT YOUR COPIER

Your copier needs to be installed by a qualified technician. If you need to transport your copier to a distant location, call your service center before the move.

You can of course move your copier around your office without calling the service center. If you do, remember that the temperature, humidity, and cleanliness of the area around the copier may affect its performance. Choose the new location with care and follow the guidelines below.

Machine Environment

Your machine's location should be carefully chosen because environment conditions greatly affect its performance.

Optimal environmental conditions

CAUTION:



- *Keep the machine away from humidity and dust. A fire or an electric shock might occur.*
- *Do not place the machine on an unstable or tilted surface. If it topples over, it could cause injury.*

CAUTION:



- *If you use the machine in a confined space, make sure there is a continuous air turnover.*

- Temperature: 50° to 86°F (15° to 30°C)
- Humidity: 50 to 80% RH
- To avoid possible ozone build-up make sure to install this copier in a large well ventilated room ensuring an air turnover of at least 1000 ft³/hour/person (30 m³).
- Set your copier on a strong and level base. The copier must be level within less than a quarter of an inch (5 mm) left to right and less than half an inch (10 mm) front to rear.

Environments to avoid

- Locations exposed to direct sunlight or strong light (more than 1500 lux);
 - Dusty areas.
 - Areas with corrosive gasses.
 - Altitudes of over 6500 feet (2000 m) above sea level;
 - Areas prone to strong vibrations.
 - Locations directly exposed to cool air from an air conditioner or heat from a nearby heater.
(Sudden temperature changes may lead to condensation within the copier.)
 - Locations nearby diazo copy machine.
-

Power connection

WARNING:



- **Only connect the machine to the power source described on the inside front cover of this manual.**

WARNING:



- **Avoid multi-wiring.**
- **Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.**
- **Do not plug or unplug the power cord with your hands wet. Otherwise, an electric shock might occur.**

WARNING:



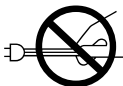
- **Make sure the wall outlet is near the machine and freely accessible so that in event of an emergency it can be unplugged easily.**

CAUTION:



- **When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.**
- **When the machine will not be used for a long time, unplug the power cord.**

CAUTION:

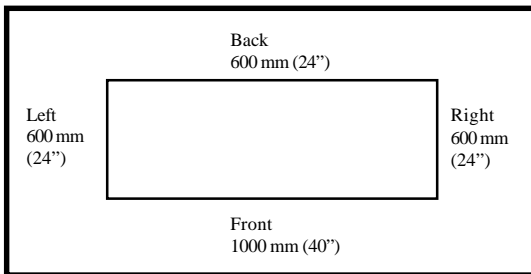


- **When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.**

- Connect the copier to a power source meeting the specifications given on the inside front cover of this manual.
- Do not set anything on the power cord.
- Voltage must not fluctuate more than 10%.
- Make sure the copier is grounded.
- Make sure the plug is firmly inserted into the power outlet.
- Make sure the power outlet is close to the copier and easily accessible at all times.




Access To Machine

Place the copier near a power source and provide clearance as shown.



6. SPECIFICATIONS

COPIER

Configuration	Console
Process	Dry electrostatic transfer system
Scanning	Original moving over a fixed fiber optics array
Originals	Sheet
Original Reference Position	Center
Original Size	Maximum: 914 (W) × 2,000mm (L) (36" × 80") Minimum: A4  (210 (W) × 297mm (L)) (8.5" × 11")
Copy Size	Maximum: 914 (W) × 2,000mm (L) (36" × 80") Minimum: A4  (210 (W) × 297mm (L)) (8.5" × 11")
Warm-up Time	Within 5 minutes at a room temperature of 74°F (23°C)
First Copy	Within 30 seconds (A1  , 23" × 35",)
Copying Speed	3000mm (118.1") per minute
Automatic reset	2 minutes (can also be turned off or set to 1,3,4m or 5 minutes)
Reproduction Ratio	Fixed: 1 to 1
Paper Feed	manual feed/optional roll feeder
Toner replenishment	Cartridge system
Self-diagnostic codes	LED indicators
Power Source	Europe: 220-240V, 50/60Hz, 7A
Power consumption	Maximum 1.4kW
Noise emission	Stand by, less than 57dB Copy cycle, less than 72dB (copier only)

Measurements made following ISO7779

Dimension (W × D × H)	1,080 × 570 × 490mm (42.5" × 22.4" × 19.3")
Weight	79kg (174lb)

OPTIONS

- **Roll feeder**

Number of loaded paper rolls	1 roll
Acceptable Roll Size	Maximum: 914mm (36") Minimum: 210mm (8.5")
Roll Diameter	Within 170mm (6.7")
Dimension(W × D × H)	1,080 × 475 × 295mm (42.5 × 18.7 × 11.6")
Weight	33kg (73lb)

- **Side Guides**

- **Table**

- **Roll Cutting Rail**

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INTRODUCTION

This copier is a console plain paper copier carefully manufactured to exacting standards of high performance. It consistently yields high contrast copies with a superior finish.

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

Please read the next section before using this copier. It contains important information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.

SAFETY INFORMATION

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

Safety During Operation

In this manual, the following important symbols are used:

 **WARNING:**


Ignoring this warning could cause serious injury or even death.

 **CAUTION:**

Ignoring this caution could cause injury or damage to property.

Examples Of Indications




Symbol  mean a situation that requires you take care.




Symbol  mean "Hot surface".



Do NOT carry out the operation represented by this symbol .
This example means "Do not take apart".



Symbols  mean you MUST perform this operation.
This example means "You must remove the wall plug".

⚠ WARNING:



- *Only connect the machine to the power source described on the inside front cover of this manual.*
- *Avoid multi-wiring.*
- *Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.*
- *Do not plug or unplug the power cord with your hands wet. Otherwise, an electric shock might occur.*



- *Make sure the wall outlet is near the machine and freely accessible so that in event of an emergency it can be unplugged easily.*



- *Do not remove any covers or screws other than those specified in this manual. Some parts of the machine are at a high voltage and could give you an electric shock. Also, if the machine has laser systems, direct(or indirect)reflected eye contact with the laser beam may cause serious eye damage. When the machine needs to be checked, adjusted, or repaired, contact your service representatives.*
- *Do not take apart or attempt any modifications to this machine. There is a risk of fire, electric shock, explosion or loss of sight. If the machine has laser systems, there is a risk of serious eye damage.*



- *If the machine looks damaged or breaks down, smoke is coming out, there is a strange smell or anything looks unusual, immediately turn off the operation and main power switches then unplug the power cord from the wall. Do not continue using the machine in this condition. Contact your service representative.*
- *If metal, liquid, or foreign matter falls into the machine, turn off the operation and main power switches, and unplug the main power cord. Contact your service representative. Do not keep using the machine with a fault or defect.*



- *Do not put any metal objects or containers holding water(e.g. vases, flowerpots, glasses) on the machine. If the contents fall inside the machine, a fire or electric shock could occur.*



- ***Do not incinerate used toner, toner bottles or toner cartridges. Toner dust might ignite when exposed to an open flame. Dispose of the used toner cartridges according to local regulations for plastics.***

⚠ CAUTION:



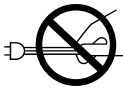
- *Keep the machine away from humidity and dust. A fire or an electric shock might occur.*
- *Do not place the machine on an unstable or tilted surface. If it topples over, it could cause injury.*



- *After you move the machine, fix it with the caster fixture. Otherwise, the machine might move or come down to cause a personal injury.*



- *When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.*
- *When the machine will not be used for a long time, unplug the power cord.*



- *When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.*



- *If you use the machine in a confined space, make sure there is a continuous air turnover.*



- *Do not reuse stapled paper. Do not use aluminium foil, carbon containing paper or other conductive paper. Otherwise, a fire might occur.*



- *When removing misfed paper, do not touch the fusing section because it could be very hot.*



- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*



- *Do not eat or swallow toner.*
- *Keep toner(used or unused) and toner cartridges out of reach of children.*



- *This equipment is only to be installed by a qualified service personnel.*



- *Deliver to collection point for waste products. Do not be disposed of via domestic refuse collection.*

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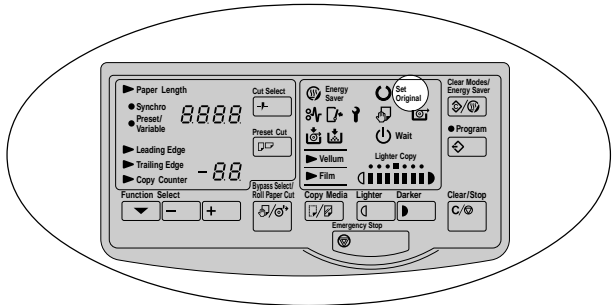
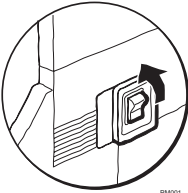
INDEX 65

1. GETTING STARTED

HOW TO USE THIS COPY MACHINE

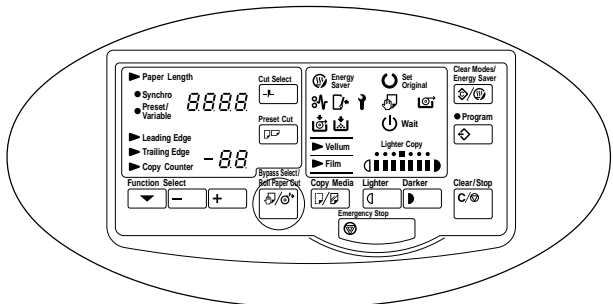
- 1 Turn the machine switch on.

When the “Wait “ indicator goes off and the ”Set Original” indicator goes on, the copier enters the ready condition.

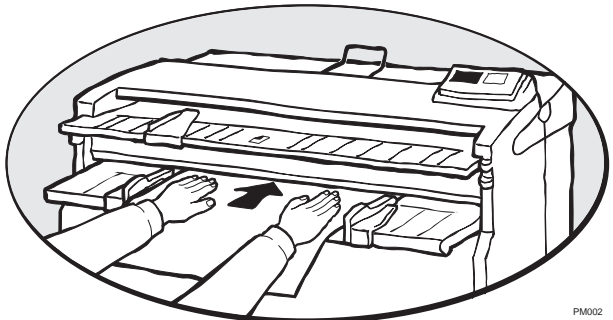


- 2 Select any copy settings you require, such as the media type or copy density.

If you have Roll Feeder (option), press the Bypass Select key to select “Roll Feeder”.

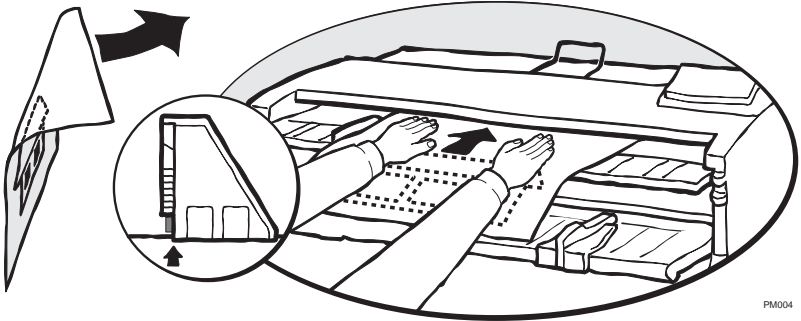


- 3 Center the paper **face up** on the Bypass Table and slide the paper straight into the copier.



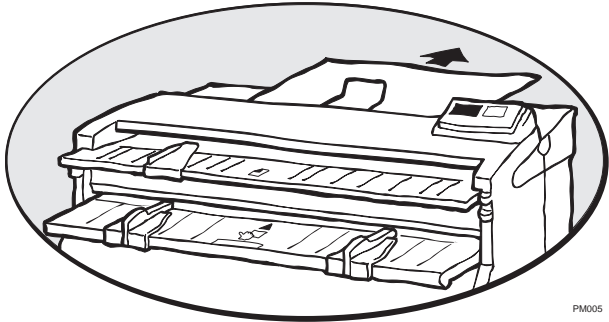
- These illustration show the copier with the Paper Guides, the Copy Stacker, and other optional equipment.

- 4 Set the Original Guide to match the original size mark. Set the original **face down** and slide it straight into the copier along the Original Guide.



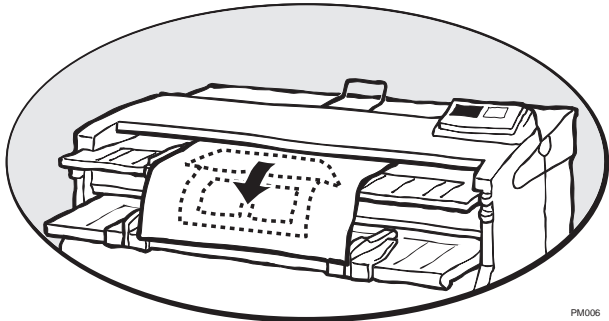
PM004

- 5 First, the original is fed through to the Rear Table.



PM005

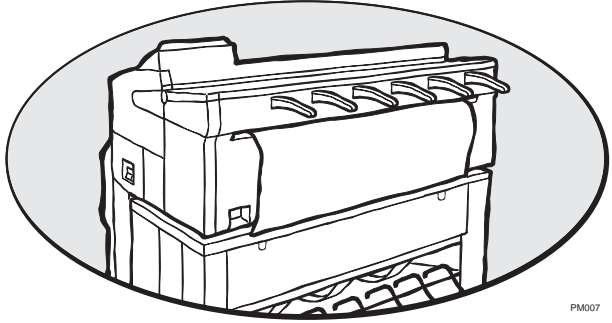
- 6 When the original is being sent back, the machine reads the original and starts copying.



PM006

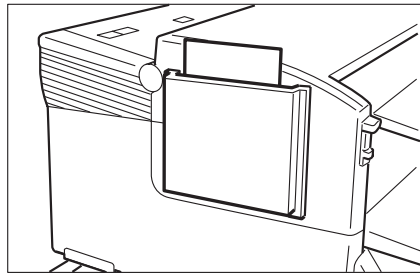
With Repeated Copying, the original is repeatedly fed through and sent back until all copies have been made.

7 Copies are delivered at the rear of the machine.



PM007

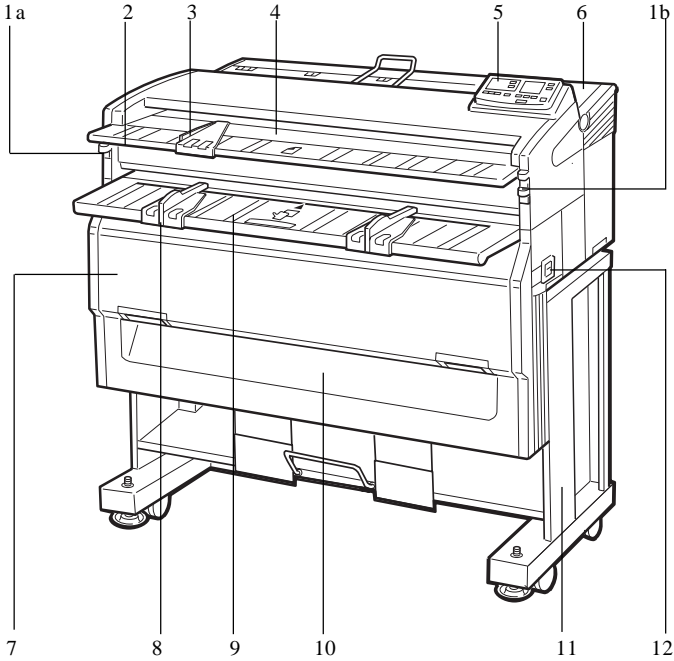
Set the Manual Pocket as shown in the figure.



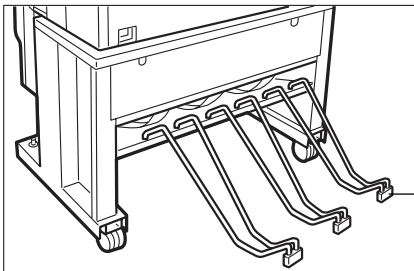
SM012

WHERE IT IS & WHAT IT IS

Copier Exterior



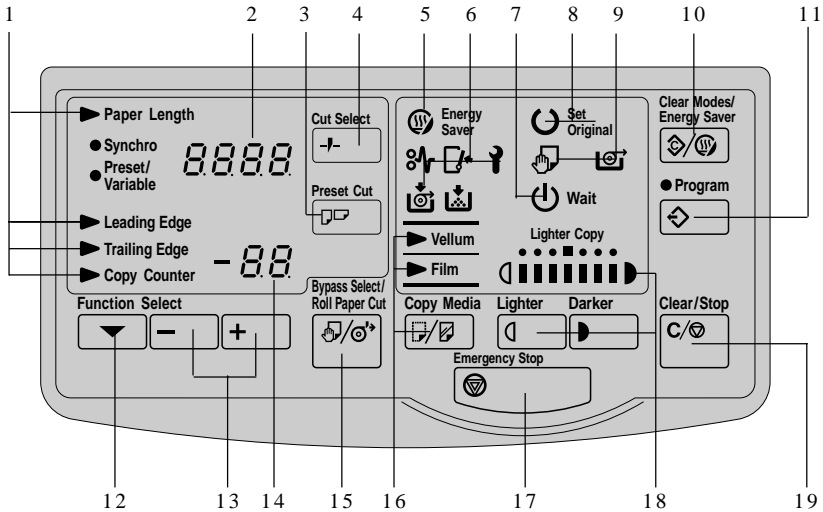
SM001



SM009

- | | |
|---------------------------|--|
| 1a. & 1b. Locks | Squeeze both locks to open the unit. Open the unit to empty the used toner bottle and to remove jammed paper. |
| 2. Front Cover | Open the cover(and the unit) to access the toner cartridge. |
| 3. Original Guide | Use the guide to keep the original going straight as you feed the original into the copier. |
| 4. Original Table | Place your original here, face down , and the original will come out from here after it is copied. If you want to copy a stiff original that can't be bent, use the Rear Table (see 6). |
| 5. Operation Panel | See page8. |
| 6. Rear Table | Place stiff originals here, face down . |
| 7. Roll Feeder(option) | Feeds paper from a roll to the copier. |
| 8. Paper Guides(option) | Use the guides to keep the copy paper going straight as you feed the paper into the copier. |
| 9. Bypass Table | Open this table if you are copying to sheets, changing the toner cartridge, or if you have to open the copier. |
| 10. Roll Feeder Covers | Open these covers to change the roll of paper and to clear paper jams. |
| 11. Table(option) | Holds your copier and the Roll Feeder. |
| 12. Main Switch | Turn to start the copier and off when you're done for the day. The copier will need about 5 minutes to warm up, if it's been turned off for a long time. |
| 13. Copy Stacker (option) | Delivers copy in the front of the machine or stock it in the back. |

Operation Panel

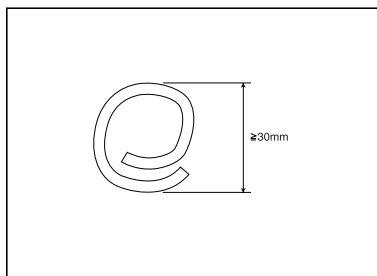
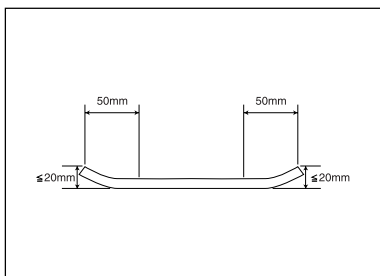


- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Function indicators 2. Paper length display 3. Preset Cut key 4. Cut Select key 5. Energy Saver indicator 6. Troubleshooting 7. Wait indicator 8. Ready/Set Original indicator | <p>These indicators show which setting you are currently editing. Press the Function key to cycle through them.</p> <p>The top indicator lights when the paper length is being set. The second indicator lights when the leading margin is being set. The third indicator lights when the trailing margin is being set. The fourth indicator lights when the number of copies is being set.</p> <p>Shows the length of paper the Roll Feeder will send.</p> <p>Scrolls through the preset paper lengths for the Roll Feeder.</p> <p>Turns Synchro Cut or Preset/Variable Cut on/off.</p> <p>Shows that it is in a state of wait (Energy Saver). Press key 10.</p> <p>See page 49 for details.</p> <p>Shows that the copier is not yet ready to copy.</p> <p>Lights up when the copier is ready to receive an original.</p> |
|--|--|

9. Set Paper and RF
Select indicators
10. Clear Modes/Energy Saver key
11. Program key
12. Function Select key
13. Plus and minus key
14. Leading Edge/Trailing Edge/Copy Counter indicator
15. Bypass Select/Roll Paper Cut key
16. Copy Media key
17. Emergency Stop key
18. Density indicator
Density keys
19. Clear/Stop key
- The Set Paper indicator on the left lights when you select Bypass.
The RF Select indicator on the right lights when you select Roll Paper.
- Cancels all current settings. When you hold down this key for three seconds or more, the copier enters Energy Saver mode allowing you to conserve power. To exit Energy Saver mode, press this key again.
- Allows you to recall or set a program.
- Press to change which setting you are editing. The current selection is shown by the indicators
above: Paper Length
Leading Edge
Trailing Edge
Copy Counter
- Also use this key to copy a selected portion of an original.
- Press to increase the setting being edited.
Press to decrease the value being edited.
- Displays the margin settings and the number of copies made.
- Selects the paper feed type (when the Roll Feeder option is installed). Also press to stop a copy job.
- Press to select the type of copy paper you are using. The copier will apply more or less heat accordingly.
- Press to stop the copying process immediately.
Use if your original is getting stuck in the copier.
If you stop the operation by pressing this key, remove both the original and paper.
- Shows the density level the copies will have.
Press the left key to make copies lighter.
Press the right key to make copies darker.
- While entering numbers, press to cancel a number to have entered. While copying, press to stop copying.
After copying has finished, press this key, then remove the original.

RECOMMENDED ORIGINALS

- You can set originals with weight in the range 21g/m², 6 lb to 157 g/m², 41 lb in this copier.
- Feedable size is between 914×2,000 (W×L), 36"×80" (maximum width that can be fed: 960mm, 37.8") and 210×297 (W×L), 8.3"×11.7" for minimum.
- You can not use the Repeated Copying function in the following cases.
 - When using the Carrier Sheet (option)
 - When setting an original longer than 1200mm (47")
- Fix the curl of original to within the following range.
 - For the curl of the leading edge and the trailing edge: R50mm (2.0") or more, H20mm (0.8") or less
 - For the curl of the whole area of the paper: Ø30mm (1.2") or more




- When you copy the following originals, set them in the Rear Table:
 - ⇒ See page 18, "Using the Rear Table"
 - Thick originals (0.19mm, 35μ~1mm)
 - Originals less than 297mm (11.7") in width and more than 1200mm (47") in length.
- When you copy the following originals, use the Carrier Sheet (option) to set them:

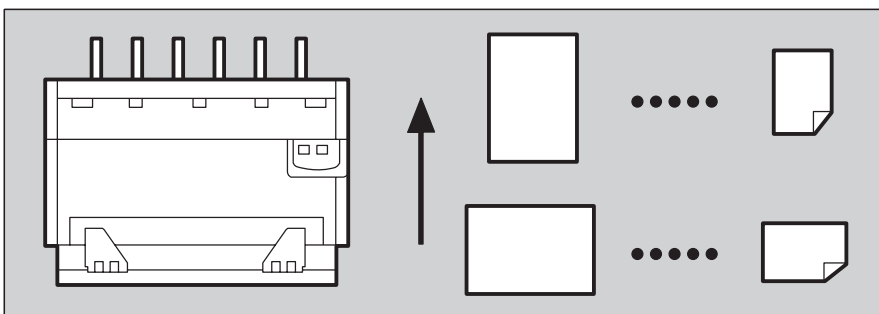
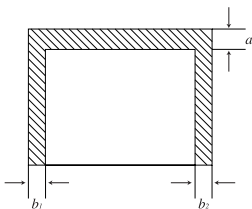
<ul style="list-style-type: none"> • Piled originals • Taped or pasted originals • Dog-eared originals • Wavy originals • Originals whose leading edge is not straight 	<ul style="list-style-type: none"> • Folded originals • Originals which have a hole near the leading edge 40mm (1.6") to the right or left of the center • Creased, torn, or clipped-out originals • Pasted originals • Curled originals
---	---

Non-recommended originals

- The following types of originals are not recommended.
- Wet originals
 - Originals with clips or staples
 - Carbon paper
 - Originals with cardboard stuck on the leading edge
 - Originals with wet ink or white-out
 - Originals made of materials other than paper or film (thermosensitive paper, aluminium foil, etc.)

Notes For Originals

















- Margins on the leading and side edges of originals are not copied as shown in the illustration.
 $a = 0 \pm 3\text{mm}$ (0.12") $b_1 + b_2 < 0 \pm 2\text{mm}$ (0.08") (A1 )



SM066

RECOMMENDED PAPER

Standard paper sizes that can be used in this copier are shown below.

Metric version	Inch version	Bypass	Roll Feeder
A0	E (36"×48")		
A1	D (24"×36")	 	 
A2	C (18"×24")	 	 
A3	B (12"×18")	 	 
A4	A (9"×12")		

When you make a copy on a non-standard size of paper, set the paper in the Bypass.

Weight of paper suitable for this copier: 51g/m², 14lb to 134g/m², 36lb.

Do not use the following kinds of paper or a paper jam might occur.

- Bent, folded, or creased paper
- Torn paper
- Perforated paper
- Non-smooth paper
- Slippery paper
- Thin paper that has low stiffness

Do not make a copy on paper with any kind of coating, such as thermosensitive paper, art paper, aluminium foil, and carbon paper.

A fault might occur.

Do not use paper with strong curls at the edges or corners. (Curls rising more than 5mm (1/4") or falling more than 20mm (3/4") over a 40mm (1.5") radius.)

When you make copies on film, take out the copies delivered to the copy guide one sheet at a time and place them on a flat surface.

- If copying to natural tracing paper (all pulp,translucent paper)at a relative humidity of 35% or less.
 - a)If the paper was left out of its package for 5 minutes or more, remove the first 700mm(28") before copying.
 - b)If copies come out wavy or with white spots, use vellum tracing paper instead of natural tracing paper.
 - c)Always keep the paper in a bag when not using it.
- Store the paper in a sealed polyvinyl bag if not used for a long period.
If it gets humid, paper will curl or wave causing a paper jam or part of the image not to be copied.
- When you use paper in high humidity under hot conditions, take out only the necessary amount of paper at a time from the bag. Do not take all the paper out of the bag.

Dehumidifying Heater

- Under humid conditions, the copier turns on the dehumidifying heater. It is turned on automatically even when the main switch is off. Do not unplug the power.

TONER

Handling Toner

⚠ WARNING:



- *Do not incinerate used toner, toner bottle or toner cartridge.*
- *Toner dust might ignite when exposed to an open flame.*
- *Dispose of the toner bottle and the used toner cartridge according to local regulations for plastics.*

⚠ Caution:



- *Do not eat or swallow toner.*
- *Keep toner(used or unused), toner bottle, and toner cartridge out of reach of children.*

⚠ Caution:



- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

- If you use toner other than that recommended, a fault might occur.
- If you want to add toner, see ⇒ P.42 "ADDING TONER"

Toner Storage

- Store toner cartridge horizontally in a cool, dark place.
- Do not leave toner cartridge in your car on a hot day for a long period of time, or anywhere the toner could be subjected temperatures of over 95°F (35°C).
- Never store toner where it will be exposed to heat.
- Do not lay heavy objects on toner bottles.

Used Toner

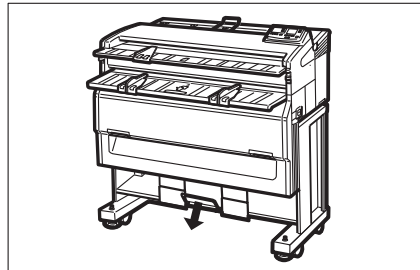
- Used toner cannot be re-used.
- Put the used toner in the vinyl bag and dispose of it according to local regulations for plastics.

BASIC COPYING (COPYING TO SHEETS)

Use the Bypass Table to copy onto sheets of paper.

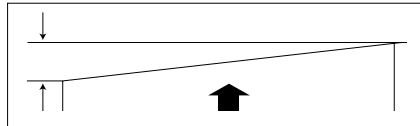
Notes

- For acceptable types of original and paper, see ⇒ page 8 and 10.
- Set one sheet of paper at a time on the Copy Table. Never insert more than one sheet of paper.
- If the copy paper is curled, set it with the curl facing downwards.
- When you set A0 size paper, to make sure the ends do not touch the floor and get dirty, lay a wide piece of paper or some other covering on the floor.
- When setting an original or paper longer than 1200 (49"), pull down the copy paper guide (option, a part of the copy stacker) and put the edge of your original or paper on.



SM068

- Do not use the paper which is cut obliquely. When the difference between the right side and the left side of the paper is more than 5mm (4/5"), creasing or a paper jam might occur.



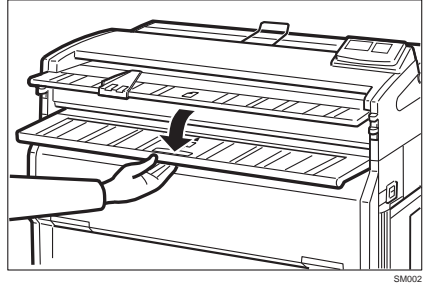
- You cannot copy to both sides of the paper at a time.
- It takes about 5 minutes until you can start copying after you turn the copier on. The machine is warming up when the "Wait" indicator is lit, but you can still edit settings, insert copy paper or insert your original.
- You can set either paper or the original first. When you have set both of them, the copier starts copying automatically.
- Do not lean on the copy table or lay heavy objects on it.

CAUTION : If during copying your original gets stuck in the copier, press the Emergency Stop key.

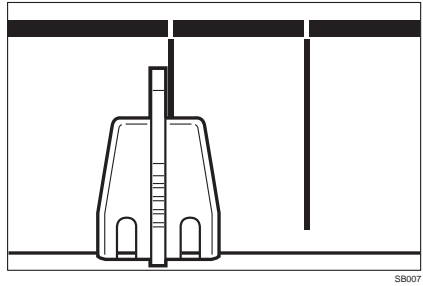


If you stop the operation by pressing this key, remove both the original and paper.

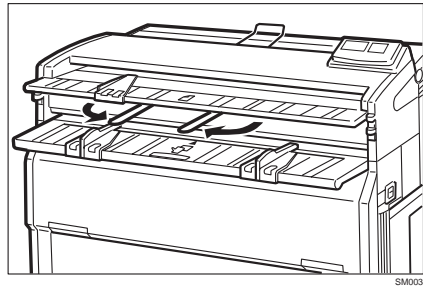
- 1 Pull down the Bypass Table.



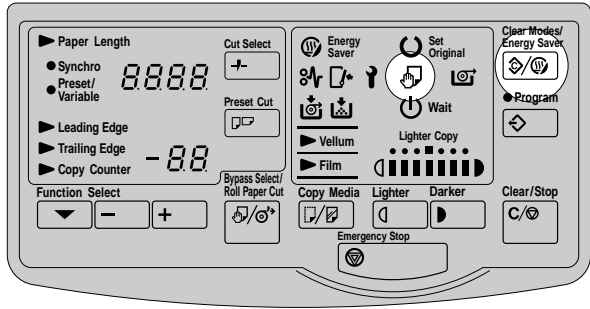
- 2 Adjust the Paper Guides (options) on the Bypass Table to match the size of your copy paper.



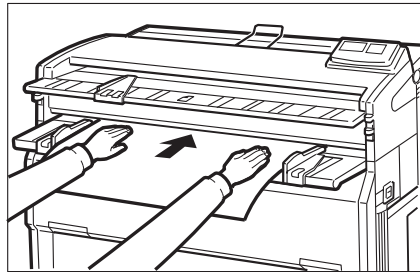
- 3 Open the guides to keep the original away from the paper entrance so that the edge cannot slip into the paper entrance.



- 4 Make sure that the “Set Paper” indicator is lit.
If it is off, press the Energy Saver key to exit Energy Saving mode.
- 5 If any previous settings remain, press the Clear Modes key.
- 6 Set the density, the number of copies, and other optional settings you requires such as Trailing Edge.

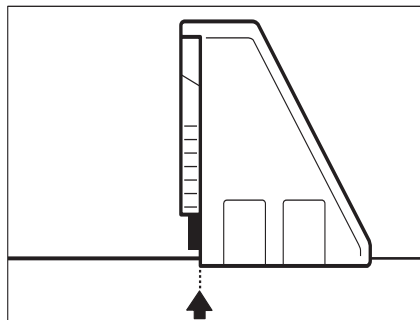


- 7 Set the paper along the size indication on the Bypass Table.
Slide the paper straight into the copier until it stops. The copier will soon pull it in.



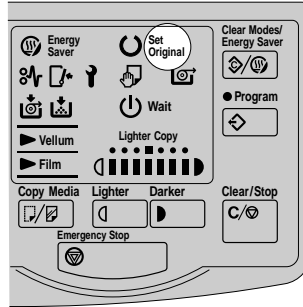
SM006

- 8 Set the Original Guide to match the original width.

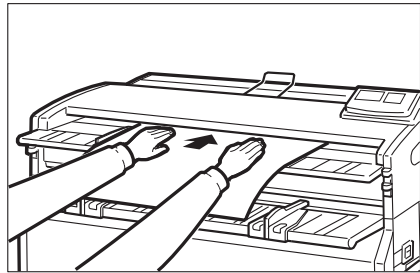


SM057

- 9 Make sure that the “Set Original” indicator is lit.

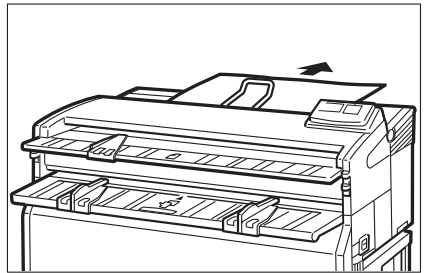


- 10 Center your original **face down** on the Original Table. Slide the original straight into the copier until the copier pulls it in.



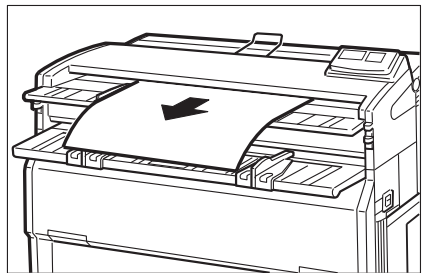
SM004

- 11 First, the original is fed through to the Rear Table.



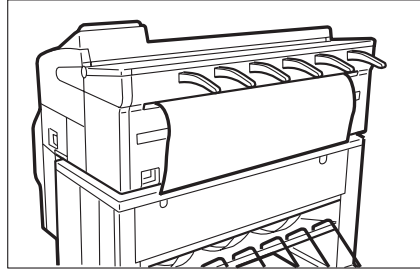
SM005

- 12 When the original is being sent back, the machine scans the original and starts copying.



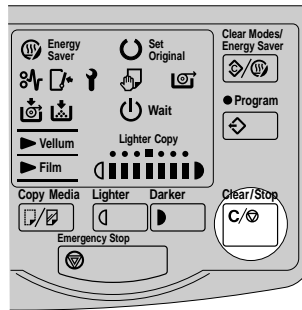
SM007

- ❑ The copy is delivered at the back of the copier.



SM008

- ❑ After copying has finished, hold the original with one hand, press the Clear/Stop key, and remove the original.



Notes

- ❑ Do not hold down or pull out the original during copying. Do not put pressure on the original cover.
- ❑ If you do not insert the original a certain time after you have inserted the paper, the paper will exit automatically.
- ❑ If you do not insert the paper a certain time after you have inserted the original, the original will exit automatically.
- ❑ If the copier is idle for a certain time after you have used it, the machine resets itself to the initial settings (Auto Clear).
- ❑ You can preset the initial setting of the copier ⇒ see page34"Changing The Default Setting"
- ❑ If the copier is not used for a long period, it will turn itself off.

Using the Rear Table

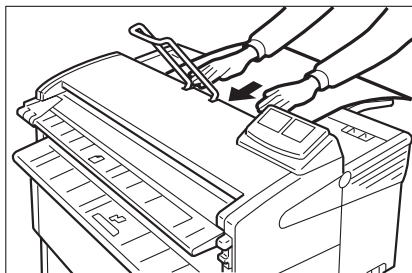
Set thick originals (0.19mm, 35 μ -1mm) or originals less than 297mm in width and more than 1200mm in length, on the Rear Table.

Notes

You cannot use the following functions using the Rear Table.

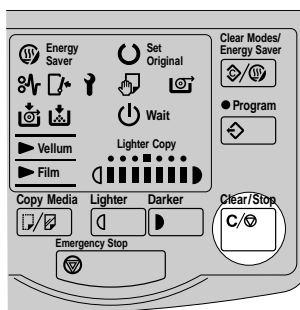
- Repeated Copying
- Synchro cutting function with roll paper
- Partial Copying

- 1 Choose any copy setting you require.
- 2 For manual copying, set paper.
- 3 Pull up the guide to avoid reversing the original.
- 4 Insert the original **face down** on the Rear Table.
- 5 When the machine scans the original and starts copying, support the original with your hands in front of the machine.



SM061

- 6 Clear/Stop key and remove the original.



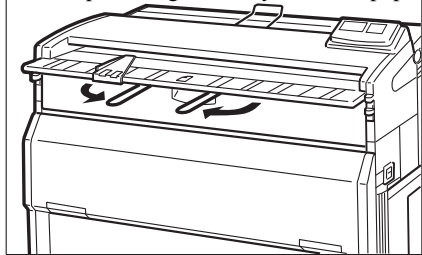
COPYING ONTO ROLL PAPER (OPTION)

To make a copy using the Roll Feeder option, you do not need to set paper on the copy table; the paper will be fed to the copier from the Roll Feeder. You can copy onto roll paper using the following techniques:

- Synchro cutting
- Preset cutting
- Variable cutting

Notes

- If unused roll paper is left in the copier, cut 700mm (28") from the edge of the paper before you start copying.
- When you want to copy long originals, the curled originals, or thin originals (less than 0.1mm) which can be easily bent down, open the guide to keep the original away from the paper entrance.



5M058

CAUTION : If during copying your original gets stuck in the copier, press the Emergency Stop key.



If you stop the operation by pressing this key, remove both the original and paper.

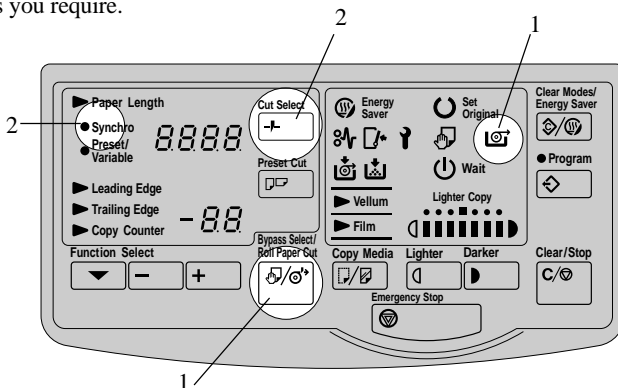
Synchro Cutting

This function cuts roll paper automatically according to the original length.

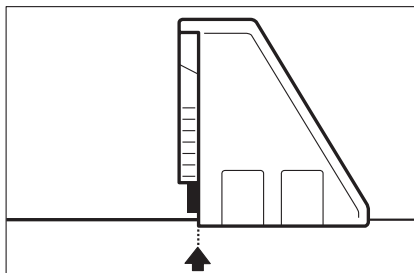
Notes

☐ This feature can cut paper lengths in the range of 245 to 2,000mm, 9.6” to 80.0”.

- 1 Press the Bypass Select key to turn on the “RF Select” indicator.
- 2 Press Cut Select key, the “Synchro” indicator lights up.
- 3 Choose any copy settings you require.

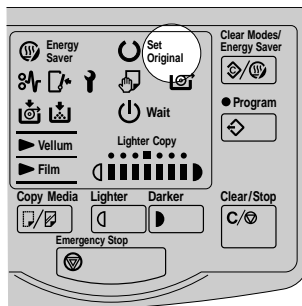


- 4 Set the original guide to match the original width.

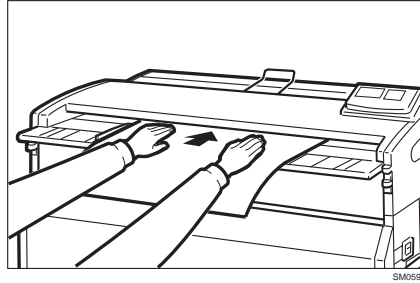


SM057

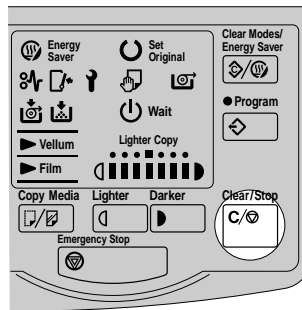
- 5 Make sure that the “Set Original” indicator is lit.



- 6 Center your original **face down** on the Original Table. Slide the original straight into the copier until the copier pulls it in.



- 7 After copying has finished, hold the original with one hand, press the Clear/Stop key, then remove the original.



Notes

- To cancel copying, press the Clear/Stop key. The copier finishes the operation in progress, and delivers the copy and the original. Press the Clear/Stop key again to remove the original.
- To call off on-going copying, for example, when you have inserted a wrong blueprint, press the Roll Paper Cut key. The machine interrupts the operation in progress, and delivers the copy and the original. Press the Clear/Stop key to remove the original.

Preset Cutting

This function cuts roll paper to a selected length. The paper is cut to this length regardless of the original size.

