SHARP

MODEL

AR-C160

DIGITAL FULL COLOR COPYING MACHINE

OPERATION MANUAL

Page

- GETTING STARTED 1-1
- MAKING COPIES 2-1
- SPECIAL FUNCTIONS 3-1
- SUPPLIES 4-1
- COPIER TROUBLE? 5-1
- GENERAL INFORMATION 6-1
- OPTIONAL EQUIPMENT 7-1

The power switch positions are marked “I” to indicate power “ON” and “⏻” to indicate stand-by.
In the stand-by position, power is being supplied to a drying heater within the optical system of the copier.

Caution:
For complete electrical disconnection, pull out the main plug.
The socket-outlet shall be installed near the equipment and shall be easily accessible.

FOR YOUR RECORDS ...

To protect against loss or theft, record and retain for reference the copier’s serial number located on the right hand side at the rear corner of the copier.

Model Number AR-C160

Serial Number _____

Date of Purchase _____

Place of Purchase _____

Authorized Sharp Copier
Service Department Number _____

COLOR COPY SAMPLES

The following pages contain samples of the various color copying functions described in this manual. They are designed to demonstrate the wide range of capabilities and applications for the Sharp AR-C160 digital full color copying machine.

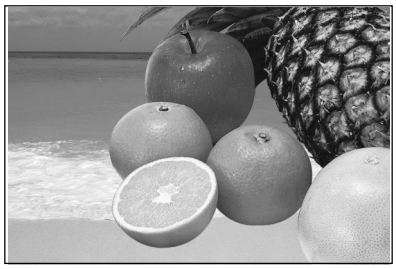
Note that the samples shown on page 1 to page 8 are not actual copies from the AR-C160 copier. The colors displayed may differ from those of actual copies.

Color Copying with Special Features

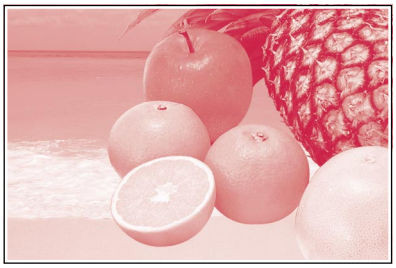
1. Single color copying (See page 3-26.)

The single color function is used to produce copies using a selected single color.

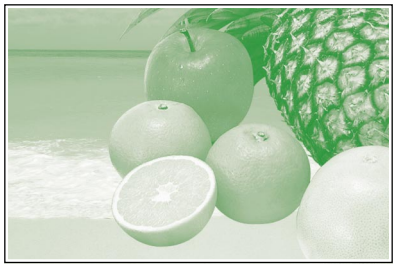
Original



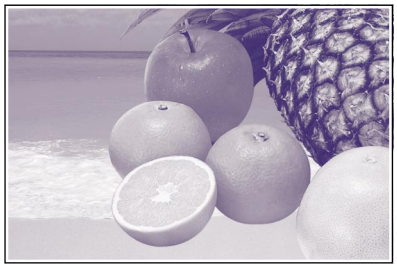
Red



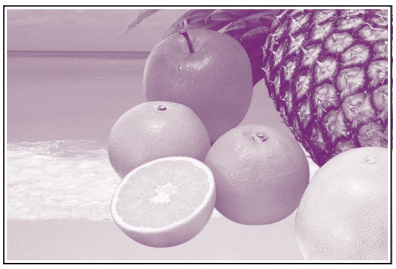
Green



Blue

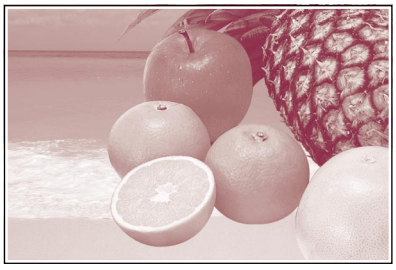


Purple



Orange

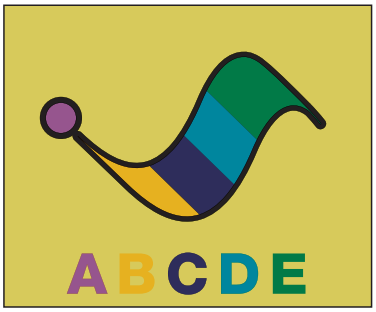
Brown



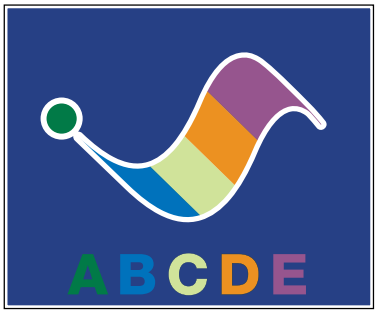
2. Neg./Pos. Reverse (See page 3-28.)

The NEG./POS. REVERSE function is used to transform a color original into its complementary colors. If this function is selected in the black/white mode, the black and white areas of the original will be reversed.

Original



Color copy



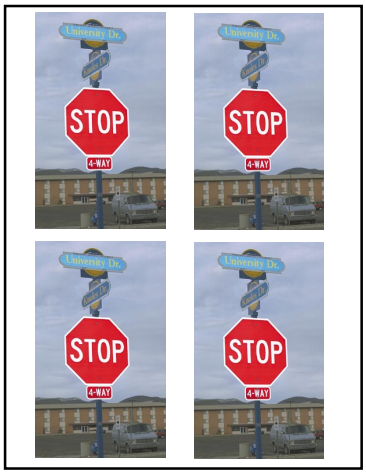
Black/white copy

3. Photo repeat (See page 3-32.)

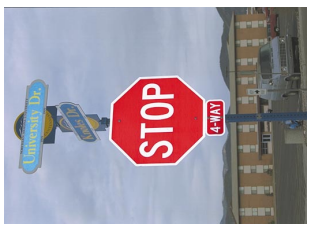
PHOTO REPEAT is used to produce multiple copies of a photo on a single sheet of copy paper.

Original (3" x 5")

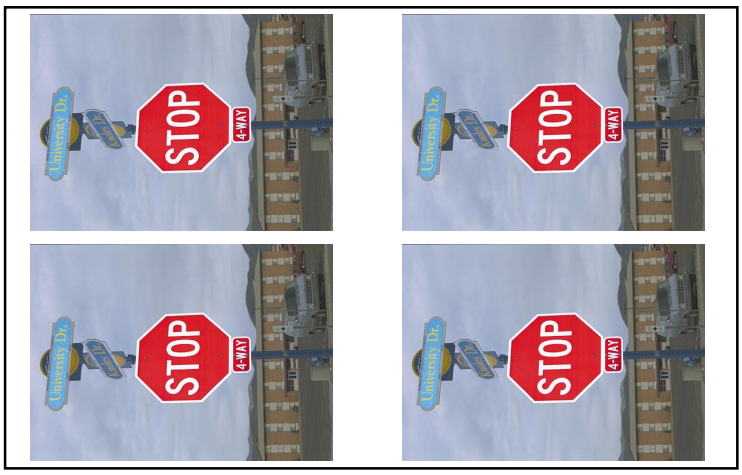
Copy (8-1/2" x 11")



Original (5" x 7")



Copy (11" x 17")

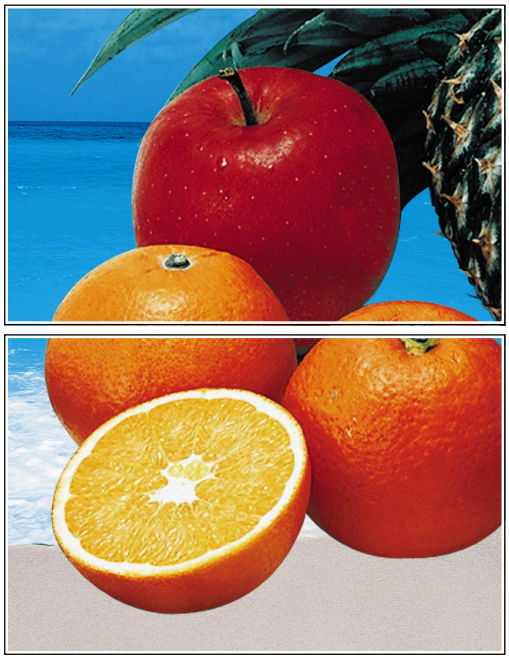


4. Multi-page Enlargement (See page 3-36.)

This function is used to enlarge an original image to a size larger than 11" x 17" and to print portions of the image onto multiple sheets of paper.

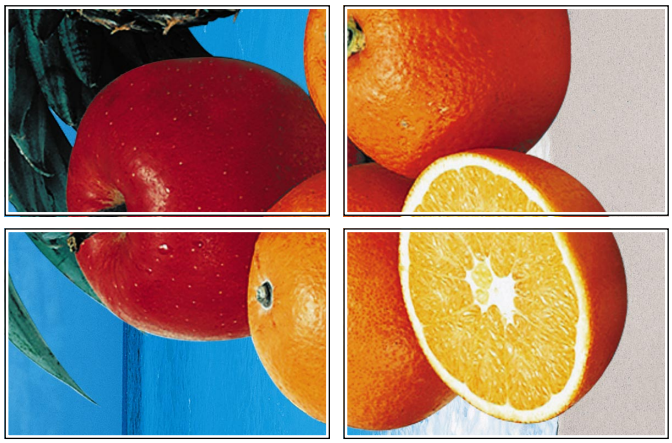
Original (8.5" x 11")

Copies (2 sheets of 11" x 17")



Original (11" x 17")

Copies (4 sheets of 11" x 17")



Adjustments for Color Copying

1. Exposure adjustments (See page 2-16.)

Exposure selections for this copier should be selected according to the type of originals being copied: TEXT/PRTD. PHOTO, TEXT/PHOTO, TEXT, PHOTO, PRINTED PHOTO or MAP. Also COLOR TONE ENHANCEMENT can be specified.

Text/prtd. photo mode, Text/photo mode:

These modes provide the best balance for copying originals which contain text, printed photos and photos.

Text mode:

This mode is useful for enhancing low density areas of an original or suppressing high density background areas.

KEY OPERATOR CODE NUMBER

A key operator code number must be registered before a key operator program can be used. The key operator must remember this number. Only this registered number will allow access to the key operator programs.