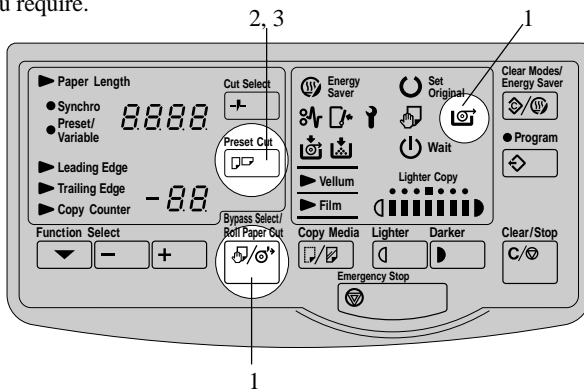
Notes

- ❑ By the default Preset Cut length is as follows. For the change of the Preset cut length pattern, please contact your service representatives.

Metric Version: 1189mm, 841mm, 594mm, 420mm, 297mm

Inch Version: 48.0", 42.0", 36.0", 24.0", 18.0", 12.0"

- 1 Press the Bypass Select key to turn on the "RF Select" indicator.
- 2 Press the Preset Cut key. The "Preset/Variable" indicator lights up and the "Paper Length" display shows the default Preset Cut length(1189mm, or 48.0").
- 3 Press the Preset Cut key several times until the indicator shows the value you want.
- 4 Choose any copy settings you require.



- 5 Continue from step4 on page20.

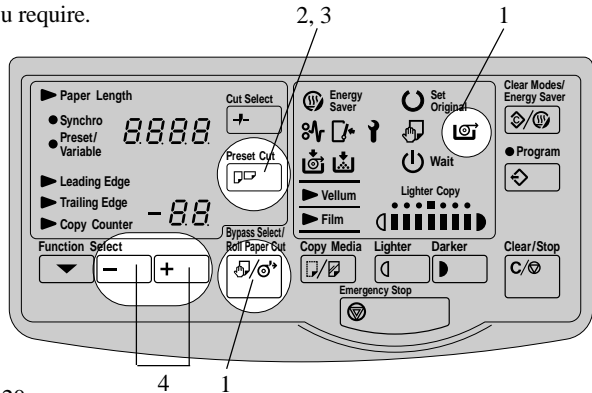
Variable Cutting

This function cuts roll paper to a length you specify.

Notes

You can have paper length cut in the range of 245 to 2,000mm, 9.6” to 78.9”.

- 1 Press the Bypass Select key to turn on the “RF Select” indicator.
- 2 Press the Preset Cut key. The “Preset/Variable” indicator lights up and the “Paper Length” display shows the default Preset Cut length(1189mm, or 48.0”).
- 3 Press the Preset Cut key to display the nearest value you want.
- 4 Press + key or - key to specify the most appropriate length.
- 5 Choose any copy settings you require.



6 Continue from step4 on page20.

3. COPY SETTINGS

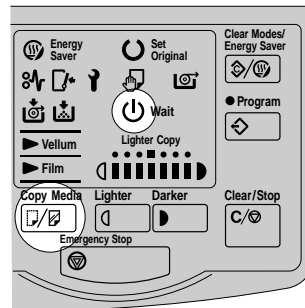
COPYING ONTO OTHER MEDIA

To copy onto vellum (translucent or tracing paper) or film, select the Copy Media function to match the paper type (see below).

Type of paper	Media setting
Plain paper	Both indicators off
Film	Film indicator on
Vellum	Vellum indicator on
Heavy paper	Vellum indicator on
Thin paper	No indicator, or film, if necessary.

This list is not complete. If you are not sure of what type of paper you have, check the label on the paper package.

- 1 Press the Copy Media key to turn on the “Vellum” or “Film” indicator.
The “Wait” indicator goes on and either the “Vellum” or “Film” indicator lights.
- 2 When the “Wait” indicator goes off and the “Ready” indicator goes on, the copier enters the ready condition.



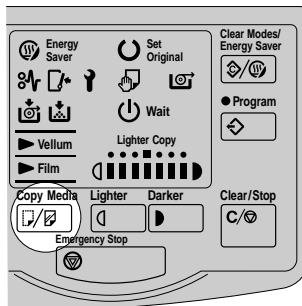
Notes

- Even if you have set the Copy Media function correctly, creasing might occur depending on temperature or humidity. If this happens, adjust the fusing temperature manually. See the next page.

Adjusting the Fusing Temperature Manually

- 1 Press the Copy Media key to turn on the “Vellum” or “Film” indicator that you want.
- 2 Hold down the Copy Media key for at least 3 seconds.

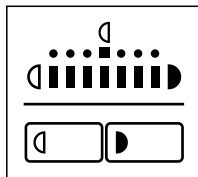
The “Lighter Copy” display will show the current fusing temperature. The unlit indicator shows the current temperature.



- 3 Press the Lighter key to decrease the temperature, and press the Darker key to increase the temperature.

The number of temperature levels available depends on the paper type:

Plain paper	: 1234567
Vellum	: 1234
Film	: 1234



- 4 After you have finished the setting, press the Copy Media key.
- 5 Choose any copy settings you require, then start copying.

Notes

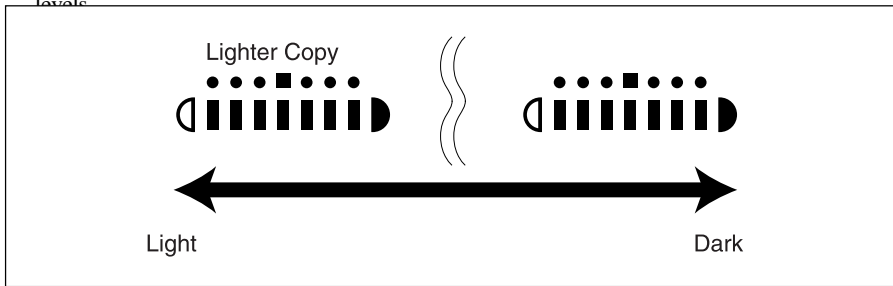
- The new fusing temperature for the selected paper type is cleared when you press the Clear Modes key or turn off the main switch.

ADJUSTING COPY IMAGE DENSITY

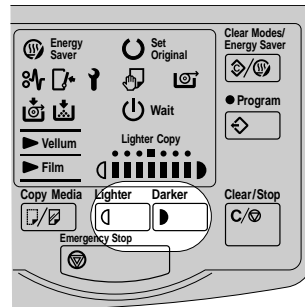
To make copies darker or lighter, change the density setting. There are 14 density levels: the standard density level, three darker level, and 10 lighter levels. Set the density with the Lighter and Darker keys under the density indicator.

Notes

- ❑ The indicator shows seven levels at a time. When you start from the standard image density, the middle notch corresponds to the standard image density, the three right notches correspond to darker densities, the three left notches to lighter densities.
- ❑ The brighter notch shows which level is now set. If you go lower than the leftmost notch, the words Lighter Copy light up. The notches on the indicator correspond to the seven lightest levels.



- 1 Press the Lighter or Darker key to adjust copy density.



- 2 Each time you press the Lighter key, the indicator moves one step to the left. When the indicator reaches the left edge, it returns to the right edge and the "Lighter Copy" indicator lights.

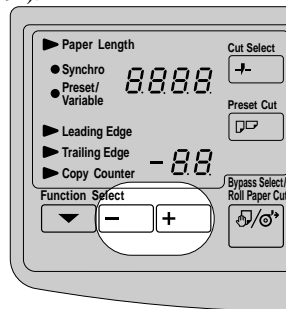
SETTING THE NUMBER OF COPIES (REPEATED COPYING)

Repeated copying means making two or more copies of a original. This function allows you to make up to 10 copies.

Notes

- with this feature, the image might be copied at a slant. Whether this happens depends on the original size, type, and condition (e.g., curled, wavy, originals). In such a case, make one copy at a time.
- You cannot use the repeated copy function in the following cases:
 - When using the Carrier Sheet (option).
 - When setting an original in the Rear Table.
 - When setting an original longer than 1200mm (49”).

- i** Press the + and - keys to specify the number of copies.

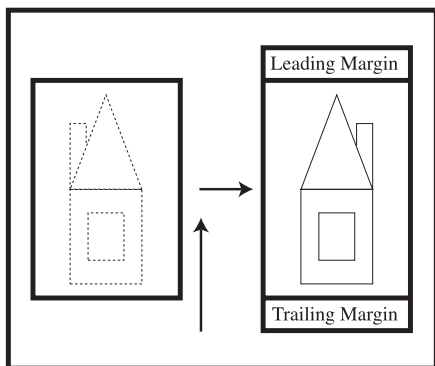


Notes

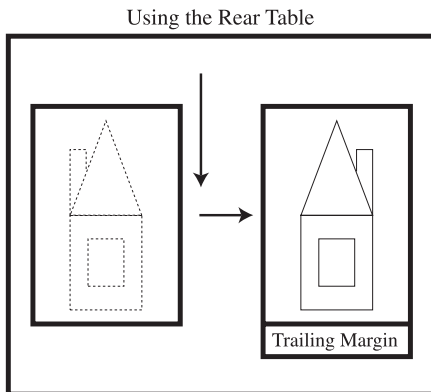
- When you press the Clear/Stop key, the number of copies returns to “1”.

SETTING A LEADING/TRAILING EDGE MARGIN

You can set a margin on the leading or trailing edge of the copy when you use Roll Feeder (option) in the Synchro Cut mode. When using the Bypass Table, and Preset/Variable Cut Mode you can only set the trailing edge margin.



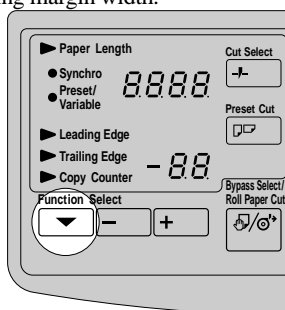
Using the Original Table



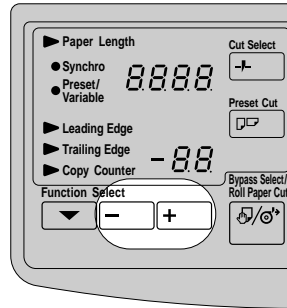
Notes

- You can set a margin of $\pm 99\text{mm}$, $\pm 4.0''$ in 1mm, 0.1'' steps on either the leading or trailing edge.
- When you set a leading margin, the copy image is shifted to the trailing edge of the margin.
When you make a copy in the Bypass Table, Preset Cut, or Variable Cut mode, the copy image might extend off the paper depending on the leading margin width.

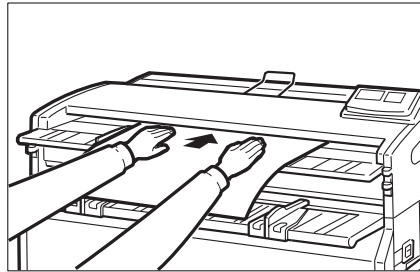
- Press the Function Select key until the “Leading Edge” or “Trailing Edge” indicator is lit.



- 2 Press the + key and - key to specify a edge margin.
To zero the value, press the Clear/Stop key.
- 3 If you want to set both margins, press the Function Select key and specify the other margin.



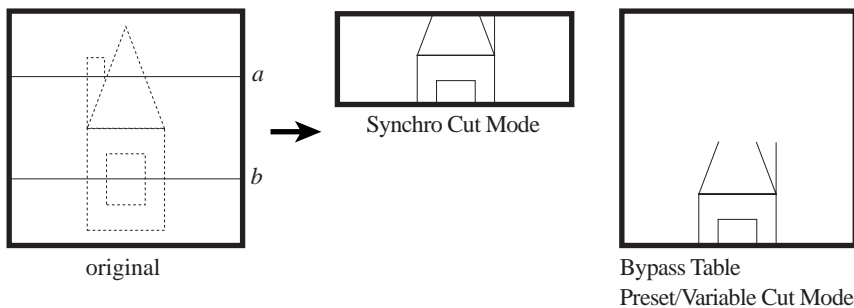
- 4 Using the Original Table, insert the original leading edge first.
Using the Rear Table, insert the original trailing edge first.



SM004

PARTIAL COPYING

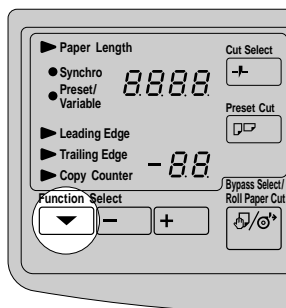
The Partial Copy function copies only a part of an original.
You need to enter start and end points in the original feed direction.



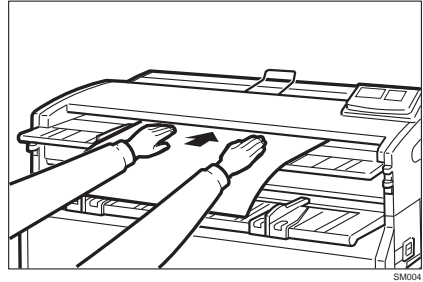
Notes

- You cannot use the Partial Copying function using the Rear Table.
- You cannot use the Partial Copying function for originals shorter than 255 mm.
- If you set the start point within 155 mm from the leading edge of the original, the copier will regard the leading edge as the start point.
- The minimum available space between the start point and the end point is 30 mm.
- If you do not set the end point after setting the start point, the copier will regard the trailing edge of the original as the end point.
- If you set the start point within 40 mm from the trailing edge of the original, the copier will cancel the copying and exit the original.
- If you set the end point within 40 mm from the trailing edge of the original, the copier will regard the trailing edge as the end point.
- In the Synchro Cutting function, the copier will cut the paper in a length from the start point to the end point.
- When selecting the Partial Copying function, the copier will reset the settings for the trailing edge margin, the leading edge margin in the Synchro Cutting function, and the Repeated Copying function.

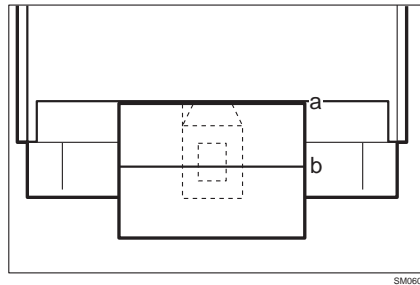
- i** Hold down the Function Select key for three seconds.
A “P” will blink in the copy counter display.



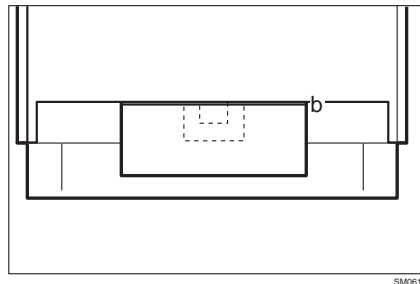
- 2 Slide the paper straight into the copier until it stops, or press the RF select key to turn on the “RF Select” indicator.
- 3 Set the original.



- 4 Press the Function Select key when the leading edge of the area to be copied comes to the position where it is covered with the original table cover.
The “P” will stay on, not blinking.
The copier starts copying.



- 5 Press the Function Select key when the trailing edge of the area to be copied comes to the position where it is covered with the original table cover.
The “P” will start blinking again.



- 6 After the paper has been delivered, press the Clear/Stop key and remove the original.
- 7 Hold down the Function Select key for three seconds to turn the function off. The “P” will disappear.

PROGRAMMING SETTING YOU OF TEN USE

There are two ways of programming settings you often use.

- A) Store the settings in the Program key. When you press this key, the settings will be restored instantly.
- B) Change the default settings to those you use most frequently. Whenever you turn on the machine or press the Clear Modes key, these settings will be ready to use.

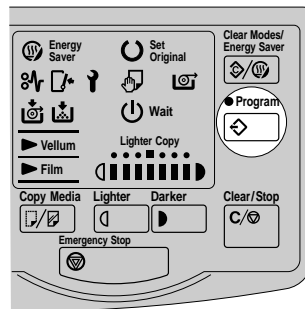
A) Program key

Storing Setting In The Program Key

Notes

❑ The number of copies is not stored in the Program key.

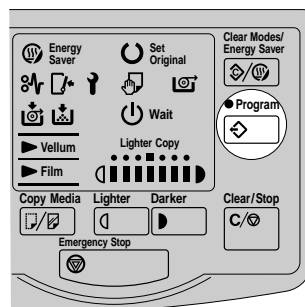
- 1 Press the Program key.
- 2 Input the settings you want to store.



- 3 Make a copy, then press the Program key.

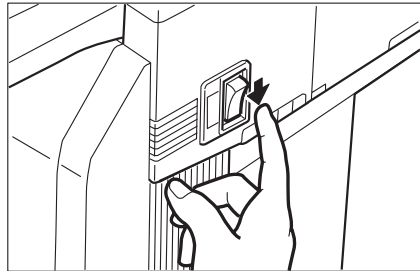
Recalling Settings Stored In The Program key

- 1 Press the Program key before copying.
- 2 Enter the number of copies required with the plus and minus key.
- 3 Make a copy.



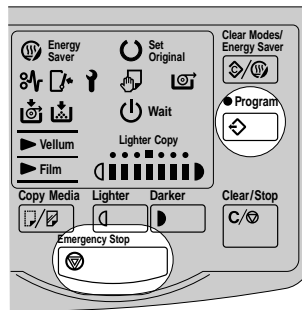
B) Changing The Default Setting

- 1 Turn the main switch off.



SM067

- 2 Hold down the Emergency Stop key, then turn the copier back on.
The jam and service indicators will blink.
- 3 Input the settings you want.
- 4 Turn the main switch off.



The next time you turn the copier on or press the Clear Modes key, the settings you programmed in step 3 will take effect.

USER TOOLS

Access the User Tools to make the following adjustments:

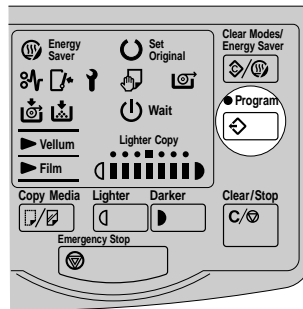
A.1) Magnification Adjustment; Allows you to adjust the degree of vertical magnification of copied image

-1.0 ~ +1.0% (by 0.05% Initial Value: 0)

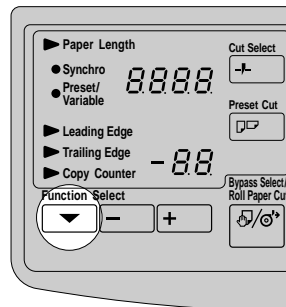
A.2) Cut Length; Allows you to adjust the cut length.

- 25 ~+25mm (-1.0" ~ -1.0") (by 1mm, or 0.1")

- 1 Hold down the Program key for at least 3 seconds.
“A.1” blinks on the “Copy Counter” display.



- 2 If you wish to adjust the Cut Length (A.2), press + key. “A.2” blinks on the display.
- 3 Press the Function key
The “Paper Length” display shows the current value.



- 4 Use the + and - key to change the value
- 5 Press the Program key to return to step 2.
- 6 Press the Clear Modes key to exit this mode.

WHAT YOUR SERVICE REPRESENTATIVE CAN CHANGE

Your service representative can adjust some of your copier's features. Here's a list of changes the service representative can make for you.

- Copy media default: The copy media setting can be adjusted to match the kind of paper you use.
- Count up and count down: The copy counter can be made to count up or count down.
- Beeper: The beeper can be turned off completely; can be turned off for setting the margin, multiple copies, and paper length; or it can be left on to emit a tone whenever a key is pressed.
- Paper feed out waiting time: When the copier is ready to receive the original, it will wait for a preset length of time. If no original is set within this time, the copier will process the copy paper without copying. The time can be set to 1, 2, 3, 4, or 5 minutes.
- Manual feed start time: After copy paper is set, the copier waits for a preset number of seconds before starting the rollers that will pull the paper in. This pause gives you a chance to align the paper. The time can be set to 0.7, 1, 2, 3, 4, or 5 seconds.
- Lead edge increase/decrease speed: The speed at which the lead edge setting scrolls up or down can be changed. The time for one increment (or decrement) can be set to 0.02, 0.05, 0.10, 0.25, or 0.5 second.
- Auto clear time: If the copier is left alone for a while, it will clear itself. The time needed can be changed to 1, 2, 3, 4, or 5 minutes. The function can also be turned off.
- Energy saving: The fusing unit needs to be hot for copying. When the copier is idle, the fusing unit can be kept hot to save time or it can be allowed to cool to save energy. The feature can be set to start automatically, but you can also turn it on yourself by pressing and holding the Clear Modes/Stand-by key for three seconds.
- Screen message: When the copier is idle, the copy counter can be made to display a message. There are five possible messages: "Pre_heat", "Sleeping", "0123456789", "Have a good day", and "Hello I love you". The feature can also be turned off.
- Function step setting: When changing a function setting (margin, multiple copies, or paper length) by holding down the + or -key, the setting will change by a preset value. This value can be changed to 1, 2, 3, or 10 units.

- Paper length count up/down, Paper length up/down speed, and Paper size pattern: When you press the preset length key, the copier scrolls through a selection of preset paper sizes. The copier can scroll through the preset lengths forward or backward, and at different speeds. There are many sets of sizes from which to choose. Ask your service representative for details.

- Original feed out waiting time
You can set the number of minutes before the copier delivers the original automatically when the copier is ready to receive the paper. The time can be set to 1, 2, 3, 4, or 5 minutes. The function can also be turned off.

- Original feed start time
You can set the number of seconds before the rollers start to pull the original in. If the original is often fed obliquely, you can solve the problem by setting a longer pause. The time can be set to 1, 2, 3, 4, 5, 6, or 7 seconds.

- Auto off time
You can set the machine waits after the last operation before switching itself off automatically. The time can be set by minute from 1 to 240 minutes.

4. MAINTAINING YOUR COPIER

CHANGING THE TONER BOTTLE

When “FULL” is displayed, it is time to changing the Toner Bottle.

WARNING:



Do not incinerate used toner, toner bottle or toner cartridge. Toner dust might ignite when exposed to an open flame. Dispose of the toner bottle and the used toner cartridge according to local regulations for plastics.



You must change the toner bottle whenever you see FULL in the copy counter. NEVER clear this condition by only opening and closing the copier or turning it on and off.

Caution:



Do not eat or swallow toner. Keep toner(used or unused), toner bottle, and toner cartridge out of reach of children.

Caution:

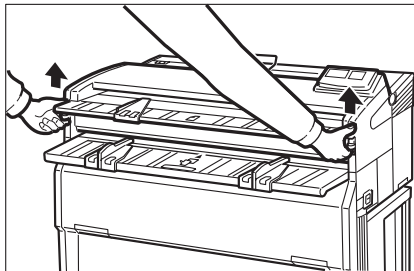


This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.

Notes

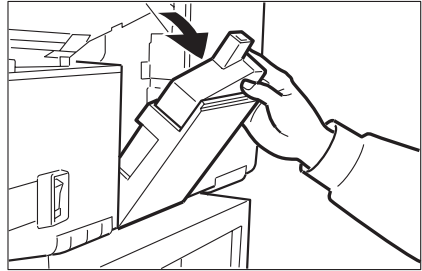
- If the toner bottle overflows, toner particles could get inside the copier and cause damage when you install a new bottle, make sure it is perfectly set in its holder.
- Do not use used toner. This will damage the machine.

- 1 Open the upper unit of the copier.

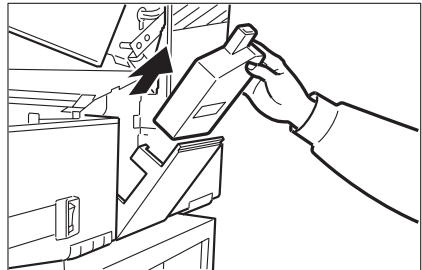


SM011

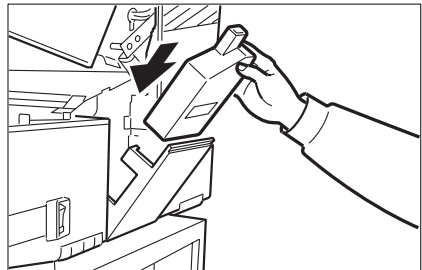
- 2 Open the door on the right side of the copier.



- 3 Carefully remove the plastic bottle.
Put the the used toner in the vinyl bag and dispose of it according to local regulations for plastics.

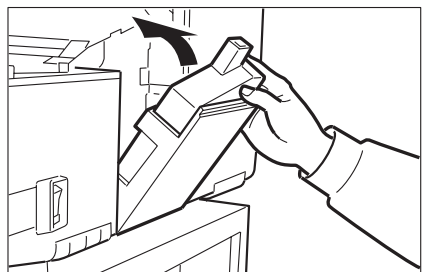


- 4 Place the bottle in the copier again.

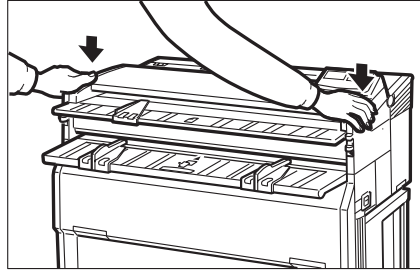


- 5 Close the door.

- 6 Close the upper unit.




- 7 If needed, turn the copier back on, and press the Clear Modes key to clear the FULL message.



SM016

ADDING TONER

When  is displayed, it is time to supply toner.

When the indicator starts blinking, you can still copy about 53 feet of paper (16 m, 27 8½”×11” size copies). When the indicator stays on, you can't copy until a new cartridge is put in.

WARNING:



- **Do not incinerate used toner, toner bottle or toner cartridge. Toner dust might ignite when exposed to an open flame. Dispose of the toner bottle and the used toner cartridge according to local regulations for plastics.**

Caution:



- Do not eat or swallow toner.
- Keep toner(used or unused), toner bottle, and toner cartridge out of reach of children.

Caution:

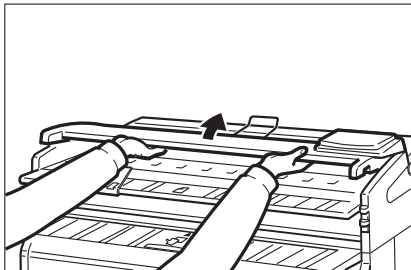


- This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.

Notes

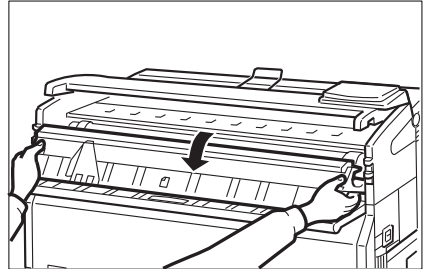
- If you use toner other than that recommended, a fault might occur.
- When adding toner, do not turn off the main switch. If you do, your settings are cleared.
- Always add toner after the machine instructs you to add toner.
- Do not use used toner. This will damage the machine.

- 1 Pull down the Bypass Table. Then lift the original table until it locks in place.

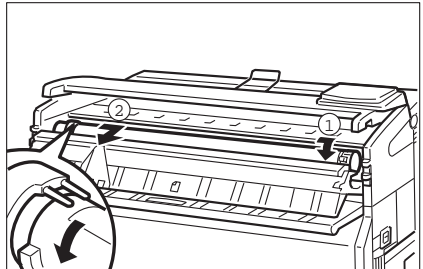


SM017

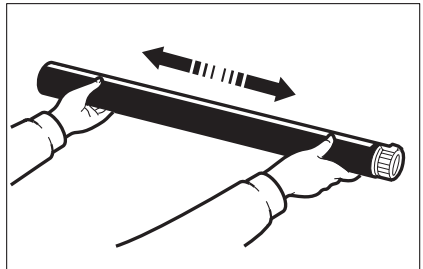
2 Open the toner cartridge cover.



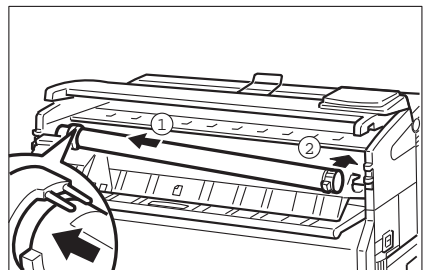
- 3** Turn the old cartridge towards you. Then, while pressing the cartridge to the right, lift the left end and remove the cartridge.
- 4** Put the old toner cartridge in a vinyl bag and dispose it according to local regulations for plastics.



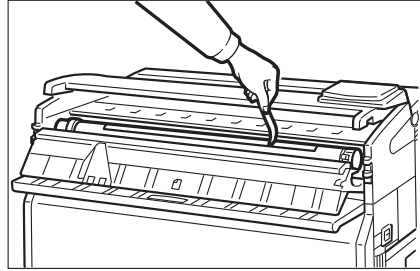
5 Shake the new toner cartridge lightly 5 to 6 times to remove lumps.



6 Install the new cartridge. Make sure that the white circle labeled 1 on the cartridge faces up. Make sure the cartridge is set well but don't push it in yet.

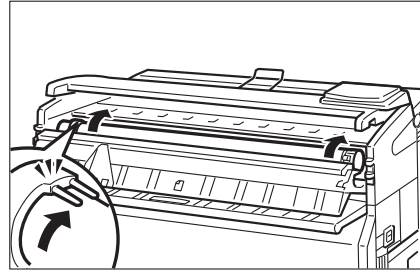


- 7 Take the right edge of the seal and slowly remove it.



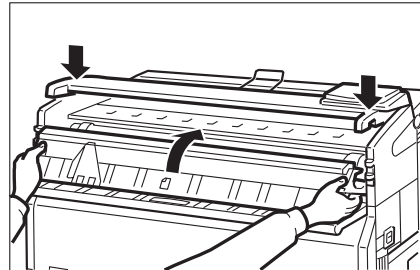
SM023

- 8 Push the toner cartridge all the way to the left. Then turn the toner cartridge all the way in, as shown.




SM024

- 9 Close the toner cartridge cover and the Original Table.
The copier will need a few moments to warm up before it is ready to copy.



SM025

LOADING A ROLL OF PAPER

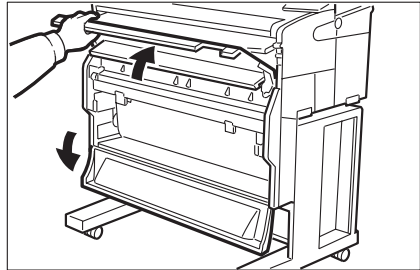
When  is displayed, it is time to install a new roll of paper.

⚠ CAUTION:



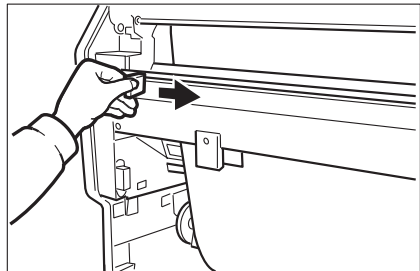
- *Rolls of paper can be heavy, so you should be careful when loading one. Don't strain yourself. Ask for help if you think you need it.*

- 1** Open the top and bottom covers of the Roll Feeder.



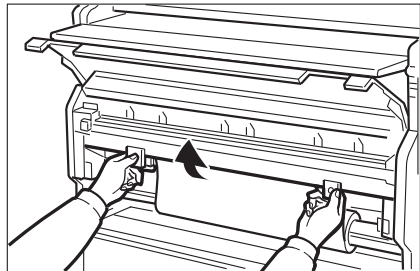
SM026

- 2** If there is paper left, slide the blade from side to side and gently pull the paper out of the copier.



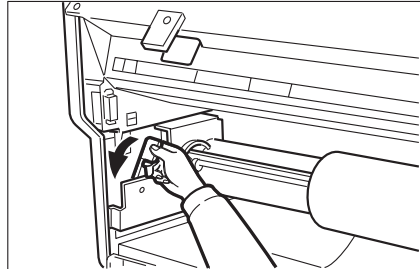
SM027

- 3** Unlock and lift the top unit of the Roll Feeder.
- a) Hold the handles on each side.
 - b) Squeeze and hold the lock on the left.
 - c) Raise the unit just a bit.
 - d) Hold on to the unit, but let go of the lock.
 - e) Raise the unit until it locks in place.



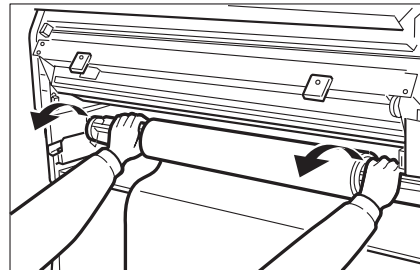
SM028

- 4 Flip the two latches on each side of the paper spool.



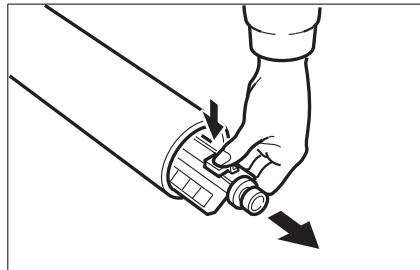
SM029

- 5 Remove the spool.



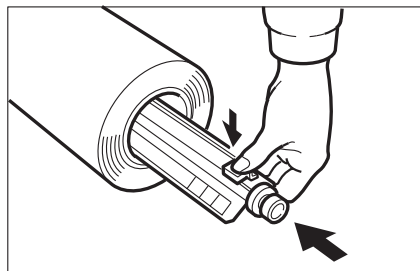
SM030

- 6 Press and hold the lock on the spool and pull the spool out of the roll. Throw the old roll away.



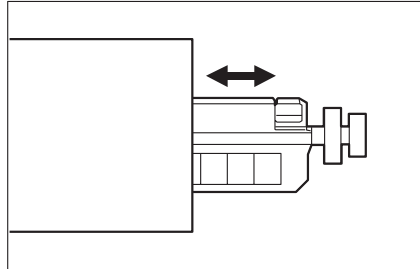
SM031

- 7 Press and hold the lock on the spool and insert the spool into a new roll.



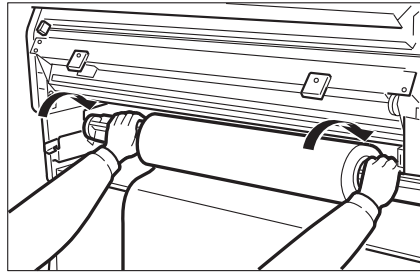
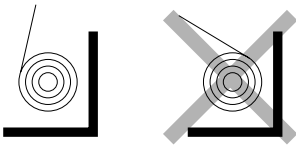
SM032

- 8 While holding the lock down, align the paper roll with the size marks on the spool.



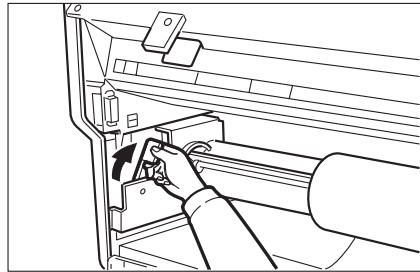
SM033

- 9 Load the spool back in the Roll Feeder so that the paper comes off the roll from the front, not from the rear, as shown below.



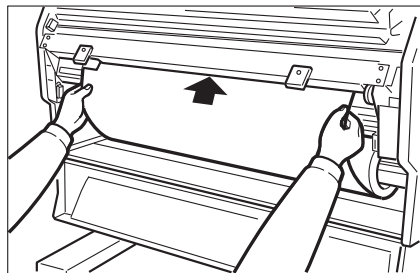
SM034

- 10 Make sure the spool is pushed all the way in the grooves and flip the two latches back in place.



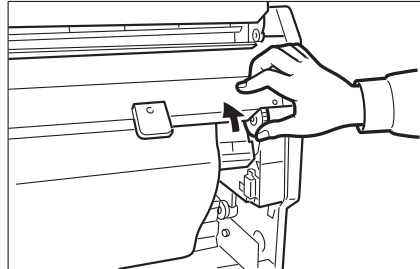
SM035

- 11 Pull the leading edge of the paper roll and slide the paper into the slot just under the top unit locks. Make sure the paper is aligned with the marks on the unit.



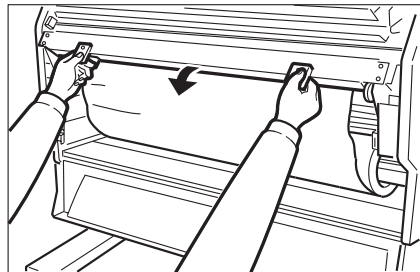
SM036

- 12 Turn the wheel on the right side to bring the paper further in.



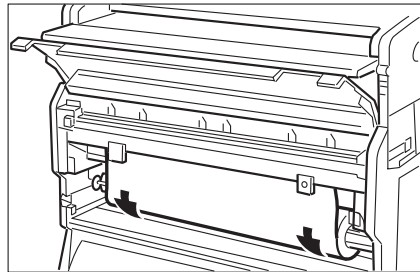
SM037

- 13 Lower the top unit of the Roll Feeder.
 - a) Hold the two handles.
 - b) Squeeze and hold the lock on the left.
 - c) Lower the unit just a bit.
 - d) Hold on to the unit, but let go of the lock.
 - e) Lower the unit until it locks in place.



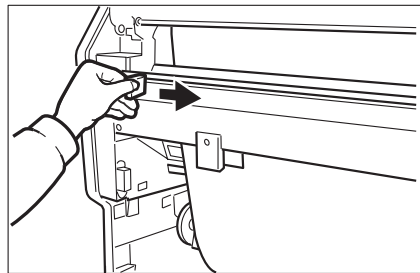
SM038

- 14 Spin the paper roll a bit to tighten the paper.



SM039

- 15 Slide the blade from side to side and gently pull the paper out of the copier.
- 16 Close the Roll Feeder covers.



SM027







5. TROUBLESHOOTING

If Something Goes Wrong

If you have problems with your copier, consult the following pages. If a service indicator lights up, read the section below; if the original or the copy is stuck in the copier; see page 50; if the copier won't start, or if copies don't look right, see page 56.

If A Service Indicator Lights Up

If one of the service indicators shown appears on the operation panel, turn to the appropriate page and follow the instructions described there.

What appears	What it means	What to do
	The original or copy paper is jammed somewhere.	See the following section.
	The copier needs a technician.	Call your technical service center.
	A cover, unit, or the fusing unit cover was left open.	Close it. Press firmly.
	The paper roll is finished.	Put in a new roll of paper. See page 45.
	The toner cartridge is empty, or almost empty.	Replace the toner cartridge. See page 42.
	Wait until the ready indicator lights.	Wait. If it stays on for an unusually long time, call your technical service center.
FULL	The used toner bottle is full.	Empty the used toner bottle. See page 39.

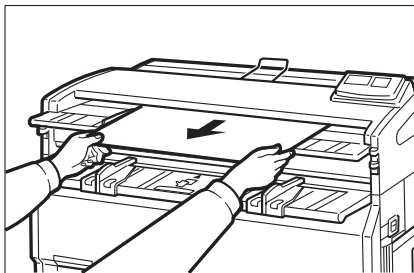
IF JAMS OCCUR

If the original is jammed in the feed-in slot

Notes

- If the paper or original gets stuck in the copier, remove both the original and paper.

Very gently pull the original out of the **feed-in** slot. Be careful not to tear it.



⚠ CAUTION:



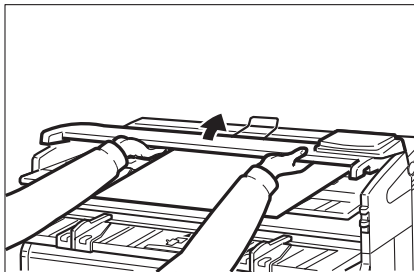
- If the original sticks in the machine, or if you don't think you can remove it without tearing, remove the original from the exit instead. See below.

If the original is jammed at the exit

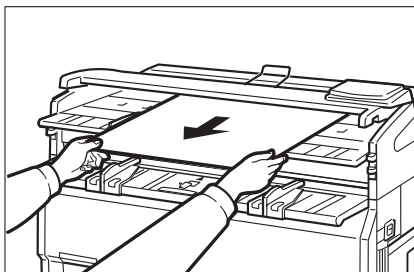
Notes

- If the paper or original gets stuck in the copier, remove both the original and paper.

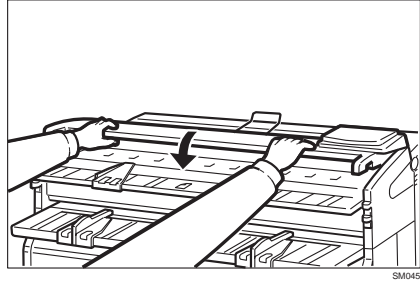
- 1 Lift the Original Table.



- 2 Very gently pull the original out of the **feed-out** slot. Be careful not to tear it.



- Close the original table. Press firmly on both sides until it clicks into place.

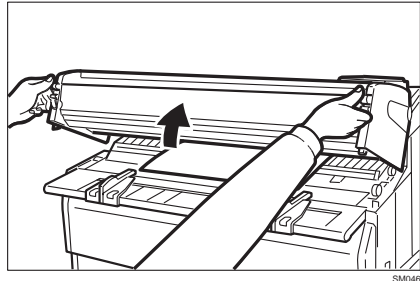


If sheet paper is jammed in the feed-in slot

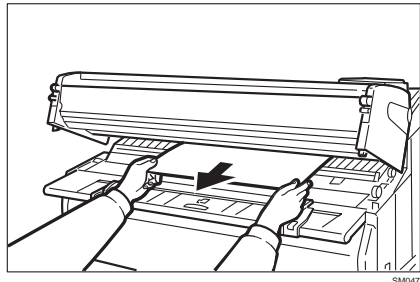
Notes

- If the paper or original gets stuck in the copier, remove both the original and paper.

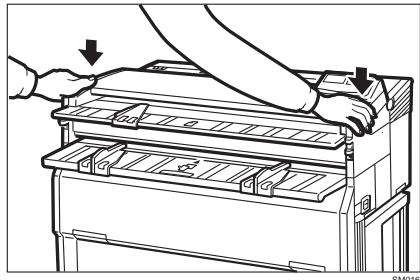
- Squeeze the locks on each side of the copier and lift the unit.