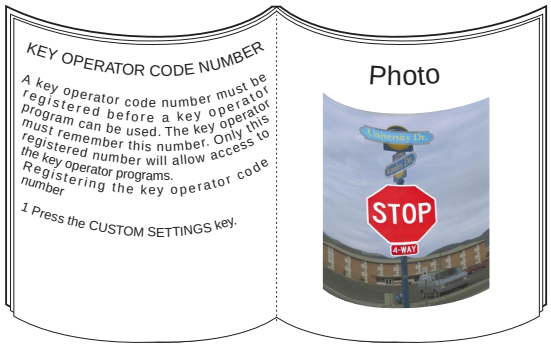
Registering the key operator code number.

1 Press the CUSTOM SETTINGS key.

Photo mode:

This mode provides the best quality reproduction of photographs with fine detail.

Printed photo mode:

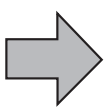


This mode is useful for copying printed photographs.

Color tone enhancement:

This mode is used to make full color image more vivid.

Original



Copy

2. RGB Adjust (See page 3-16.)

RGB adjustments function to increase or decrease the overall amount of a single primary color. The amount of change depends upon the characteristics of the particular original being copied. Generally, lighter toned areas will be affected to a greater degree than will darker toned areas.

Original

Red +

Green +

Blue +

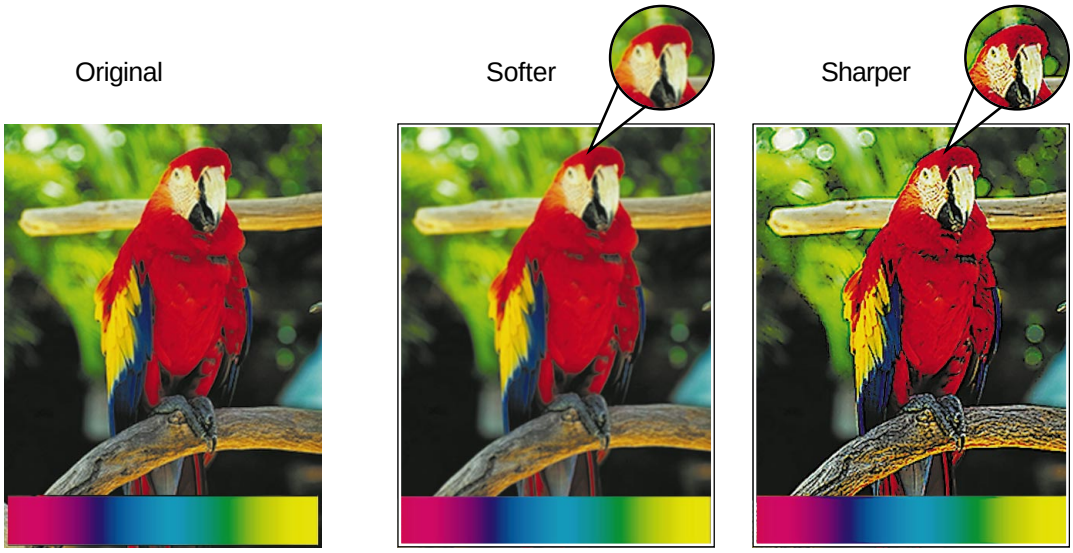
Red -

Green -

Blue -

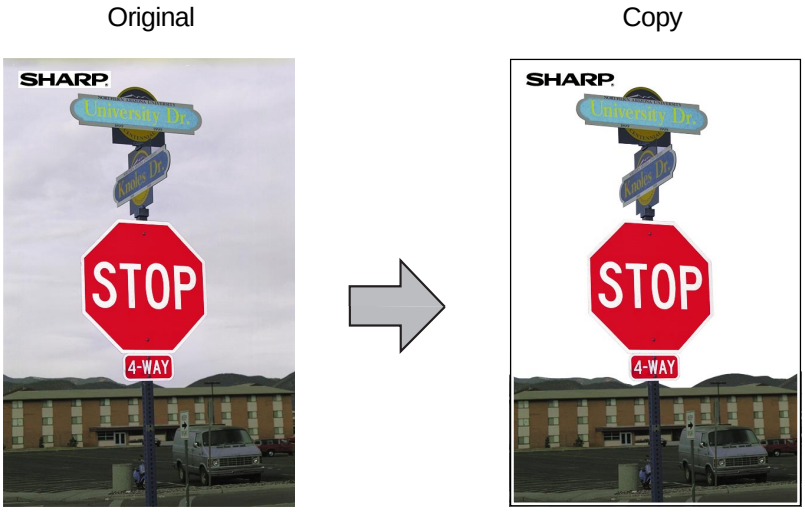
3. Sharpness (See page 3-18.)

This function is used to sharpen or soften image outlines.



4. Suppress background (See page 3-20.)

This copier can suppress unnecessary background colors on the original image when copying. This function is used to adjust the density level of background colors to be erased.



5. Color Balance (See page 3-22.)

The Color Balance function allows the density of colors to be adjusted. Adjusted color samples are shown below.

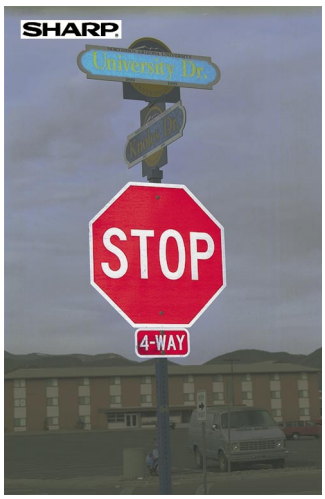
Original

Cyan adjustment +	Magenta adjustment +	Yellow adjustment +	Black adjustment +
Cyan adjustment-	Magenta adjustment -	Yellow adjustment -	Black adjustment -

6. Brightness/intensity/contrast (See page 3-24.)

This copier allows the level of brightness, intensity or contrast of images to be adjusted. If brightness is selected, color tone can be darkened or lightened. If intensity is selected, the level of color saturation can be modified between vivid and dull. If contrast is selected, the contrast between two image areas can be adjusted higher or lower.

Original

Brightness +	Intensity +	Contrast +
Brightness -	**Intensity -**	**Contrast -**
		

CONTENTS

Page

- INTRODUCTION 10
- USING THIS MANUAL 10

CHAPTER 1
GETTING STARTED

- INSTALLATION REQUIREMENTS 1-2
- CAUTIONS 1-3
- POWER ON AND OFF 1-5
  Power save modes 1-6
- INFORMATION FUNCTION 1-7
- USING THE TOUCH PANEL 1-8
  How to use the touch panel 1-8
  Selection of function 1-8
  Function setting icons 1-9
- COPY MODE AND PRINT MODE 1-10
  Printing documents from the computer . . 1-10
  Using the operation panel in the print mode 1-11
  How to select the paper type for the bypass tray 1-11
  General operation steps for the scanner use 1-12

CHAPTER 2
MAKING COPIES

- AUDITING ACCOUNTS 2-2
- COPYING FROM THE DOCUMENT GLASS 2-3
- USING THE RADF 2-6
- REDUCTION/ENLARGEMENT/ZOOM . . 2-11
- SPECIAL PAPERS (manual feed) 2-14
  Two-sided copying with bypass tray 2-15
- EXPOSURE ADJUSTMENTS 2-16
- JOB MEMORY 2-18
- INTERRUPTING A COPY RUN 2-20

CHAPTER 3
SPECIAL FUNCTIONS

- XY ZOOM 3-2
- MARGIN SHIFT 3-4
- ERASE 3-6
- DUAL PAGE COPYING 3-8
- CENTERING 3-10
- TRANSPARENCY FILM WITH INSERT SHEETS 3-12
- COVERS 3-14
- COLOR ADJUSTMENTS 3-16
  RGB adjust 3-16
  Sharpness 3-18
  Suppress background 3-20
  Color balance 3-22
  Brightness/intensity/contrast 3-24

Page

- IMAGE EDITING FUNCTIONS 3-26
  Single color 3-26
  Neg./pos. reverse 3-28
  Mirror image 3-30
  Photo repeat 3-32
  11x17 full-bleed 3-34
  Multi-page enlargement 3-36
  Extra size 3-38

CHAPTER 4
SUPPLIES

- PAPER 4-2
  Types and sizes of copy paper 4-2
  Loading copy paper 4-2
- ADDING TONER 4-5
- USED TONER DISPOSAL 4-8
- STORAGE OF SUPPLIES 4-9

CHAPTER 5
COPIER TROUBLE?

- MISFEED REMOVAL 5-2
- MAINTENANCE REQUIRED 5-11
- TONER COLLECTING CONTAINER OF TRANSFER UNIT 5-12
- TROUBLESHOOTING 5-13

CHAPTER 6
GENERAL INFORMATION

- PART NAMES AND FUNCTIONS 6-2
  Exterior 6-2
  Interior 6-3
  Operation panel 6-4
  Touch panel (Basic screen) 6-5
- USER MAINTENANCE 6-6
- TOUCH PANEL CONTRAST ADJUSTMENT 6-7
- SPECIFICATIONS 6-8

CHAPTER 7
OPTIONAL EQUIPMENT

- SYSTEM CONFIGURATION 7-2
- 20-BIN STAPLE SORTER (AR-SS2) 7-3
- LARGE CAPACITY TRAY (AR-LC2N) . . . 7-15
- FINISHER (AR-FN4) 7-19

INTRODUCTION

The AR-C160 copier is a digital color image processing copier which provides high productivity at a color copy speed of 16 copies/minute and convenient features including intelligent image-editing functions.
Amongst its many useful features and functions are the document feeder (optional), photo copying, internal auditor, and various special functions such as dual page copying, margin shift, erase, XY zoom, and NEG./POS. reverse functions. This copier can be equipped with an optional large capacity tray which holds 3,000 sheets of copy paper. The machine can also be equipped with an optional staple sorter or an optional finisher with offset stack function to provide finished copy sets ready for distribution.
This copier was also designed with ease of use in mind. The easy-to-understand operation panel with touch panel system and INFORMATION function will guide the user through most operations. To gain the maximum benefit of all the copier features, however, it is recommended that users first read this manual to become familiar with all the copier features.

NOTES:

- This manual describes only copier features. For a description of optional printer features, see the separate relevant manual. A brief description of operation in the PRINT mode is, however, written on pages 1-10 to 1-12.
- This copier can be equipped with an optional document cover or reversing automatic document feeder (RADF). The illustrations in this manual are mainly for the copier with an optional RADF installed.
- The display on the touch panel varies with installation of optional equipment. The illustrations of the touch panel in this manual are mainly for the copier with an optional RADF (AR-RF1) installed.

USING THIS MANUAL

This manual is intended as an operation guide for both general users and key operators.

For General Users

It is recommended that you read the GETTING STARTED, MAKING COPIES, and SPECIAL FUNCTIONS sections to become familiar with the available features and functions of your copier. Then refer to the manual as needed to become thoroughly familiar with those features you will normally use.

For Key Operators

Please read all sections thoroughly to become familiar with all features and functions of your copier. Throughout the manual, information which is relevant to key operator functions is noted by "★ ***KEY OPERATOR.***" Please pay close attention to these notes and to the SUPPLIES, COPIER TROUBLE?, GENERAL INFORMATION, and OPTIONAL EQUIPMENT sections so you can ensure smooth and efficient operation of your machine.
A separate KEY OPERATOR'S GUIDE has been written especially for you. It contains the programs and programming information that will enable you to tailor functions for maximum benefit to your company.

CHAPTER 1

GETTING STARTED

This chapter describes the basic information on the use of this copier.

Page

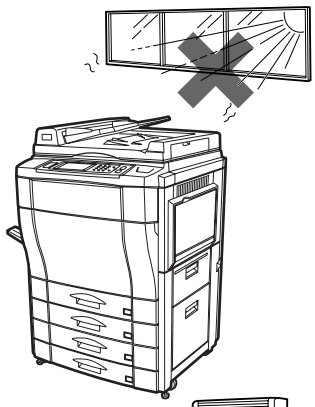
- **INSTALLATION REQUIREMENTS** 1-2
- **CAUTIONS** 1-3
- **POWER ON AND OFF** 1-5
  - Power save modes 1-6
- **INFORMATION FUNCTION** 1-7
- **USING THE TOUCH PANEL** 1-8
  - How to use the touch panel 1-8
  - Selection of function 1-8
  - Function setting icons 1-9
- **COPY MODE AND PRINT MODE** 1-10
  - Printing documents from the computer 1-10
  - Using the operation panel in the print mode 1-11
  - How to select the paper type for the bypass tray 1-11
  - General operation steps for the scanner use 1-12

INSTALLATION REQUIREMENTS

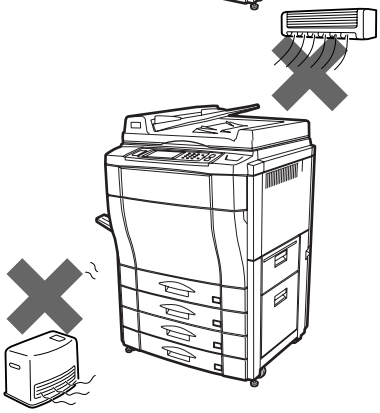
To ensure safety and proper machine performance, please note the following before initial installation and whenever the machine is to be relocated.

1. The copier should be installed near an accessible power outlet for easy connection.

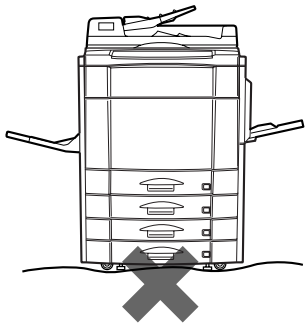
2. Be sure to connect the power cord only to a power outlet that meets the specified voltage and current requirements.
   Also make certain the outlet is properly grounded.



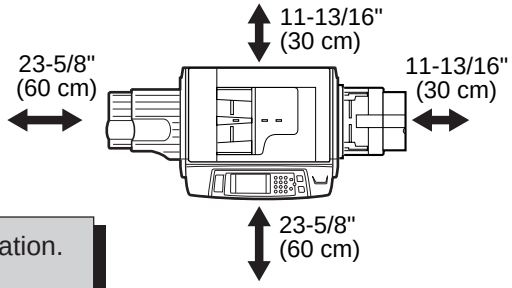
3. Do not install the machine where it is:
   - damp or humid,
   - exposed to direct sunlight,
   - extremely dusty,
   - poorly ventilated,
   - subject to extreme temperature or humidity changes (e.g., near an air conditioner or heater).



4. Ensure that the area chosen for the machine location is level.



5. Be sure to allow the required space around the machine for servicing and proper ventilation.

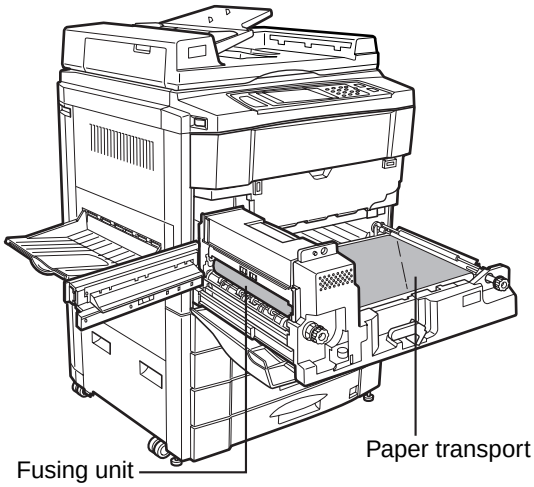


A small amount of ozone is produced within the copier during operation. The emission level is insufficient to cause any health hazard.
NOTE:
The present recommended long term exposure limit for ozone is 0.1 ppm (0.2 mg/m^3) calculated as an 8 hr. time-weighted average concentration. However, since the small amount that is emitted may have an objectionable odor, it is advisable to place the copier in a ventilated area.

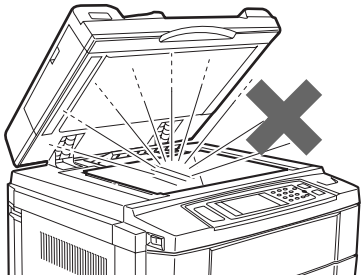
CAUTIONS

1. Do not touch the photoconductive drums or paper transport. Scratches or smudges on them will cause copy defects.

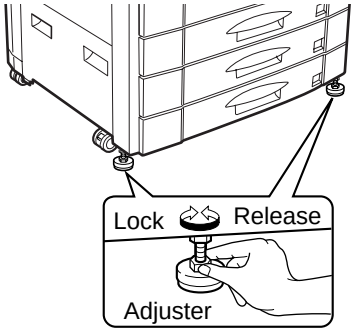
2. The fusing unit is extremely hot. Exercise care in this area.



3. Do not look directly at the light source. Doing so may damage your eyes.



4. Installation adjusters.
   When moving the machine, be sure to raise the installation adjusters. After moving the machine, lower the installation adjusters until they reach the floor.
   This copier contains fusing oil that is very slippery if leaked on the floor. Ensure that the machine is located at level position and take care if it is to be moved that oil leakage does not occur.



5. This copier is equipped with a forgery prevention feature. If paper that closely resembles paper money is used as an original, copying may not be performed properly.

"BATTERY DISPOSAL"

THIS MACHINE CONTAINS A MANGANESE DIOXIDE BATTERY WHICH MUST BE DISPOSED OF PROPERLY. CONTACT YOUR SHARP DEALER OR SERVICER FOR INSTRUCTIONS.
This product utilizes tin-lead solder, and a fluorescent lamp containing a small amount of mercury. Disposal of these materials may be regulated due to environmental considerations.
For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eia.org

Cautions on laser

Wave length	785 nm $^{+10\ nm}_{-15\ nm}$
Pulse times	(4.374 µs ±4.4 ns)/7 mm
Output power	0.20 mW - 0.45 mW

SAFETY PRECAUTIONS

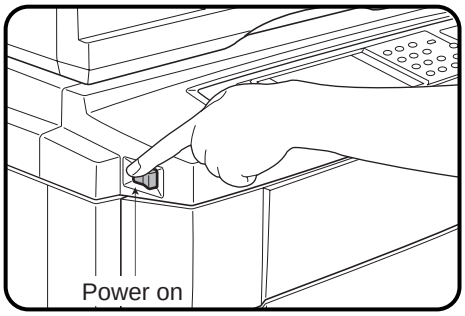
This Digital Copier is rated Class 1 and complies with 21 CFR 1040.10 and 1040.11 of the CDRH standards. This means that the copier does not produce hazardous laser radiation. For your safety, observe the precautions below.

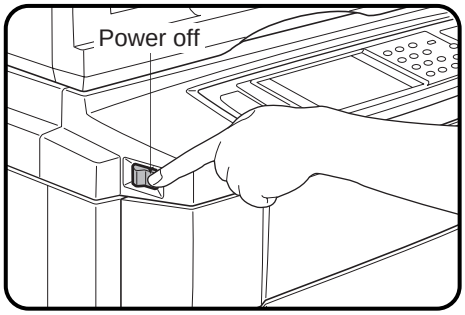
- Do not remove the cabinet, operation panel or any other covers.
- The copier's exterior covers contain several safety interlock switches. Do not bypass any safety interlock by inserting wedges or other items into switch slots.

Caution

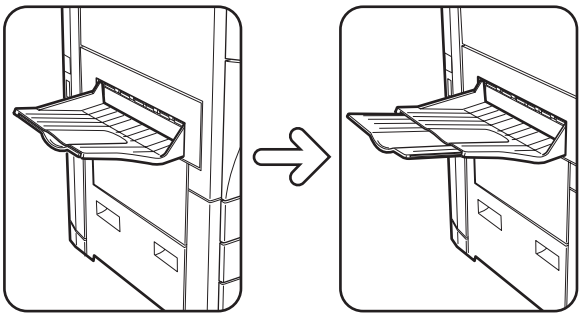
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

POWER ON AND OFF





The power switch is located on the left side of the copier. When the power switch is turned to the "ON" position, the message "**WARMING UP. PLEASE WAIT.**" will appear in the message display. Warming up takes about 330 seconds. Once the copier is ready, the message display will change to "**READY TO COPY.**", and the START key indicators will light up, indicating that copying is possible.
If the copier has been programmed in the auditing mode, the message "**ENTER YOUR ACCOUNT NUMBER. -----**" will appear after warming up. Once a valid account number has been entered, copying will become possible.