- Pull out the copy paper. Do not leave any scraps of paper in the copier.



- Close the unit. Press firmly on both sides until it clicks into place.



If sheet paper is jammed at the paper exit

CAUTION:

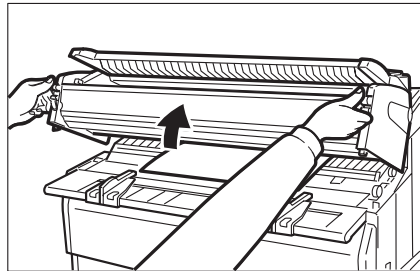


- *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*

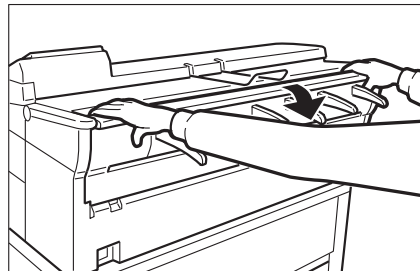
Notes

- If the paper or original gets stuck in the copier, remove both the original and paper.

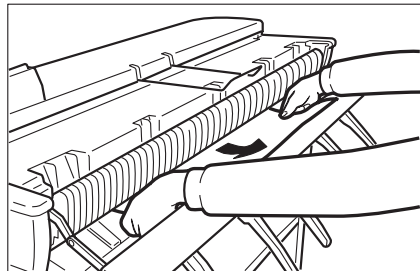
- 1 Squeeze the locks on each side of the copier and lift the middle unit between the Original Table and the Bypass Table.



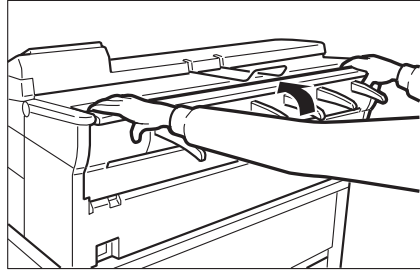
- 2 Open the fusing unit cover.



- 3 Slowly pull the paper out. If there are scraps left inside, open the inner cover, wait for the copier to cool, and remove the scraps.



- 4 Close the unit and all covers. Press firmly on both sides until it clicks into place.



If roll paper jams

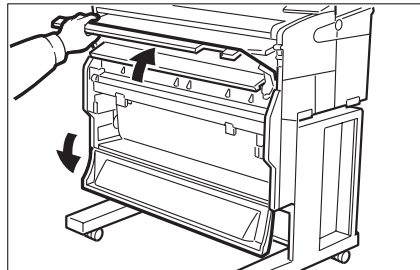
If roll paper jams anywhere in the machine, you still might need to check everywhere to remove the entire length of paper.

⚠ CAUTION:

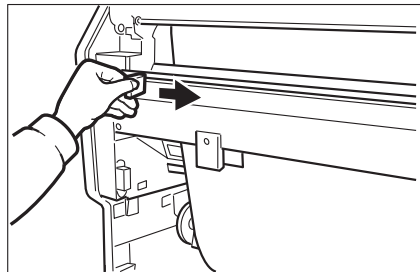


- *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*

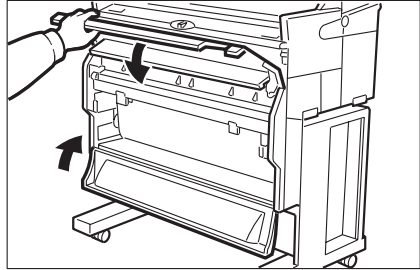
- 1 Open the roll feeder top cover.



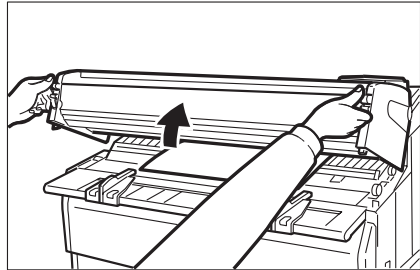
- 2 Slide the blade across.
- 3 If you can, pull the paper out of the copier.



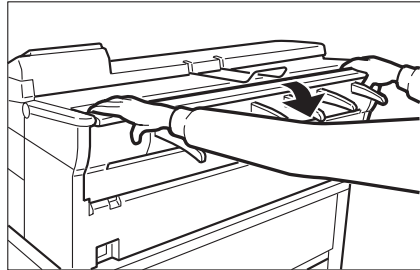
- 4 Close the roll feeder top cover.
If you were able to remove all the paper, stop here.



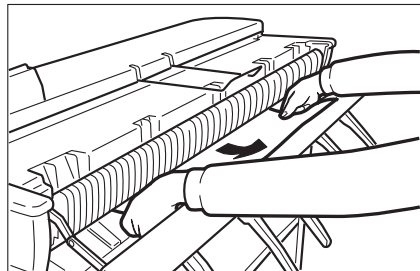
- 5 Squeeze the locks on each side of the copier and lift the unit.



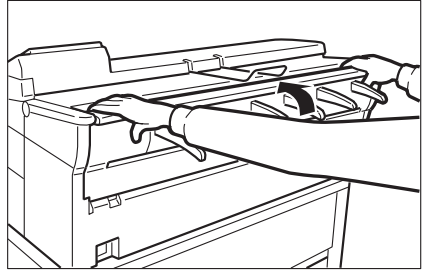
- 6 Open the fusing unit cover.



- 7 Slowly pull the paper out. If there are scraps left inside, open the inner cover, wait for the copier to cool, and remove the scraps.



- Close the unit and all covers. Press firmly on both sides until it clicks into place.



SM050

OTHERS

If a puzzling or recurring problem occurs, check the following before calling a service representative. It's also a good idea to check the Do's and Don'ts section on page 59 to make sure the paper and originals match what the copier can handle.

Absolutely nothing happens

- Is the main switch on?
- Is the cord plugged in?
- Did a breaker or a fuse blow out?

Something happens, but Set Paper or RF Select never appear

- Check the indicators on the control panel. If any of them are lit, turn to page 49. Check that all covers and units are closed.

If Jams Occur Frequently

- Is your paper creased, damp, or otherwise damaged? See page 10.
- Are there visible bits of paper or other objects stuck in the machine? If there are, remove them.
- Are you inserting the paper and original in straight? Always feed paper in straight.

If Copies Look Wrong

- Are copies too dark or too light? Adjust the density (see page 27).
- Is the background dirty no matter what kind of original you are copying? Make sure the exposure glass and platen are clean (see page 58).
- Is the image skewed? Make sure to insert the paper and the original straight into the machine. If you have the Original and Copy Guides (option), use them.

White spots appear

- On the copy: try setting your copy paper with the other side facing up.
- At the leading edge: try setting your copy paper sideways.
- At the trailing edge: try giving a rising curl to the trailing edge. The curl should go up, not down.

Creases

- Try setting your copy paper sideways.
- If long runny creases appear on copies, try setting your copy paper sideways, or try changing the copy media setting.
- If creases appear on copies made to transparent film, try setting your film sheets sideways.

Copies come out dog eared

- Try setting your copy paper with the other side facing up.
- Make sure your copy paper is undamaged.

Black streaks appear on copies

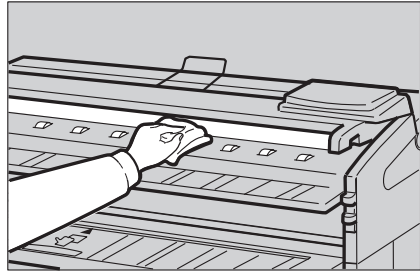
- Check that the exposure glass is clean.

THINGS TO DO EVERY DAY

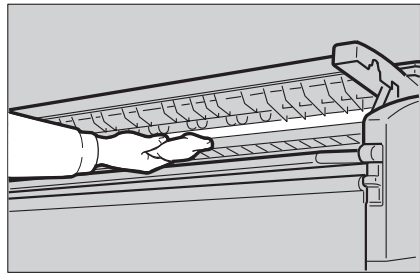
Clean the exposure glass & the platen plate

you should clean the copy and original tables with a damp cloth, then wipe them with a dry cloth.

- Clean the exposure glass and the Original Drive Roller with a damp cloth, then wipe it with a dry cloth.



- Clean the platen plate with a damp cloth, then wipe it with a dry cloth.



DO'S & DON'TS

CAUTION:



- *When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.*
- *When the machine will not be used for a long time, unplug the power cord.*

- Do not touch areas on or around the fusing unit. These areas get hot.
- After making copies continuously, you may feel the exposure glass is heated. But this is not a malfunction.
- You may feel warm around the ventilation hole. This is caused by exhaust air, and not a malfunction.
- Do not turn off the main switch while copying. When turning off the main switch, make sure that copying is completed.
- The machine might fail to produce good copy images if there should occur condensation inside caused by temperature change.
- Do not open the covers of machine while copying. If you do, misfeeds might occur.
- Do not move the machine while copying.
- Supplier shall not be liable for any loss or damages resulting from a failure on the machine, loss of machine settings, and use of the machine.

- Do not set more than one sheet of paper at a time on the copy paper table.
- Center your paper on the copy table using the size marks. Then slide the paper straight into the copier until it stops.
- When copying to a long sheet of paper, lightly hold the sheet as the copier pulls it in so that it goes in well.
- Do not make two sided copies.
- If you open the unit make sure you close it within 5 minutes to keep light from damaging the copy drum.
- When copying to sheets 35" × 45" (90 cm × 115 cm) or more, make sure the paper does not drag directly on the floor as the copier pulls it in. (You can spread some paper on the floor for this.)
- If your paper has an uneven or slanted edge, do not insert this edge in first.
- Do not make copies longer than 80 inches (2 m).
- Do not insert originals made of paper less the 52.3 g/m² (13.9 lb, or 0.07 mm). For such originals, please use the optional Carrier Sheet.

WHERE TO PUT YOUR COPIER

Your copier needs to be installed by a qualified technician. If you need to transport your copier to a distant location, call your service center before the move.

You can of course move your copier around your office without calling the service center. If you do, remember that the temperature, humidity, and cleanliness of the area around the copier may affect its performance. Choose the new location with care and follow the guidelines below.

Machine Environment

Your machine's location should be carefully chosen because environment conditions greatly affect its performance.

Optimal environmental conditions

⚠ CAUTION:



- *Keep the machine away from humidity and dust. A fire or an electric shock might occur.*
- *Do not place the machine on an unstable or tilted surface. If it topples over, it could cause injury.*

⚠ CAUTION:



- *If you use the machine in a confined space, make sure there is a continuous air turnover.*

- Temperature: 50° to 86°F (15° to 30°C)
- Humidity: 50 to 80% RH
- To avoid possible ozone build-up make sure to install this copier in a large well ventilated room ensuring an air turnover of at least 1000 ft³/hour/person (30 m³).
- Set your copier on a strong and level base. The copier must be level within less than a quarter of an inch (5 mm) left to right and less than half an inch (10 mm) front to rear.

Environments to avoid

- Locations exposed to direct sunlight or strong light (more than 1500 lux);
- Dusty areas.
- Areas with corrosive gasses.
- Altitudes of over 6500 feet (2000 m) above sea level;
- Areas prone to strong vibrations.
- Locations directly exposed to cool air from an air conditioner or heat from a nearby heater.
(Sudden temperature changes may lead to condensation within the copier.)
- Locations nearby diazo copy machine.

Power connection

WARNING:



- **Only connect the machine to the power source described on the inside front cover of this manual.**

WARNING:



- **Avoid multi-wiring.**
- **Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.**
- **Do not plug or unplug the power cord with your hands wet. Otherwise, an electric shock might occur.**

WARNING:



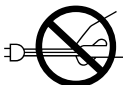
- **Make sure the wall outlet is near the machine and freely accessible so that in event of an emergency it can be unplugged easily.**

CAUTION:



- **When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.**
- **When the machine will not be used for a long time, unplug the power cord.**

CAUTION:

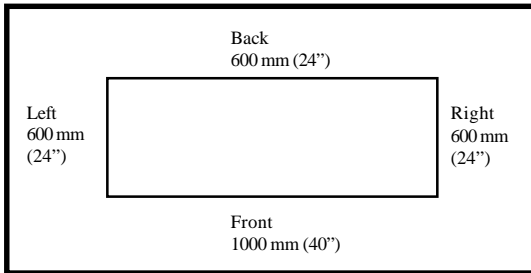


- **When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.**

- Connect the copier to a power source meeting the specifications given on the inside front cover of this manual.
- Do not set anything on the power cord.
- Voltage must not fluctuate more than 10%.
- Make sure the copier is grounded.
- Make sure the plug is firmly inserted into the power outlet.
- Make sure the power outlet is close to the copier and easily accessible at all times.




Access To Machine

Place the copier near a power source and provide clearance as shown.



6. SPECIFICATIONS

COPIER

Configuration	Console
Process	Dry electrostatic transfer system
Scanning	Original moving over a fixed fiber optics array
Originals	Sheet
Original Reference Position	Center
Original Size	Maximum: 914 (W) × 2,000mm (L) (36" × 80") Minimum: A4  (210 (W) × 297mm (L)) (8.5" × 11")
Copy Size	Maximum: 914 (W) × 2,000mm (L) (36" × 80") Minimum: A4  210 (W) × 297mm (L) (8.5" × 11")
Warm-up Time	Within 5 minutes at a room temperature of 74°F (23°C)
First Copy	Within 30 seconds(A1  , 23"×35".)
Copying Speed	3000mm (118.1") per minute
Automatic reset	2 minutes (can also be turned off or set to 1, 3, 4m or 5 minutes)
Reproduction Ratio	Fixed: 1 to 1
Paper Feed	manual feed/optional roll feeder
Multiple Copies	Up to 10
Toner replenishment	Cartridge system
Self-diagnostic codes	LED indicators
Power Source	North America: 120V, 60Hz, 12A
Power consumption	Maximum 1.4kW
Noise emission	Stand by, less than 57dB Copy cycle, less than 75dB (copier only)

Measurements made following ISO7779

Dimension (W × D × H)	1,080 × 803 × 480mm (42.5" × 31.6" × 18.9")
Weight	80kg (176.2lb)

OPTIONS

- **Roll feeder**

Number of loaded paper rolls	1 roll
Acceptable Roll Size	Maximum: 914mm (36") Minimum: 210mm (8.5")
Roll Diameter	Within 170mm (6.7")
Dimension (W × D × H)	1,080 × 475 × 295mm (42.5 × 18.7 × 11.6")
Weight	33kg (73lb)

- **Side Guides**

- **Table**

- **Copy Stacker**

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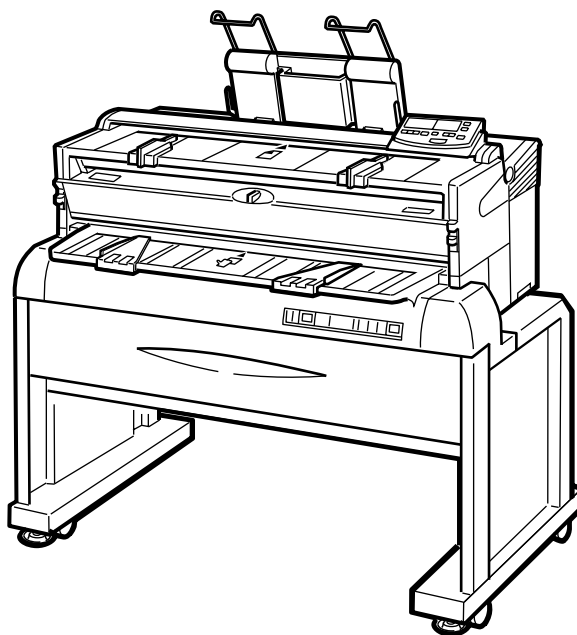
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RICOH

FW770

Operating Instructions



ZFBH010E

Read this manual carefully before you use this product and keep it handy for future reference.

For safety, please follow the instructions in this manual.

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Introduction

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

Please read the Safety Information before using this machine. It contains important information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.



Notes:

Some illustrations might be slightly different from your machine.

Certain options might not be available in some countries. For details, please contact your local dealer.



Warning:

Use of controls or adjustment or performance of procedures other than those specified in this manual might result in hazardous radiation exposure.

Two kinds of size notation are employed in this manual. With this machine refer to the metric version.

For good copy quality, Ricoh recommends that you use genuine Ricoh toner.

Ricoh shall not be responsible for any damage or expense that might result from the use of parts other than genuine Ricoh parts in your Ricoh office product.

Power Source

220V - 240V, 50/60Hz, 7A

Please be sure to connect the power cord to a power source as above. For details about power source, ⇒ P.75 "Power Connection"

Where symbols are used on or near switches, they mean as under in accordance with IEC 60417:

I means **POWER ON.**


⏻ means **STAND BY.**


Safety Information

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

Safety During Operation

In this manual, the following important symbols are used:

 **WARNING:**
Indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury.

 **CAUTION:**
Indicates a potentially hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to property.

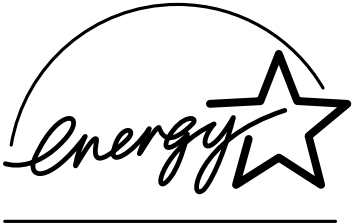
⚠ WARNING:

- Connect the power cord directly into a wall outlet and never use an extension cord.
- Only connect the machine to the power source described on the inside front cover of this manual.
- Avoid multi-wiring.
- Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.
- Do not plug or unplug the power cord with your hands wet. Otherwise, an electric shock might occur.
- Disconnect the power plug (by pulling the plug, not the cable) if the power cable or plug becomes frayed or otherwise damaged.
- Make sure the wall outlet is near the machine and freely accessible so that in event of an emergency it can be unplugged easily.
- Turn off the power and disconnect the power plug (by pulling the plug, not the cable) if any of the following conditions exists:
 - You spill something into the equipment.
 - You suspect that your equipment needs service or repair.
 - Your equipment's cover has been damaged.
- Do not take apart or attempt any modifications to this machine. There is a risk of fire, electric shock, explosion or loss of sight. If the machine has laser systems, there is a risk of serious eye damage.
- To avoid hazardous electric shock or laser radiation exposure, do not remove any covers or screws other than those specified in this manual.
- Some parts of the machine are at a high voltage and could give you an electric shock. Also, if the machine has laser systems, direct (or indirect) reflected eye contact with the laser beam may cause serious eye damage. When the machine needs to be checked, adjusted, or repaired, contact your service representative.
- Do not keep using the machine with a fault or defect. Contact your service representative.
- If the machine looks damaged or breaks down, smoke is coming out, there is a strange smell or anything looks unusual, immediately turn off the operation and main power switches then unplug the power cord from the wall. Do not continue using the machine in this condition. Contact your service representative.
- Do not put any metal objects or containers holding water (e.g. vases, flowerpots, glasses) on the machine. If the contents fall inside the machine, a fire or electric shock could occur.
- Do not incinerate spilled toner or used toner. Toner dust might ignite when exposed to an open flame.
- Disposal can take place at our authorized dealer or at appropriate collection sites.
- Dispose of the used toner cartridge in accordance with the local regulation.

⚠ CAUTION:

- When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.
- Unplug the power cord from the wall outlet before you move the equipment. While moving the equipment, you should take care that the power cord will not be damaged under the equipment.
- When the machine will not be used for a long time, unplug the power cord.
- If you use the machine in a confined space, make sure there is a continuous air turnover.
- Keep the machine away from humidity and dust. A fire or an electric shock might occur.
- Do not place the machine on an unstable or tilted surface. If it topples over, it could cause injury.
- After you move the machine, fix it with the caster fixture. Otherwise, the machine might move or come down to cause a personal injury.
- Protect the equipment from dampness or wet weather, such as rain, snow, and so on.
- Do not allow paper clips, staples, or other small metallic objects to fall inside the equipment.
- Do not reuse stapled paper. Do not use aluminum foil, carbon-containing paper or other conductive paper. Otherwise, a fire might occur.
- Do not eat or swallow toner.
- Keep toner (used or unused) and toner bottle out of the reach of children.
- For environmental reasons, do not dispose of the equipment or expended supply waste at household waste collection points. Disposal can take place at an authorized dealer or at appropriate collection sites.
- When removing misfed paper, do not touch the fusing section because it could be very hot.
- Do not touch the anti-humidity switch from inside the machine because it could be very hot.
- The inside of the machine could be very hot. Do not touch the parts with a label indicating the “hot surface”. Otherwise it could cause a personal burn.
- Rolls of paper can be heavy, so you should be careful when loading one.
- This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.
- Our products are engineered to meet high standards of quality and functionality, and we recommend that you only use the expendable supplies available at an authorized dealer.
- This equipment is only to be installed by a qualified service personnel.

ENERGY STAR Program

	<p>As an ENERGY STAR Partner, we have determined that this machine model meets the ENERGY STAR Guidelines for energy efficiency.</p>
---	--

The ENERGY STAR Guidelines intend to establish an international energy-saving system for developing and introducing energy-efficient office equipment to deal with environmental issues, such as global warming.

When a product meets the ENERGY STAR Guidelines for energy efficiency, the Partner shall place the ENERGY STAR logo onto the machine model.

This product was designed to reduce the environmental impact associated with office equipment by means of energy-saving features, such as Low-power mode.

- **Auto Off Mode**

To conserve energy, this product automatically turns off 1 minutes after the last copying or printing job has been completed. Printing is available in this mode, but if you use the copier, press the main switch.

For how to change the default interval before entering Auto Off mode, see “Auto Off Time” ⇒ P.38 “User Tools”

❖ **Specification**

		FW770
Auto Off mode	Power consumption	1.0 W
	Default interval	30 minute

 **Recycled Paper**

Please contact your sales or service representative for recommended recycled paper types that may be used in this machine.

How to Read this Manual

Symbols

In this manual, the following symbols are used:

WARNING:

This symbol indicates a potentially hazardous situation that might result in death or serious injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

CAUTION:

This symbol indicates a potentially hazardous situation that might result in minor or moderate injury or property damage that does not involve personal injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

* The statements above are notes for your safety.

Important

If this instruction is not followed, paper might be misfed, originals might be damaged, or data might be lost. Be sure to read this.

Preparation

This symbol indicates the prior knowledge or preparations required before operating.

Note

This symbol indicates precautions for operation, or actions to take after misoperation.

Limitation

This symbol indicates numerical limits, functions that cannot be used together, or conditions in which a particular function cannot be used.

Reference

This symbol indicates a reference.

[]

Keys that appear on the machine's panel display.

[]

Keys built into the machine's operation panel.

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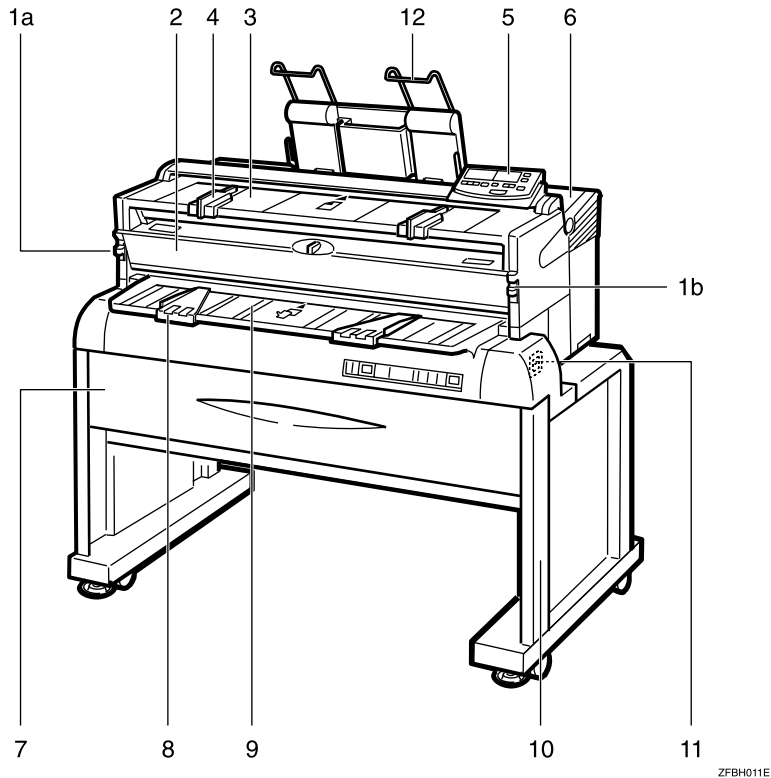
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Guide to Components

Copier Exterior



1. Locks

Squeeze both locks(1a&1b) to open the unit. Open the unit to empty the used toner bottle and to remove jammed paper.

2. Front Cover

Open the cover (and the unit) to access the toner cartridge.

3. Original Table

Place your original face up here. If you want to copy a stiff original that can't be bent, use the rear table (see 6).

4. Original Guides

Use the guide to keep the original straight as you feed the original into the copier.

5. Operation Panel

⇒ P.3 “Operation Panel”.

6. Rear Table

Place stiff originals face down here.

7. Roll Feeder (option)

Feeds paper from a roll to the copier.

8. Paper Guides

Use the guides to keep the copy paper straight as you feed it into the copier.

9. Bypass Table

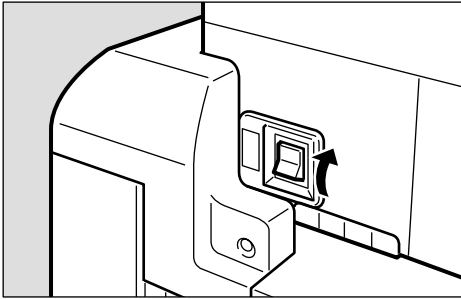
Use this table when you want to make copy one by one.

10. Table (option)

Holds your copier and the Roll Feeder.

11. Main switch

Use this switch to turn the copier on and off. The copier will need about 3 minutes to warm up, if it's been turned off for a long time.

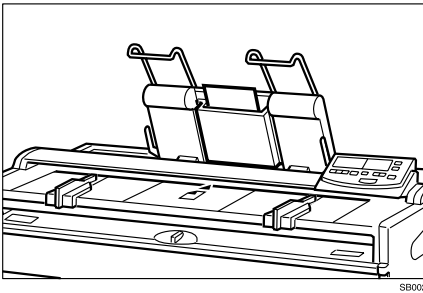


12. Copy Exit Guide

Makes sure the copies don't fall off as they come out.

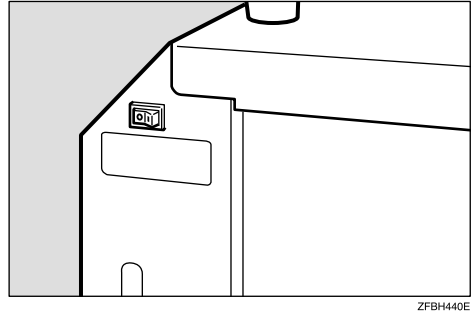
Note

- Set the manual pocket as shown in the figure.

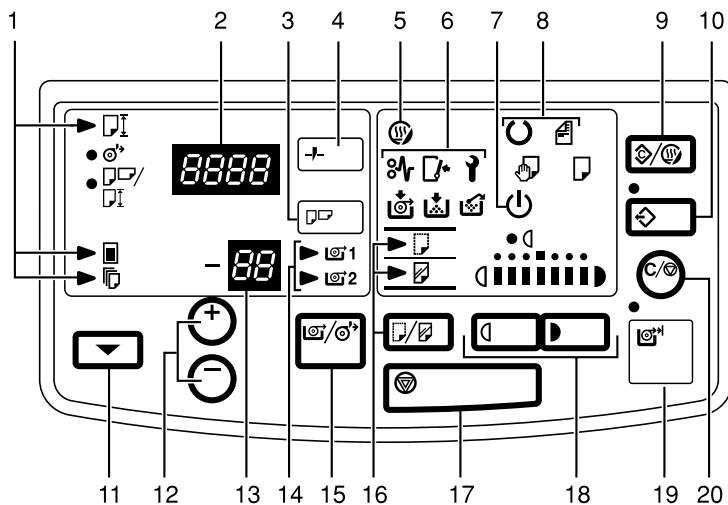


13. Anti-humidity Heater Switch

When humidity is high, the paper in the paper roll tray may absorb moisture, which can effect the image quality of your copies. The anti-humidity heater prevents this. Turn on this switch, which is located rear left corner of the machine, when humidity is high.⇒ P.9 “Anti-humidity Heater”



Operation Panel



ZFBS010E

1. Function indicators

These indicators show which setting you are currently editing. Press the Function key to cycle through them.

- The top indicator (Paper Length indicator) lights when the paper length is being set.
- The middle indicator (Leading Edge indicator) lights when the leading margin is being set.
- The bottom indicator (Copy Counter indicator) lights when the number of copies is being set.

2. Paper Length display

Shows the length of paper the Roll Feeder will send.

3. [Preset Cut] key

Press to scrolls through the preset paper lengths for the Roll Feeder.

4. [Cut Select] key

Turns Semi synchro Cut or Preset/Variable Cut on and off.

5. Energy Saver indicator

Shows that the machine is in a state of wait (Energy Saver). Press key 9.

6. Troubleshooting indicators

⇒ P.61 "Troubleshooting" for details.

7. Wait indicator

Shows that the copier is not yet ready to copy.

8. Ready (○), Set Original (□), Set Paper (□), Bypass Select (□) indicator.

When **Ready** indicator lights up, you can set paper. The **Set Paper** indicator on the left lights, and then **Bypass Select** indicator goes on.

9. [Clear Modes/Energy Saver] key

Cancels all of current settings. When you hold down this key for three seconds or more, the copier enters the Energy Saver mode allowing you to conserve power.

To exit Energy Saver mode, press this key again.

10. [Program] key

Allows you to recall or set a program.

The program indicator(LED) lights after you store the setting.

11. [Function Select] key

Press to change which setting you are editing. The current selection is shown by the indicators above the key:

- Paper Length
- Leading Edge
- Copy Counter

Also used for copying a selected portion of the original.

12. [+] and [-] key

Press to increase the value being edited.

Press to decrease the value being edited.

13. Leading Edge/Copy Counter indicator

Displays the margin settings and the number of copies made.

14. Roll Feeder indicator

Light up when you select Roll Feeder 1 or 2.

15. [RF Select/Cut] key

Use to select the paper feed type (when the Roll Feeder option is installed). Also press to stop a copy job.

16. [Copy Media] key

Press to select the type of copy paper you are using.

The copier will apply more or less heat accordingly.

- The top indicator-Translucent paper indicator
- The bottom indicator-Film indicator

17. [Emergency Stop] key

Press to stop the copying process immediately.

Use if your original is getting stuck in the copier.

If you stop operation by pressing this key, remove both the original and paper.

18. Density indicator and [D], { D }keys

Shows the density level the copies will have.

Press the left key to make copies lighter.

Press the right key to make copies darker.

19. [Paper Feed]key

Press to feed the paper.

Paper Feed indicator(LED) lights up when the machine is ready to feed roll paper.

20. [Clear/Stop] key

When entering numbers, press to cancel.

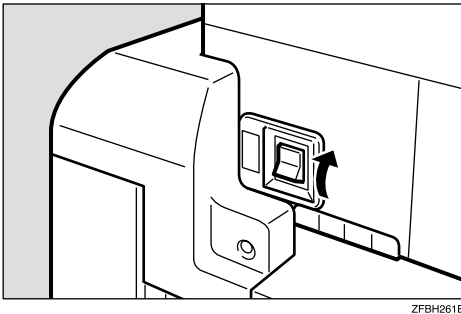
While copying, press to stop copying.

Turning on the Power

To turn the machine on, press the main switch.

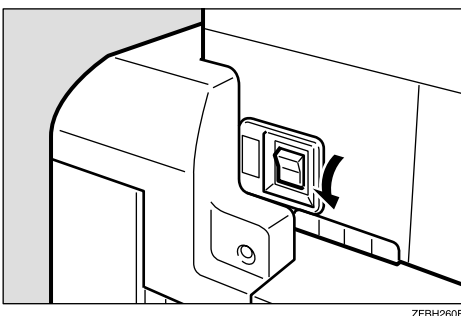
Turn On the Main Power

- 1** Make sure that the power cord is firmly plugged into the wall outlet.
- 2** Turn on the main switch.



Turn Off the Main Power

- 1** Turn off the main switch.

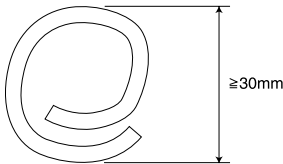


Recommended Originals

- You can set originals with weight in the range 21g/m² (6 lb) to 157 g/m² (41 lb).
- You can set original with sizes between 914×3,000mm (W×L), 36"×118" and 210×297mm (W×L), 8.5"×11". (The maximum width that can be fed: 960mm, 38.4")
- Fix the curl of originals to within the following range.
 - For the curl of the leading edge and the trailing edge: R50mm (2.0") or more, H20mm (0.8") or less



- For the curl of the whole paper: ϕ 30mm (1.2") or more



- When you copy the following originals, set them in the rear table:
⇒ P.17 "Using the Rear Table"
 - Thick originals (0.19mm~3mm)
 - Originals which cannot be folded.
 - Originals less than 297mm (11") in width and more than 1,200mm (48") in length.
- When you copy the following originals, use the Carrier Sheet (option) to set them:
 - Piled originals
 - Folded originals
 - Taped or pasted originals
 - Originals which have a hole near the leading edge 40mm (1.6") to the right or left of the center
 - Dog-eared originals
 - Creased, torn, or clipped-out originals
 - Wavy originals
 - Pasted originals
 - Originals whose leading edge is not straight
 - Curled originals

Non-recommended Originals

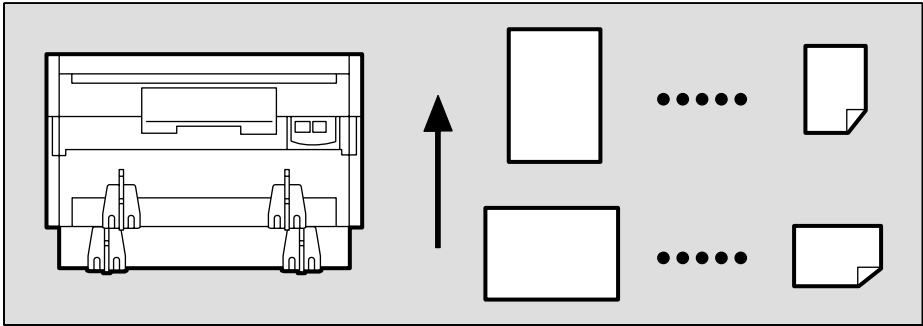
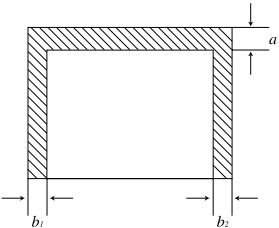
- The following types of originals are not recommended.
 - Wet originals
 - Originals with cardboard stuck on the leading edge
 - Originals with clips or staples
 - Originals with wet ink or white-out
 - Carbon paper
 - Originals made of materials other than paper or film (thermosensitive paper, aluminum foil, etc.)

1

Notes for Leading and Side Edge of the Originals

Margins on the leading and side edges of originals are not copied as shown in the illustration.

- $a=0\pm 3\text{mm}$ (0.12")
- $b_1+b_2<0\pm 2\text{mm}$ (0.08") (A1☑)



SB042

Recommended Paper

1

- Standard paper sizes that can be used in this copier are shown below.

Metric version	Inch version	Bypass	Roll Feeder
A0	E (36"×48")	☐	☐
A1	D (24"×36")	☐☐	☐☐
A2	C (18"×24")	☐☐	☐☐
A3	B (12"×18")	☐☐	☐☐
A4	A (9"×12")	☐	☐

- When you make a copy on a non-standard size of paper, set the paper on the Copy Paper Table.
- Weight of paper suitable for this copier: 51g/m², 14lb to 134g/m², 36lb.
- Do not use the following kinds of paper or a paper jam might occur.
 - Bent, folded, or creased paper
 - Torn paper
 - Perforated paper
 - Non-smooth paper
 - Slippery paper
 - Thin paper that has low stiffness
- Do not make a copy on paper with any kind of coating, such as thermosensitive paper, art paper, aluminum foil, and carbon paper.
A fault might occur.
- Do not use paper with strong curls at the edges or corners. (Curls rising more than 5mm (1/4") or falling more than 20mm (3/4") over a 40mm (1.5") radius.)
- When you make copies on film, take out the copies delivered to the copy guide one sheet at a time and place them on a flat surface.
- If copying to natural tracing paper (all pulp, translucent paper) at a relative humidity of 35% or less
 - If the paper was left out of its package for 5 minutes or more, remove the first 1000mm (39.3") before copying.
 - If copies come out wavy or with white spots, use translucent paper instead of natural tracing paper.
 - Always keep the paper in a bag when not using it.
- Store the paper in a sealed polyvinyl bag if not used for a long period.
If it gets humid, paper will curl or wave which can cause a paper jam or part of the image not to be copied.

- When you use paper in high humidity under hot conditions, take out only the necessary amount of paper from the bag. Do not take all the paper out of the bag.

Anti-humidity Heater

- When humidity is high, the paper in the paper roll tray may absorb moisture, which can effect the image quality of your copies. The anti-humidity heater prevents this. Set this switch to "On" when the humidity reaches more than 45%.

Toner

1

Handling Toner

⚠ WARNING:



- *Do not incinerate used toner, toner bottle or toner cartridge.*
- *Toner dust might ignite when exposed to an open flame.*
- *Dispose of the used toner and the used toner cartridge according to local regulations.*

⚠ CAUTION:



- *Do not eat or swallow toner.*
- *Keep toner (used or unused), toner bottle, and toner cartridge out of reach of children.*

⚠ CAUTION:



- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

- If you use toner other than that recommended, a fault might occur.
- If you want to add toner, ⇒ P.48 “Adding Toner”

Toner Storage

- Store toner cartridges horizontally in a cool, dark place.
- Do not leave toner cartridges in your car on a hot day for a long period of time, or anywhere that they could be subjected to temperatures of over 95°F (35°C).
- Never store toner where it will be exposed to heat.
- Do not lay heavy objects on toner bottles.

Used Toner

- Toner cannot be re-used.
- Put the used toner in the plastic bag and dispose of it according to local regulations.

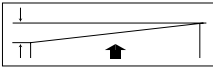
2. Copying

Basic Copying (Copying to sheets)

Use bypass table or roll feeder to copy onto paper.

Note

- For acceptable types of original and paper, ⇒ P.6 “*Recommended Originals*” and ⇒ P.8 “*Recommended Paper*”.
- If you use bypass table, place one sheet of paper at a time on the bypass table and never insert more than one sheet of paper.
- If the copy paper is curled, place it with the curl facing downwards.
- When you set A0 size (36"×48") paper, to make sure the ends do not touch the floor and get dirty, lay a wide piece of paper or some other covering on the floor.
- Do not use paper which is cut obliquely, when the difference between the right side and the left side of the paper is more than 5mm (1/5"), creasing or a paper jam might occur.



- You cannot copy to both sides of the paper at the same time.
- The machine needs about 3 minutes to warm up after being turned on before copies can be made. The machine is warming up when the **Wait** indicator is lit, but you can still edit settings, insert copy paper or insert your original.
- Set paper, and then set original (from bypass tray or roll feeder). When you have set both of them, the copier starts copying automatically.
- Do not lean on the copy table or lay heavy objects on it.
- After finish copying, you can store up to 25 copies.

CAUTION:

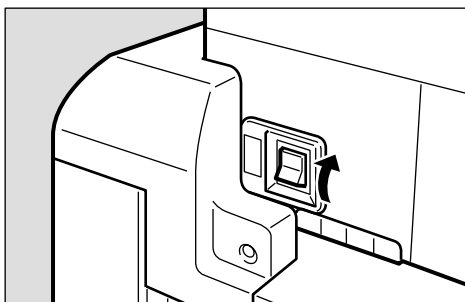
- If during copying your original gets stuck in the copier, press the [Emergency Stop] key.



- If you stop operation by pressing this key, remove both the original and paper.

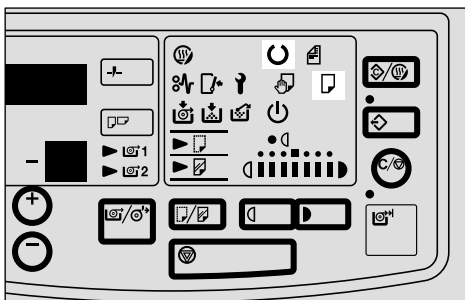
2

1 Turn on the main switch.



ZFBH261E

2 Make sure that the Wait indicator goes off, and then Ready and the Set Paper indicator go on.

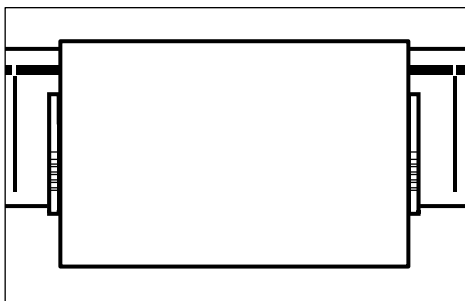


ZFBS053E

Make sure that the Bypass Tray is selected.

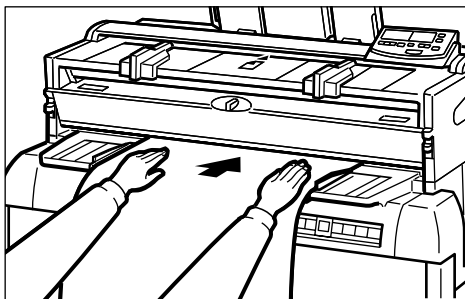
3 Select any copy settings you require, such as the media type or copy density.