- Be sure to extend the tray when paper sizes 8-1/2" x 14" or larger are to be received.

Power save modes

The copier has two power save modes to reduce overall power consumption and thereby reduce the cost of operation and to conserve natural resources to help reduce environmental pollution. The two power save modes are preheat mode and sleep mode.

★ ***KEY OPERATOR***

The preheat activation time and the sleep activation time have been preset at the factory to 15 min. for preheat mode and 60 min. for sleep mode. These times can be changed as described in the key operator's guide. It is suggested that you set appropriate times according to the actual usage of the copier.

Sleep mode

If the sleep mode is enabled, the copier will enter the mode once a programmed length of time has elapsed without any copier operation after the last copy of a run is made or the power is first turned on. When the copier enters the sleep mode, the display on the touch panel will disappear. In this condition, power is not supplied to the fuser in the copier. To exit from the sleep mode, press the COPY key.

★ ***KEY OPERATOR See page 25 of the KEY OPERATOR'S GUIDE for setting the sleep mode timer. See page 30 of the KEY OPERATOR'S GUIDE for enabling or disabling the sleep mode.***

Preheat mode

The copier will enter the mode once the set time has elapsed without any copier operation after the last copy of a run is made or power is turned on.

When the copier enters the preheat mode, the message "**PREHEAT MODE. PLACE ORIGINALS.**" will appear.

In this condition, the fuser in the copier is maintained at a lower heat level thereby saving power. The preheat level is, however, high enough to allow the copier to come to a ready condition or begin copying approximately 30 seconds after any key input is made.

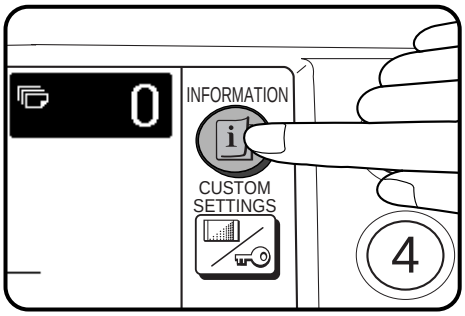
To copy from the preheat mode, make desired copier selections and press a START key using the normal copying procedure.

★ ***KEY OPERATOR See page 26 of the KEY OPERATOR'S GUIDE for information on setting the preheat mode.***

As an ENERGY STAR® Partner, SHARP has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

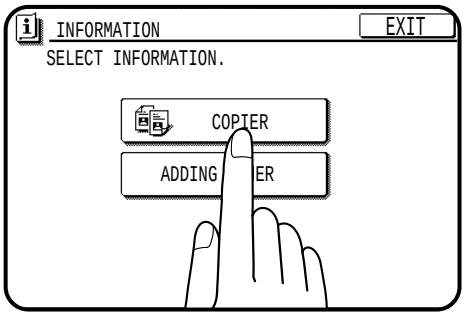
INFORMATION FUNCTION

The information function provides a quick reference guide to the use of the various features and functions of this copier. The information mode can be entered when the copier is in the standby mode.



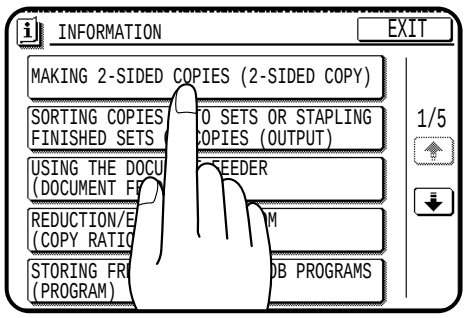
1 **Press the INFORMATION ([i]) key in the standby mode.**

- The screen for the information categories will appear.



2 **Select the "COPIER" key to display the first screen of the copier feature items.**

- If the toner supply is low, press the ADDING TONER key for toner replenishment instructions.

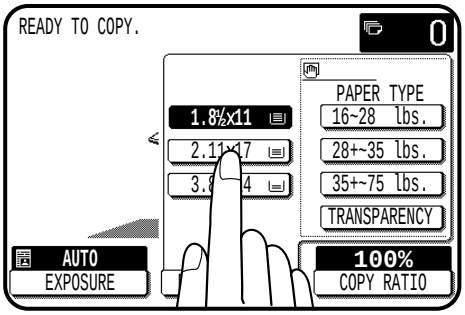


3 **Select the feature you would like to know about by pressing a copier feature item key on the touch panel.**

- If the feature you would like to know about is not displayed on the touch panel, press the scroll ([↓]) key on the touch panel until the feature is displayed.
- If a copier feature item key is pressed, the description for that feature will appear. Use the scroll ([↓]) key to display additional information until all information for that feature has been displayed.
- To return to the copier feature item screen, press the "INDEX" key.
- To exit the INFORMATION mode, press the "EXIT" key on the touch panel.

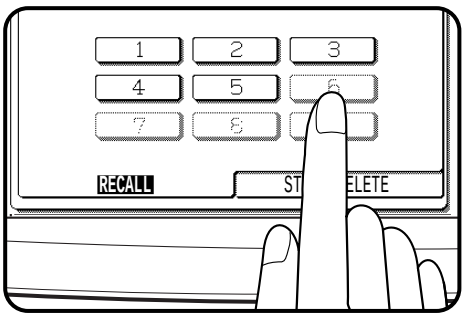
USING THE TOUCH PANEL

How to use the touch panel



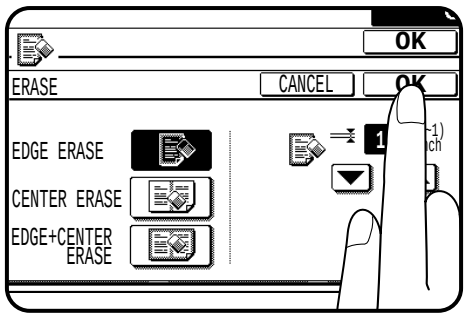
You can set or cancel a function displayed on the touch panel by pressing (touching) a key with a finger. The touch key operation can be confirmed with a beep tone (and highlighting of the touch key).

★ ***KEY OPERATOR For the beep tone to be heard, the beep tone must be enabled by a key operator program. See page 27 of the KEY OPERATOR'S GUIDE.***

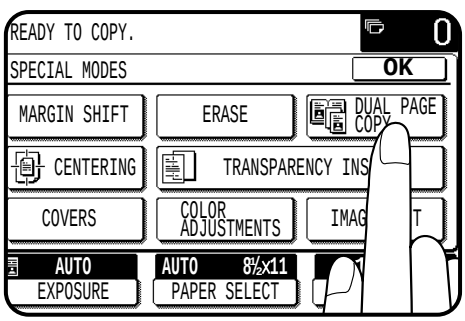


A grayed out function key represents unavailability of that function. If a grayed out key is pressed, two short beeps will sound.

Selection of function

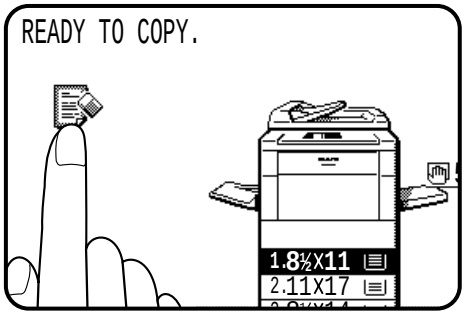


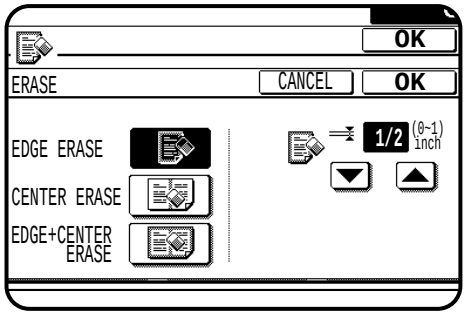
To register the selected settings for a function, press the "OK" key on the setting screen. The settings indicated by a highlighted display will be registered as a selected function.



Some special functions can be selected by pressing the relevant keys on the SPECIAL MODES screen (page 3-4) or on the IMAGE EDIT menu (page 3-26) to highlight the keys. To cancel these functions, press the relevant keys again to return the keys to the normal display. These functions are: Dual page copying, Centering, Transparency inserts, Neg./pos. reverse, Mirror image, and 11x17 full-bleed.

Function setting icons





Icons representing special functions which have been selected will appear on the basic screen. The functions and their associated icons are listed below.

The content of the icons of functions indicated by (*) will vary depending upon particular settings selected for these functions. The other functions are on or off type functions and have no associated setting screens.

* Margin shift (p.3-4)

* Erase (p.3-6)

Dual page copying (p.3-8)

Centering (p.3-10)

Transparency film with insert sheets (p.3-12)

* Covers (p.3-14)

Color adjustments (p.3-16)

* Single color (p.3-26)

Neg./pos. reverse (p.3-28)

Mirror image (p.3-30)

* Photo repeat (p.3-32)

11 x 17 full-bleed (p.3-34)

Multi-page enlargement (p.3-36)

Extra size (p.3-38)

COPY MODE AND PRINT MODE

An optional power supply kit (AR-PX4) and an optional printer controller board (AR-PE2) must be installed to use this copier as a printer.

Printing documents from the computer

In most cases, it is not necessary to use the operation panel when printing documents from the computer. When a document is sent to the printer from the computer, the printer will automatically print the document. However, following the procedure specified below can help the user ensure that documents are printed accurately. The procedure assumes that the printer has been properly connected to a computer, and that a printer driver has been installed.

1 **Check the operation panel to confirm that the ON LINE indicator is lit. If the ON LINE indicator is not lit, press the PRINT key to select the print mode and then press the "ONLINE/OFFLINE" key on the touch panel to set the printer to the on-line condition.**

2 **Check the paper tray(s) to ensure that the desired paper is loaded.**

3 **Using the computer and any appropriate application software, load the document to be printed, set any desired features using the installed printer driver, and give the command to print the document. If necessary, refer to the documentation for the computer and/or the application software for help on issuing the necessary commands.**

4 **The printer will print the document.**

NOTE:
When the printer feature is used, if the ON LINE indicator is blinking red, this machine cannot execute printing from some cause. Press the PRINT key to select the print mode. A message indicating the cause for the error such as no paper or no toner will be displayed. Check the message and take proper measures.

Selecting the on-line mode

If the printer is in the off-line mode, printing cannot be performed. To select the on-line mode, follow the procedure below.

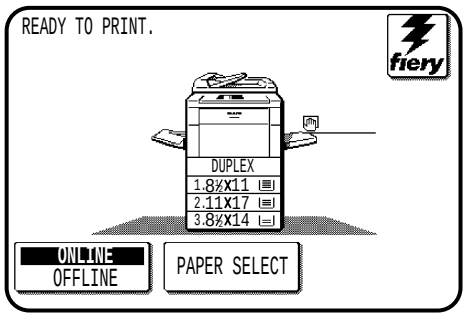
1 **If the printer is in the copy mode, press the PRINT key to select the print mode.**
- The basic screen of the print mode will appear.

2 **Press the "ONLINE/OFFLINE" key on the touch panel to switch the printer to the on-line mode.**

3 **To return to the copy mode, press the COPY key.**

Using the operation panel in the print mode

The operation panel provides access to many of the printer's features and functions. The basic procedure to access the printer's features and functions is shown below.



1 **If the printer is in the copy mode, press the PRINT key to select the print mode.**

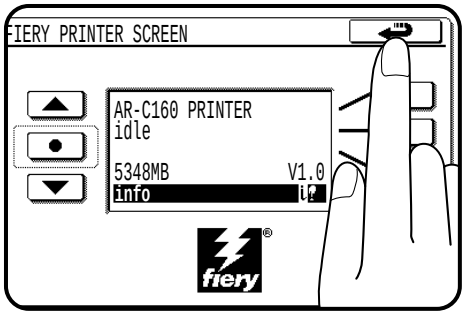
- The basic screen of the print mode will appear.

2 **Press the "ONLINE/OFFLINE" key on the touch panel to switch the printer to the off-line mode.**

3 **Press the "fiery" key on the touch panel.**

4 **Use the keys on the touch panel to select the desired operation.**

- For details of the functions in the print mode, see the printer operation manual.
- To return to the printer basic screen, press the return ( ) key.



How to select the paper type for the bypass tray

Before the paper type can be selected, paper must be placed in the bypass tray and the key operator program "Enable Bypass-Tray Type Detection" must be used to enable the selection (see page 33 of the KEY OPERATOR'S GUIDE). Proceed as follows.

1 **Press the PRINT key to select the print mode.**

2 **Press the "ONLINE/OFFLINE" key to enter the off-line mode.**

3 **Press the "PAPER" key.**

4 **Use the touch panel to enter the paper type to match the paper set in the bypass tray.**

5 **Press the "ONLINE/OFFLINE" key to restore the on-line mode.**

General operation steps for using the scanner

To scan, process or edit document images by using the scanning feature of the machine, Adobe Photoshop 5.0 or later is needed.

1 **Install the required driver software in your computer in accordance with the operation manual for the Printer Controller.**

2 **Press the PRINT key to display the print mode screen.**

3 **Check the operation panel to confirm that the ONLINE key is selected. If not , touch the "ONLINE/OFFLINE" key to select the online status.**

4 **Place the original on the document glass or in the document feeder (optional).**

NOTE:
Even if multiple originals are set in the document feeder images must be processed one at a time.

5 **Acquire the image using the application software. For the details, refer to the operation manual supplied with the application software.**

6 **Edit or store the scanned image. Refer to the instructions supplied with the application software for details.**

NOTE:
For detailed instructions on using the machine as a scanner, refer to the operation manual supplied with the Printer Controller.

CHAPTER 2

MAKING COPIES

This chapter describes the basic copying functions such as normal copying, reduction/enlargement, and exposure adjustments.

Page

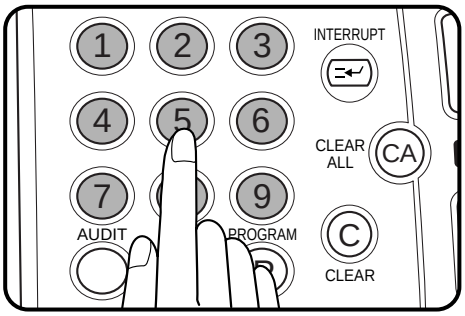
- **AUDITING ACCOUNTS** 2-2
- **COPYING FROM THE DOCUMENT GLASS** 2-3
- **USING THE RADF** 2-6
- **REDUCTION/ENLARGEMENT/ZOOM** 2-11
- **SPECIAL PAPERS (manual feed)** 2-14

  Two-sided copying with bypass tray 2-15
- **EXPOSURE ADJUSTMENTS** 2-16
- **JOB MEMORY** 2-18
- **INTERRUPTING A COPY RUN** 2-20

AUDITING ACCOUNTS

If this copier has been programmed in the auditing mode, it will not function until an assigned 5-digit account number has been entered.The auditing mode can be set for both the color and black/white (B/W) copy modes or for only the color copy mode.

★ ***KEY OPERATOR*** ***See page 9 of the KEY OPERATOR'S GUIDE for setting the auditing mode.***



If the auditing mode has been set for both the color and B/W copy modes, the initial status of the message display will be:

```
ENTER YOUR ACCOUNT NUMBER. -----
```

If the auditing mode has been set for only the color copy mode, the following display will appear when the AUDIT key or the COLOR COPY START (●●●●) key is pressed.

```
ENTER YOUR ACCOUNT NUMBER
FOR COLOR COPYING.
                    -----
```

- Enter your account number using the 10-key pad.
- As each digit is entered, the dashes in the display will change to asterisks.

The following message will appear after the number is entered.

```
ACCOUNT STATUS: COPIES MADE /REMAINING
B/W: 000,000/000,000 CL: 000,000/000,000
```

"COPIES REMAINING" will appear only if account limit has been set using a key operator program.

★ ***KEY OPERATOR*** ***See page 16 of the KEY OPERATOR'S GUIDE for account limit settings.***

- The message will be displayed for several seconds, then change to the following message.

```
READY TO COPY.
```

- When a copy run is performed, the following message will appear.

```
READY TO COPY.
PRESS [AUDIT] WHEN FINISHED.
```

- In the interrupt copy mode (see page 2-20), the following message will appear instead of the message above.

```
READY TO COPY. WHEN COPYING IS
FINISHED, PRESS [INTERRUPT].
```

NOTE:
If an unassigned number is entered, the message display will show "**ENTER YOUR ACCOUNT NUMBER.-----**", indicating that the number was not accepted.

When the key operator program of account number security has been set:
If an unassigned number is entered three successive times, the copier will not accept another number for one minute, and the following message will appear.

```
PLEASE SEE YOUR KEY OPERATOR FOR
ASSISTANCE.
```

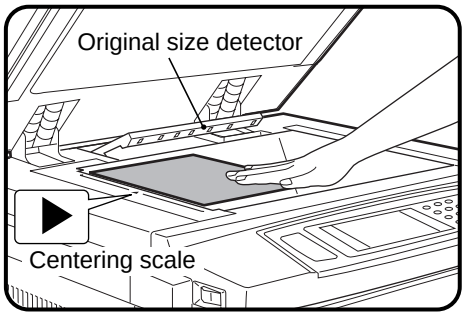
★ ***KEY OPERATOR*** ***See page 17 of the KEY OPERATOR'S GUIDE for account number security.***

COPYING FROM THE DOCUMENT GLASS

Use the document glass for copying single originals, bound documents, and other originals that cannot be set in the optional RADF.

- Only 1-sided to 1-sided and 1-sided to 2-sided copying can be selected when copying from the document glass.
- Duplex copying will not work when a non-standard sized paper or 5-1/2" x 8-1/2"R paper is used.
- 2-sided to 2-sided or 2-sided to 1-sided copying cannot be selected when copying from the document glass. These operations can, however, be performed simply by turning over the original manually.
- Image loss (max. 13/64" (5 mm)) can occur along the leading edge of the copies. Image loss (max. 9/32" (7mm)) can occur along the trailing edge of the copies. Also image loss (max. 1/4" (6 mm) in total) can occur along the other edges of the copies.

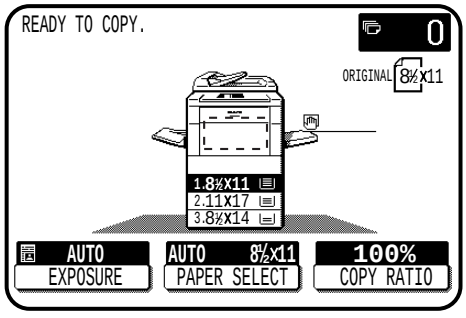
1-sided copies of 1-sided originals



1 Open the document cover and place an original face down on the document glass, using the centering scale to position it.

- When copying multi-page documents, copy from the last page to the first page.

NOTE:
Do not place objects under the original size detector, because they may damage it.

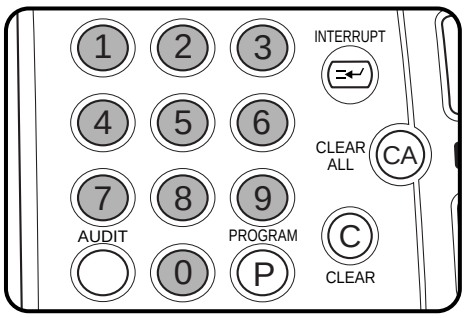


2 Close the document cover.

- The original size will be indicated on the touch panel, and the paper tray with the corresponding paper size will be automatically selected.

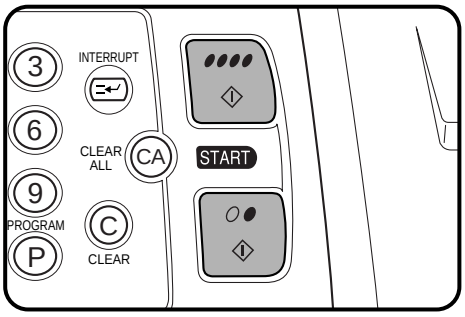
3 Ensure that the 1-sided to 1-sided copying mode is selected on the touch panel.