4 Set the paper guide to match the width of the paper.



GCJ010E

- 5** Slide the paper straight into the copier until it stops. The copier will soon pull it in.

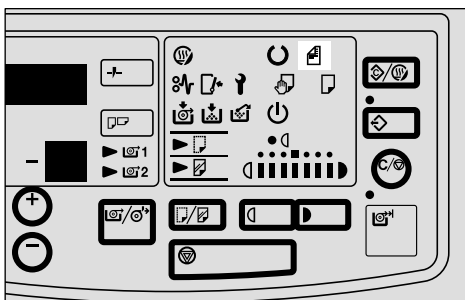


ZFBH050E

Note

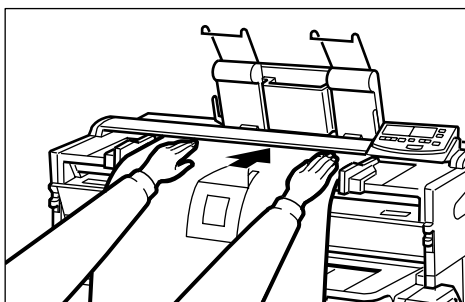
- Center the paper **face up** on the bypass table and slide the paper straight into the copier. These illustrations show the copier with the Original Guides, the Paper Guides, and other optional equipment.

- 6** Make sure that the Set Original indicator goes on.



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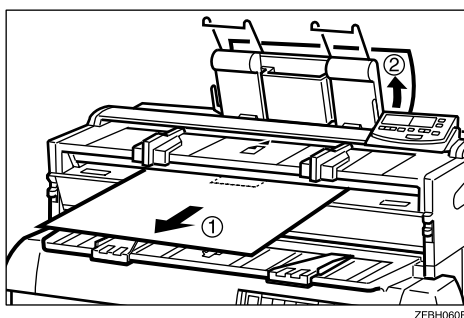
- 7** Set the Original Guides to match the original size mark. Set the original face up and slide it straight into the copier along the Original Guides.



ZFBH230E

- 8** The original comes out from the opening just under the original table (①).

The copy is delivered from the slot on top of the copier (②).

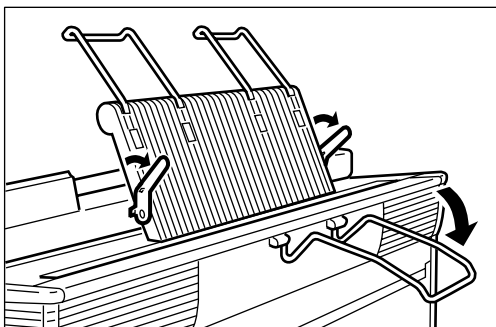


ZFBH060E

If you make several copies of the same original, when the copy comes out, remove it and repeat from step 3

 **Note**

- If you want to catch copies at the back of the machine, change the copy delivery direction as shown in the figure.



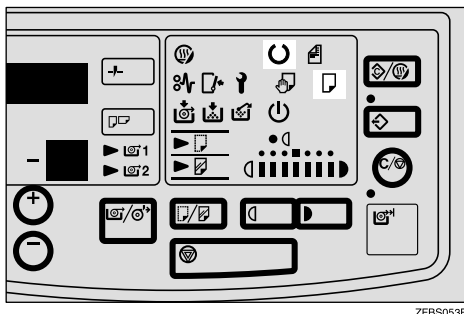
SB011

 **Note**

- 9** Do not hold down or pull out the original during copying. Do not put heavy object on the original table.
- If you do not insert the original in a certain interval after inserting the paper, the paper will be ejected automatically.
 - If the copier is idle at a certain time after you have used it, the machine resets itself to the initial settings (Auto Reset). If the copier is not used for a long time, it will turn itself off (Auto Off).
 - You can preset the initial settings of the copier ⇒ P.36 “B) Changing the Default Setting”

Using the Roll Feeder (Option)

- 1 When the Wait indicator goes off and the Ready and the Set Paper indicator go on, the copier enters the ready condition.



Make sure that the paper feed indicator lights up.

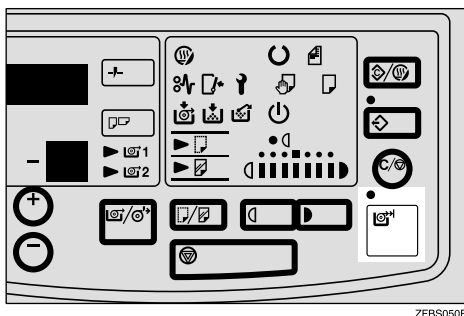
- 2 Select any copy settings you require, such as the media type or copy density.

Press the [RF Select/Cut] key to select the Roll Feeder.

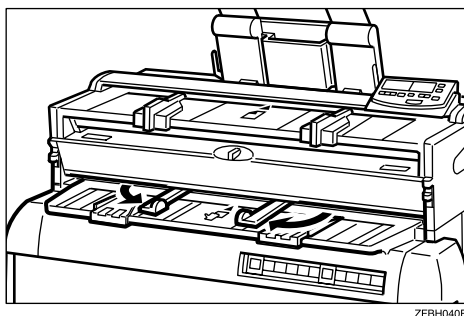
Note

- If you select two roll feeder (option), select one of the roll.

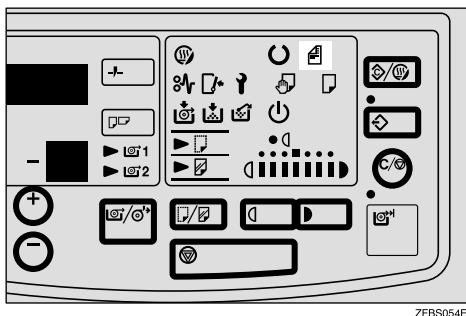
- 3 Press the [Paper Feed] key.



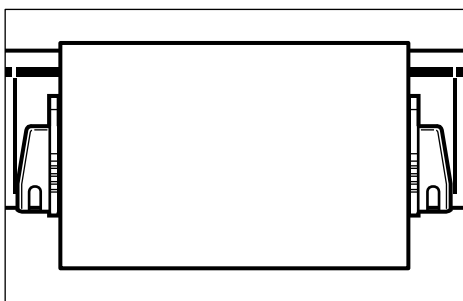
- 4 Open the guides to keep the edge of the original from slipping into the paper entrance.



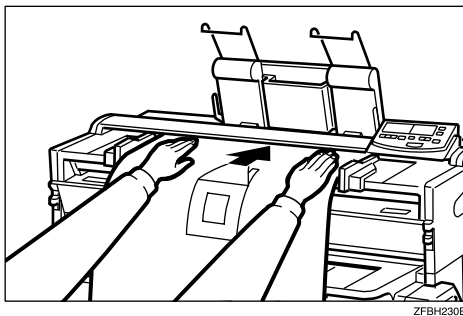
5 Make sure that the Set Original indicator goes on.



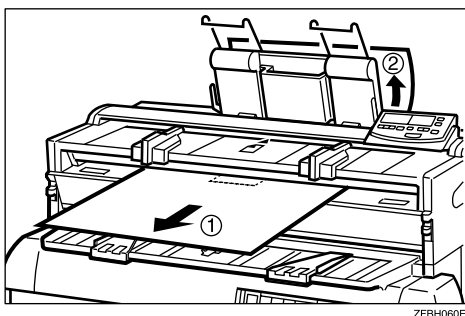
6 Set the original guides to match the width of the original.



7 Center your original face up on the original Table. Slide the original straight into the copier until the copier pulls it in.



- 8** The original comes from the opening just under the Original Table (①).
The copy is delivered from the slot on top of the copier (②).



2

Using the Rear Table

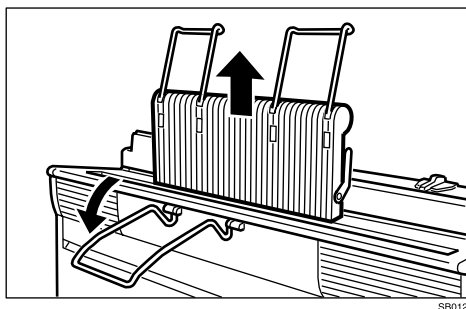
When you copy the following originals, set them in the Rear Table.

- Thick originals (0.19mm ~ 3mm).
- Originals which cannot be folded.
- Originals less than 297mm (11") in width and more than 1,200mm (48") in length.

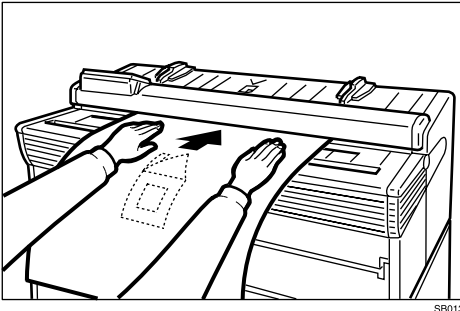
Note

- You cannot use the following functions when using the Rear Table.
 - Semi Synchro Cut with roll paper
 - Partial Copying

- 1** Choose any copy setting you require.
- 2** For manual copying, set paper.
- 3** Pull up the holder and turn in the copy exit guide.



- 4** Insert the original face down from the rear table.



- 5** Hold and take the original which has been read and delivered in the front of the copier.

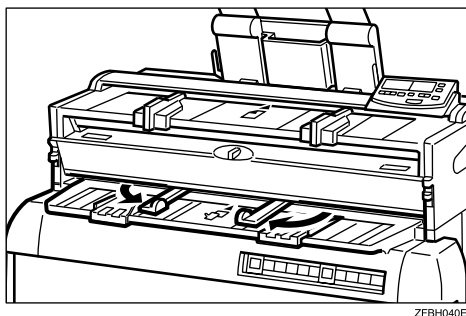
Copying onto Roll Paper (Option)

The paper will be fed to the copier from the Roll Feeder. You can copy onto roll paper using the following functions:

- Semi Synchro cutting
- Preset cutting
- Variable cutting

Note

- If unused roll paper is left in the copier, cut 1000mm (39.4") from the edge of the paper before you start copying.
- When you want to copy a long original, curled original, or the thin original (less than 0.1mm) which can be easily bent down, open the guides to keep the original away from the paper entrance.



ZFBH040E

CAUTION:

- If during copying your original gets stuck in the copier, press the [Emergency Stop] key.



- If you stop operation by pressing this key, remove both the original and paper.

Semi Synchro cutting

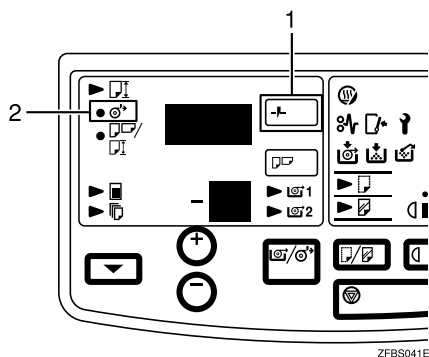
This feature lets you cut the roll paper manually to a length that approximates to that of the original. This saves you having to measure and enter the length of every original.

Note

- Semi Synchro Cut can handle the cut length in the range 440 ~ 3000mm, 17.3" ~ 118.0".

- ❑ If you set the number of copies, Semi Synchro Cut can handle automatically by the length at your setting for first copy.
- ❑ Do not use carrier sheet and rear table when you use Semi synchro cutting. A fault might occur.

1 Press the **[Cut Select]** key(1).

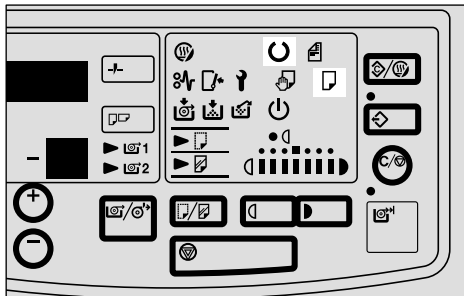


ZFBS041E

The **Semi Synchro** indicator lights up(2).

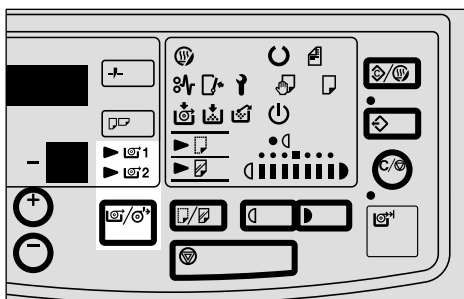
2 Choose any copy settings you require.

3 Make sure that the Wait indicator goes off and Ready and the Set Paper indicator go on.



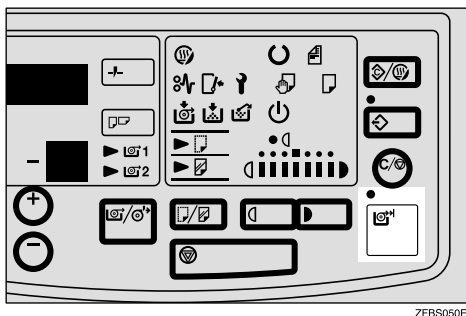
ZFBS053E

4 Press the **[RF Select/Cut]** key to turn on the RF Select indicator.



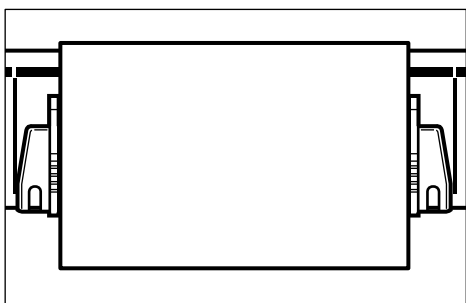
ZFBS024E

5 Press the **[Paper Feed]** key.

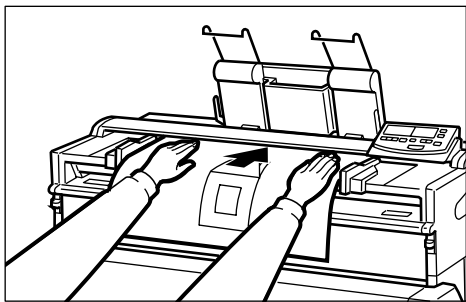


ZFBS050E

6 Set the original guides to match the width of the original.

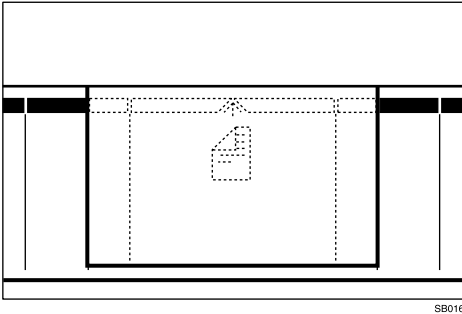


7 Center your original face up on the original table. Slide the original straight into the copier until the copier pulls it in.



ZFBH240E

- 8** Just as the trailing edge of the original passes the table edge, press the **[RF Select/Cut]** key.



Important

- To cancel copying, press the **[Clear/Stop]** key. The copier finishes the operation in progress, and delivers the copy and the original.
- To cancel on-going copying, for example, when you have inserted a wrong blueprint, press the **[RF Select/Cut]** key. The machine interrupts the operation in progress, and delivers the copy and the original.
- If you make copy without pressing the **[RF Select/Cut]** key, copied paper might come out with original size + 310mm.
- When you repeat the copy job with this function even if you select different sizes of the originals, this function helps you to make same size copy.
- Once you set the cut length and press the **[RF Select/Cut]** key to enter the repeat copy cycle, do not press the key. Otherwise, the copy job will be interrupted. If you want to repeat the copy job again, press the **[Paper Feed]** key. For details about job settings, see [4](#).

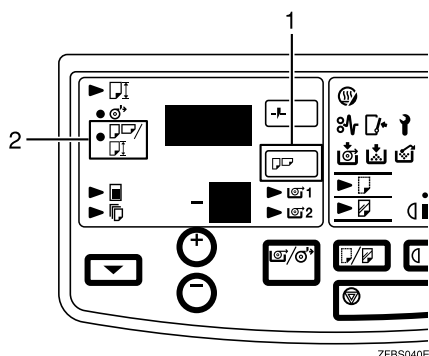
Preset Cutting

This function cuts roll paper to a selected length. The paper is cut to this length regardless of the original size.

Note

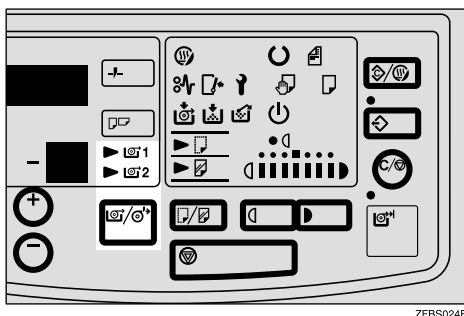
- The default Preset Cut length is as follows. Metric Version: 1189mm, 841mm, 594mm, 420mm, 297mm Inch Version: 48.0", 42.0", 36.0", 24.0", 18.0", 11.0". To change of the Preset Cut length pattern, please contact your service representative.

- 1 Press the **[Preset Cut]** key (1).



The **Preset/Variable** indicator lights up (2) and the Paper Length display shows the default preset cut length. (1189mm or 48.0").

- 2 Press the **[Preset Cut]** key several times until the indicator shows the value you want.
- 3 Choose any copy settings you require.
- 4 Press the **[RF select/Cut]** key to turn on the RF Select indicator.



Continue from step 3, 4 ⇒ P.21

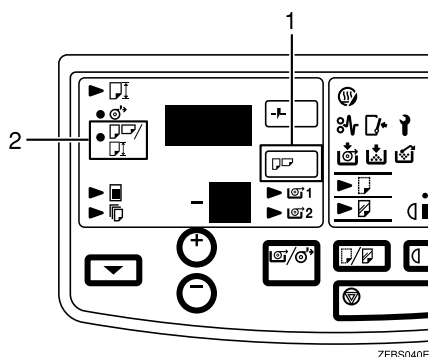
Variable Cutting

This function cuts roll paper in a length you specify.

Note

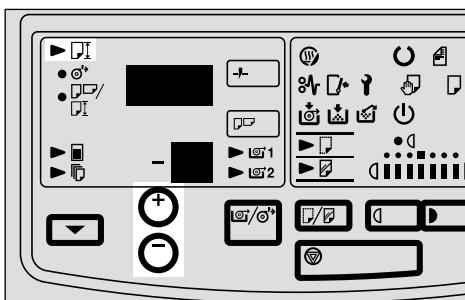
- Length can be cut length from 280mm to 3,000mm, 11" to 118".

- 1** Press the **[Preset Cut]** key(1). The **Preset/Variable indicator**(2) lights up and the "Paper Length" display shows the default Preset Cut length. (1189mm or 48").



ZFBS040E

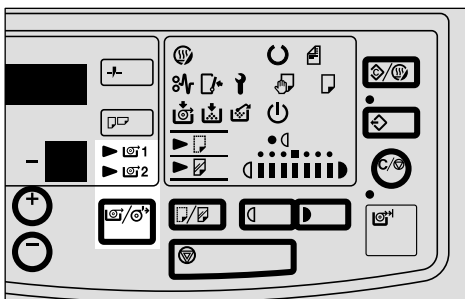
- 2** Press the **[Preset Cut]** key to display the nearest value to the one you want.
- 3** Press **[+]** key or **[-]** key to specify the most appropriate length.



ZFBS033E

You can change the settings by 1mm (0.1") steps.

- 4** Choose any copy settings you require.
- 5** Press the **[RF Select/Cut]** key to turn on the RF Select indicator.



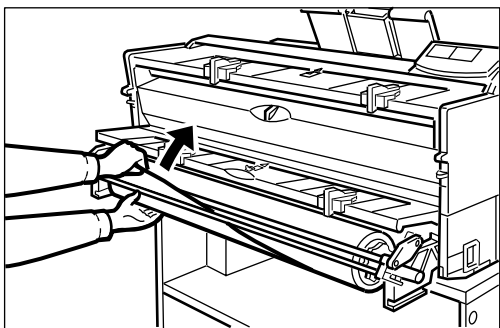
ZFBS024E

Continue from step **5** ⇒ P.21

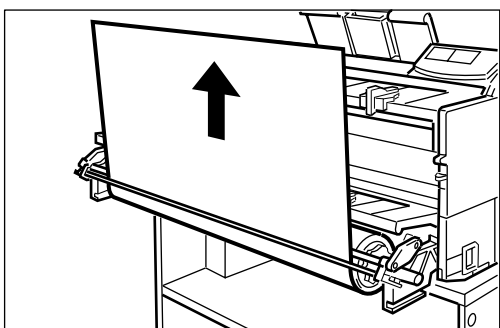
Using The Roll Cutting Rail (Option)

The Roll Cutting Rail allows you to use roll paper and cut your own sheets. For how to set the roll cutting rail, ⇒ P.59 “Loading A New Roll Onto Paper Cutting Rail (Option)”

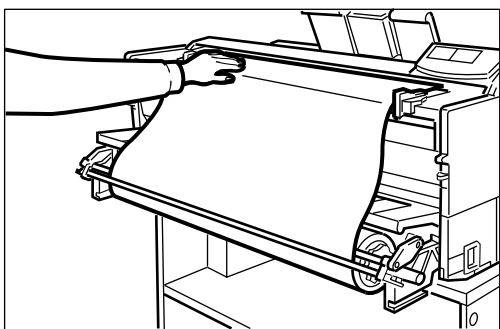
- 1** Pull a bit of paper out and insert it between the rail and the double rod.



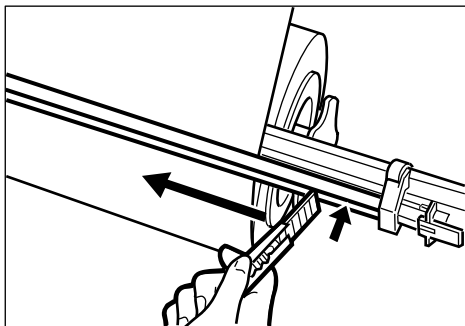
- 2** Pull the length of paper you want.



- 3** With one hand, hold the paper firmly against the Original Table.

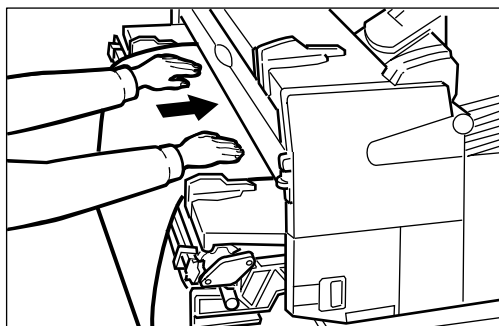


- 4** With your other hand, insert the blade of a paper knife between the two rods and slide across the length of the rail.



SB020

- 5** Make your copy as shown on ⇒ P.27. Make sure the curl of the paper faces down.



SB021

3. Copy Settings

Copying Onto Other Media

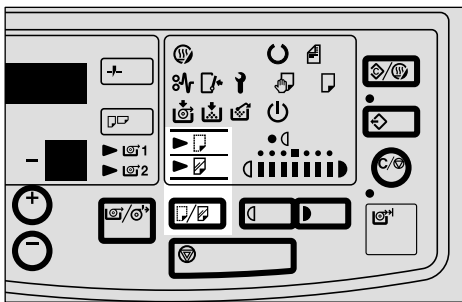
To copy onto translucent or tracing paper or film, use the **[Copy Media]** key to match the paper type refer to the following table.

Type of paper	Media setting
Plain paper	Both indicators off
Film	Film indicator on
Translucent paper	Translucent indicator on
Heavy paper	Translucent indicator on
Thin paper	No indicator or the film indicator if necessary.

If you are not sure of what type of paper you have, check the label on the paper package to confirm it.

1 Press the **[Copy Media]** key to turn on the **Translucent** or **Film** indicator.

The **Wait** indicator goes on and either the **Translucent** or **Film** indicator lights.



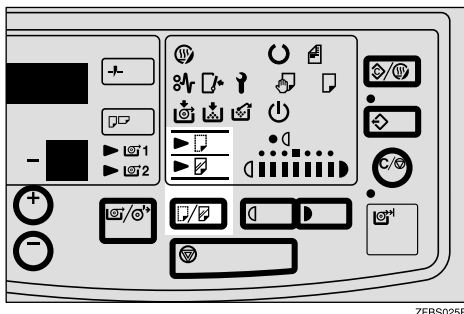
2 When the wait indicator goes off and the **Ready** and the **Set Paper** indicator go on, the copier enters the ready condition.

Note

- Even if you have set the Copy Media function correctly, creasing might occur depending on the temperature or humidity. If this happens, adjust the fusing temperature manually. See the next page.

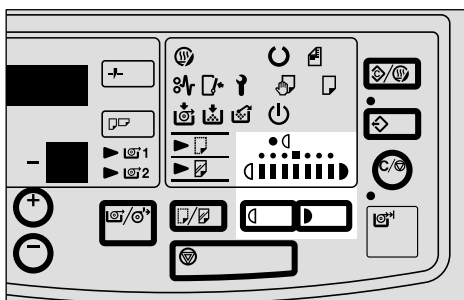
Adjusting the Fusing Temperature Manually

- 1 Press the **[Copy Media]** key to turn on the Translucent or Film indicator that you want.



ZFBS025E

- 2 Hold down the **[Copy Media]** key for 3 seconds until beep. The indicator show the current fusing temperature. The unlit indicator shows the current temperature settings.
- 3 Press the **[D]** key to decrease the temperature, and press the **[D]** key to increase the temperature. The number of temperature levels (7 levels) available depends on the paper type:



ZFBS023E

- Plain paper : 1234567
- Translucent paper: 1234
- Film : 1234

- 4 After you have finished setting the temperature, press the **[Copy Media]** key.
- 5 Choose any copy settings you require, and then start copying.

Note

- The new fusing temperature for the selected paper type is cleared when you press the **[Clear Modes/Energy Saver]** key or turn off the main switch.

Adjusting Copy Image Density

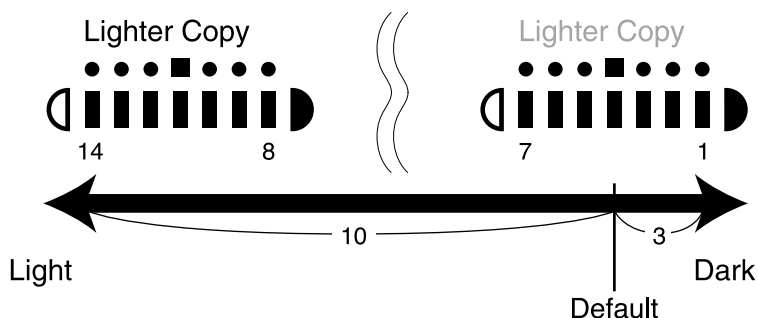
To make copies darker or lighter, change the density setting. There are 14 density levels (=7 notches \times 2).

- Standard density level (Default)
- 3 darker levels
- 10 lighter levels

Set the density with the [◀] and [▶] keys under the **density** indicator.

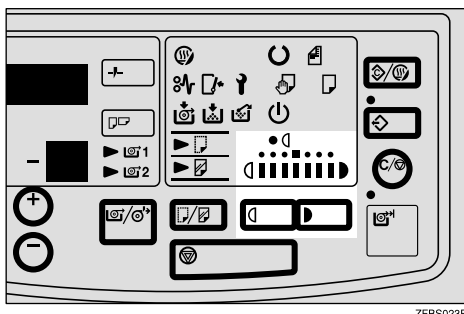
Note

- The indicator shows seven levels at a time. When you start from the standard image density, the middle notch corresponds to the standard image density, the three right notches correspond to darker densities, and the three left notches to lighter densities.
- The brighter notch shows which level is now set. If you go lower than the left-most notch, the Lighter Copy indicator light up. The notches on the indicator correspond to the seven lightest levels.



- If you change the copy image density while repeat copying, the next copy job will come out with new setting.

1 Press the [◀] or [▶] key to adjust copy density.



2 Each time you press the [◀] key, the indicator moves one step to the left. When the indicator reaches the left edge, it returns to the right edge and the Lighter Copy indicator lights.

Making Several Copies of the Same Original

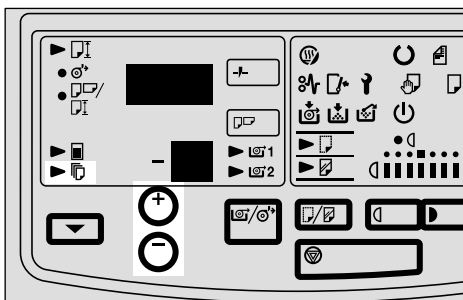
You can preset the number of copies (1 to 99) you want to make. Repeated copying means making two or more copies of an original. To make more than one copy of the original, you have to reload the original after each copy. If you do not have the optional Roll Feeder, you have to set the copy paper for each copy.

Note

- You can preset up to 99.
- Do not press the **[RF Select/Cut]** key twice once you start preset cut with this function. If you press the key twice, the copy job will be interrupted.

1 Press the **[+]** and **[-]** keys to specify the number of copies.

When you press the **[Clear/Stop]** key, the number of copies returns to "1".

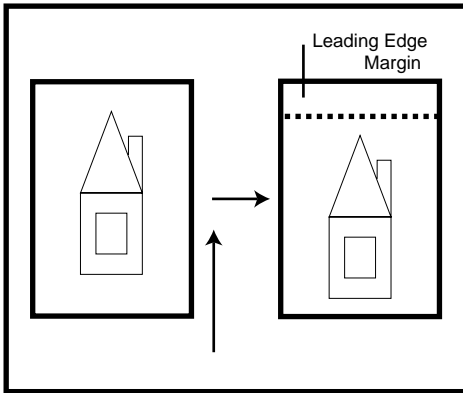


2 Proceed as usual for a copy, with sheet paper (⇒ P.11), or with the Roll Feeder (⇒ P.19).

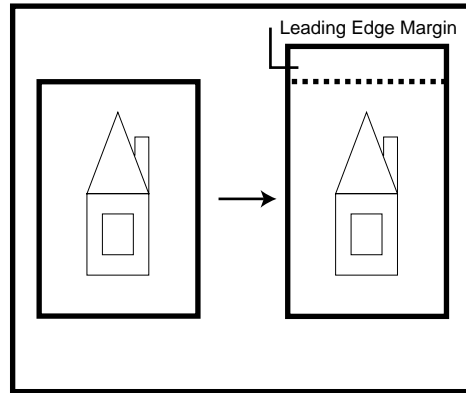
3 When the copy comes out, remove it and repeat step **2**. Wait for the Set Paper indicator to light up before loading a new sheet of paper, and wait for the Set Original indicator to light up before reloading the original.

Setting a Leading Edge Margin

You can set a margin at the leading edge of the copy.



Using the Copy Paper Table, or in the Preset Cut mode,
Variable cut mode

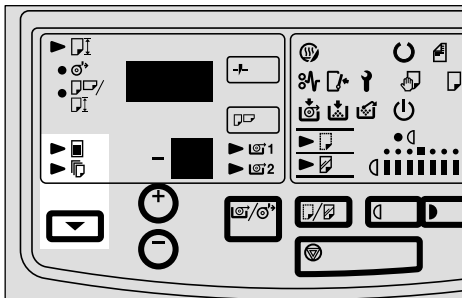


In the Semi Synchro Cut mode

Note

- You can set up to a $\pm 99\text{mm}$, $\pm 4.0\text{''}$ margin in 1mm, 0.1" steps at the leading edge.
- The copy image is shifted to the trailing edge, when you make a copy using the bypass table, or in the Preset Cut mode or Variable Cut mode.
- In the Semi Synchro Cut mode, the paper length is increased by the leading margin width.

1 Press the **[Function Select]** key until the **Leading Edge** indicator is lit.



ZFBS031E

2 Press the **[+]** key and **[-]** key to specify an edge margin.

To zero the value, press the **[Clear/Stop]** key.

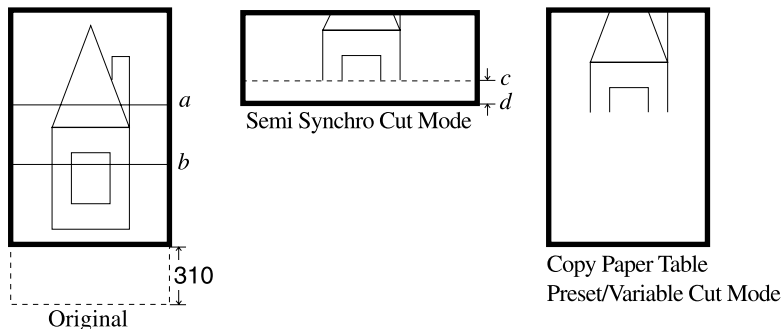
3 Insert the original from the leading edge.

You can get same results using the Rear Table.

Partial Copying

The Partial Copy function copies only a part of an original.

You need to enter start and end points in the feed direction of the original .

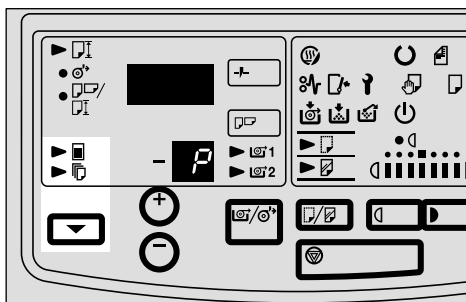


Note

- You cannot use the Partial Copying function when using the Rear Table.
- You cannot use the Partial Copying function for originals shorter than 150mm.
- You can use the Partial Copying function for originals longer than 1270mm.
- If you set the start point within 130 mm of the leading edge of the original, the copier will regard the leading edge as the start point.
- The minimum available space between the start point and the end point is 30 mm.
- If you do not set the end point after setting the start point (a), the copier will regard the trailing edge of the original as the end point (b).
- If you do not set the end point in the Semi Synchro Cutting function, the paper extend by 200mm from the end point (from c to d). The paper extend by 310mm from the trailing edge.

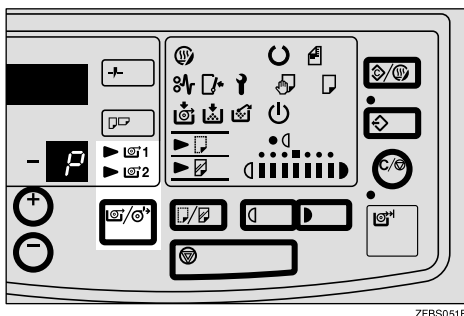
1 Hold down the **[Function Select]** key for three seconds or more.

A "P" will blink in the copy counter display.



ZFBS032E

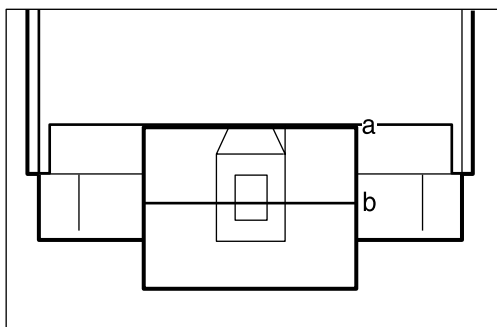
- 2** Slide the paper straight into the copier until it stops, or press the **[RF Select/Cut]** key to turn on the RF Select indicator.



ZFBS051E

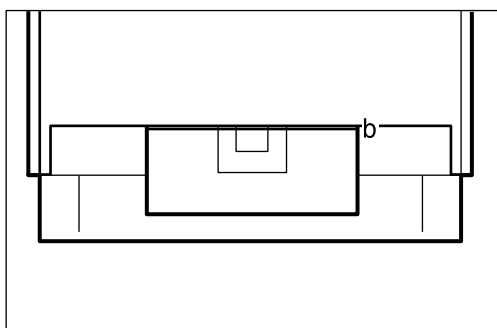
3

- 3** Place the original.
- 4** Press the **[Function Select]** key when the leading edge of the area to be copied reaches the edge of the original table cover.
The "P" will stay on, not blinking.
The copier starts copying.



SB043

- 5** Press the **[Function Select]** key when the trailing edge of the area to be copied reached the edge of the original table cover.
The "P" will start blinking again.



SB044

- 6** After the paper has been delivered, hold down the **[Function Select]** key for three seconds to turn the function off.

The "P" will disappear.

3

Programming Settings You Often Use

There are two ways of programming settings you often use.

A) Store the settings in the **[Program]** key. When you press this key, the settings will be recalled instantly.

B) Change the default settings to those you use most frequently. Whenever you turn on the machine or press the **[Clear Modes/Energy Saver]** key, these settings will be ready to use.

A) Program key

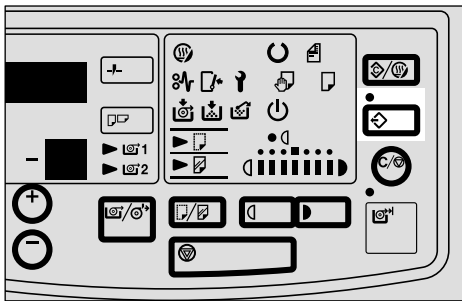
3

Storing Setting in the Program Key

Note

You can store one setting for frequently use.

1 Press the **[Program]** key.



ZFBS022E

2 Input the settings you want to store.

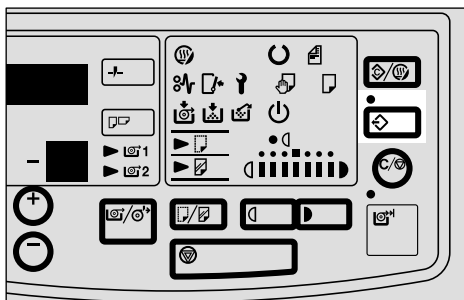
3 Make a copy.

The machine memorizes the types of job setting.

4 Press the **[Program]** key.

Recalling Settings Stored in the Program key

1 Press the [Program] key before copying.



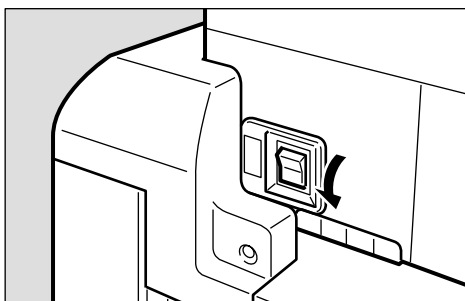
ZFBS022E

2 Enter the number of copies required with the [+] and [–] key.

3 Make a copy.

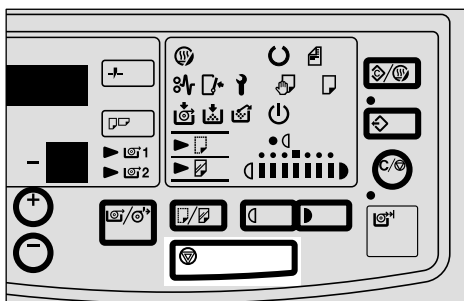
B) Changing the Default Setting

1 Turn off the main switch.



ZFBH260E

2 While holding down the [Emergency Stop] key, turn the copier back on. The jam and service indicators will blink.



ZFBS021E

3 Input the settings you want.

4 Turn off the main switch.

 **Note**

- The next time you turn the copier on, the settings you programmed in step **3** will take effect.

User Tools

Access the User Tools to make the following adjustments:

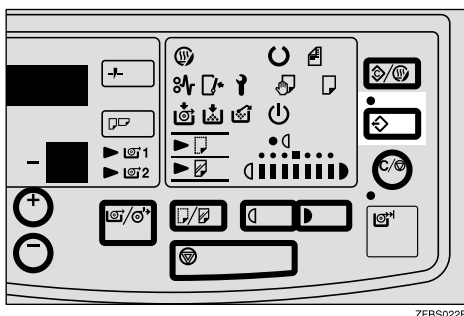
A1) Not in use

A2) Semi Synchro Cut Adjustment; Allows you to adjust the cut length.

-25mm ~ +25mm (-1.0" ~ +1.0") (by 1mm or 0.1")

Without the Roll Feeder, A2) is not in use.

1 Hold down the **[Program]** key for 3 seconds or more.

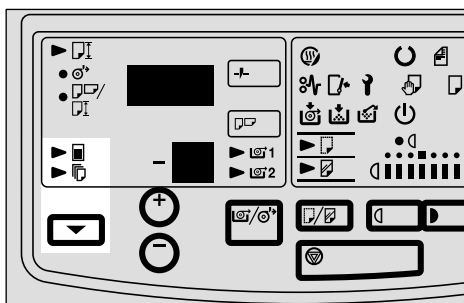


ZFBS022E

"A1" blinks on the "Copy Counter" display.

2 Press the **[+]** key, "A2" blinks on the display

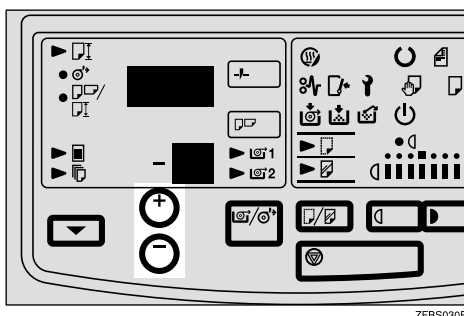
3 Press the **[Function Select]** key.



ZFBS031E

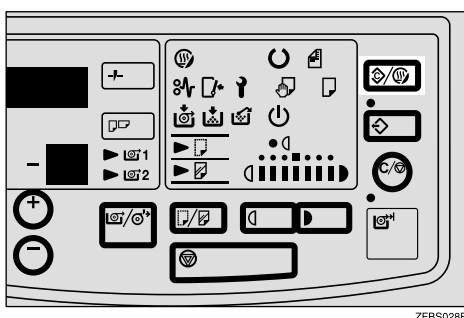
The Paper Length display shows the current value.

- 4** Use the **[+]** and **[-]** key to change the value.



- 5** Press the **[Program]** key to return to step 2.

- 6** Press the **[Clear Modes/Energy Saver]** key to exit this mode.