- When no icon is displayed in the area indicated in the illustration (⋯), the 1-sided to 1-sided copying mode is selected.
- If the 1-sided to 1-sided mode is not selected, press the 2-SIDED COPY key and then press the 1-sided to 1-sided key (1→1) on the touch panel. Press the "OK" key to return to the basic screen.



4 Use the 10-key pad to enter the desired number of copies.

- The number will be shown in the copy quantity display of the touch panel.
- A single copy can be made with the initial setting, i.e., when "0" is displayed.
- Use the CLEAR (Ⓒ) key to cancel an entry if a mistake is made.



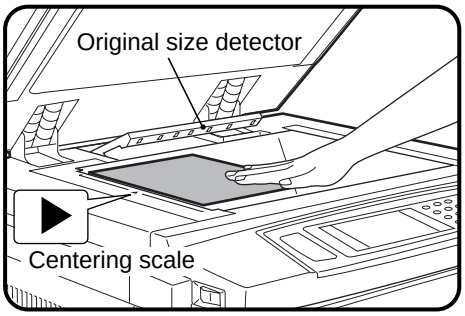
5 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

- To perform color copying, press the COLOR COPY START (●●●●) key. To perform black/white copying, press the BLACK COPY START (○●) key.
- The number in the copy quantity display will decrease by 1 each time a copy is made. To repeat the same copy sequence with a different original, simply replace the original and press the START key.
- To cancel a copy run, press the CLEAR ALL (CA) key. Copying will stop and the number in the copy quantity display will be reset to 0.

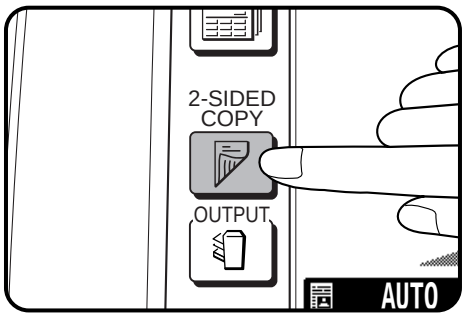
2-sided copies from 1-sided originals

To copy in the 1-sided to 2-sided copy mode, an optional duplex module (AR-DU2N) must be installed.

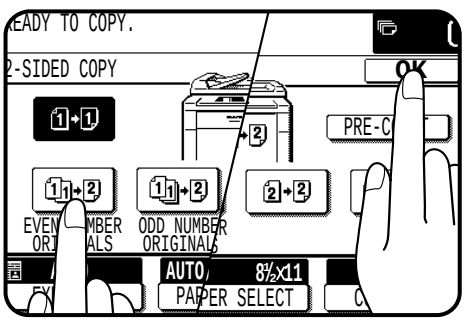
For an odd number of originals:



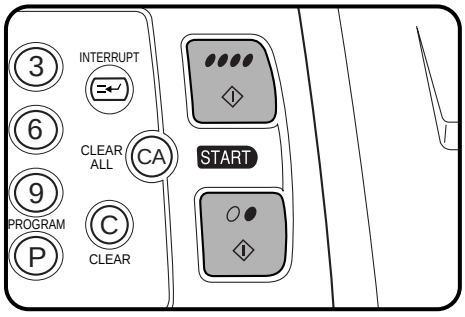
1 **Set the last page of the document onto the document glass, and copy it in the 1-sided to 1-sided mode.**



2 **Press the 2-SIDED COPY key.**



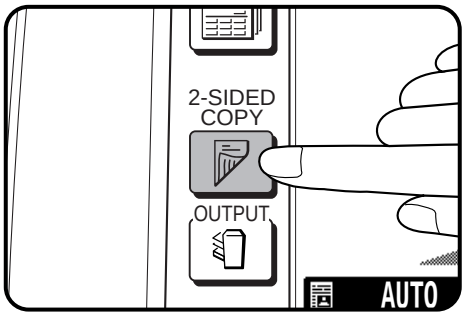
3 **Press the [1→2] (EVEN NUMBER ORIGINALS) key on the touch panel and then press the "OK" key.**



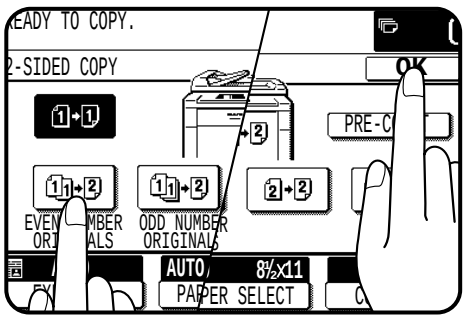
4 **Copy the reminder of the originals in reverse order.**

- When making color copies in the duplex mode or making B/W copies in the duplex mode onto paper 8-1/2" x 14" or larger, only one copy per original can be made. Even if a multiple number of copies is set, the number will be changed to 1 when a START key is pressed.

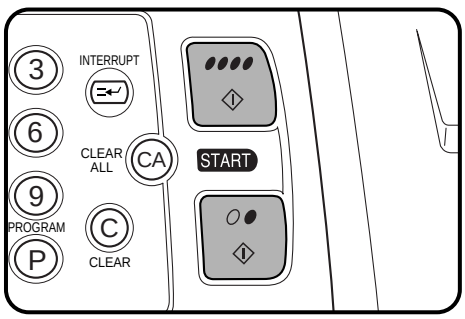
For an even number of originals:



1 **Press the 2-SIDED COPY key.**



2 **Press the [1→2] (EVEN NUMBER ORIGINALS) key on the touch panel and then press the "OK" key.**



3 **Copy the originals in reverse order.**

- When making color copies in the duplex mode or making B/W copies in the duplex mode onto paper 8-1/2" x 14" or larger, only one copy per original can be made. Even if a multiple number of copies is set, the number will be changed to 1 when a START key is pressed.

USING THE RADF

This copier can be equipped with an optional reversing automatic document feeder (RADF).
The RADF will handle multiple originals.

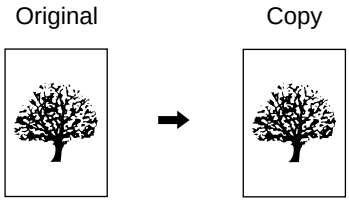
- Before loading originals into the document feeder tray, be sure to remove any staples or paper clips from them.
- Damaged or crumpled originals or originals which have been folded may misfeed in the RADF or cause incorrect size detection. It is recommended that these be copied from the document glass and the copies be used as original documents.
- When feeding originals which have closely spaced binding holes punched along an edge, place the originals so that the punched edge is positioned to the right or along the side guides.
- Special originals such as transparency film and tracing paper should not be fed from the RADF, but should be placed on the document glass.
- Duplex copying will not work when a non-standard sized paper or 5-1/2" x 8-1/2" paper is used.
- Image loss (max. 13/64" (5 mm)) can occur along the leading edge of the copies. Image loss (max. 9/32" (7mm)) can occur along the trailing edge of the copies. Also image loss (max. 1/4" (6 mm) in total) can occur along the other edges of the copies.
- The RADF can handle a maximum of 50 originals of 5-1/2" x 8-1/2" to 8-1/2" x 11" sizes and 30 originals of 8-1/2" x 14" to 11" x 17" sizes.
- 2-sided to 1-sided copying and 2-sided to 2-sided* copying can be performed.

* For 2-sided to 2-sided copying, an optional duplex module (AR-DU2) must be installed.

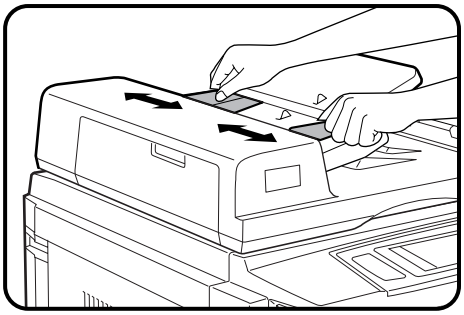
- The originals must be set face up in the document feeder tray.
- Different size originals with the same width can be placed in the document feeder tray and automatically copied onto copy paper of their respective sizes. The automatic copy ratio selection will not function in this case.

Stream feeding mode
If the stream feeding mode has been enabled using a key operator program, the message "**NEWLY PLACED ORIGINALS WILL BE FED AND COPIED AUTOMATICALLY.**" will appear and the original feed indicator will continue to blink for approximately 5 seconds after feeding of all originals is completed. While this message is displayed, any new originals placed in the document feeder tray will be fed and copied automatically.

★ *KEY OPERATOR See page 24 of the KEY OPERATOR'S GUIDE for information on setting the stream feeding mode.*

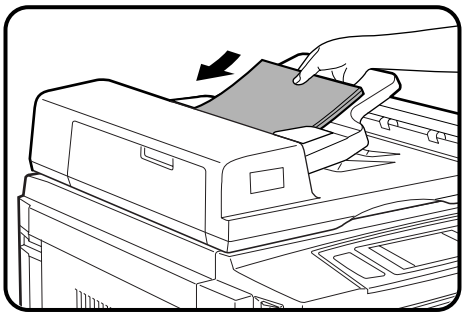


1-sided copies of 1-sided originals



1 Adjust the original guides to the size of the originals and set the originals face up in the document feeder tray.

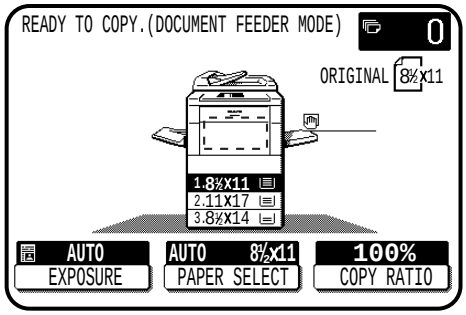
- The original size will be indicated on the touch panel, and the paper tray with the corresponding paper size will be automatically selected.
- Be sure to remove any original from the document glass before setting the originals in the document feeder tray. If an original is left on the document glass, the original reminder indicator will blink. Remove the original from the document glass in this case.
- If copy paper of the required size is not installed in any of the trays, the following message will appear.