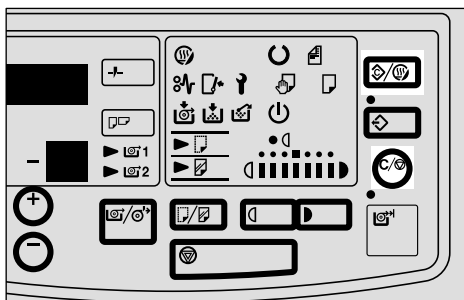


Settings You Can Change with User Tools

This section is for the key operators in charge of this machine. You can change or set the machine's default settings.

Note

- For how to enter the User Tools program, press the **[Clear Modes/Energy Saver]** key, and then press the **[Clear/Stop]** key for more than 3 seconds.



ZFBS029E

- **Fusing Temperature 1–Normal(+01):** Selects the fusing temperature for plain paper.

Note

- 0: Mode 1, 1: Mode 2, 2: Mode 3, 3: Mode 4, 4: Mode 5, 5: Mode 6, 6: Mode 7
- Default: 2
- For details about each mode, contact your service representative.
- **Fusing Temperature 2–High (+02):** Selects the fusing temperature for translucent paper.

Note

- 0: Mode 5, 1: Mode 6, 2: Mode 7, 3: Mode 8
- Default: 0
- For details about each mode, contact your service representative.
- **Fusing Temperature 3–Low(+03):** Selects the fusing temperature for translucent film.

Note

- 0: Mode 2, 1: Mode 3, 2: Mode 4, 3: Mode 5
- Default: 1
- For details about each mode, contact your service representative.
- **Count Up/Down(+04):** The copy counter can be made to count up or count down.

Note

- 0: Count up, 1: Count down

Default: 0

- **Beeper On/Off(+05):** The beeper can be turned off completely; turned off for setting the margin, multiple copies, and paper length; or left on to emit a tone whenever a key is pressed.

 **Note**

0: On, 1: All Off, 2: Partially Off

Default: 2(The beeper does not work if you use leading edge margin.)

- **Paper Feed Out Waiting Time Setting(+06):** When the copier is ready to receive the original, it will wait for a preset length of time. If no original is set within this time, the copier will process the copy paper without copying. The time can be set to 1, 2, 3, 4, or 5 minutes.

 **Note**

0: 2min, 1: 1min, 2: 3min, 3: 4min, 4: 5 min

Default: 0

- **Manual Feed Start Time Setting(+07):** After the copy paper is set, the copier waits for a preset number of seconds before starting the rollers that will pull the paper in. This pause gives you a chance to align the paper. The time can be set to 0.7, 1, 2, 3, 4, or 5 seconds.

 **Note**

0: 2.0sec, 1: 0.7sec, 2: 1.0sec, 3: 3.0sec, 4: 4.0sec, 5: 5.0sec

Default: 0

- **Lead Edge Increase/Decrease Speed Setting(+08):** The speed at which the lead edge setting scrolls up or down can be changed. The time for one increment (or decrement) can be set to 0.02, 0.05, 0.10, 0.25, or 0.5 seconds.

 **Note**

0: 0.10 sec, 1: 0.50 sec, 2: 0.25 sec, 3: 0.05 sec, 4: 0.02 sec

Default: 0

- **Auto Reset Time Setting(+09):** If the copier is idle for a while, it will clear itself. The time needed can be set to 1, 2, 3, 4, or 5 minutes. This function can also be turned off.

 **Note**

0: 2 min, 1: 1min, 2: 3 min, 3: 4 min, 4: 5 min, 5: None

Default: 0

The machine cannot enter the Auto reset mode if the roll end indicator lights while copying repeatedly.

The machine cannot enter the Auto clear if the toner end indicator lights.

- **Auto Energy Saver Mode(+10):** The fusing unit needs to be hot for copying. When the copier is idle, the fusing unit can be kept hot to save time or it can be allowed to cool to save energy. This feature can be set to start automatically, but you can also turn it on yourself by pressing and holding the **[Clear Modes/Energy Saver]** key for three seconds.

 **Note**

- 0: None, 1: Yes
- Default: 0
- The machine can not enter the energy saving mode if toner end indicator lights.

- **Screen Message Setting(+11):** When the copier is idle, the copy counter can be made to display a message. There are five possible messages: "Pre_heat", "Sleeping", "0123456789", "Have a good day", and "Hello I love you". This feature can also be turned off.

 **Note**

- 0: None, 1: "Pre_heat", 2: "Hello I love you", 3: "0123456789", 4: "Sleeping", 5: Have a good day".

- **Leading Edge Increase/Decrease Adjustment Preliminary Interval(+12):** When changing a function setting (margin, multiple copies, or paper length) by holding down the **[+]** or **[-]** key, the setting will change by a preset value. This value can be changed to 1, 2, 3, or 10 intervals.

 **Note**

- 0: 3 intervals, 1: 1 interval, 2: 2 intervals, 3: 10 intervals
- Default: 0

- **Auto Off Time(+15):** You can set the time the machine waits after the last operation before switching itself off automatically. The time can be set by minute from 1 to 240 minutes.

 **Note**

- Default: 30min
- Auto Off cannot be used in the following cases.
 - When the Wait indicator goes on
 - When the toner end indicator goes on
 - When the front door is open
 - While copying
 - When a paper misfeed occurs or SC call appears
 - The machine cannot enter the Auto Off mode if the roll end indicator lights while copying repeatedly.

- **Semi-synchro Cut Original Scanning Mode(+18):** Selects whether the roll paper cut key must be pressed at the appropriate time when the trailing edge of the original passes the Semi-synchro cut mark, or whether the original must be inserted again after the original is scanned and the length is measured.

 **Note**

- 0: Pressing the roll paper cut key, 1: Inserting the original again
- Default: 0

- **Semi-synchro Cut Length Adjustment(+19):** Adjust the cut length in the semi-synchro cut mode. The setting can be changed from —25 to 25 by 1mm steps.

 **Note**

- Default: 0

- **Paper Length Up/Down Setting(+20):** Select if the paper length is count down or up when the preset cut key is pressed.

 **Note**

- 0: Down count, 1: Up count
- Default: 0

- **Paper Length Up/Down Speed Setting(+21) :** The copier can scroll through the preset lengths forward or backward, and at different speeds. There are many sets of sizes from which to choose.

 **Note**

- 0: 0.10 seconds, 1: 0.5 seconds, 2: 0.25 seconds, 3: 0.05 seconds, 4: 0.02 seconds, 5: 0.01 seconds
- Default: 0

- **Fixed Paper Size Pattern Setting(+22):** Select the fixed paper size pattern chosen when the “Preset Cut” key is press. For details about this setting, contact your service representative.

- **Optional Paper Size Setting(+23 ~ +32):** Up to 10 different paper size can be stored from 23 to 32. For details about this setting, contact your service representative.

- **Auto Off Function setting(+33):** This setting allows you to enable or disable the Auto Off function.

 **Note**

- 0: Disable, 1: Enable
- Default: 1

- **Darker Image Density(+37):** Sets the range of the ID density control to give finer control over darker images.
 - ID level 1 to 7-Darker image density and low contrast settings
 - ID level 8 to 14-cannot be shifted

 **Note**

- 0: Standard Density 1: Darker Image Density
- Default: 0

4. Maintaining Your Copier

Changing The Used Toner Bottle

When  is displayed, it is time to change the toner bottle.

WARNING:



- *Do not incinerate used toner, toner bottle or toner cartridge.*
- *Toner dust might ignite when exposed to an open flame.*
- *Dispose of the used toner and the used toner cartridge according to local regulations.*

CAUTION:



- *Do not eat or swallow toner.*
- *Keep toner (used or unused), toner bottle, and toner cartridge out of reach of children.*

CAUTION:

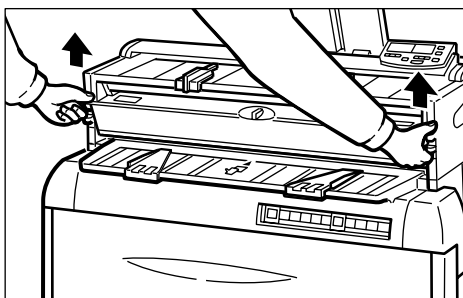


- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

Note

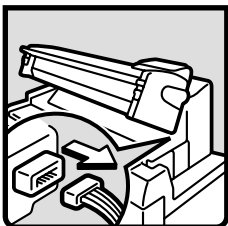
- If the toner bottle overflows, toner particles could get inside the copier and cause damage. When you install a new bottle, make sure it is perfectly set in its holder.
- Do not use used toner. This will damage the machine.

1 Open the upper unit of the copier.



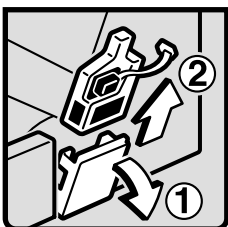
ZFBH140E

2 Unplug the code from the machine.



ZFBH270E

3 Open the door on the right side of the copier, and then carefully remove the plastic bottle.

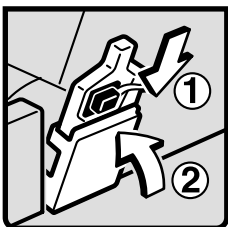


ZFBH280E

 **Note**

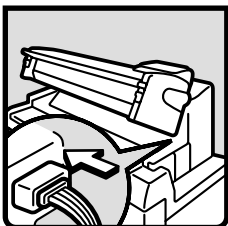
- Put the used toner to the plastic bag and dispose of it according to local regulations. Do not throw away the bottle.

4 Place the bottle in the the copier again, and then close the door.



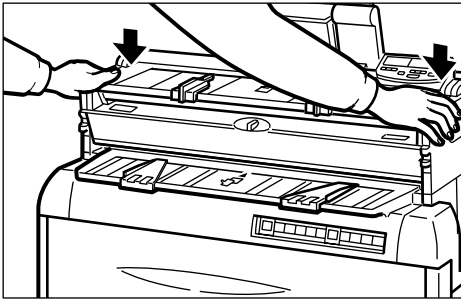
ZFBH281E

5 Plug in the code to the mainframe.




ZFBH271E

6 Close the upper unit.



ZFBH070E

Adding Toner

When  is displayed, it is time to add toner.

When the indicator starts blinking, you can still copy about 53 feet of paper (16 m, 27 8¹/₂"×11" size copies). When the indicator stays on, you can't copy until a new cartridge is installed.

⚠ WARNING:



- *Do not incinerate used toner, toner bottle or toner cartridge.*
- *Toner dust might ignite when exposed to an open flame.*
- *Dispose of the used toner and the used toner cartridge according to local regulations.*

4

⚠ CAUTION:



- *Do not eat or swallow toner.*
- *Keep toner (used or unused), toner bottle, and toner cartridge out of reach of children.*

⚠ CAUTION:

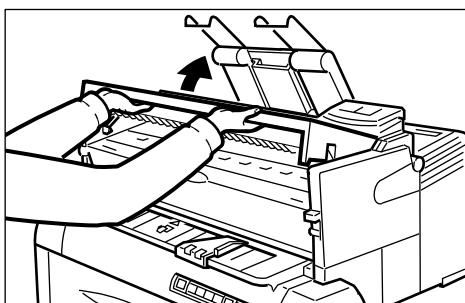


- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

 Note

- If you use toner other than that recommended, a fault might occur.
- When adding toner, do not turn off the main switch. If you do, your settings will be cleared.
- Always add toner after the machine instructs you to add toner.
- Do not use used toner. This will damage the machine.

1 Lift the original table until it locks in place.

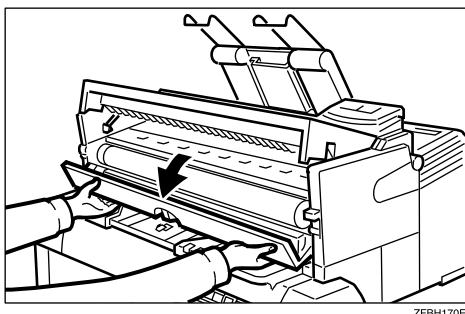


ZFBH080E

 Note

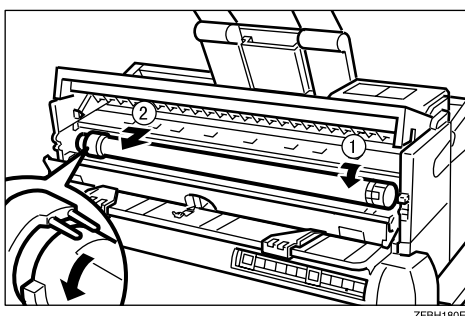
- If your machine does not have roll feeder, pull down the Bypass Table first.

- 2 Open the toner cartridge cover.



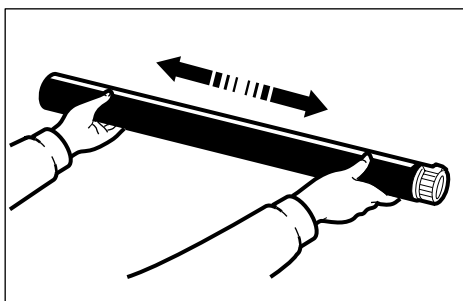
- 3 Turn the old cartridge towards you.

Then, while pressing the cartridge to the right (①), lift the left end and remove the cartridge (②).



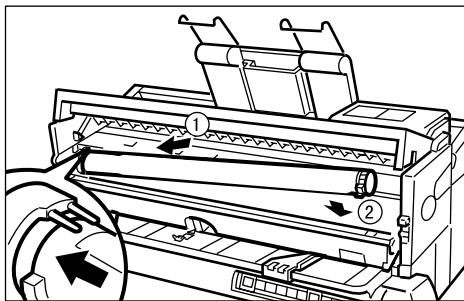
- 4 Put the old toner cartridge in a plastic bag and dispose of it according to local regulations.

- 5 Shake the new toner cartridge lightly 5 to 6 times to remove lumps.



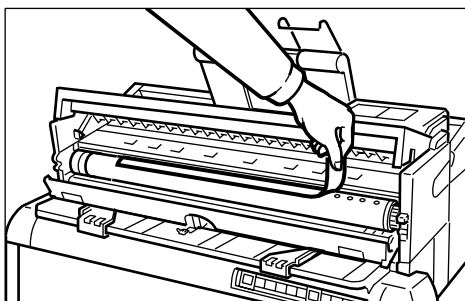
- 6 Install the new cartridge. Make sure that the white circle labeled 1 on the cartridge faces up.

Make sure the cartridge is set well but don't push it in yet.

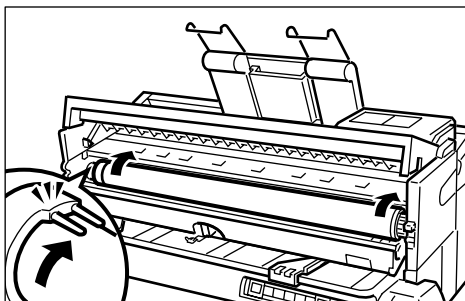


7 Take the right edge of the seal and slowly remove it.

4



8 Push the toner cartridge all the way to the left.
Then turn the toner cartridge all the way in, as shown.

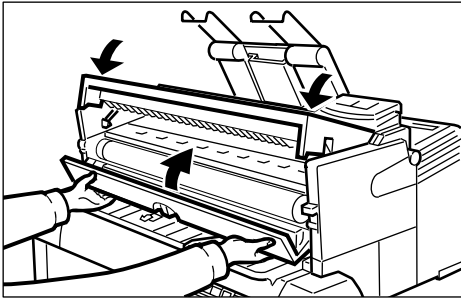


Note

- If you can't close the toner cartridge cover, there might be problem setting the toner cartridge. In this case, set the toner cartridge again.

9 Close the toner cartridge cover and the original table.

The copier will need a few moments to warm up before it is ready to copy.



ZFBH220E

Changing The Roll Paper Size

Change the size guides on the left and right of the roll paper holder when you load different sized paper rolls.

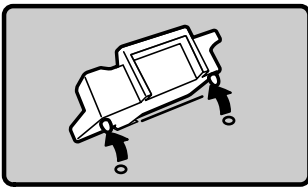
Important

- ❑ Always follow the instructions below when adjusting the roll paper holder. Do not force the roll paper holder by pulling or sliding it strongly. This could damage the holder.

4

Removing the Roll Paper Holder

- 1** Push the paper holder inwards, and then pull it upwards to remove it.



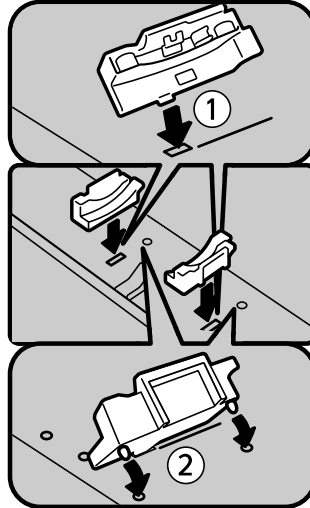
ZEDX200E

Note

- ❑ The paper holder is attached with magnet and a hook.
- ❑ The paper holder is on the right in this illustration.

Setting the Roll Paper Holder

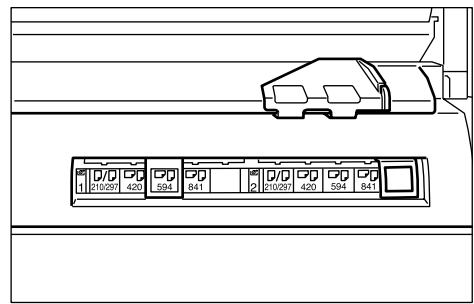
- 1** Insert the hook on the paper holder into (①), and then insert the protrusion into (②).



Note









- ❑ Make sure the protrusions are firmly in the hole.
- ❑ Lock the left side of the paper holder until it clicks.

- 2** Match the paper size in the windows.



ZFBH490E

Standard paper sizes that can be used in this copier are shown below.

Metric version	Roll Feeder
A0	
A1	 
A2	 
A3	 
A4	

Loading A Roll Of Paper

When  is displayed, it is time to install a new roll of paper.

⚠ CAUTION:

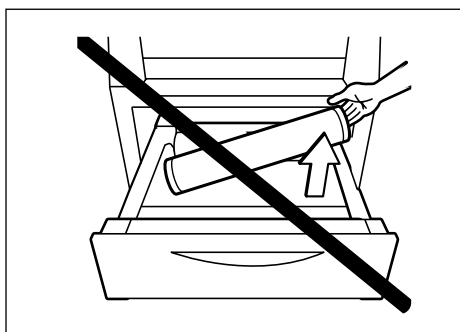


- *Rolls of paper can be heavy, so you should be careful when loading one.*
- *Be careful when replacing the roll paper or removing misfed paper by following the operating instructions properly. Otherwise, an injury may result from the paper cutter inside.*
- *Do not touch the anti-humidity switch from inside the machine. It could be very hot.*

4

🔊 Important

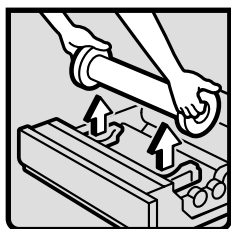
- When removing paper rolls, lift the roll holders on both sides of the paper roll before removing it. Do not lift one side only. This could damage the machine.



ZEDH390E

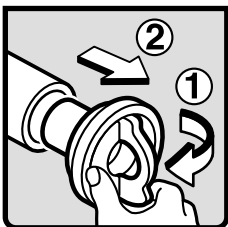
1 Pull out the Roll Feeder.

2 Hold both sides of the empty paper roll and remove it from the unit.



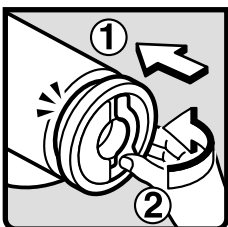
ZFBH290E

- 3** Raise the lever on the paper holder (①), and then pull out the roll holder from the empty core (②).



ZFBH300E

- 4** Set the paper holder (①) to the roll core, and then lower the lever (②).

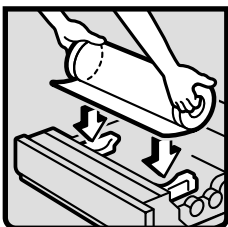


ZFBH390E

Note

- Insert the paper roll as far as it will go.

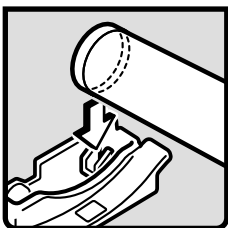
- 5** Hold both sides of paper roll in the paper roll and install it securely in the paper holder.



ZFBH340E

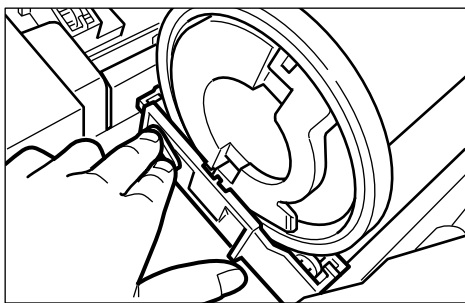
Note

- The flap of the paper roll should be on the bottom. See below.



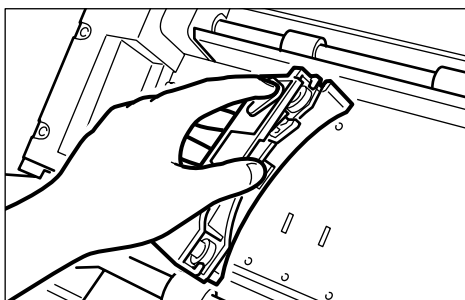
ZFBH310E

- ❑ If applicable, adjust the roll paper position and lock the lever.



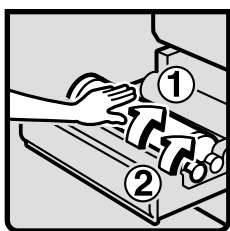
- ❑ You may hardly to adjust the roll paper position when you set 914mm (“36”). In this case, take out the paper holder, and then release the lock lever. After you adjust it, put it back to the roll feeder.

4



- ❑ Do not force to remove the paper holder when you need to change the paper size. For how to remove and set the paper holder, see⇒ P.52 “Changing The Roll Paper Size”

- 6** Rotate the paper roll slowly until the flap is almost fed into the rubber part of the roller (①). While feeding the flap of the paper roll into the rubber part of the roller, turn the paper knob clockwise (②).



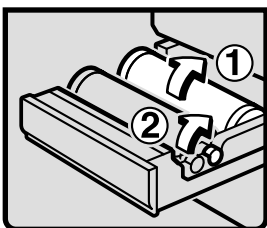
Note

- Do not hold the paper knob from side. It may cause you touching a sticky oil. For how to turn the knob without any harm, see the illustration below:



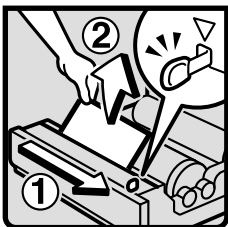
ZFBH410E

- Make sure that the paper is not loose. Insert it straight into the roller.
- Watch carefully to make sure that the flap of the paper is inserted between feeder and the roller.
- For how to change the Roll 2, refer to the following illustration:



ZFBH400E

- 7** Hold the paper (②), and then slide the cutter (①).



ZFBH351E

Note

- Slide the cutter one way only, otherwise paper waste may pile up inside the machine.

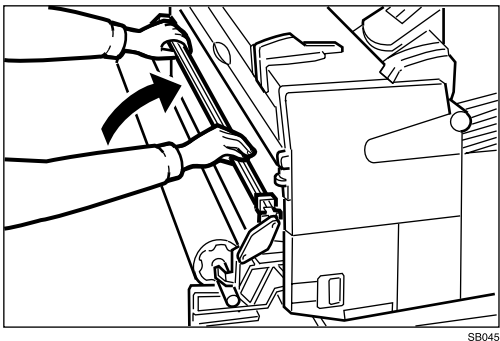
- 8** Turn the knob anticlockwise about 1/4 to adjust the paper position.



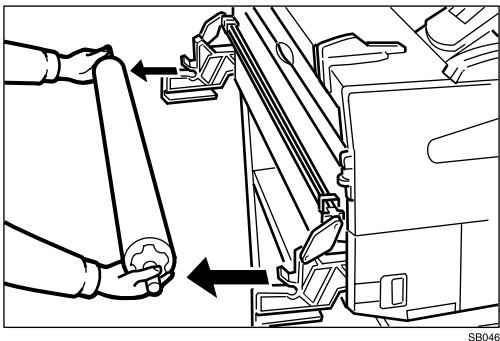
9 Close the Roll Feeder.

Loading A New Roll Onto Paper Cutting Rail (Option)

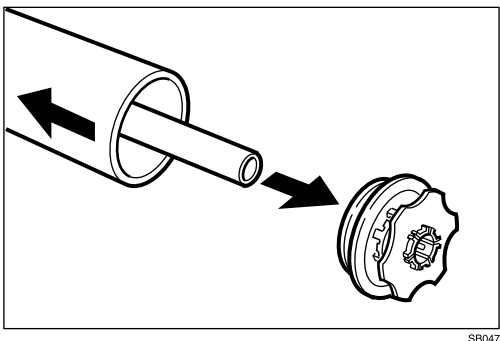
1 Lift the rail.



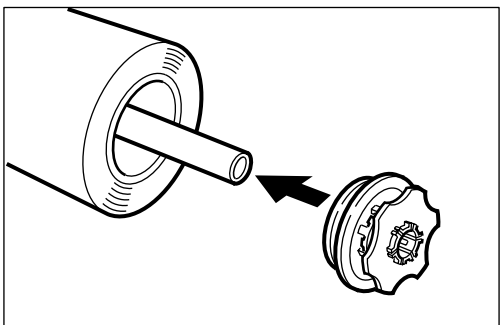
2 Remove the spool from its support.



3 Remove one of the end caps and slide the old roll off the spool.



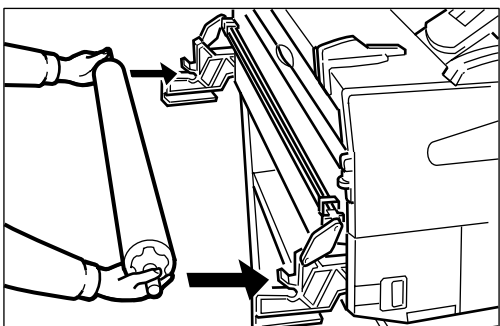
4 Slide the new roll on the spool and put the cap over the end of the roll.



SB048

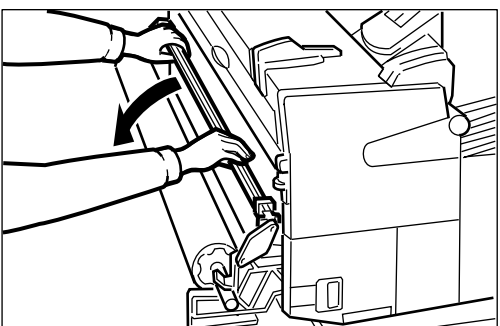
5 Place the spool on the holder so that the paper rolls off the front. Push it all the way in.

4



SB046

6 Lower the rail.



SB050








5. Troubleshooting

If Something Goes Wrong

If you have problems with your copier, consult the following pages. If a service indicator lights up, read the following section. If the original or copy is stuck in the copier; ⇒ P.62; if the copier won't start, or if copies don't look right, ⇒ P.70.

If Indicator Lights Up

If one of the indicators shown appears on the operation panel, turn to the appropriate page and follow the instructions described there.

What appears	What it means	What to do
	The original or copy paper is jammed somewhere.	See the following section.
	The copier needs a technician.	Call your service representative.
	A cover, unit, or the fusing unit cover was left open.	Close it. Press firmly.
	The paper roll is finished.	Put in a new roll of paper. ⇒ P.54.
	The toner cartridge is empty, or almost empty.	Replace the toner cartridge. ⇒ P.48.
	Wait until the ready indicator lights.	Wait. If it stays on for an unusually long time, call your service representative.
	The used toner bottle is full.	Empty the used toner bottle. ⇒ P.45.

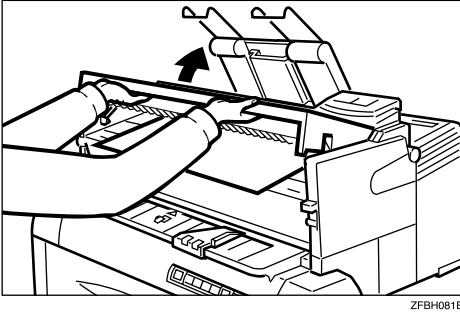
If Jams Occur

If the Original is Jammed at the Exit

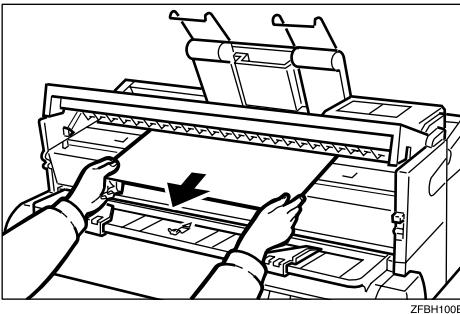
 **Note**

- If the paper or original gets stuck in the copier, remove both original and paper.

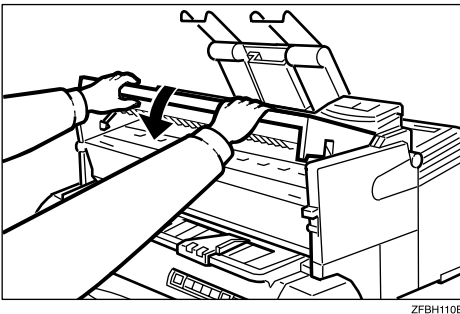
1 Lift the original table.



2 Very gently pull the original out of the feed-out slot. Be careful not to tear it.



3 Close the original table. Press firmly on both sides until it clicks into place.



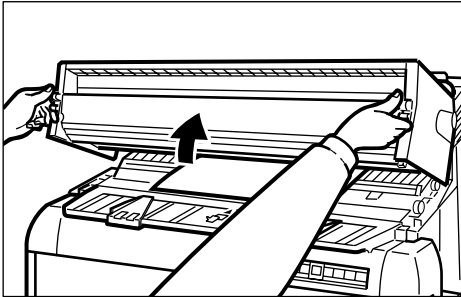
If Sheet Paper is Jammed in the Feed-in Slot

⚠ CAUTION:

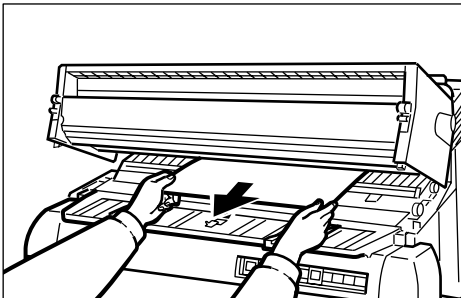


- *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*

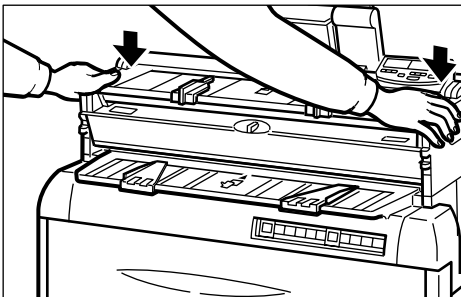
1 Squeeze the locks on each side of the copier and lift the unit.



2 Pull out the copy paper. Do not leave any scraps of paper in the copier.



3 Close the unit. Press firmly on both sides until it clicks into place.



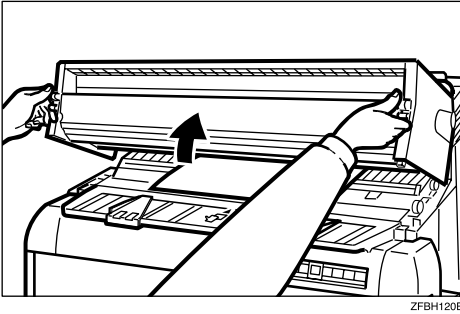
If Sheet Paper is Jammed at the Paper Exit

⚠ CAUTION:

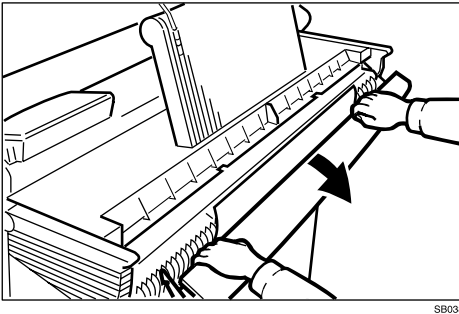


- *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*

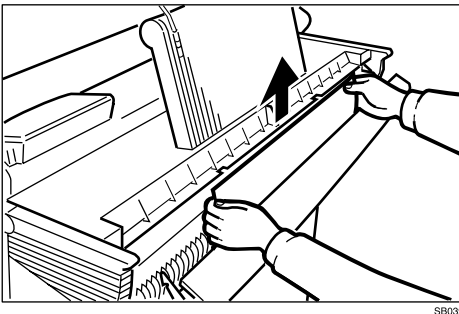
- 1** Squeeze the locks on each side of the copier and lift the middle unit between the original table and the bypass table.



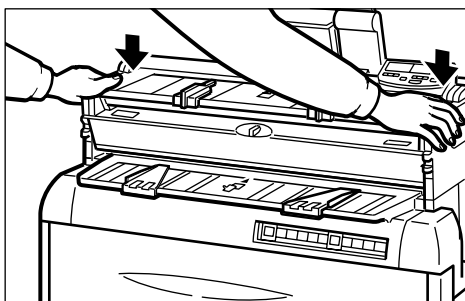
- 2** Open the fusing unit cover.



- 3** Slowly pull the paper out. If there are scraps left inside, open the inner cover, wait for the copier to cool, and remove the scraps.



- 4** Close the unit and all covers. Press firmly on both sides until it clicks into place.



ZFBH070E

If Roll Paper Jams

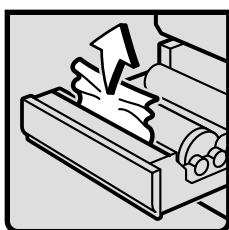
If roll paper jams anywhere in the machine, you still might need to check everywhere to remove the entire length of paper.

⚠ CAUTION:



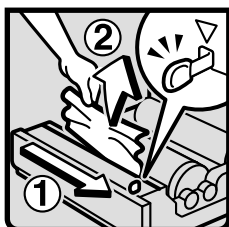
- Be careful when replacing the roll paper or removing misfed paper by following the operating instructions properly. Otherwise, an injury may result from the paper cutter inside.
- Do not touch the anti-humidity switch from inside the machine because it could be very hot.

- 1** Open the Roll feeder.
- 2** Slowly pull up the edge of the paper.



ZFBH380E

- 3** Slide the cutter knob (1) to cut the edge of the roll paper, and then remove the jammed paper (2)

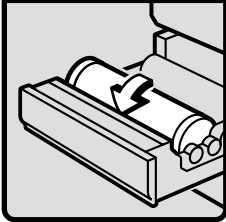


ZFBH390E

 **Note**

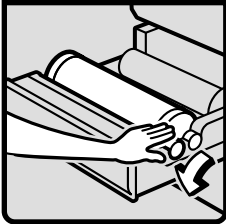
- Slide the cutter one way only, otherwise paper waste may pile up inside the machine.

4 Rotate the paper roll in the direction of the arrow until you can see the edge of the paper.



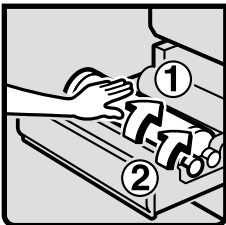
ZFBH370E

5 Turn the knob anticlockwise about 1/4 to adjust the paper position.



5

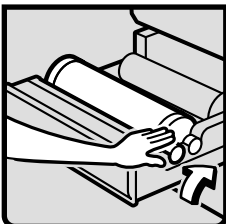
6 Slowly rotate the paper roll until the edge of the paper is fed into the rubber part of the roller(①). While feeding the flap of the paper roll into the rubber part of the roller, turn the paper knob clockwise(②).



ZFBH330E

 **Note**

- Do not hold the paper knob from side. It may cause you touching a sticky oil. For how to turn the knob without any harm, see the illustration below:



ZFBH410E

- Make sure that the paper is not loose. Insert it straight into the roller.
- Watch carefully to make sure that the flap of the paper is inserted between feeder and the roller.

7 Close the Roll Feeder.

If You Cannot See the Roll Paper Jam

If roll paper jams inside the roll feeder, you still might need to check everywhere to remove the entire length of paper.

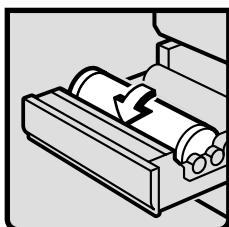
⚠ CAUTION:



- *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*
- *Be careful when replacing the roll paper or removing misfed paper by following the operating instructions properly. Otherwise, an injury may result from the paper cutter inside.*
- *Do not touch the anti-humidity switch from inside the machine because it could be very hot.*

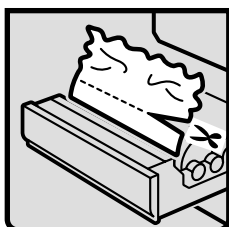
1 Open the Roll Feeder.

2 Rotate the paper roll in the direction of the arrow until you can see the edge of the paper.



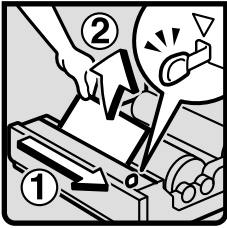
ZFBH370E

3 Cut the edge of the paper with the cutter or scissors.



ZFBH320E

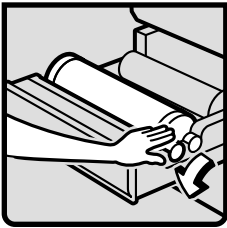
4 Hold the paper (②), and then slide the cutter (①).



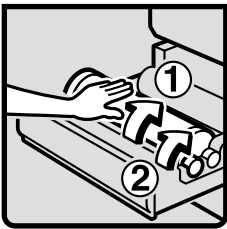
Note

- Slide the cutter one way only, otherwise paper waste may pile up inside the machine.

5 Turn the knob anticlockwise about 1/4 to adjust the paper position.



6 Slowly rotate the paper roll until the edge of the paper is fed into the rubber part of the roller (①). While feeding the flap of the paper roll into the rubber part of the roller, turn the paper knob clockwise (②).



Note

- Do not hold the paper knob from side. It may cause you touching a sticky oil. For how to turn the knob without any harm, see the illustration below:



- Make sure that the paper is not loose. Insert it straight into the roller.

- Watch carefully to make sure that the flap of the paper is inserted between feeder and the roller.

7 Close the Roll Feeder.

Others

If a puzzling or recurring problem occurs, check the following before calling a service representative. It's also a good idea to check the ⇒ P.73 “*Do's & Don'ts*” to make sure the paper and originals match what the copier can handle.

Absolutely nothing happens

- Is the main switch on?
- Is the power cord plugged in?
- Did a breaker or a fuse blow out?

Something happens, but Set Paper or RF Select never appear

- Check the indicators on the control panel. If any of them are lit, turn to ⇒ P.61. Check that all covers and units are closed.

5

If Jams Occur Frequently

- Is your paper creased, damp, or otherwise damaged? ⇒ P.8.
- Are there visible bits of paper or other objects stuck in the machine? If there are, remove them.
- Are you inserting the paper and original in straight? Always feed paper in straight.

If Copies Look Wrong

- Are copies too dark or too light? Adjust the density (⇒ P.29).
- Is the background dirty no matter what kind of original you are copying? Make sure the exposure glass and platen are clean (⇒ P.72).
- Is the image skewed? Make sure to insert the paper and the original straight into the machine. If you have the Original and Copy Guides (option), use them.

White Spots Appear

- On the copy: try setting your copy paper with the other side facing up.
- At the leading edge: try setting your copy paper sideways.
- At the trailing edge: try giving a rising curl to the trailing edge. The curl should go up, not down.

Creases

- Try setting your copy paper sideways.
- If long creases appear on copies, try setting your copy paper sideways, or try changing the copy media setting.
- If creases appear on copies made to transparent film, try setting your film sheets sideways.

Copies Come Out Dog Eared

- Try setting your copy paper with the other side facing up.
- Make sure your copy paper is undamaged.

Black streaks appear on copies

- Check that the exposure glass is clean.

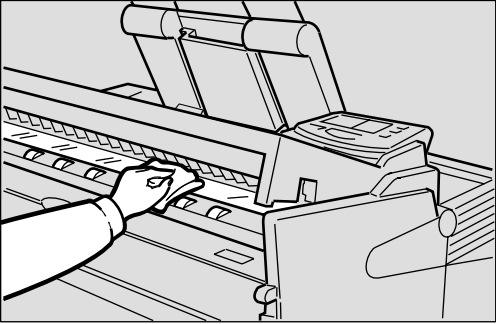
Daily Maintenance

Clean the Exposure Glass & the Platen Plate

you should clean the copy and original tables with a damp cloth, then wipe them with a dry cloth.

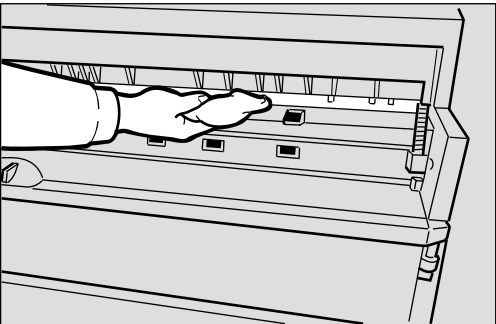
Clean the exposure glass and the Original Drive Roller with a damp cloth, then wipe it with a dry cloth.

5



SB040

Clean the platen plate with a damp cloth, then wipe it with a dry cloth.