`LOAD □□" x □□" PAPER.`

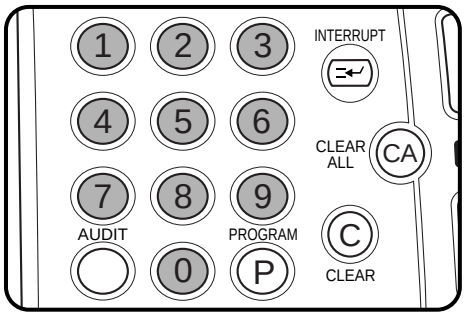
If a tray of the required size is not installed, use the bypass tray and press the "PAPER SELECT" key on the touch panel to select the bypass tray.

- To copy onto a different size paper, use the "PAPER SELECT" key to make the selection.



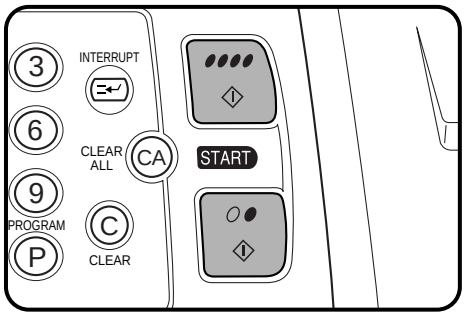
2 Ensure that the 1-sided to 1-sided copying mode is selected on the touch panel.

- When no icon is displayed in the area indicated in the illustration (⋯), the 1-sided to 1-sided copying mode is selected.
- If the 1-sided to 1-sided mode is not selected, press the 2-SIDED COPY key and then press the 1-sided to 1-sided key (1→1) on the touch panel. Press the "OK" key to return to the basic screen.



3 Use the 10-key pad to enter the desired number of copies.

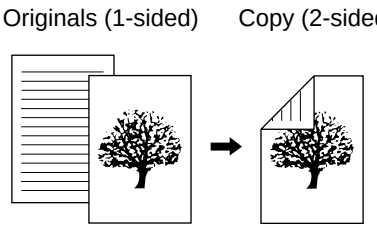
- The number will be shown in the copy quantity display of the touch panel.
- Use the CLEAR (Ⓒ) key to cancel an entry if a mistake has been made.



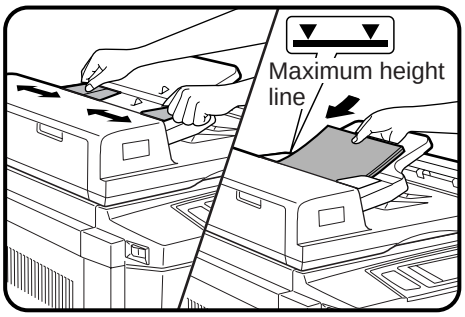
4 Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.

- To perform color copying, press the COLOR COPY START (●●●●) key. To perform black/white copying, press the BLACK COPY START (○●) key.
- To cancel a copy run, press the CLEAR ALL (Ⓒ) key. Copying will stop and the RADF will output any originals which have been fed. Also, the number in the copy quantity display will be reset to 0.

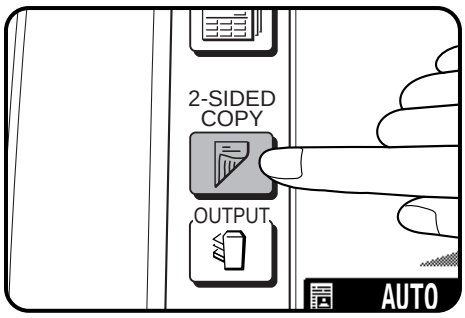
2-sided copies from 1-sided originals



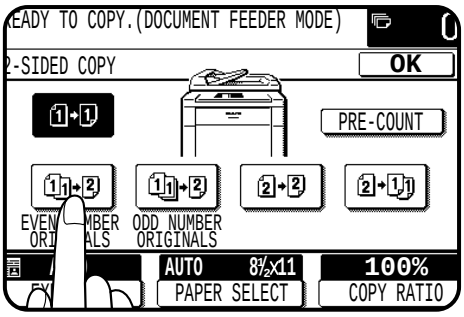
To copy in the 1-sided to 2-sided copy mode, an optional duplex module (AR-DU2N) must be installed.



1 **Adjust the original guides to the size of the originals and set the originals face up in the document feeder tray.**



2 **Press the 2-SIDED COPY key.**

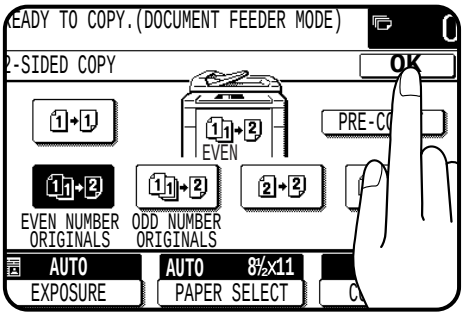


3 **If the number of originals is known, use the [1→2] (EVEN NUMBER ORIGINALS) key or [1→2] (ODD NUMBER ORIGINALS) key on the touch panel, then proceed to step 4. If the number of originals is not known, select "PRE-COUNT" for an automatic count by the RADF and press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

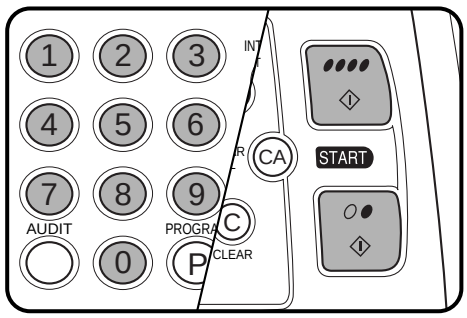
- The following message will appear.

```
PRE-COUNT MODE
NUMBER OF ORIGINALS IS **.
```

- If the number of originals exceeds the limit, other messages will appear .
- When the count is complete and the number is known, replace the originals in the document feeder tray and select "EVEN NUMBER ORIGINALS" or "ODD NUMBER ORIGINALS" as above.



4 **Press the "OK" key.**



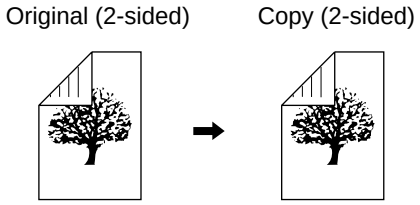
5 **Enter the desired number of copies.**

- When making color copies in the duplex mode or making B/W copies in the duplex mode onto paper 8-1/2" x 14" or larger, only one copy per original can be made. Even if a multiple number of copies is set, the number will be changed to 1 when a START key is pressed.

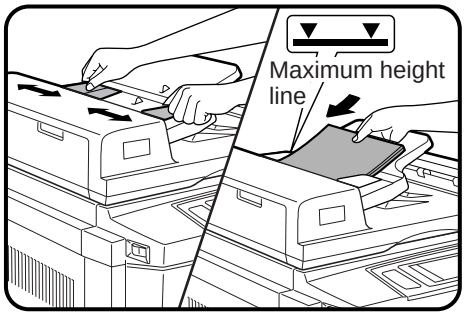
6 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

- To perform color copying, press the COLOR COPY START (●●●●) key. To perform black/white copying, press the BLACK COPY START (○●) key.
- To cancel a copy run during duplex copying, press the CLEAR ALL (CA) key.

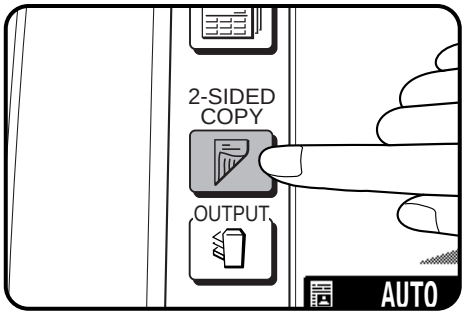
2-sided copies from 2-sided originals



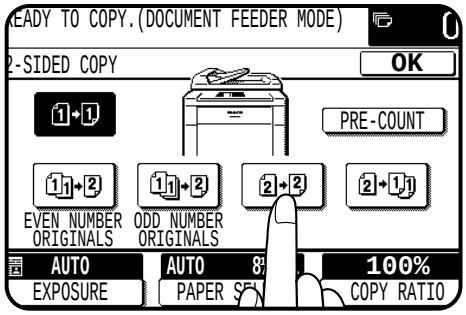
To copy in the 2-sided to 2-sided mode, an optional duplex module (AR-DU2N) must be installed.



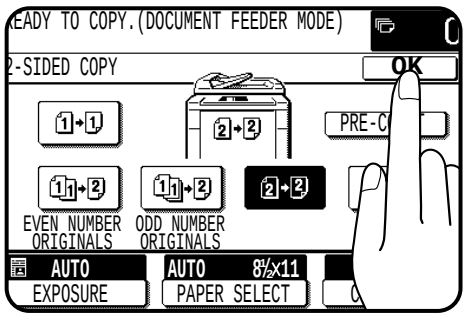
1 **Adjust the original guides to the size of the originals and set the originals face up in the document feeder tray.**



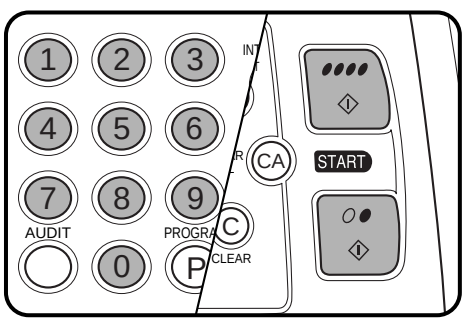
2 **Press the 2-SIDED COPY key.**



3 **Press the [2→2] key on the touch panel.**



4 **Press the "OK" key.**



5 **Enter the desired number of copies.**

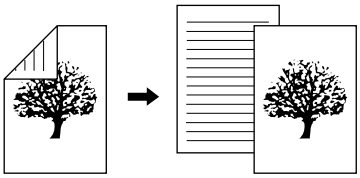
- When making color copies in the duplex mode or making B/W copies in the duplex mode onto paper 8-1/2" x 14" or larger, only one copy per original can be made. Even if a multiple number of copies is set, the number will be changed to 1 when a START key is pressed.