SB041

Do's & Don'ts

CAUTION:



- *When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.*
- *When the machine will not be used for a long time, unplug the power cord.*

- Do not touch areas on or around the fusing unit. These areas get hot.
- After copies are made continuously, the exposure glass may feel warm. This is not a malfunction.
- The area around the ventilation hole may feel warm. This is caused by exhaust air and is not a malfunction.
- Do not turn off the main switch while copying. Before turning off the main switch, make sure that copying is completed.
- The machine might fail to produce good copy images if there is condensation inside caused by a temperature change.
- Do not open the covers of the machine while copying. If you do, misfeeds might occur.
- Do not move the machine while copying.
- The supplier shall not be liable for any loss or damage resulting from a failure of the machine, a loss of machine settings, or use of the machine.
- Do not place more than one sheet of paper at a time on the bypass table.
- Center your paper on the copy table using the size marks. Then slide the paper straight into the copier until it stops.
- When copying to a long sheet of paper, lightly hold the sheet as the copier pulls it in so that it goes in well.
- Do not make two sided copies.
- If you open the unit, make sure you close it within 5 minutes to keep light from damaging the copy drum.
- When copying to sheets 35" x45" (90 cm x115 cm) or larger, make sure the paper does not drag directly on the floor as the copier pulls it in. (You can spread paper on the floor for this.)
- If your paper has an uneven or slanted edge, do not insert this edge in first.
- Do not make copies longer than 80 inches (2 m).
- Do not insert originals made of paper less the 52.3 g/m² (13.9 lb or 0.07 mm thick). For such originals, please use the optional Carrier Sheet.

Where to Put Your Copier

Your copier should be installed by a qualified technician. If you need to transport your copier to a distant location, call your service center before the move.

You can of course move your copier around your office without calling the service center. If you do, remember that the temperature, humidity, and cleanliness of the area around the copier may affect its performance. Choose the new location with care and follow the guidelines below.

Machine Environment

Your machine's location should be carefully chosen because environmental conditions greatly affect its performance.

Optimal Environmental Conditions

⚠ CAUTION:



- *Keep the machine away from humidity and dust. A fire or an electric shock might occur.*
- *Do not place the machine on an unstable or tilted surface. If it topples over, it could cause injury.*

⚠ CAUTION:



- *If you use the machine in a confined space, make sure there is a continuous air turnover.*

- Temperature: 50° to 86°F (15° to 30°C)
- Humidity: 20 to 80% RH
- To avoid possible ozone build-up make sure to install this copier in a large, well ventilated room ensuring an air turnover of at least 1000 ft³/hour/person (30 m³). When you use this machine for a long time in a confined space without good ventilation, you may notice an odd smell. To keep the workspace comfortable, we recommend that you keep it well ventilated.
- Set your copier on a strong and level base. The copier must be level within a quarter of an inch (5 mm) left to right and half an inch (10 mm) front to rear.

Environments to Avoid

- Locations exposed to direct sunlight or strong light (more than 1500 lux)
- Dusty areas
- Areas with corrosive gasses
- Altitudes of over 6500 feet (2000 m)

- Areas prone to strong vibrations
- Locations directly exposed to cool air from an air conditioner or heat from a nearby heater (Sudden temperature changes may lead to condensation within the copier.)
- Locations near a diazo copy machine.

Power Connection

⚠ **WARNING:**



- **Only connect the machine to the power source described on the inside front cover of this manual.**

⚠ **WARNING:**



- **Avoid multi-wiring.**
- **Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.**
- **Do not plug or unplug the power cord with your hands wet. Otherwise, an electric shock might occur.**

⚠ **WARNING:**



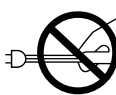
- **Make sure the wall outlet is near the machine and freely accessible so that in event of an emergency it can be unplugged easily.**

⚠ **CAUTION:**



- **When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.**
- **When the machine will not be used for a long time, unplug the power cord.**

⚠ **CAUTION:**



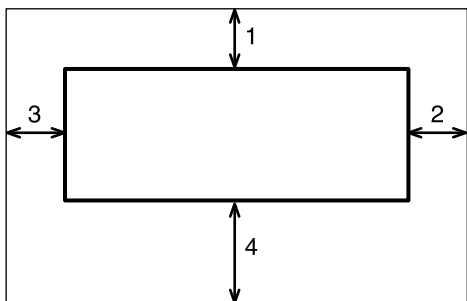
- **When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.**

- Connect the copier to a power source meeting the specifications on the inside front cover of this manual.
- Do not set anything on the power cord.
- Voltage must not fluctuate more than 10%.
- Make sure the copier is grounded.
- Make sure the plug is firmly inserted into the power outlet.

- Make sure the power outlet is close to the copier and easily accessible at all times.

Access To Machine

Place the copier near a power source and provide clearance as shown.



GCJ030E

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1. Rear: more than 60cm, 23.7"
2. Right: more than 60cm, 23.7"
3. Left: more than 60cm, 23.7"
4. Front: more than 100cm, 40.0"



6. Specifications

Copier

Configuration	Desktop
Process	Dry electrostatic transfer system
Scanning	Original moving over a fixed fiber optics array
Originals	Sheet
Original Reference Position	Center
Original Size	Maximum: 914mm (W) × 3,000mm (L) (36" × 118.0") Minimum: A4 □ (210 (W) × 297mm (L)) (8.5" × 11")
Copy Size	Maximum: 914mm (W) × 3,000mm (L) (36" × 118.0") Minimum: A4 □ (210 (W) × 297mm (L)) (8.5" × 11")
Warm-up Time	Within 3 minutes at a room temperature of 74°F (23°C)
First Copy	Within 21 seconds (A1 □ , 23" × 35",)
Copying Speed	3600mm (141.7") per minute
Auto Reset Time	2 minutes (can also be turned off or set to 1,3,4 or 5 minutes)
Reproduction Ratio	Fixed: 1 to 1
Paper Feed	manual feed/optional roll feeder
Toner replenishment	Cartridge system
Self-diagnostic codes	LED indicators
Power Source	North America: 120V, 60Hz, 12A Europe: 220-240V, 50/60Hz, 7A
Power consumption	Maximum 1.4kW
Noise emission	Stand by: less than 57dB Copy cycle: less than 75dB (copier only)
Measurements made following ISO7779	
Dimension (W × D × H)	1,080mm × 570mm × 490mm (42.5" × 22.4" × 19.3")
Weight	79kg (174lb)

Options

- Roll feeder

Number of loaded paper rolls	1 roll (Type 780A)	2 roll (Type 780B)
Acceptable Roll Size	Width: 210, 257, 297, 364, 420, 515, 594, 660, 728, 800, 841, 880, 914mm Roll length: less than 150mm  Note <input type="checkbox"/> Maximum: 914mm (36") <input type="checkbox"/> Minimum: 210mm (8.5")	Width: 210, 257, 297, 364, 420, 515, 594, 660, 728, 800, 841, 880, 914mm Roll length: less than 150mm  Note <input type="checkbox"/> Maximum: 914mm (36") <input type="checkbox"/> Minimum: 210mm (8.5")
Roll Diameter	Within 170mm (6.7")	Within 170mm (6.7")
Roll Core	75.7mm – 77mm(2.98" - 3.03")	75.7mm – 77mm(2.98" - 3.03")
Dimension (W × D × H)	1,200mm × 720mm × 775mm (48" × 28.3" × 30.5")	1,200mm × 720mm × 775mm (48" × 28.3" × 30.5")
Weight	78kg (172lb)	86kg(189lb)

- Side Guide Type 770
- Table Type 770
- Roll Cutting Rail Type 770

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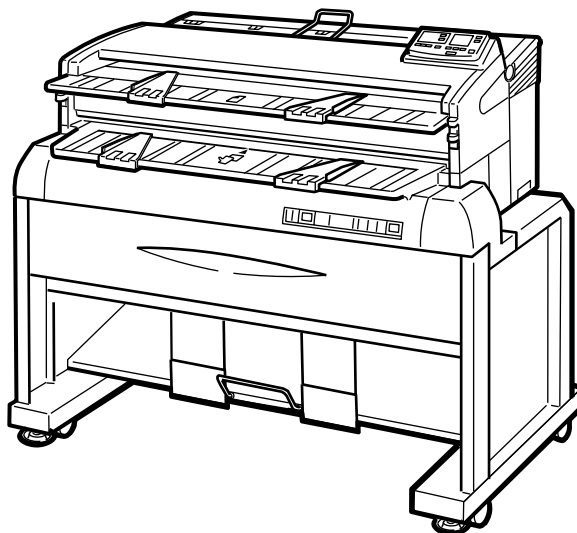
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RICOH

FW780

Operating Instructions



ZFAH010E

Read this manual carefully before you use this product and keep it handy for future reference.

For safety, please follow the instructions in this manual.

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Introduction

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

Please read the Safety Information before using this machine. It contains important information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.



Notes:

Some illustrations might be slightly different from your machine.

Certain options might not be available in some countries. For details, please contact your local dealer.



Warning:

Use of controls or adjustment or performance of procedures other than those specified in this manual might result in hazardous radiation exposure.

Two kinds of size notation are employed in this manual. With this machine refer to the metric version.

For good copy quality, Ricoh recommends that you use genuine Ricoh toner.

Ricoh shall not be responsible for any damage or expense that might result from the use of parts other than genuine Ricoh parts in your Ricoh office product.

Power Source

220V - 240V, 50/60Hz, 7A

Please be sure to connect the power cord to a power source as above. For details about power source, ⇒ P.76 "Power connection"

Where symbols are used on or near switches, they mean as under in accordance with IEC 60417:

I means **POWER ON.**

⏻ means **STAND BY.**


Safety Information

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

Safety During Operation

In this manual, the following important symbols are used:

 **WARNING:**
Indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury.

 **CAUTION:**
Indicates a potentially hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to property.

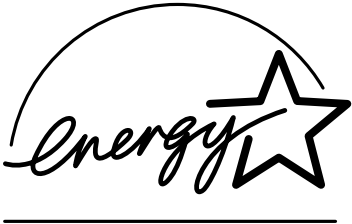
⚠ WARNING:

- Connect the power cord directly into a wall outlet and never use an extension cord.
- Only connect the machine to the power source described on the inside front cover of this manual.
- Avoid multi-wiring.
- Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.
- Do not plug or unplug the power cord with your hands wet. Otherwise, an electric shock might occur.
- Disconnect the power plug (by pulling the plug, not the cable) if the power cable or plug becomes frayed or otherwise damaged.
- Make sure the wall outlet is near the machine and freely accessible so that in event of an emergency it can be unplugged easily.
- Turn off the power and disconnect the power plug (by pulling the plug, not the cable) if any of the following conditions exists:
 - You spill something into the equipment.
 - You suspect that your equipment needs service or repair.
 - Your equipment's cover has been damaged.
- Do not take apart or attempt any modifications to this machine. There is a risk of fire, electric shock, explosion or loss of sight. If the machine has laser systems, there is a risk of serious eye damage.
- To avoid hazardous electric shock or laser radiation exposure, do not remove any covers or screws other than those specified in this manual.
- Some parts of the machine are at a high voltage and could give you an electric shock. Also, if the machine has laser systems, direct (or indirect) reflected eye contact with the laser beam may cause serious eye damage. When the machine needs to be checked, adjusted, or repaired, contact your service representative.
- Do not keep using the machine with a fault or defect. Contact your service representative.
- If the machine looks damaged or breaks down, smoke is coming out, there is a strange smell or anything looks unusual, immediately turn off the operation and main power switches then unplug the power cord from the wall. Do not continue using the machine in this condition. Contact your service representative.
- Do not put any metal objects or containers holding water (e.g. vases, flowerpots, glasses) on the machine. If the contents fall inside the machine, a fire or electric shock could occur.
- Do not incinerate spilled toner or used toner. Toner dust might ignite when exposed to an open flame.
- Disposal can take place at our authorized dealer or at appropriate collection sites.
- Dispose of the used toner cartridge in accordance with the local regulation.

⚠ CAUTION:

- When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.
- Unplug the power cord from the wall outlet before you move the equipment. While moving the equipment, you should take care that the power cord will not be damaged under the equipment.
- When the machine will not be used for a long time, unplug the power cord.
- If you use the machine in a confined space, make sure there is a continuous air turnover.
- Keep the machine away from humidity and dust. A fire or an electric shock might occur.
- Do not place the machine on an unstable or tilted surface. If it topples over, it could cause injury.
- After you move the machine, fix it with the caster fixture. Otherwise, the machine might move or come down to cause a personal injury.
- Protect the equipment from dampness or wet weather, such as rain, snow, and so on.
- Do not allow paper clips, staples, or other small metallic objects to fall inside the equipment.
- Do not reuse stapled paper. Do not use aluminum foil, carbon-containing paper or other conductive paper. Otherwise, a fire might occur.
- Do not eat or swallow toner.
- Keep toner (used or unused) and toner bottle out of the reach of children.
- For environmental reasons, do not dispose of the equipment or expended supply waste at household waste collection points. Disposal can take place at an authorized dealer or at appropriate collection sites.
- When removing misfed paper, do not touch the fusing section because it could be very hot.
- Do not touch the anti-humidity switch from inside the machine because it could be very hot.
- The inside of the machine could be very hot. Do not touch the parts with a label indicating the “hot surface”. Otherwise it could cause a personal burn.
- Rolls of paper can be heavy, so you should be careful when loading one.
- This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.
- Our products are engineered to meet high standards of quality and functionality, and we recommend that you only use the expendable supplies available at an authorized dealer.
- This equipment is only to be installed by a qualified service personnel.

ENERGY STAR Program

 <p>ENERGY STAR®</p>	<p>As an ENERGY STAR Partner, we have determined that this machine model meets the ENERGY STAR Guidelines for energy efficiency.</p>
---	--

The ENERGY STAR Guidelines intend to establish an international energy-saving system for developing and introducing energy-efficient office equipment to deal with environmental issues, such as global warming.

When a product meets the ENERGY STAR Guidelines for energy efficiency, the Partner shall place the ENERGY STAR logo onto the machine model.

This product was designed to reduce the environmental impact associated with office equipment by means of energy-saving features, such as Low-power mode.

- **Auto Off Mode**

To conserve energy, this product automatically turns off 1 minute after the last copying or printing job has been completed. Printing is available in this mode, but if you use the copier, press the main switch.

For how to change the default interval before entering Auto Off mode, see Auto Off Time in “*User Tools*” ⇒ P.40

❖ **Specification**

		FW780
Auto Off mode	Power consumption	1.0 W
	Default interval	30 minute

 **Recycled Paper**

Please contact your sales or service representative for recommended recycled paper types that may be used in this machine.

How to Read this Manual

Symbols

In this manual, the following symbols are used:

WARNING:

This symbol indicates a potentially hazardous situation that might result in death or serious injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

CAUTION:

This symbol indicates a potentially hazardous situation that might result in minor or moderate injury or property damage that does not involve personal injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

* The statements above are notes for your safety.

Important

If this instruction is not followed, paper might be misfed, originals might be damaged, or data might be lost. Be sure to read this.

Preparation

This symbol indicates the prior knowledge or preparations required before operating.

Note

This symbol indicates precautions for operation, or actions to take after misoperation.

Limitation

This symbol indicates numerical limits, functions that cannot be used together, or conditions in which a particular function cannot be used.

Reference

This symbol indicates a reference.

[]

Keys that appear on the machine's panel display.

[]

Keys built into the machine's operation panel.

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5. Troubleshooting

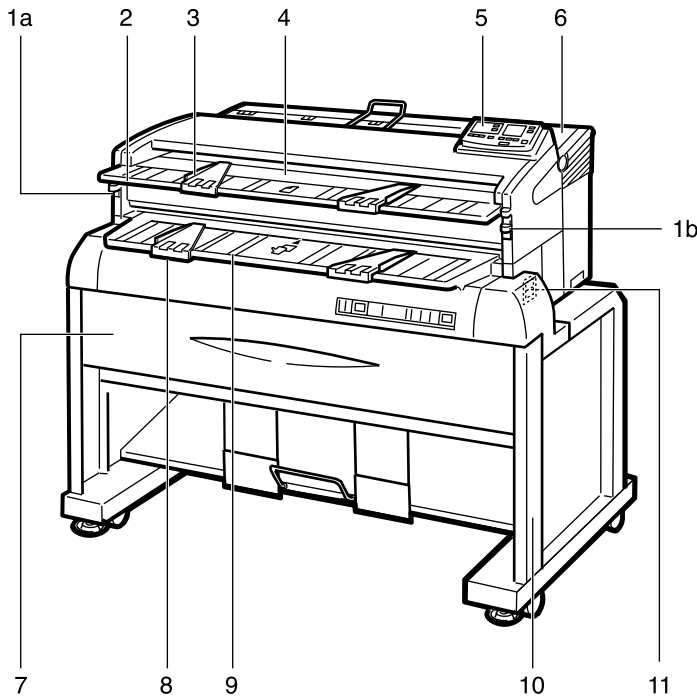
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Guide to Components

Copier Exterior



ZFAH011E

1. Locks

Squeeze both locks (1a&1b) to open the unit. Open the unit to empty the used toner bottle and to remove jammed paper.

2. Front Cover

Open the cover (and the unit) to access the toner cartridge.

3. Original Guides

Use the guides to keep the original straight as you feed the original into the copier.

4. Original Table

Place your original face up here. If you want to copy a stiff original that can't be bent, use the rear table (see 6).

5. Operation Panel

⇒ P.3 “Operation Panel”.

6. Rear Table

Place stiff originals face down here.

7. Roll Feeder

Feeds paper from a roll to the copier.

8. Paper Guides

Use the guides to keep the copy paper straight as you feed it into the copier.

9. Bypass Table

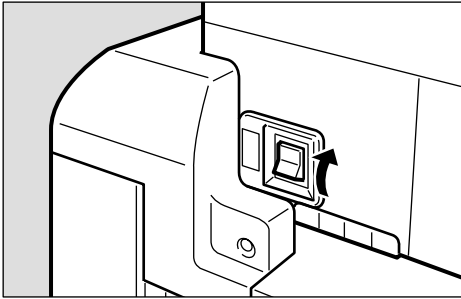
Use this table when you want to make copy one by one.

10. Table

Holds your copier and the Roll Feeder.

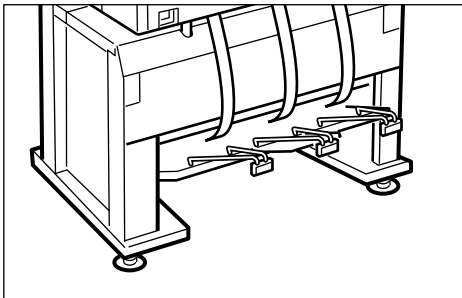
11. Main switch

Use this switch to turn the copier on and off. The copier will need about 3 minutes to warm up, if it's been turned off for a long time.



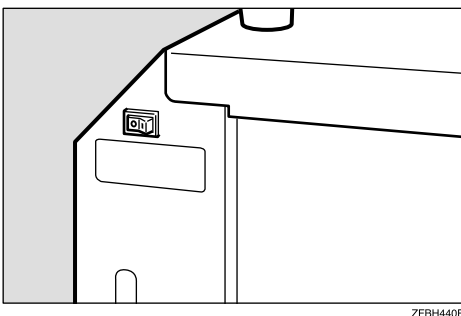
12. Copy Exit Guide

Makes sure that copies don't fall off as they come out.

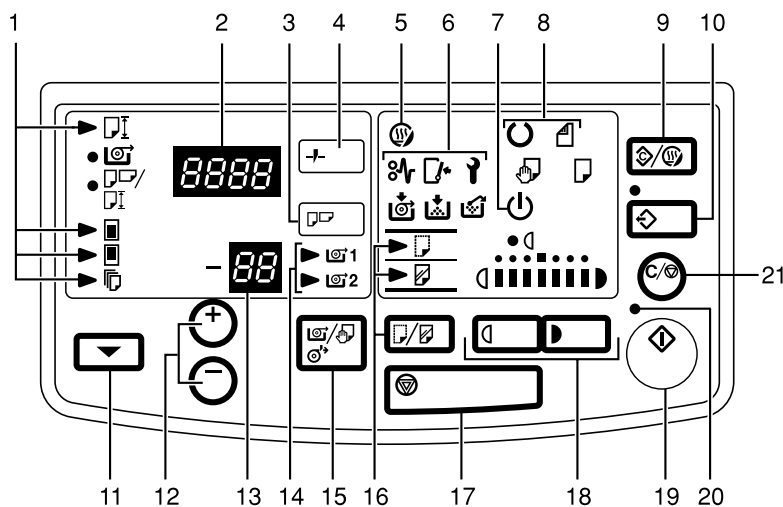


13. Anti-humidity Heater Switch

When humidity is high, the paper in the paper roll tray may absorb moisture, which can effect the image quality of your copies. The anti-humidity heater prevents this. Turn on this switch, which is located rear left corner of the machine, when humidity is high.⇒ P.9 “*Anti-humidity Heater*”



Operation Panel



ZFAS010E

1. Function indicators

These indicators show which setting you are currently editing. Press the Function Select key to cycle through them.

- The top indicator (Paper Length indicator) lights when the paper length is being set.
- The second indicator (Leading Edge indicator) lights when the leading margin is being set.
- The third indicator (Trailing Edge indicator) lights when the trailing margin is being set.
- The fourth indicator (Copy Counter indicator) lights when the number of copies is being set.

2. Paper Length display

Shows the length of paper the Roll Feeder will send.

3. [Preset Cut] key

Press to scroll through the preset paper lengths for the Roll Feeder.

4. [Cut Select] key

Turns Synchro Cut or Preset/Variable Cut on and off.

5. Energy Saver indicator

Shows that the machine is in a state of wait (Energy Saver). Press key 9.

6. Troubleshooting indicators

⇒ P.61 "Troubleshooting" for details.

7. Wait indicator

Shows that the copier is not yet ready to copy.

8. Ready (Ⓜ), Set Original (Ⓜ), Set Paper (Ⓜ), Bypass Select (Ⓜ) indicator

Ready and Set Original lights up when the copier is ready to receive an original. The Set Paper indicator and the Bypass Select indicator go on when you select Bypass table.

9. [Clear Modes/Energy Saver] key

Cancels all current settings. When you hold down this key for three seconds or more, the copier enters the Energy Saver mode power.

To exit Energy Saver mode, press this key again.

10. [Program] key

Allows you to recall or set a program.

The program indicator(LED) lights after you store the setting.

11. [Function Select] key

Press to change which setting you are editing. The current selection is shown by the indicators above the key:

- Paper Length
- Leading Edge
- Trailing Edge
- Copy Counter

Also used for copying a selected portion of the original.

12. [+] and [-] key

Press to increase the value being edited.
Press to decrease the value being edited.

13. Leading Edge/Trailing Edge/ Copy Counter indicator

Displays the margin settings and the number of copies made.

14. Roll Feeder indicator

Light up when you select Roll Feeder 1 or 2.

15. [Paper Select/Cut] key

Use to select the paper feed type such as Roll feeder 1, 2 and Bypass Tray. Also press to stop a copy job.

16. [Copy Media] key

Press to select the type of copy paper you are using.

The copier will apply more or less heat accordingly.

- The top indicator-Translucent paper indicator
- The bottom indicator-Film indicator

17. [Emergency Stop] key

Press to stop the copying process immediately.

Use if your original is getting stuck in the copier.

If you stop operation by pressing this key, remove the original.

18. Density indicator and [D], { D }keys

Shows the density level the copies will have.

Press the left key to make copies lighter.

Press the right key to make copies darker.

19. [Start] key

Press to start copying when you select manual feed mode. Otherwise, the copy job automatically start after you place both paper and original. For details about manual feed mode, ⇒ P.16 “Manual Feed Mode”

20. Green indicator

Lights up when you select the manual feed mode.

21. [Clear/Stop] key

When entering numbers, press to cancel.

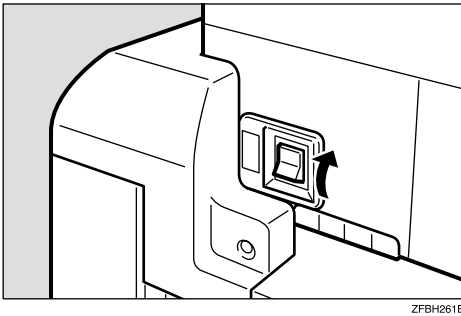
While copying, press to stop copying.

Turning on the Power

To turn the machine on, press the main switch.

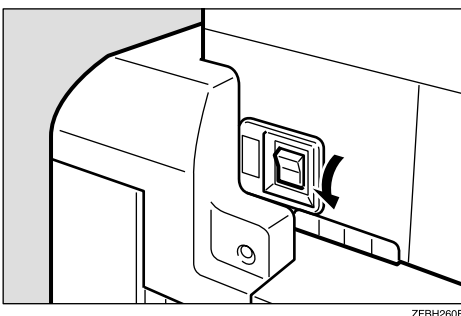
Turn on the Main Power

- 1** Make sure that the power cord is firmly plugged into the wall outlet.
- 2** Turn on the main switch.



Turn off the Main Power

- 1** Turn off the main switch.

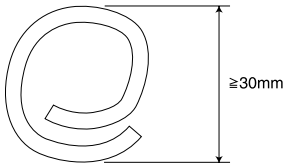


Recommended Originals

- You can set originals with weight in the range 21g/m² of(6 lb) to 157 g/m²(41 lb).
- You can set original with sizes between 914×3,000mm (W×L), 36"×118" and 210×297mm (W×L), 8.5"×11". (The maximum width that can be fed is 960mm, 38.4")
- You can not use the Repeated Copying function in the following cases:
When using the Carrier Sheet.
When setting an original longer than 1,200mm (48").
- Fix the curl of originals to within the following range:
 - For the curl of the leading edge and the trailing edge: R50mm (2.0") or more, H20mm (0.8") or less.



- For the curl of the whole paper: ϕ 30mm (1.2") or more



- When you copy the following originals, set them in the rear table:
⇒ P.19 "Using the Rear Table"
 - Thick originals (0.19mm ~1mm)
 - Originals less than 297mm (11") in width and more than 1,200mm (48") in length.
- When you copy the following originals, use the carrier sheet to set them:
 - Piled originals
 - Folded originals
 - Taped or pasted originals
 - Originals which have a hole near the leading edge 40mm (1.6") to the right or left of the center
 - Dog-eared originals
 - Creased, torn, or clipped-out originals
 - Wavy originals
 - Pasted originals
 - Originals whose leading edge is not straight

- Curled originals

Non-recommended Originals

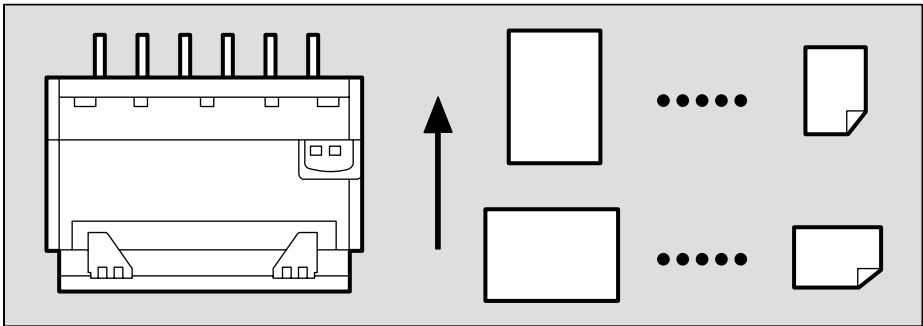
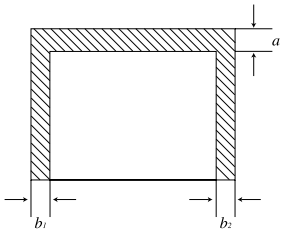
The following types of originals are not recommended.

- Wet originals
- Originals with cardboard stuck on the leading edge
- Originals with clips or staples
- Originals with wet ink or white-out
- Carbon paper
- Originals made of materials other than paper or film (thermosensitive paper, aluminum foil, etc.)

Note for Leading and Side Edges of the Originals

















Margins on the leading and side edges of originals are not copied as shown in the illustration.

- $a=0\pm 3\text{mm}$ (0.12")
- $b_1+b_2<0\pm 2\text{mm}$ (0.08") (A1☐)



Recommended Paper

Standard paper sizes that can be used in this copier are shown below.

Metric version	Inch version	Bypass	Roll Feeder
A0	E (36"×48")		
A1	D (24"×36")	 	 
A2	C (18"×24")	 	 
A3	B (12"×18")	 	 
A4	A (9"×12")		

Note

- When you make a copy on a non-standard size of paper, set the paper in the bypass tray.
- Weight of paper suitable for this copier: 51g/m², 14lb to 134g/m², 36lb.
- Do not use the following kinds of paper or a paper jam might occur.
 - Bent, folded, or creased paper
 - Torn paper
 - Perforated paper
 - Non-smooth paper
 - Slippery paper
 - Thin paper that has low stiffness
- Do not make a copy on paper with any kind of coating, such as thermosensitive paper, art paper, aluminum foil, and carbon paper. A fault might occur.
- Do not use paper with strong curls at the edges or corners. (Curls rising more than 5mm (1/4") or falling more than 20mm (3/4") over a 40mm (1.5") radius.)
- When you make copies on film, take out the copies delivered to the copy exit guide one sheet at a time and place them on a flat surface.
- If copying to natural tracing paper (all pulp, translucent paper) at a relative humidity of 35% or less
 - ① If the paper was left out of its package for 5 minutes or more, remove the first 1000mm (39.3") before copying.
 - ② If copies come out wavy or with white spots, use translucent paper instead of natural tracing paper.
 - ③ Always keep the paper in a bag when not using it.
- Store the paper in a sealed polyvinyl bag if not used for a long period. If it gets humid, paper will curl or wave which can cause a paper jam or part of the image not to be copied.

- When you use paper in high humidity under hot conditions, take out only the necessary amount of paper from the bag. Do not take all the paper out of the bag.

Anti-humidity Heater

- When humidity is high, the paper in the paper roll tray may absorb moisture, which can effect the image quality of your copies. The anti-humidity heater prevents this. Set this switch to "On" when the humidity reaches more than 45%.

Toner

1

Handling Toner

 **WARNING:**



- *Do not incinerate used toner, toner bottles or toner cartridges.*
- *Toner dust might ignite when exposed to an open flame.*
- *Dispose of toner bottles and the used toner cartridges according to local regulations.*

 **CAUTION:**



- *Do not eat or swallow toner.*
- *Keep toner (used or unused), toner bottles, and toner cartridges out of reach of children.*

 **CAUTION:**



- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

- If you use toner other than the recommended, a fault might occur.
- If you want to add toner, ⇒ P.50 “Adding Toner”

Toner Storage

- Store toner cartridges horizontally in a cool, dark place.
- Do not leave toner cartridges in your car on a hot day for a long period of time or anywhere that they could be subjected to temperatures of over 95°F (35°C).
- Never store toner where it will be exposed to heat.
- Do not lay heavy objects on toner bottles.

Used Toner

- Toner cannot be re-used.
- Put the used toner in the plastic bag and dispose of it according to local regulations.

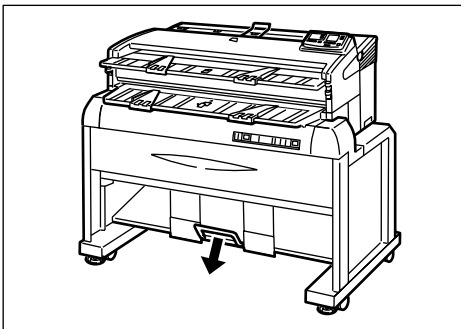
2. Copying

Basic Copying (Copying to sheets)

Use bypass table or roll feeder to copy onto paper.

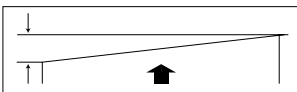
Note

- For acceptable types of original and paper, ⇒ P.6 “*Recommended Originals*” ⇒ P.8 “*Recommended Paper*”.
- If you use bypass table, place one sheet of paper and never insert more than one sheet of paper.
- If the copy paper is curled, place it with the curl facing downwards.
- When you set A0 size (36"×48") paper, to make sure the ends do not touch the floor and get dirty, lay a wide piece of paper or some other covering on the floor.
- When setting an original or paper longer than 1,200mm (48"), pull down the Original stopper (option, a part of the copy stacker) and put the edge of your original or paper on.



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- Do not use paper which is cut obliquely. When the difference between the right side and the left side of the paper is more than 5mm(1/5"), creasing or a paper jam might occur.



- You cannot copy to both sides of the paper at the same time.
- The machine needs about 3 minutes to warm up after being turned on before copies can be made. The machine is warming up when the wait indicator is lit, but you can still edit settings, insert copy paper or insert your original.
- You can set either the paper or an original (from bypass tray or roll feeder) first. When you have set both of them, the copier starts copying automatically. If you want to feed manually, manual feed mode is available. For details about manual feed mode, ⇒ P.16 “*Manual Feed Mode*”

- ❑ Do not lean on the copy table or lay heavy objects on it.
- ❑ Pick up a sheet of copy, everytime you finish copying.

⚠ CAUTION:

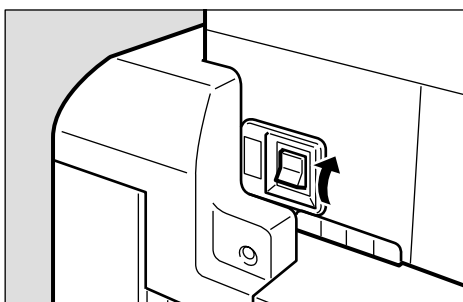
- If during copying your original gets stuck in the copier, press the [Emergency Stop] key.



- If you stop operation by pressing this key, remove the original.

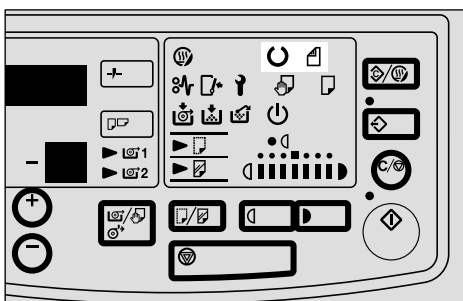
2

1 Turn on the main switch.



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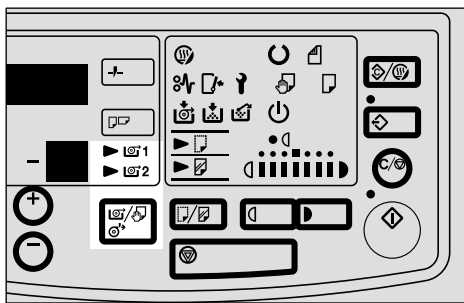
2 When the Wait indicator goes off and the Ready and the Set Original indicator go on, the copier enters the ready condition.



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3 Select any copy settings you require, such as the media type or copy density.

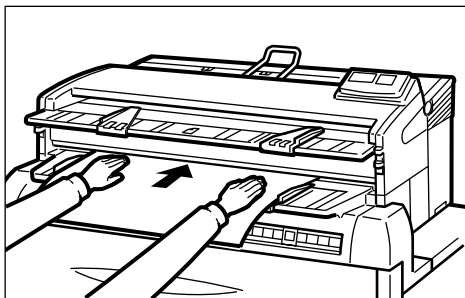
Press the **[Paper Select/Cut]** key to select either the Roll Feeder or Bypass Tray.



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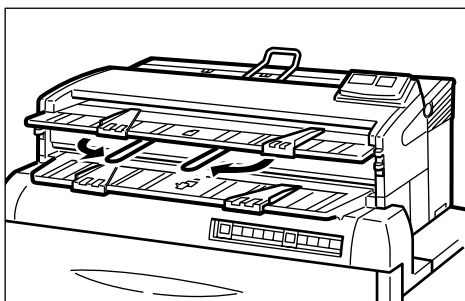
Note

- If you select two roll feeder, select one of the roll.
- If you select the Bypass table, center the paper **face up** on the bypass table and slide the paper straight into the copier.



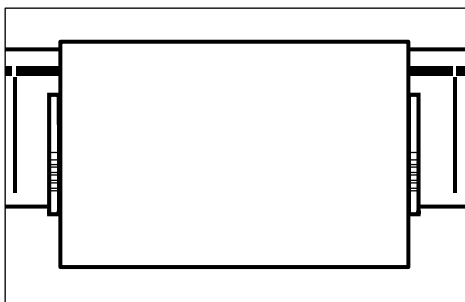
ZFAH070E

- 4** Open the guides to keep the edge of the original from slipping into the paper entrance.



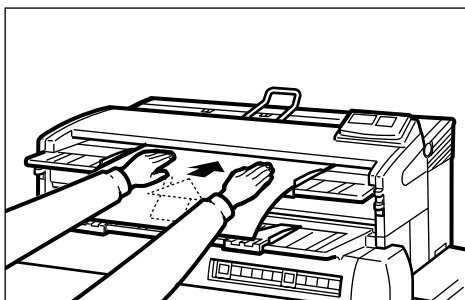
ZFAH100E

5 Set the original guide to match the width of the original.



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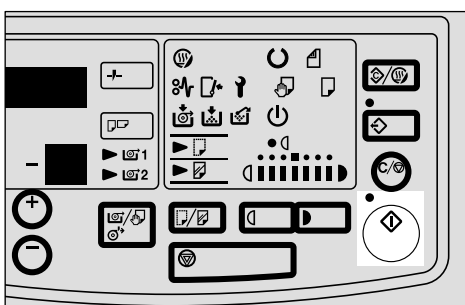
6 Center your original face down on the original table. Slide the original straight into the copier until the copier pulls it in.



ZFAH060E

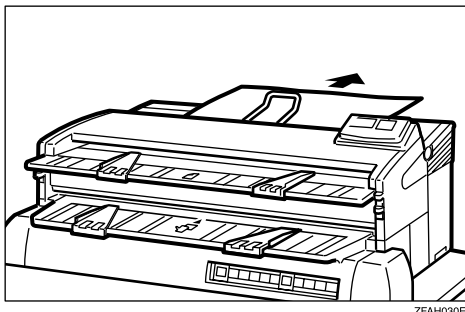
Note

- If you want to feed manually, use the manual feed mode. Press the [Start] key for more than 3 seconds to enter the mode. For details about the manual feed mode, ⇒ P.16 “Manual Feed Mode”.



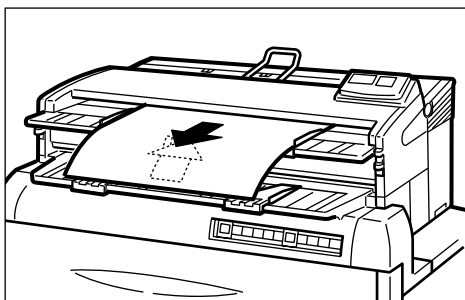
ZFAS050E

7 The original is fed through to the rear table.



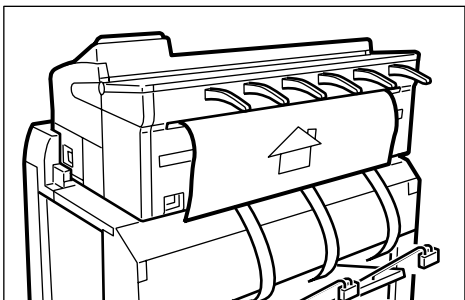
ZFAH030E

8 When the original is being sent back, the machine scans the original and starts copying.



ZFAH050E

9 The copy is delivered at the back of the copier.

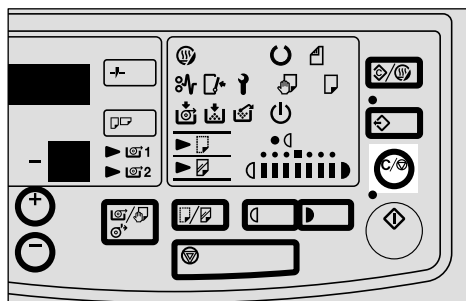


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 **Note**

- You must always pick up copies everytime, otherwise copy paper will pile up without rule.

- 10** After copying has finished, hold the original with one hand, press the Clear/Stop key, and remove the original.



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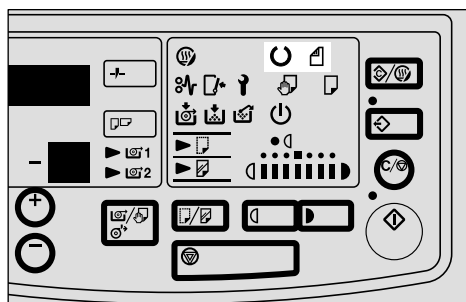
Note

- Do not hold down or pull out the original during copying. Do not put heavy object on the original table.
- If you do not insert the original in a certain interval after inserting the paper, the paper will be ejected automatically.
- If you do not insert the paper in a certain interval after the original, the original will be ejected automatically.
- If the copier is idle for a certain interval after you have used it, the machine resets itself to the initial settings (Auto Reset). If the copier is not used for a long time, it will turn itself off (Auto Off).
- You can preset the initial settings of the copier ⇒ P.38 “B) Changing the Default Setting”

Manual Feed Mode

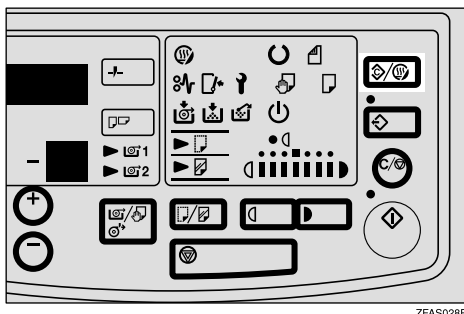
When you need to make larger sized paper, you can feed paper manually by using this function. If you want to feed manually, use the manual feed mode. This function helps you to make larger sized copy and protect from the paper skew.

- 1** When the Wait indicator goes off and the Ready and the Set Original indicator go on, the copier enters the ready condition.



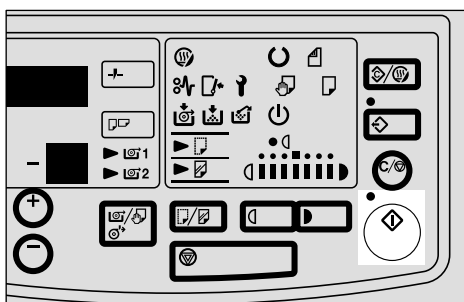
ZFAS027E

- 2** If any previous settings remain, press the **[Clear Modes/Energy Saver]** key.



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- 3** Press the **[Start]** key for more than 3 seconds.



ZFAS050E

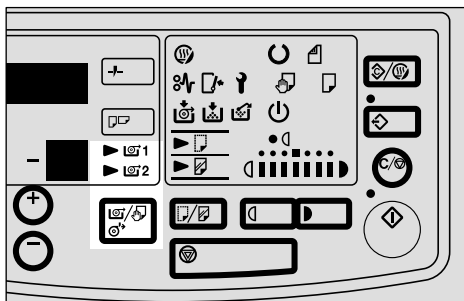
The green indicator, which is next to the start key, goes on.

Note

- If you want to use this setting as a default, ⇒ P.42 “Settings You Can Change with User Tools”

- 4** Select any copy settings you require, such as the media type or copy density.

Press the **[Paper Select/Cut]** key to select either one of the Roll Feeder or Bypass Tray.

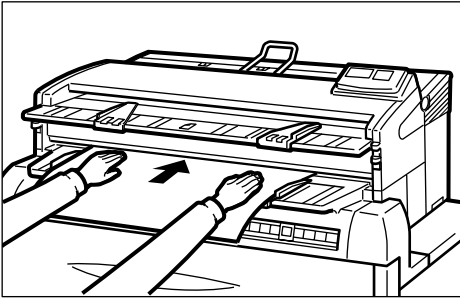


ZFAS024E

Note

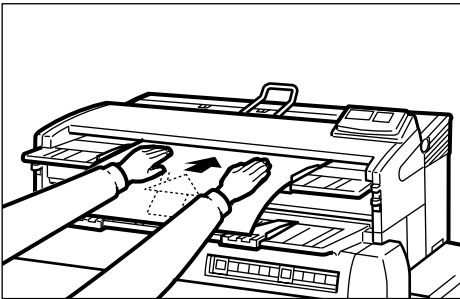
- If you select two roll feeder, select one of the roll.

- If you select the Bypass table, Center the paper **face up** on the bypass table and slide the paper straight into the copier.



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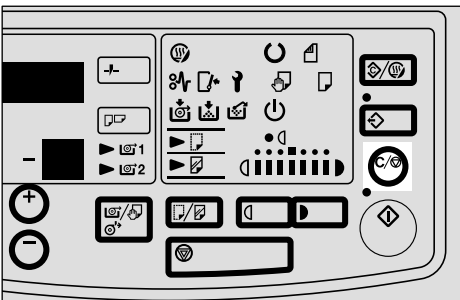
- 5** Set the original guides to match the original size mark. Place the original **face down** and slide it straight into the copier along the original guides.



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 **Note**

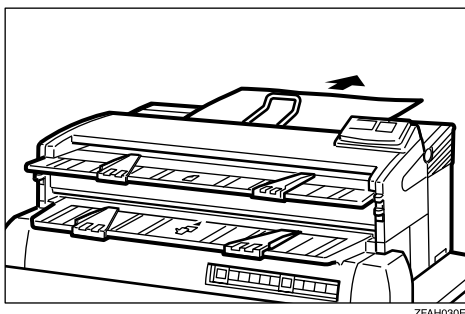
- Do not force to remove the original once you set it and if you want to change the position of your original or set another original. In this case, press the **[Clear/Stop]** key to eject the original.



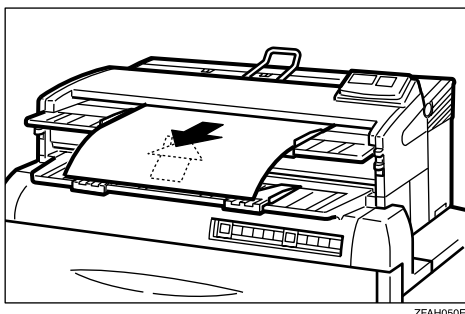
ZFAS026E

- 6** If you are ready to make copy, press the **[Start]** key.

- 7** The original is fed through to the rear table.

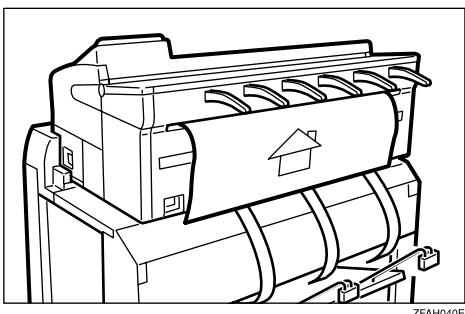


- 8** When the original is being sent back, the machine reads the original and starts copying.



With Repeated Copying, the original is repeatedly fed through and sent back until all copies have been made.

- 9** Copies are delivered at the rear of the machine.



Using the Rear Table

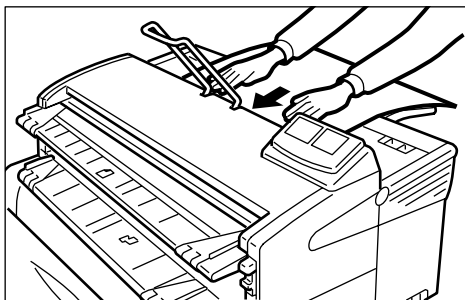
Set thick originals or originals less than 297(11")mm in width and more than 1,200(48")mm in length on the rear table.

 **Note**

- You cannot use the following functions when using the rear table.
 - Repeated Copying

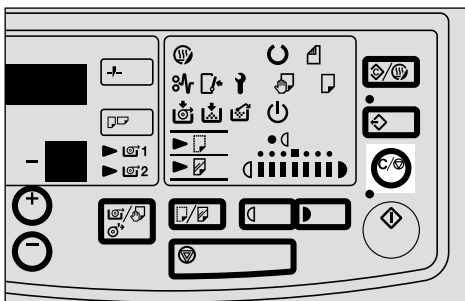
- Synchro Cut with roll paper (The machine beeps.)
- Partial Copying

- 1** Choose any copy settings you require.
- 2** For manual copying, set the paper.
- 3** Pull up the guide to avoid paper misfeeds.
- 4** Insert the original face down from the rear table.



ZFAH020E

- 5** When the machine scans the original and starts copying, support the original with your hands at the front of the machine.
- 6** Press the **[Clear/Stop]** key and remove the original.



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If the paper is hardly to remove, ⇒ P.65 “If Sheet Paper is Jammed at the Paper Exit”

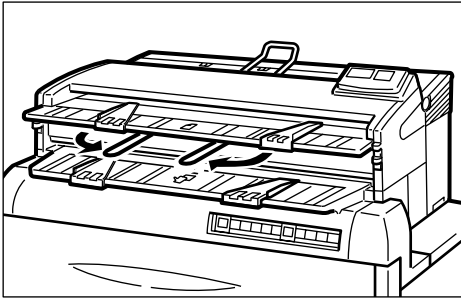
Copying onto Roll Paper

The paper will be fed to the copier from the Roll Feeder. You can copy onto roll paper using the following functions:

- Synchro cutting
- Preset cutting
- Variable cutting

Note

- If unused roll paper is left in the copier, cut 1000mm (39.3") from the edge of the paper before you start copying.
- When you want to copy a long original, curled original, or the thin original (less than 0.1mm) which can be easily bent down, open the guides to keep the original away from the paper entrance.



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CAUTION:

- If during copying your original gets stuck in the copier, press the [Emergency Stop] key.



- If you stop operation by pressing this key, remove the original.

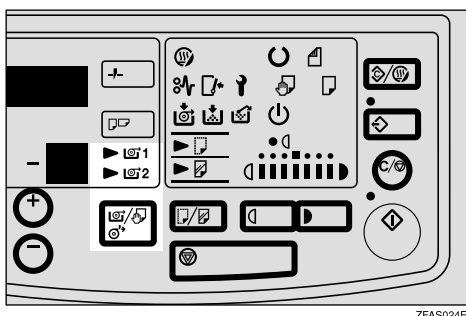
Synchro Cutting

This function cuts roll paper automatically according to the original length.

Note

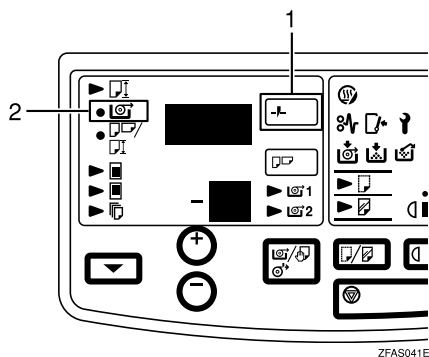
- This feature can cut length of paper in the range of 280mm to 3,000mm, 11" to 118".

1 Press the **[Paper Select/Cut]** key.



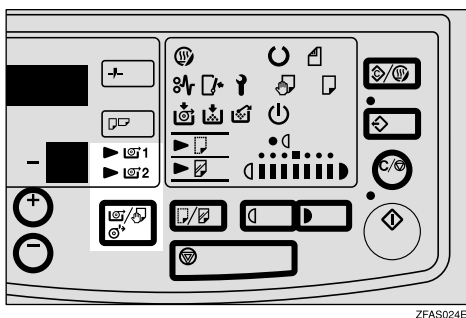
The **Paper Select** indicator lights up.

2 Press the **[Cut Select]** key (1).



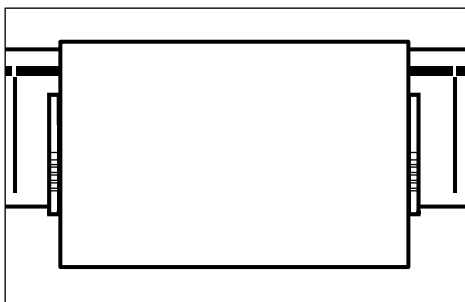
The **Synchro** indicator (2) lights up.

3 Press the **[Paper Select/Cut]** key to turn on the **RF Select** indicator.



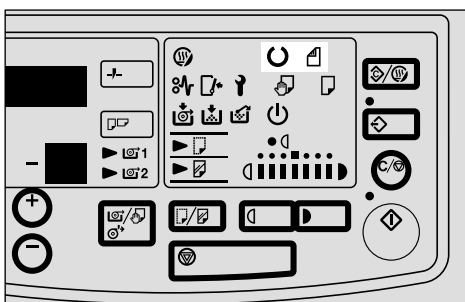
4 Select any copy settings you require.

- 5** Set the original guides to match the width of the original.



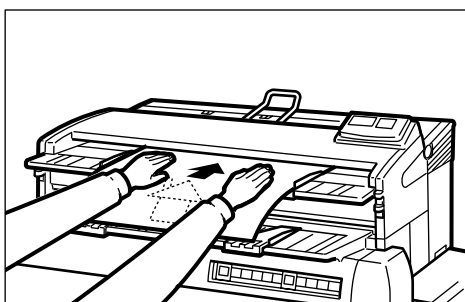
GCJ1010E

- 6** Make sure that the wait indicator goes off and the ready and the set original indicator go on.



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- 7** Center your original face down on the original table. Slide the original straight into the copier until the copier pulls it in.

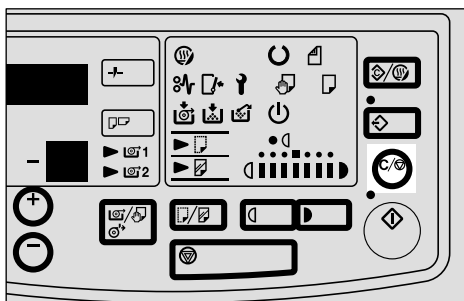


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Note

- Press the **[Start]** key if you select the manual feed mode. For details about the manual feed mode, ⇒ P.16 “Manual Feed Mode”.

- 8** After copying has finished, hold the original with one hand, press the **[Clear/Stop]** key, and then remove the original.



Note

- To cancel copying, press the **[Clear/Stop]** key. The copier finishes the operation in progress, and delivers the copy and the original. Press the **[Clear/Stop]** key to remove the original.
- To call off on-going copying, for example, when you have inserted a wrong blueprint, press the **[Paper Select/Cut]** key. The machine interrupts the operation in progress, and delivers the copy and the original. Press the **[Clear/Stop]** key to remove the original.

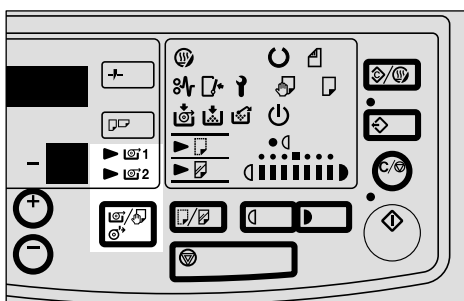
Preset Cutting

This function cuts roll paper to a selected length. The paper is cut to this length regardless of the size.

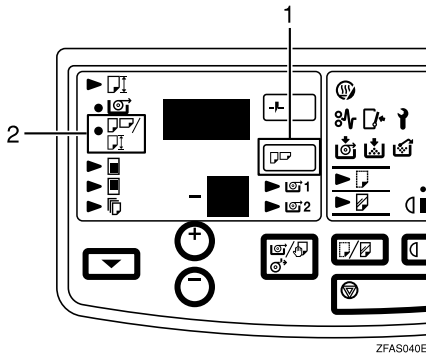
Note

- The default preset cut lengths are as follows. Metric Version: 1189mm, 841mm, 594mm, 420mm, 297mm Inch Version: 48.0", 42.0", 36.0", 24.0", 18.0", 11.0" To change the preset cut length pattern, please contact your service representative.

- 1** Press the **[Paper Select/Cut]** key to turn on the Paper Select indicator.



- 2** Press the **[Preset Cut]** key (1).



The **Preset/Variable** indicator lights up (2) and the Paper Length display shows the default Preset Cut length. (1189mm or 48").

- 3** Press the **[Preset Cut]** key several times until the indicator shows the value you want.
- 4** Choose any copy settings you require.
- 5** Continue from step **5** ⇒ P.23

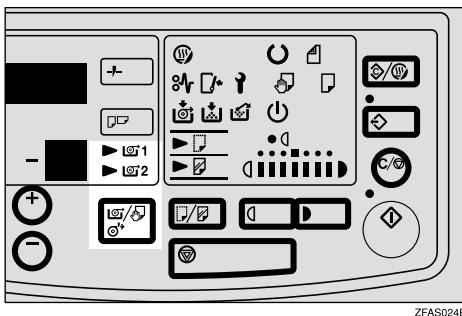
Variable Cutting

This function cuts roll paper in a length you specify.

Note

- Length can be cut from 280mm to 3,000mm, 11" to 118".

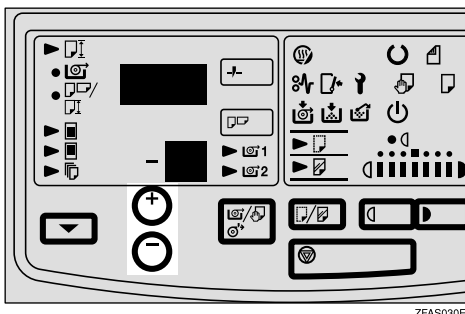
- 1** Press the **[Paper Select/Cut]** key.



The **Preset/Variable** indicator lights up and the paper length display shows the default Preset Cut length. (1189mm or 48.0").

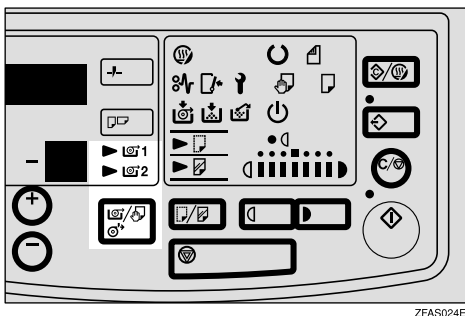
- 2** Press the **[Preset Cut]** key to display the nearest value to the one you want.

- 3** Press the **[+]** key or the **[-]** key to specify the most appropriate length.



You can change the settings by 1mm (0.1") steps.

- 4** Choose any copy settings you require.
- 5** Press the **[Paper Select/Cut]** key to turn on the Paper Select indicator.



- 6** Continue from step **5** ⇒ P.23

3. Copy Settings

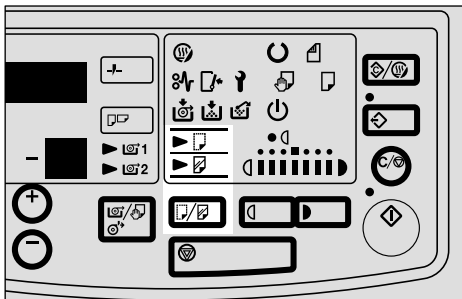
Copying onto Other Media

To copy onto translucent paper, film, use the **[Copy Media]** key to match the paper type refer to the following table.

Type of paper	Media setting
Plain paper	Both indicators off
Film	Film indicator on
Translucent paper	Translucent paper indicator on
Heavy paper	Translucent paper indicator on
Thin paper	No indicator or the film indicator if necessary.

If you are not sure of what type of paper you have, check the label on the paper package to confirm it.

1 Press the **[Copy Media]** key.



The **Translucent paper** or **Film** indicator lights up.

The **Wait** indicator goes on and either the **Translucent paper** or **Film** indicator lights.

- 2** When the wait indicator goes off and the ready and the set original indicator go on, the copier enters the ready condition.

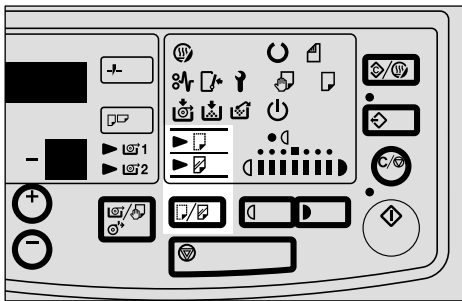
Note

- Even if you select the media type correctly, creasing might occur depending on the temperature or humidity. If this happens, adjust the fusing temperature manually. See the next page.

Adjusting the Fusing Temperature Manually

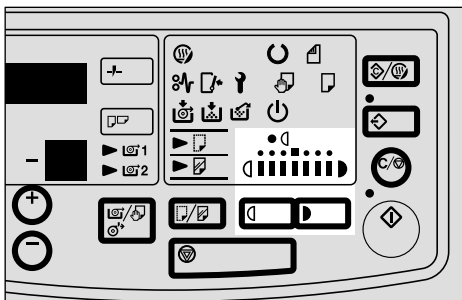
3

- 1** Press the **[Copy Media]** key to turn on the Translucent or Film indicator that you want.



- 2** Hold down the **[Copy Media]** key for 3 seconds until beep. The indicator show the current fusing temperature. The unlit indicator shows the current temperature settings.

- 3** Press the **[D]** key to decrease the temperature, and press the **[D]** key to increase the temperature. The number of temperature levels (7 levels) available depends on the paper type:



- Plain paper : 1234567
- Translucent paper: 1234
- Film : 1234

- 4** After you have finished setting the temperature, press the **[Copy Media]** key.

5 Choose any copy settings you require, and then start copying.

 **Note**

- The new fusing temperature for the selected paper type is cleared when you press the **[Clear Modes/Energy Saver]** key or turn off the main switch.

Adjusting Copy Image Density

To make copies darker or lighter, change the density setting. There are 14 density levels (=7 notches × 2).

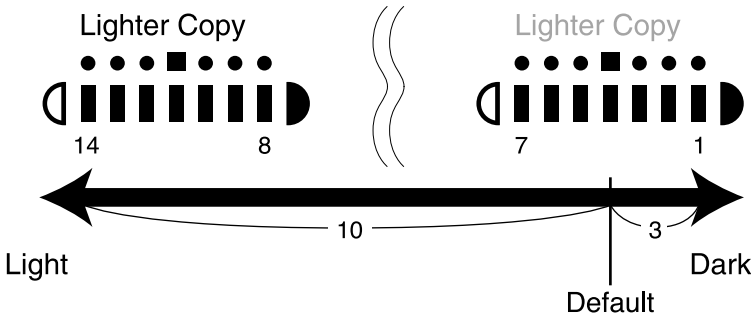
- Standard density level (Default)
- 3 darker levels
- 10 lighter levels

Set the density with the [◀] and [▶] keys under the **density** indicator.

3

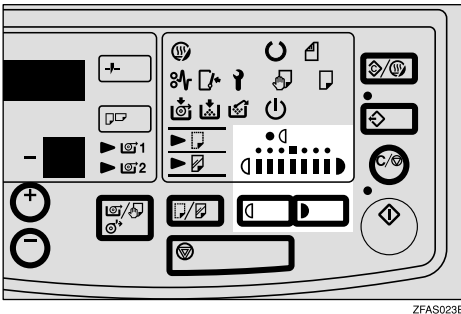
Note

- ❑ The indicator shows seven levels at a time. When you start from the standard image density, the middle notch corresponds to the standard image density, and the three right notches correspond to darker densities, and the three left notches to lighter densities.
- ❑ The brighter notch shows which level is now set. If you go lower than the left-most notch, the Lighter Copy indicator light up. The notches on the indicator correspond to the seven lightest levels.



- ❑ If you change the copy image density while repeat copying, the next copy job will come out with new setting.

1 Press the [◀] or [▶] key to adjust copy density.



2 Each time you press the [◀] key, the indicator moves one step to the left. When the indicator reaches the left edge, it returns to the right edge and the Lighter Copy indicator lights.

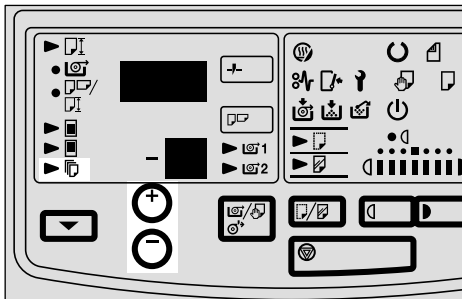
Setting the Number of Copies (Repeated Copying)

You can preset the number of copies (1 to 10) you want to make. Repeated copying means making two or more copies of an original.

Note

- With this feature, the image might be copied at a slant. Whether this happens depends on the original size, type, and condition (e.g., curled, wavy). In such a case, make one copy at a time.
- You cannot use the repeated copy function in the following cases:
 - When using the Carrier Sheet.
 - When setting an original in the rear table.
 - When setting an original longer than 1,200mm(48”).

1 Press the **[+]** and **[-]** keys to specify the number of copies.

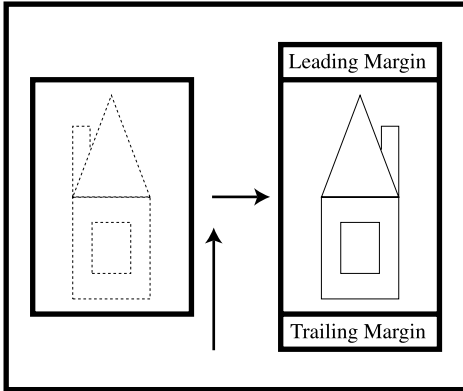


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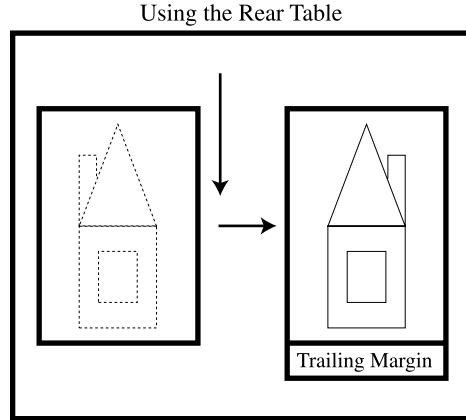
Setting a Leading/Trailing Edge Margin

You can set a margin on the leading or trailing edge of the copy when you use Roll Feeder in the Synchro Cut mode. When using the bypass table, and Preset/Variable Cut mode you can only set the trailing edge margin.

3



Using the Original Table

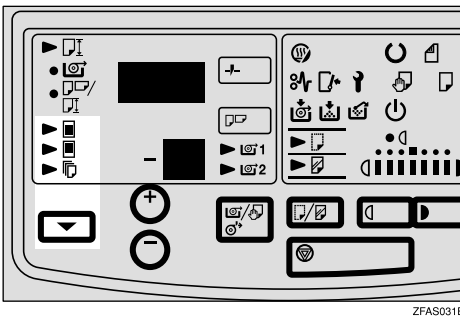


Using the Rear Table

Note

- You can set up to a $\pm 99\text{mm}$, $\pm 4.0\text{''}$ margin in 1mm, 0.1" steps on either the leading or trailing edge.
- When you set a leading margin, the copy image is shifted to the trailing edge. The copy image is shifted to the trailing edge, when you make a copy using the bypass table, or in the Preset Cut mode, Variable Cut mode.

1 Press the **[Function Select]** key until the **Leading Edge** or **Trailing Edge** indicator is lit.



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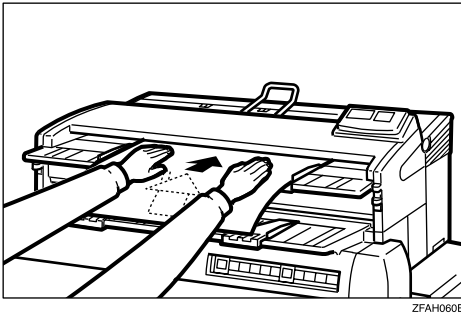
2 Press the **[+]** key and **[-]** key to specify an edge margin.

Note

- To clear the value, press the **[Clear/Stop]** key.

3 If you want to set both margins, press the **Function select** key and specify the other margin.

4 Using the original table, insert the leading edge of the original first.



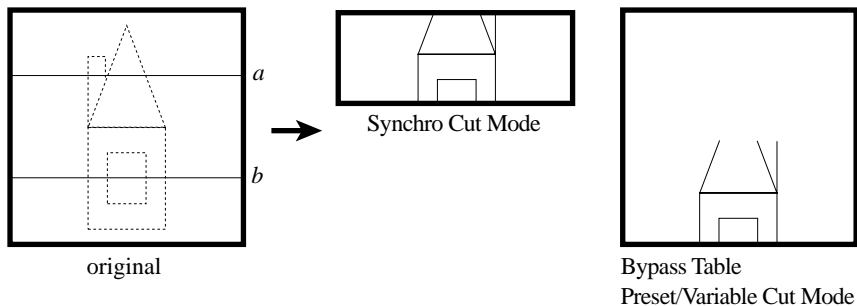
 **Note**

- If you use the rear table, insert the original trailing edge first.

Partial Copying

The Partial Copy function copies only a part of an original.

You need to enter start and end points in the feed direction of the original .

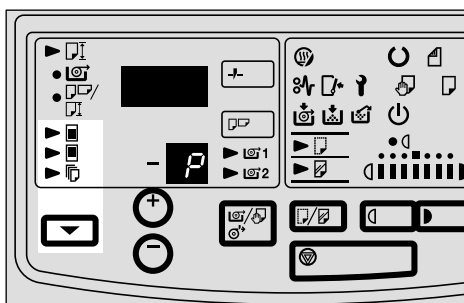


Note

- You cannot use the Partial Copying function when using the Rear Table.
- You cannot use the Partial Copying function for originals shorter than 255mm.
- If you set the start point within 155 mm of the leading edge of the original, the copier will regard the leading edge as the start point.
- The minimum available space between the start point and the end point is 30 mm.
- If you do not set the end point after setting the start point (a), the copier will regard the trailing edge of the original as the end point (b).
- If you set the start point within 40mm of the trailing edge of the original, the copier will cancel the copying and eject the original.
- If you set the end point within 40mm of the trailing edge of the original, the copier will regard the trailing edge as the end point.
- In the Synchro Cutting function, the copier will cut the paper in a length from the start point to the end point.
- When the Partial Copying function is selected, the copier will reset the settings for the trailing edge margin, the leading edge margin in the Synchro Cutting function, and the Repeated Copying function.

1 Hold down the **[Function Select]** key for 3 seconds or more.

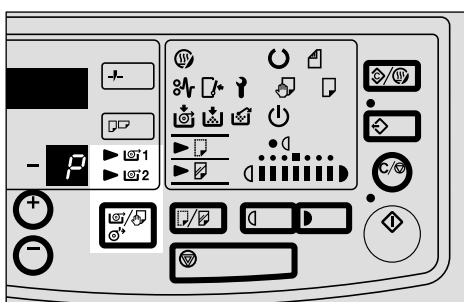
A "P" will blink in the copy counter display.



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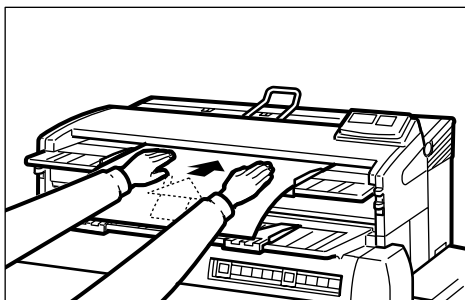
- 2** Slide the paper straight into the copier until it stops, or press the **[Paper Select/Cut]** key to turn on the Paper Select indicator.

3



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- 3** Set the original.

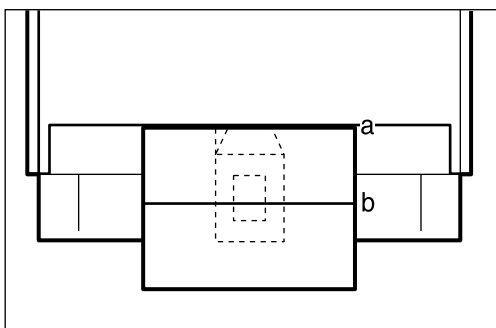


ZFAS060E

- 4** Press the **[Function Select]** key when the leading edge of the area to be copied reaches the edge of the original table cover.

The "P" will stay on, not blinking.

The copier starts copying.

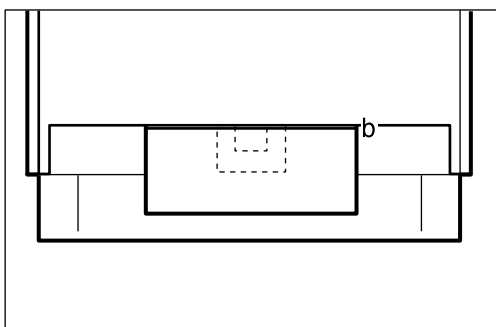


SM060

3

- 5** Press the **[Function Select]** key when the trailing edge of the area to be copied reaches the edge of the original table cover.

The "P" will start blinking again.



SM061

- 6** After the paper has been delivered, press the **[Clear/Stop]** key and remove the original.

- 7** Hold down the **[Function Select]** key for three seconds to turn the function off.

The "P" will disappear.

Programming Settings You Often Use

There are two ways of programming settings you often use.

A) Store the settings in the **[Program]** key. When you press this key, the settings will be recalled instantly.

B) Change the default settings to those you use most frequently. Whenever you turn on the machine or press the **[Clear Modes/Energy Saver]** key, these settings will be ready to use.

A) Program key

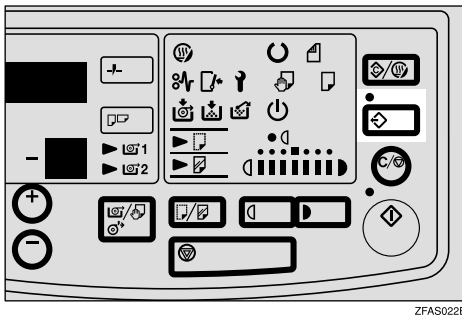
3

Storing Settings in the Program Key

Note

You can store one setting for frequently use.

1 Press the **[Program]** key.



2 Input the settings you want to store.

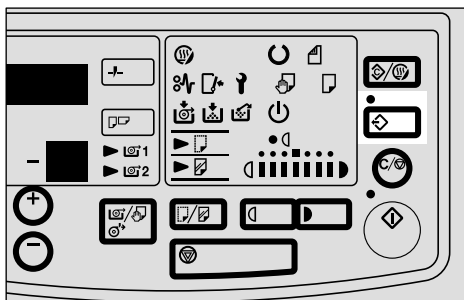
3 Make a copy.

The machine memorizes the types of job setting.

4 Press the **[Program]** key.

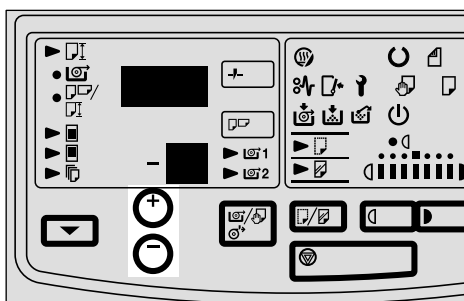
Recalling Settings Stored in the Program key

1 Press the [Program] key before copying.



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2 Enter the number of copies required with the [+] and [-] key.

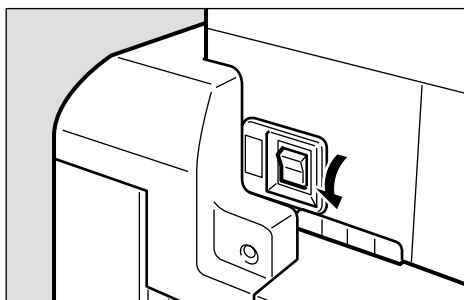


ZFAS030E

3 Make a copy.

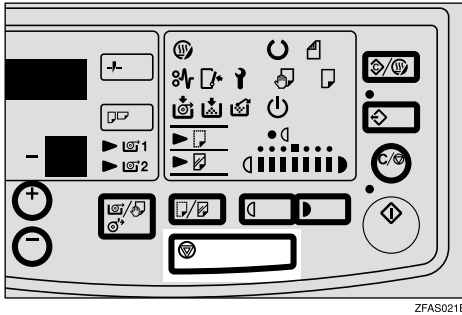
B) Changing the Default Setting

1 Turn off the main switch.



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- 2 While holding down the **[Emergency Stop]** key, turn the copier back on.



The **jam** and **service** indicators will blink.

- 3 Input the settings you want.
- 4 Turn off the main switch.

 **Note**

- The next time you turn the copier on, the settings you programmed in step **3** will take effect.

User Tools

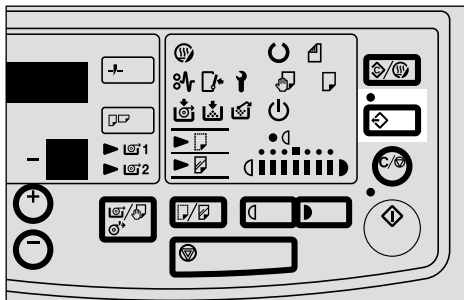
Access the User Tools to make the following adjustments:

A1) Magnification Adjustment: allows you to adjust the vertical degree.

A2) Cut Length: allows you to adjust the cut length.

-25mm ~ +25mm (-1.0" ~ +1.0") (by 1mm or 0.1")

1 Hold down the **[Program]** key for 3 seconds or more.

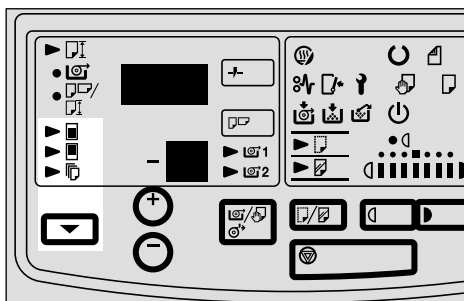


ZFAS022E

"A1" blinks on the "Copy Counter" display.

2 If you wish to adjust the Cut Length (A2), press the **[+]** key, "A2" blinks on the display

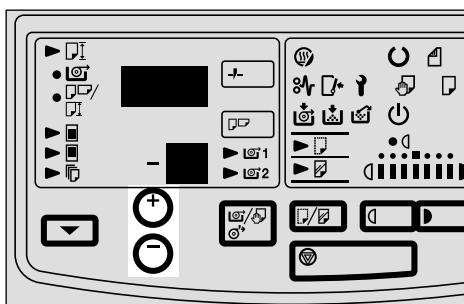
3 Press the **[Function Select]** key.



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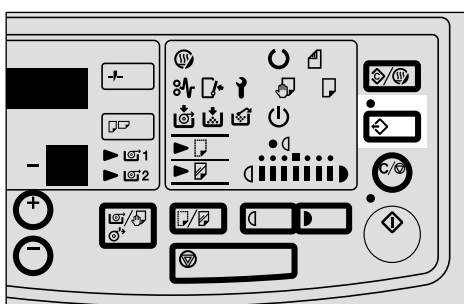
The Paper Length display shows the current value.

- 4** Use the **[+]** and **[-]** key to change the value



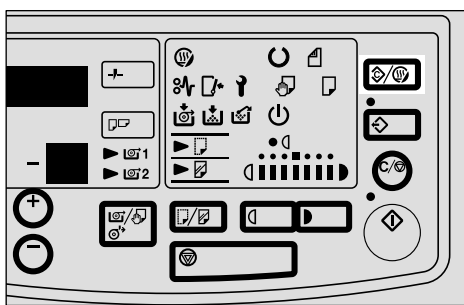
ZFAS030E

- 5** Press the **[Program]** key to return to step **2**.



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- 6** Press the **[Clear Modes/Energy Saver]** key to exit this mode.



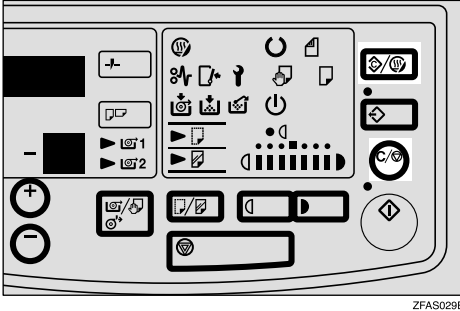
ZFAS028E

Settings You Can Change with User Tools

This section is for the key operators in charge of this machine. You can change or set the machine's default settings.

Note

- For how to enter the User Tools program, press the **[Clear Modes/Energy Saver]** key, and then press the **[Clear/Stop]** key for more than 3 seconds.



- **Fusing Temperature 1–Normal(+01):** Selects the fusing temperature for plain paper.

Note

- 0: Mode 1, 1: Mode 2, 2: Mode 3, 3: Mode 4, 4: Mode 5, 5: Mode 6, 6: Mode 7
- Default: 2
- For details about each mode, contact your service representative.
- **Fusing Temperature 2–High (+02):** Selects the fusing temperature for translucent paper.

Note

- 0: Mode 5, 1: Mode 6, 2: Mode 7, 3: Mode 8
- Default: 0
- For details about each mode, contact your service representative.
- **Fusing Temperature 3–Low(+03):** Selects the fusing temperature for translucent film.

Note

- 0: Mode 2, 1: Mode 3, 2: Mode 4, 3: Mode 5
- Default: 1
- For details about each mode, contact your service representative.
- **Count Up/Down(+04):** The copy counter can be made to count up or count down.

Note

- 0: Count up, 1: Count down

Default: 0

- **Beeper On/Off(+05):** The beeper can be turned off completely; turned off for setting the margin, multiple copies, and paper length; or left on to emit a tone whenever a key is pressed.

 **Note**

0: On, 1: All Off, 2: Partially Off

Default: 2(The beeper does not work if you use leading edge margin.)

- **Paper Feed Out Waiting Time Setting(+06):** When the copier is ready to receive the original, it will wait for a preset length of time. If no original is set within this time, the copier will process the copy paper without copying. The time can be set to 1, 2, 3, 4, or 5 minutes.

 **Note**

0: 2min, 1: 1min, 2: 3min, 3: 4min, 4: 5 min

Default: 0

- **Manual Feed Start Time Setting(+07):** After copy paper is set, the copier waits for a preset number of seconds before starting the rollers that will pull the paper in. This pause gives you a chance to align the paper. The time can be set to 0.7, 1, 2, 3, 4, or 5 seconds.

 **Note**

0: 2.0sec, 1: 0.7sec, 2: 1.0sec, 3: 3.0sec, 4: 4.0sec, 5: 5.0sec

Default: 0

- **Lead Edge Increase/Decrease Speed Setting(+08):** The speed at which the lead edge setting scrolls up or down can be changed. The time for one increment (or decrement) can be set to 0.02, 0.05, 0.10, 0.25, or 0.5 seconds.

 **Note**

0: 0.10 sec, 1: 0.50 sec, 2: 0.25 sec, 3: 0.05 sec, 4: 0.02 sec

Default: 0

- **Auto Reset Time Setting(+09):** If the copier is idle for a while, it will clear itself. The time needed can be set to 1, 2, 3, 4, or 5 minutes. This function can also be turned off.

 **Note**

0: 2 min, 1: 1min, 2: 3 min, 3: 4 min, 4: 5 min, 5: None

Default: 0

The machine cannot enter the Auto reset mode if the roll end indicator lights while copying repeatedly.

The machine cannot enter the Auto clear if the toner end indicator lights.

- **Auto Energy Saver Mode(+10):** The fusing unit needs to be hot for copying. When the copier is idle, the fusing unit can be kept hot to save time or it can be allowed to cool to save energy. This feature can be set to start automatically, but you can also turn it on yourself by pressing and holding the **[Clear Modes/Energy Saver]** key for three seconds.

 **Note**

0: None, 1: Yes

Default: 0

The machine can not enter the energy saving mode if toner end indicator lights.

- **Screen Message Setting(+11):** When the copier is idle, the copy counter can be made to display a message. There are five possible messages: "Pre_heat", "Sleeping", "0123456789", "Have a good day", and "Hello I love you". This feature can also be turned off.

 **Note**

0: None, 1: "Pre_heat", 2: "Hello I love you", 3: "0123456789", 4: "Sleeping", 5: "Have a good day".

Default: 0

- **Leading Edge Increase/Decrease Adjustment Preliminary Interval(+12):** When changing a function setting (margin, multiple copies, or paper length) by holding down the **[+]** or **[-]** key, the setting will change by a preset value. This value can be changed to 1, 2, 3, or 10 intervals.

 **Note**

0: 3 intervals, 1: 1 interval, 2: 2 intervals, 3: 10 intervals

Default: 0

- **Original Feed Out Waiting Time Setting(+13):** When the copier is ready to receive the paper, it will wait a preset length of time. If no paper is received within this time, the copier ejects the original. The time can be set to 1, 2, 3, 4, or 5 minutes. This function can also be turned off.

 **Note**

0: 2mins, 1: 1min, 2: 3mins, 3: 4mins, 4: 5mins, 5: None

Default: 0

- **Original Feed Start Time Setting(+14):** You can set the number of seconds before the rollers start to pull the original in. If the original is often fed obliquely, you can solve the problem by setting a longer pause. The time can be set to 1, 2, 3, 4, 5, 6, or 7 seconds.

 **Note**

0: 1 sec, 1: 2 sec, 2: 3 sec, 3: 4 sec, 4: 5 sec, 5: 6 sec, 6: 7 sec

Default: 3

- **Auto Off Time(+15):** You can set the time the machine waits after the last operation before switching itself off automatically. The time can be set by minute from 1 to 240 minutes.

 **Note**

Default: 30min

Auto Off cannot be used in the following cases.

- When the Wait indicator goes on
- When the toner end indicator goes on
- When the front door is open
- While copying
- When a paper misfeed occurs or SC call appears
- The machine cannot enter the Auto Off mode if the roll end indicator lights while copying repeatedly.

- **Original Hold Mode(+16):** After original scanning is finished, the original exit roller stops before completely feeding out the original. This is to prevent the original from dropping onto the floor after scanning. The original is fed out when the X key is pressed or when the next original is inserted.

 **Note**

0: No, 1: Original Hold Mode

Default: 1

- **Length Size Magnification(+17):** Adjust the speed of the original feed motor. The setting can be changed from -1.0 to 1.0 by 0.05% steps.

 **Note**

Default: 0.0

- **Synchro-cut Length Adjustment(+19):** Adjust the cut length in the synchro cut, preset cut, and variable cut modes . The setting can be changed from -25 to 25 by 1mm steps.

 **Note**

Default: 0

- **Paper Length Up/Down Setting(+20):** Select if the paper length is count down or up when the preset cut key is pressed.

 **Note**

0: Down count, 1: Up count

Default: 0

- **Paper Length Up/Down Speed Setting(+21) :**The copier can scroll through the preset lengths forward or backward, and at different speeds. There are many sets of sizes from which to choose.

 **Note**

0: 0.10 seconds, 1: 0.5 seconds, 2: 0.25 seconds, 3: 0.05 seconds, 4: 0.02 seconds, 5: 0.01 seconds

Default: 0

- **Fixed Paper Size Pattern Setting(+22):** Select the fixed paper size pattern chosen when the “Preset Cut” key is press. For details about this setting, contact your service representative.
- **Optional Paper Size Setting(+23 ~ +32):** Up to 10 different paper size can be stored from 23 to 32. For details about this setting, contact your service representative.
- **Auto Off Function setting(+33):** This setting allows you to enable or disable the Auto Off function.

 **Note**

0: Disable, 1: Enable

Default: 1

- **Start Key Mode(+34):** You can select whether you use **[Start]** key when you clear modes or turn on/off the machine.

 **Note**

0: Off, 1: On

Default: 0

- **Darker Image Density(+37):** Sets the range of the ID density control to give finer control over darker images.
 - ID level 1 to 7-Darker image density and low contrast settings
 - ID level 8 to 14-cannot be shifted

 **Note**

0: Standard Density 1: Darker Image Density

Default: 0

4. Maintaining Your Copier

Changing The Used Toner Bottle

When "☑" is displayed, it is time to change the toner bottle.

⚠ **WARNING:**



- *Do not incinerate used toner, toner bottle or toner cartridge.*
- *Toner dust might ignite when exposed to an open flame.*
- *Dispose of the used toner and the used toner cartridge according to local regulations.*

⚠ **CAUTION:**



- *Do not eat or swallow toner.*
- *Keep toner (used or unused), toner bottle, and toner cartridge out of reach of children.*

⚠ **CAUTION:**

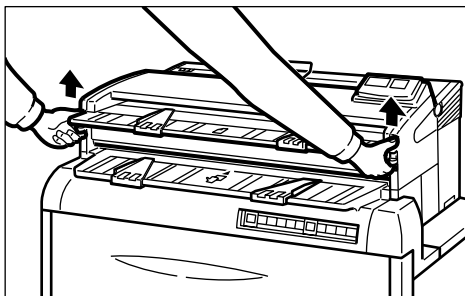


- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

Note

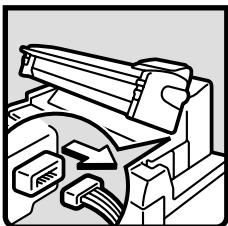
- If the toner bottle overflows, toner particles could get inside the copier and cause damage. When you install a new bottle, make sure it is perfectly set in its holder.
- Do not use used toner. This will damage the machine.

1 Open the upper unit of the copier.



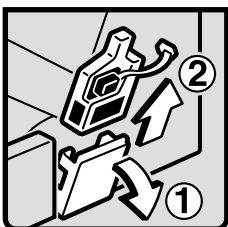
ZFAH150E

2 Unplug the code from the mainframe.



ZFBH270E

3 Open the door on the right side of the copier, and then carefully remove the plastic bottle.

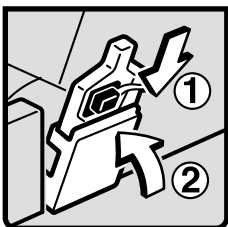


ZFBH280E

Note

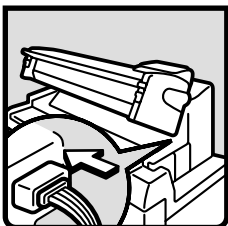
- Put the used toner to the plastic bag and dispose of it according to local regulations. Do not throw away the bottle.

4 Place the bottle in the copier again, and then close the door.



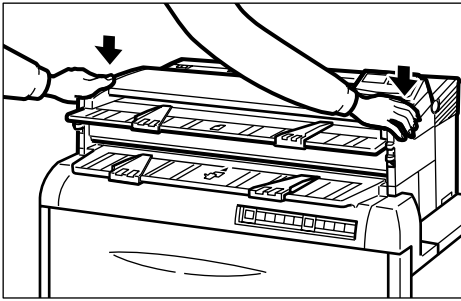
ZFBH281E

5 Plug in the code to the mainframe.




ZFBH271E

6 Close the upper unit.



ZFAH160E

Adding Toner

When  is displayed, it is time to add toner.

When the indicator starts blinking, you can still copy about 53 feet of paper (16 m, 27 8¹/₂"×11" size copies). When the indicator stays on, you can't copy until a new cartridge is installed.

⚠ WARNING:



- *Do not incinerate used toner, toner bottle or toner cartridge.*
- *Toner dust might ignite when exposed to an open flame.*
- *Dispose of the used toner and the used toner cartridge according to local regulations.*

4

⚠ CAUTION:



- *Do not eat or swallow toner.*
- *Keep toner (used or unused), toner bottle, and toner cartridge out of reach of children.*

⚠ CAUTION:

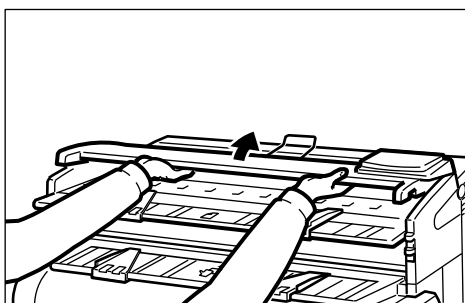


- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

 Note

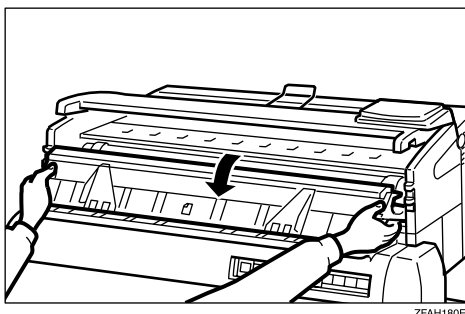
- If you use toner other than that recommended, a fault might occur.
- When adding toner, do not turn off the main switch. If you do, your settings will be cleared.
- Always add toner after the machine instructs you to add toner.
- Do not use used toner. This will damage the machine.

1 Lift the original table until it locks in place.



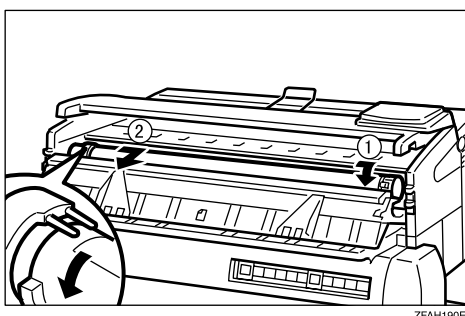
ZFAH170E

- 2 Open the toner cartridge cover.



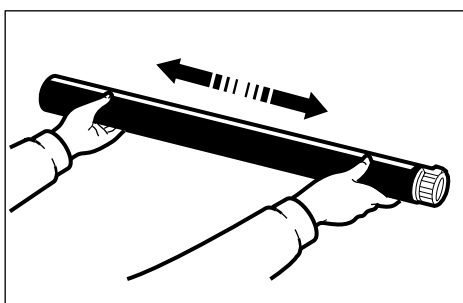
- 3 Turn the old cartridge towards you.

Then, while pressing the cartridge to the right (①), lift the left end and remove the cartridge (②).



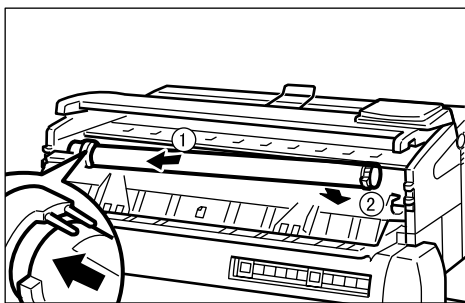
- 4 Put the old toner cartridge in a plastic bag and dispose of it according to local regulations.

- 5 Shake the new toner cartridge lightly 5 to 6 times to remove lumps.

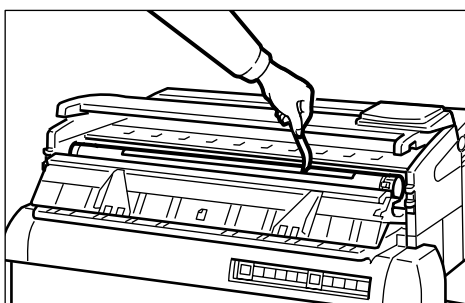


- 6 Install the new cartridge. Make sure that the white circle labeled 1 on the cartridge faces up.

Make sure the cartridge is set well but don't push it in yet.

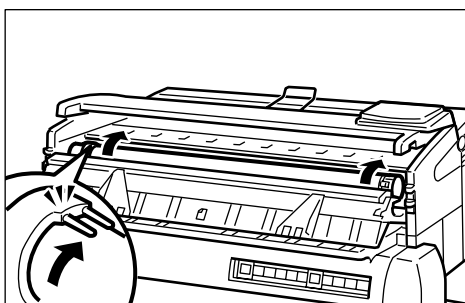


7 Take the right edge of the seal and slowly remove it.



8 Push the toner cartridge all the way to the left.

Then turn the toner cartridge all the way in, as shown.

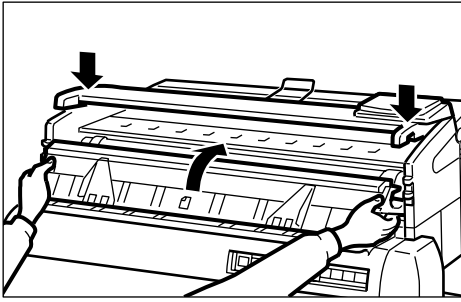


Note

- If you can't close the toner cartridge cover, there might be problem setting the toner cartridge. In this case, set the toner cartridge again.

9 Close the toner cartridge cover and the original table.

The copier will need a few moments to warm up before it is ready to copy.



ZFAH230E

Changing the Roll Paper Size

Change the size guides on the left and right of the roll paper holder when you load different sized paper rolls.

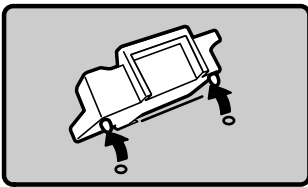
Important

- ❑ Always follow the instructions below when adjusting the roll paper holder. Do not force the roll paper holder by pulling or sliding it strongly. This could damage the holder.

4

Removing the Roll Paper Holder

- 1** Push the paper holder inwards, and then pull it upwards to remove it.



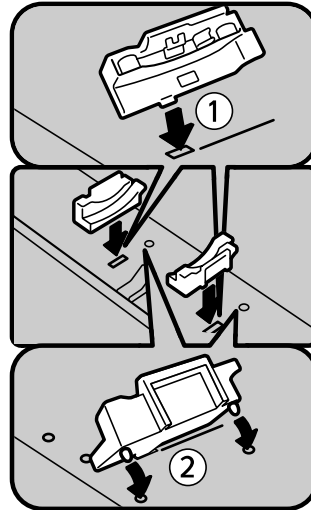
ZEDX200E

Note

- ❑ The paper holder is attached with magnet and a hook.
- ❑ The paper holder is on the right in this illustration.

Setting the Roll Paper Holder

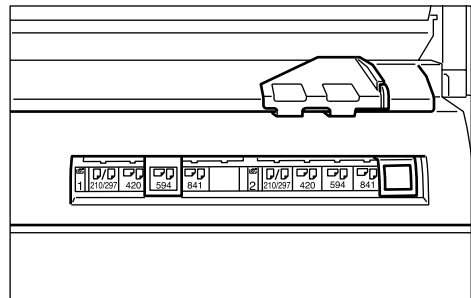
- 1** Insert the hook on the paper holder into (①), and then insert the protrusion into (②).



Note









- ❑ Make sure the protrusions are firmly in the hole.
- ❑ Lock the lever until it clicks.

- 2** Match the paper size as same as one shown in the windows .



ZFBH490E

Standard paper sizes that can be used in this copier are shown below.

Metric version	Roll Feeder
A0	
A1	 
A2	 
A3	 
A4	

Loading A Roll Of Paper

When  is displayed, it is time to install a new roll of paper.

CAUTION:

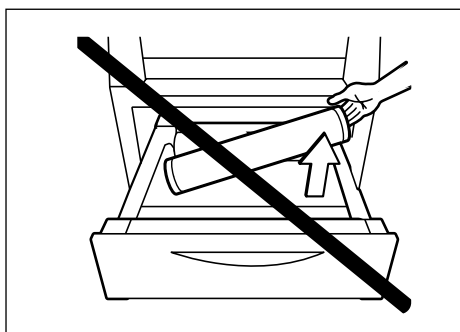


- *Rolls of paper can be heavy, so you should be careful when loading one.*
- *Be careful when replacing the roll paper or removing misfed paper by following the operating instructions properly. Otherwise, an injury may result from the paper cutter inside.*
- *Do not touch the anti-humidity switch from inside the machine because it could be very hot.*

4

Important

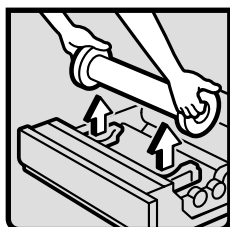
- When removing paper rolls, lift the roll holders on both sides of the paper roll before removing it. Do not lift one side only. This could damage the machine.



ZEDH390E

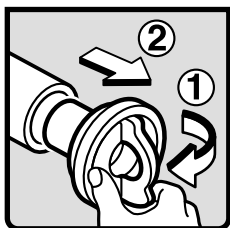
1 Pull out the Roll Feeder.

2 Hold both sides of the empty paper roll and remove it from the unit.



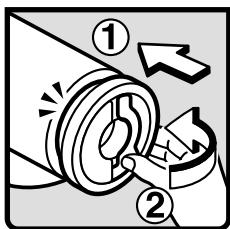
ZFBH290E

- 3** Raise the lever on the paper holder (①), and then pull out the roll holder from the empty core (②).



ZFBH300E

- 4** Set the paper holder to the roll core (①), and then lower the lever (②).

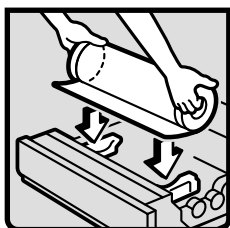


ZFBH390E

 **Note**

- Insert the paper roll as far as it will go.

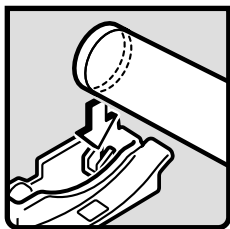
- 5** Hold both sides of the paper roll and install it securely in the paper holder.



ZFBH340E

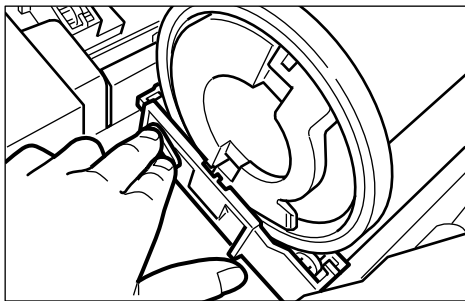
 **Note**

- The flap of the paper roll should be on the bottom. See below.



ZFBH310E

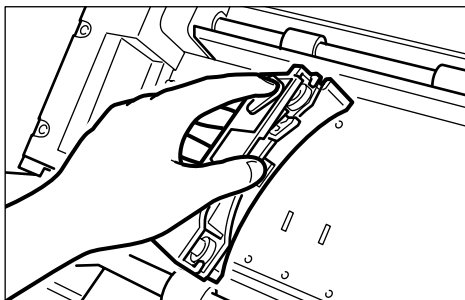
- ❑ If applicable, adjust the roll paper position and lock the lever.



ZFBH500E

- ❑ You may hardly to adjust the roll paper position when you set 914mm (“36”). In this case, take out the paper holder, and then release the lock lever. After you adjust it, put it back to the roll feeder.

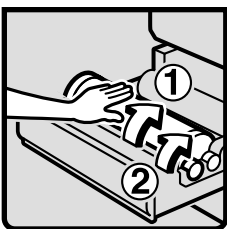
4



ZFBH510E

- ❑ Do not force to remove the paper holder when you need to change the paper size. For how to remove and set the paper holder, see “*Changing the Roll Paper Size*” ⇒ P.54

- 6** Rotate the paper roll slowly until the flap is almost fed into the rubber part of the roller (①). While feeding the flap of the paper roll into the rubber part of the roller, turn the paper knob clockwise(②).



ZFBH330E

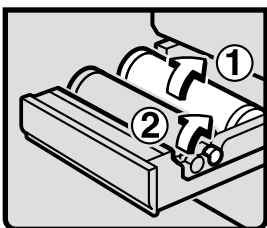
Note

- Do not hold the paper knob from side. It may cause you touching a sticky oil. For how to turn the knob without any harm, see the illustration below:



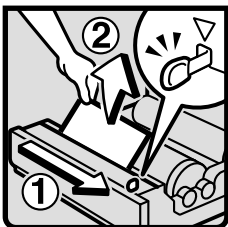
ZFBH410E

- Make sure that the paper is not loose. Insert it straight into the roller.
- Watch carefully to make sure that the flap of the paper is inserted between the feeder and the roller.
- For how to change the Roll 2, refer to the following illustration:



ZFBH400E

- 7** Hold the paper (②), and then slide the cutter (①).



ZFBH351E

Note

- Slide the cutter one way only, otherwise paper waste may pile up inside the machine.

- 8** Turn the knob anticlockwise about 1/4 to adjust the paper position.



9 Close the Roll Feeder.







5. Troubleshooting

If Something Goes Wrong

If you have problems with your copier, consult the following pages. If a service indicator lights up, read the following section. If the original or copy is stuck in the copier; ⇒ P.63; if the copier won't start, or if copies don't look right, ⇒ P.71.

If Indicator Lights Up

If one of the indicators shown appears on the operation panel, turn to the appropriate page and follow the instructions described there.

What appears	What it means	What to do
	The original or copy paper is jammed somewhere.	See the following section.
	The copier needs a technician.	Call your service representative.
	A cover, unit, or the fusing unit cover was left open.	Close it. Press firmly.
	The paper roll is finished.	Put in a new roll of paper. ⇒ P.56.
	The toner cartridge is empty, or almost empty.	Replace the toner cartridge. ⇒ P.50.
	Wait until the ready indicator lights.	Wait. If it stays on for an unusually long time, call your service representative.

	The used toner bottle is full.	Empty the used toner bottle. => P.47.
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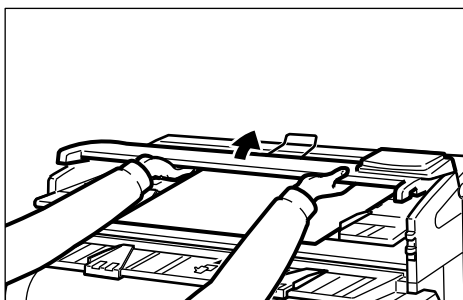
If Jams Occur

If the Original is Jammed at the exit

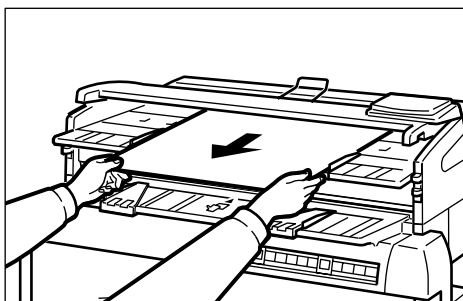
Note

- If the paper or original gets stuck in the copier, remove both original and paper.

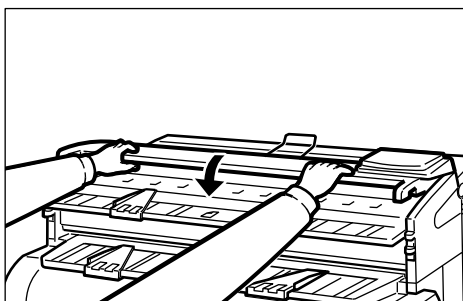
1 Lift the original table.



2 Very gently pull the original out of the feed-out slot. Be careful not to tear it.



3 Close the original table. Press firmly on both sides until it clicks into place.



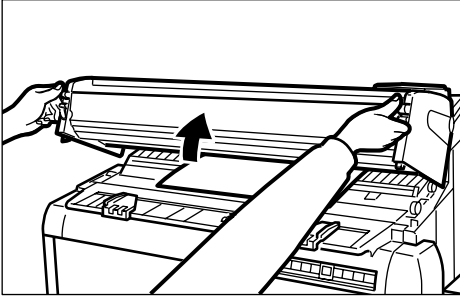
If Sheet Paper is Jammed in the Feed-in Slot

⚠ CAUTION:

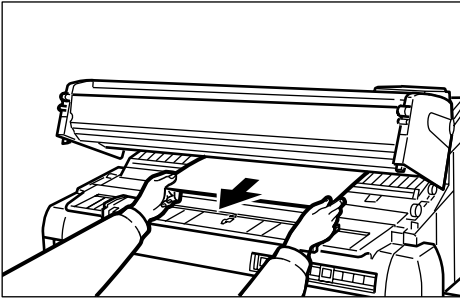


- *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*

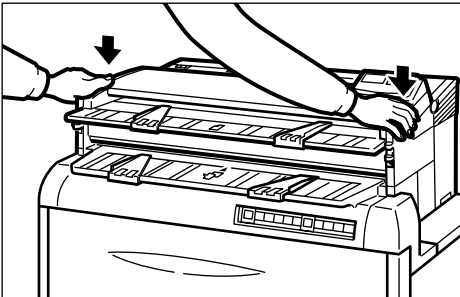
1 Squeeze the locks on each side of the copier and lift the unit.



2 Pull out the copy paper. Do not leave any scraps of paper in the copier.



3 Close the unit. Press firmly on both sides until it clicks into place.



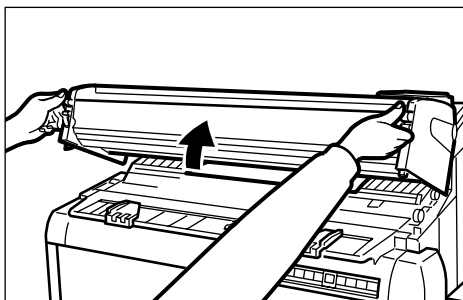
If Sheet Paper is Jammed at the Paper Exit

⚠ CAUTION:



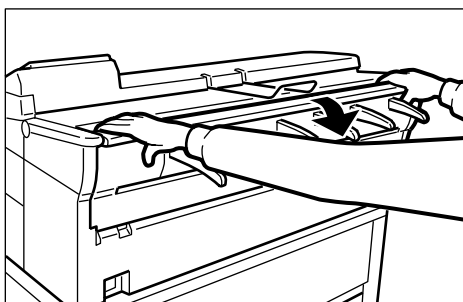
- *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*

- 1** Squeeze the locks on each side of the copier and lift the middle unit between the original table and the bypass table.



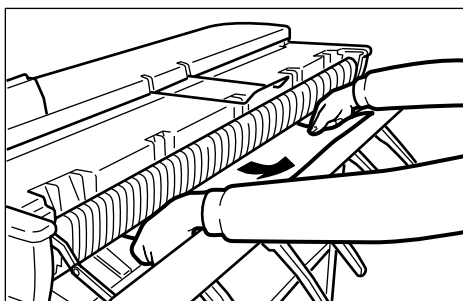
ZF4H281E

- 2** Open the fusing unit cover.



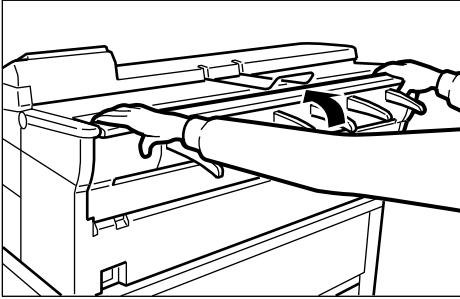
SM048

- 3** Slowly pull the paper out. If there are scraps left inside, open the inner cover, wait for the copier to cool, and remove the scraps.



SM049

- 4** Close the unit and all covers. Press firmly on both sides until it clicks into place.



SM050

If Roll Paper Jams

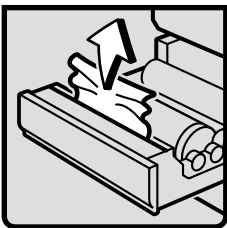
If roll paper jams inside the roll feeder, you still might need to check everywhere to remove the entire length of paper.

CAUTION:



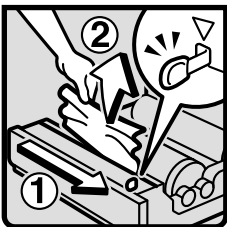
- Be careful when replacing the roll paper or removing misfed paper by following the operating instructions properly. Otherwise, an injury may result from the paper cutter inside.
- Do not touch the anti-humidity switch from inside the machine because it could be very hot.

- 1** Open the Roll Feeder.
- 2** Slowly pull up the edge of the paper.



ZFBH390E

- 3** Slide the cutter knob (1) to cut the edge of the roll paper, and then remove the jammed paper (2).

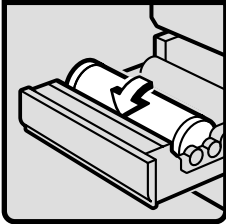


ZFBH390E

Note

- Slide the cutter one way only, otherwise paper waste may pile up inside the machine.

- 4** Rotate the paper roll in the direction of the arrow until you can see the edge of the paper.



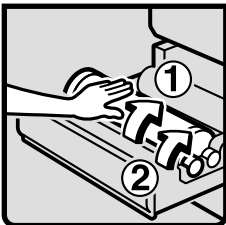
ZFBH370E

- 5** Turn the knob anticlockwise about 1/4 to adjust the paper position.



5

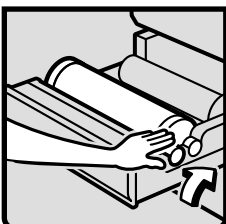
- 6** Slowly rotate the paper roll until the edge of the paper is fed into the rubber part of the roller (①). While feeding the flap of the paper roll into the rubber part of the roller, turn the paper knob clockwise (②).



ZFBH330E

Note

- Do not hold the paper knob from side. It may cause you touching a sticky oil. For how to turn the knob without any harm, see the illustration below:



ZFBH410E

- Make sure that the paper is not loose. Insert it straight into the roller.
- Watch carefully to make sure that the flap of the paper is inserted between the feeder and the roller.

7 Close the Roll Feeder.

If You Cannot See the Roll Paper Jam

If roll paper jams inside the roll feeder, you still might need to check everywhere to remove the entire length of paper.

⚠ CAUTION:

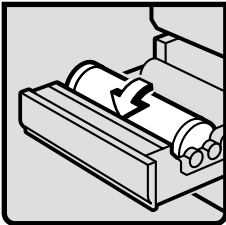


- *The fusing unit can be very hot. Do not touch any parts under the fusing cover. If necessary, wait until the fusing unit has cooled down.*
- *Be careful when replacing the roll paper or removing misfed paper by following the operating instructions properly. Otherwise, an injury may result from the paper cutter inside.*
- *Do not touch the anti-humidity switch from inside the machine because it could be very hot.*

5

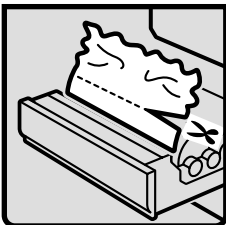
1 Open the Roll Feeder.

2 Rotate the paper roll in the direction of the arrow until you can see the edge of the paper.



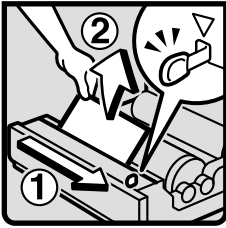
ZFBH370E

3 Cut the edge of the paper with the cutter or scissors.



ZFBH320E

- 4** Hold the paper (②), and then slide the cutter (①).

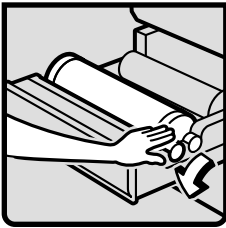


ZFBH351E

Note

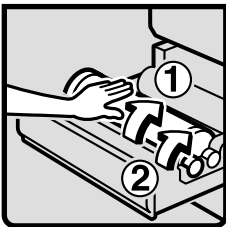
- Slide the cutter one way only, otherwise paper waste may pile up inside the machine.

- 5** Turn the knob anticlockwise about 1/4 to adjust the paper position.



5

- 6** Slowly rotate the paper roll until the edge of the paper is fed into the rubber part of the roller (①). While feeding the flap of the paper roll into the rubber part of the roller, turn the paper knob clockwise (②).



ZFBH330E

Note

- Do not hold the paper knob from side. It may cause you touching a sticky oil. For how to turn the knob without any harm, see the illustration below:



ZFBH410E

- Make sure that the paper is not loose. Insert it straight into the roller.

- Watch carefully to make sure that the flap of the paper is inserted between the feeder and the roller.

7 Close the Roll Feeder.

Others

If a puzzling or recurring problem occurs, check the following before calling a service representative. It's also a good idea to check the ⇒ P.74 “*Do's & Don'ts*” to make sure the paper and originals match what the copier can handle.

Absolutely Nothing Happens

- Is the main switch on?
- Is the power cord plugged in?
- Did a breaker or a fuse blow out?

Something Happens, but Set Paper or Paper Select Never Appear

- Check the indicators on the control panel. If any of them are lit, turn to ⇒ P.61. Check that all covers and units are closed.

5

If Jams Occur Frequently

- Is your paper creased, damp, or otherwise damaged? ⇒ P.8.
- Are there visible bits of paper or other objects stuck in the machine? If there are, remove them.
- Are you inserting the paper and original in straight? Always feed paper in straight.

If Copies Look Wrong

- Are copies too dark or too light? Adjust the density (⇒ P.30).
- Is the background dirty no matter what kind of original you are copying? Make sure the exposure glass and platen are clean (⇒ P.73).
- Is the image skewed? Make sure to insert the paper and the original straight into the machine. If you have the original and Copy Guides (option), use them.

White Spots Appear

- On the copy: try placing your copy paper with the other side facing up.
- At the leading edge: try placing your copy paper sideways.
- At the trailing edge: try giving a rising curl to the trailing edge. The curl should go up, not down.

Creases

- Try setting your copy paper sideways.
- If long creases appear on copies, try setting your copy paper sideways, or try changing the copy media setting.
- If creases appear on copies made to transparent film, try setting your film sheets sideways.

Copies Come Out Dog eared

- Try setting your copy paper with the other side facing up.
- Make sure your copy paper is undamaged.

Black Streaks Appear on Copies

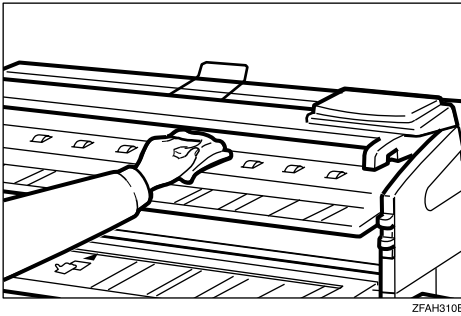
- Check that the exposure glass is clean.

Daily Maintenance

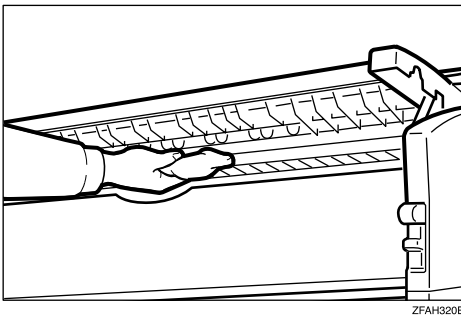
Clean the Exposure Glass & the Platen Plate

You should clean the copy and original tables with a damp cloth, and then wipe them with a dry cloth.

Clean the exposure glass and the original drive roller with a damp cloth, and then wipe them with a dry cloth.



Clean the platen plate with a damp cloth, then wipe it with a dry cloth.



Do's & Don'ts

⚠ CAUTION:



- *When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.*
- *When the machine will not be used for a long time, unplug the power cord.*

- Do not touch areas on or around the fusing unit. These areas get hot.
- After copies are made continuously, the exposure glass may feel warm. This is not a malfunction.
- The area around the ventilation hole may feel warm. This is caused by exhaust air and is not a malfunction.
- Do not turn off the main switch while copying. Before turning off the main switch, make sure that copying is completed.
- The machine might fail to produce good copy images if there is condensation inside caused by a temperature change.
- Do not open the covers of the machine while copying. If you do, misfeeds might occur.
- Do not move the machine while copying.
- The supplier shall not be liable for any loss or damage resulting from a failure of the machine, a loss of machine settings, or use of the machine.
- Do not place more than one sheet of paper at a time on the bypass table.
- Center your paper on the copy table using the size marks. Then slide the paper straight into the copier until it stops.
- When copying to a long sheet of paper, lightly hold the sheet as the copier pulls it in so that it goes in well.
- Do not make two sided copies.
- If you open the unit, make sure you close it within 5 minutes to keep light from damaging the copy drum.
- When copying to sheets 35" x45" (90 cm x115 cm) or larger, make sure the paper does not drag directly on the floor as the copier pulls it in. (You can spread paper on the floor for this.)
- If your paper has an uneven or slanted edge, do not insert this edge in first.
- Do not make copies longer than 118 inches (3 m).
- Do not insert originals made of paper less the 52.3 g/m² (13.9 lb or 0.07 mm thick). For such originals, please use the Carrier Sheet.

Where to Put Your Copier

Your copier should be installed by a qualified technician. If you need to transport your copier to a distant location, call your service center before the move.

You can of course move your copier around your office without calling the service center. If you do, remember that the temperature, humidity, and cleanliness of the area around the copier may affect its performance. Choose the new location with care and follow the guidelines below.

Machine Environment

Your machine's location should be carefully chosen because environmental conditions greatly affect its performance.

Optimal Environmental Conditions

CAUTION:



- *Keep the machine away from humidity and dust. A fire or an electric shock might occur.*
- *Do not place the machine on an unstable or tilted surface. If it topples over, it could cause injury.*

CAUTION:



- *If you use the machine in a confined space, make sure there is a continuous air turnover.*

- Temperature: 50° to 86°F (15° to 30°C)
- Humidity: 20 to 80% RH
- To avoid possible ozone build-up make sure to install this copier in a large well ventilated room ensuring an air turnover of at least 1000 ft³/hour/person (30 m³). When you use this machine for a long time in a confined space without good ventilation, you may notice an odd smell. To keep the workspace comfortable, we recommend that you keep it well ventilated.
- Set your copier on a strong and level base. The copier must be level within less than a quarter of an inch (5 mm) left to right and less than half an inch (10 mm) front to rear.

Environments to Avoid

- Locations exposed to direct sunlight or strong light (more than 1500 lux)
- Dusty areas
- Areas with corrosive gasses

- Altitudes of over 6500 feet (2000 m)
- Areas prone to strong vibrations
- Locations directly exposed to cool air from an air conditioner or heat from a nearby heater (Sudden temperature changes may lead to condensation within the copier.)
- Locations near a diazo copy machine

Power connection

⚠ WARNING:



- **Only connect the machine to the power source described on the inside front cover of this manual.**

⚠ WARNING:



- **Avoid multi-wiring.**
- **Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.**
- **Do not plug or unplug the power cord with your hands wet. Otherwise, an electric shock might occur.**

⚠ WARNING:



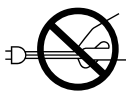
- **Make sure the wall outlet is near the machine and freely accessible so that in event of an emergency it can be unplugged easily.**

⚠ CAUTION:



- **When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.**
- **When the machine will not be used for a long time, unplug the power cord.**

⚠ CAUTION:



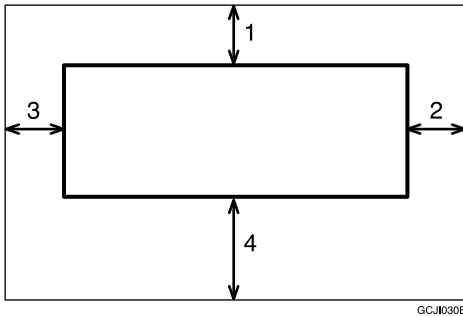
- **When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.**

- Connect the copier to a power source meeting the specifications on the inside front cover of this manual.
- Do not set anything on the power cord.
- Voltage must not fluctuate more than 10%.
- Make sure the copier is grounded.

- Make sure the plug is firmly inserted into the power outlet.
- Make sure the power outlet is close to the copier and easily accessible at all times.

Access To Machine

Place the copier near a power source and provide clearance as shown.



1. Rear: more than 60cm, 23.7"
2. Right: more than 60cm, 23.7"
3. Left: more than 60cm, 23.7"
4. Front: more than 100cm, 40.0"

6. Specifications



Copier

Configuration	Console with roll feeder
Process	Dry electrostatic transfer system
Scanning	Original moving over a fixed fiber optics array
Originals	Sheet
Original Reference Position	Center
Original Size	Maximum: 914 (W) × 3,000mm (L) (36" × 118") Minimum: A4 □ (210 (W) × 297mm (L)) (8.5" × 11")
Copy Size	Maximum: 914 (W) × 3,000mm (L) (36" × 118") Minimum: A4 □ (210 (W) × 297mm (L)) (8.5" × 11")
Warm-up Time	Within 3 minutes at a room temperature of 74°F (23°C)

First Copy	Within 25 seconds (A1 □ , 23" × 35",)
Copying Speed	3600mm (141.7") per minute
Auto Reset Time	2 minutes (can also be turned off or set to 1,3,4 or 5 minutes)
Reproduction Ratio	Fixed: 1 to 1
Paper Feed	manual feed/roll feeder
Toner replenishment	Cartridge system
Self-diagnostic codes	LED indicators
Power Source	North America: 120V, 60Hz, 12A Europe: 220-240V, 50/60Hz, 7A
Power consumption	Maximum 1.4kW
Noise emission	Stand by: less than 57dB Copy cycle: less than 75dB (copier only)
Measurements made following ISO7779	

Dimension (W×D×H)	1,080mm × 623mm × 480mm (42.5" × 24.5" × 18.9")
Weight	80kg (176lb)

Roll Feeder

Number of loaded paper rolls	1 roll (Type780A)	2 roll (Type780B)
Acceptable Roll Size	Width: 210, 257, 297, 364, 420, 515, 594, 660, 728, 800, 841, 880, 914mm Roll length: less than 150mm  Note <input type="checkbox"/> Maximum: 914mm (36") <input type="checkbox"/> Minimum: 210mm (8.5")	Width: 210, 257, 297, 364, 420, 515, 594, 660, 728, 800, 841, 880, 914mm Roll length: less than 150mm  Note <input type="checkbox"/> Maximum: 914mm (36") <input type="checkbox"/> Minimum: 210mm (8.5")
Roll Diameter	Within 170mm (6.7")	Within 170mm (6.7")
Roll Core	75.7mm – 77mm(2.98" - 3.03")	75.7mm – 77mm(2.98" - 3.03")

Specifications

Dimension (W × D × H)	1,200mm × 720mm × 775mm (48 × 28.3 × 30.5")	1,200mm × 720mm × 775mm (48 × 28.3 × 30.5")
Weight	78kg (172lb)	86kg (189lb)

Options

- Copy Tray Type 780

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