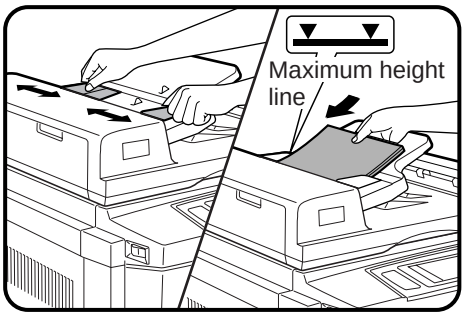
6 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

- To perform color copying, press the COLOR COPY START (●●●●) key. To perform black/white copying, press the BLACK COPY START (○●) key.
- To cancel a copy run during duplex copying, press the CLEAR ALL (CA) key.

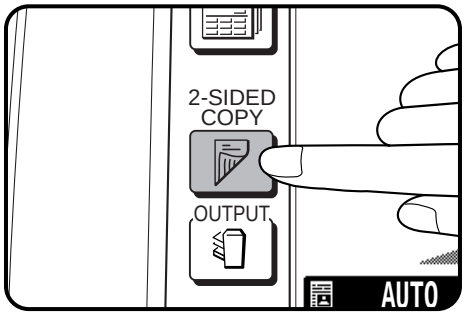
1-sided copies from 2-sided originals

Original (2-sided) Copies (1-sided)

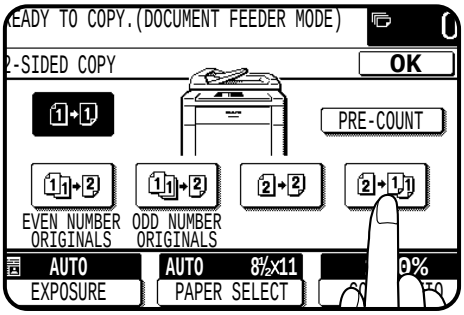




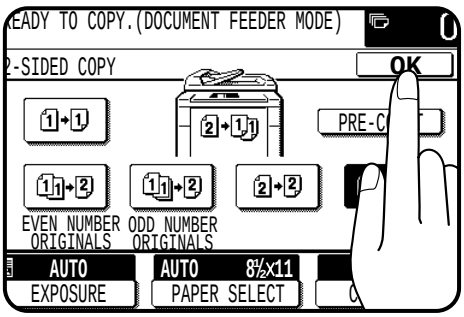
1 **Adjust the original guides to the size of the originals and set the originals face up in the document feeder tray.**



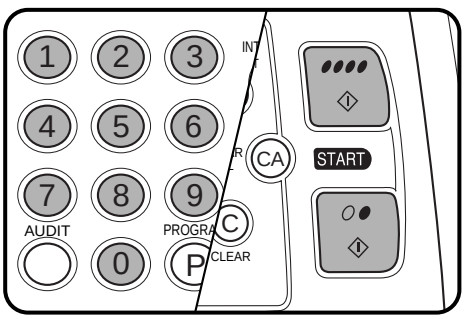
2 **Press the 2-SIDED COPY key.**



3 **Press the [2→1] key on the touch panel.**



4 **Press the "OK" key.**



5 **Enter the desired number of copies.**

6 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

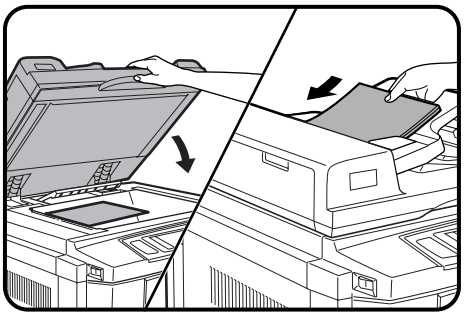
- To perform color copying, press the COLOR COPY START(●●●●) key. To perform black/white copying, press the BLACK COPY START (○●) key.
- To cancel a copy run, press the CLEAR ALL ((CA)) key. Copying will stop and the RADF will output any originals which have been fed. Also, the number in the copy quantity display will be reset to 0.

REDUCTION/ENLARGEMENT/ZOOM

Reduction and enlargement ratios can be selected either automatically with the "AUTO IMAGE" key or manually with the reduction, enlargement or "ZOOM" keys on the touch panel. The zoom function enables precise copy ratio selection from 25% to 400% in 1% increments.

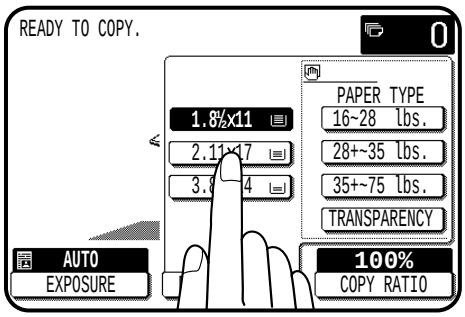
★ ***KEY OPERATOR*** ***A total of four extra preset copy ratios, two each for reduction and enlargement, can be added. See page 19 of the KEY OPERATOR'S GUIDE.***

Automatic selection



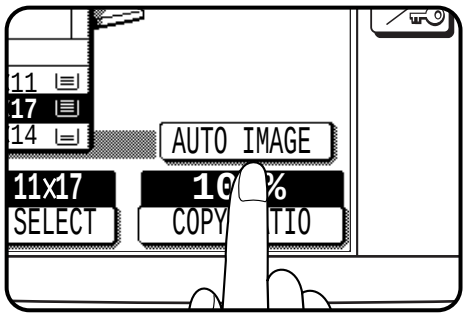
1 Place the original on the document glass or in the optional document feeder tray.

- The original size will be detected and indicated on the touch panel.



2 Press the "PAPER SELECT" key on the touch panel and select the paper tray with the desired paper size.

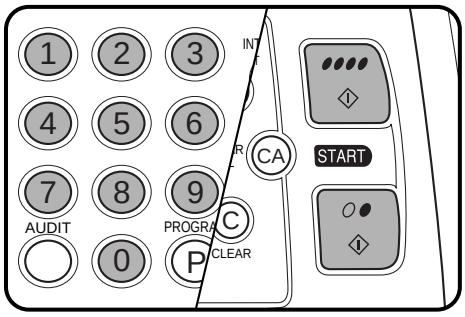
NOTE:
This feature will not work when original or copy paper is of non-standard size.



3 Press the "AUTO IMAGE" key on the touch panel.

- The best reduction or enlargement ratio for the selected paper size will be automatically set and displayed on the touch panel.
- If the originals and the selected copy paper are not facing the same direction, the following message will appear to indicate how the original should be placed.

ROTATE ORIGINAL FROM TO .

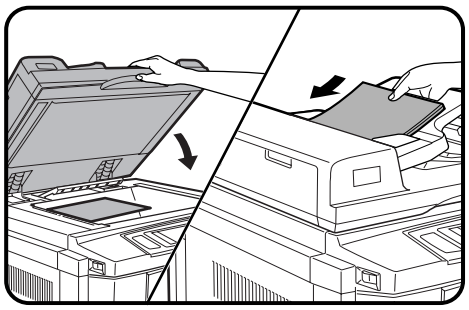


4 Enter the desired number of copies.

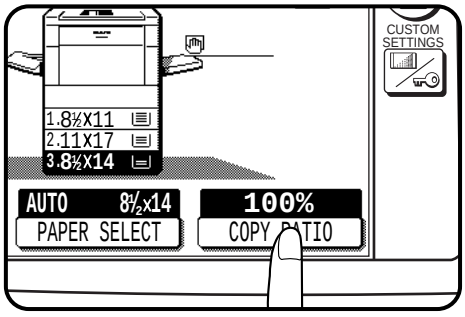
5 Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.

- To cancel the automatic reduction/enlargement mode, press the "AUTO IMAGE" key again.

Manual selection

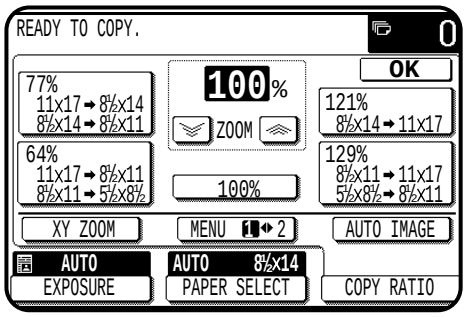


1 **Place the original on the document glass or in the optional document feeder tray.**

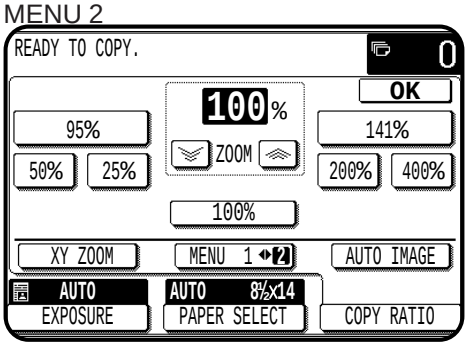


2 **Press the "COPY RATIO" key on the touch panel.**

MENU 1



MENU 2



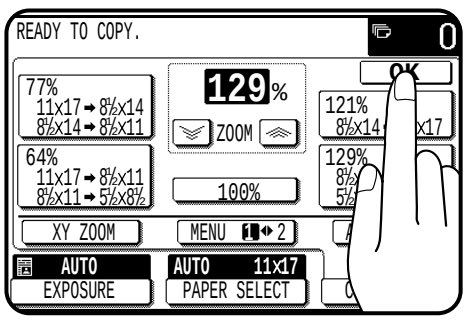
3 **Use the MENU 1 2 key to select menu 1 or menu 2 for copy ratio selection.**

Menu 1

A. Preset reduction copy ratios are: 77% and 64%.
B. Preset enlargement copy ratios are: 121% and 129%.

Menu 2

A. Preset reduction copy ratios are: 95%, 50%, and 25%.
B. Preset enlargement copy ratios are: 141%, 200% and 400%.

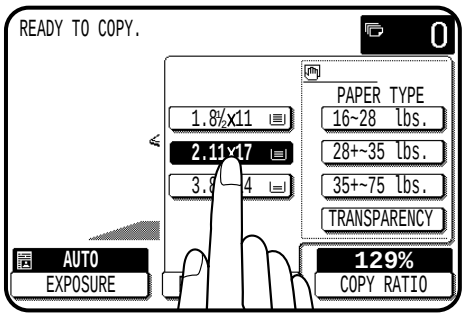


4 **Use the reduction, enlargement, and "ZOOM" keys on the touch panel to set the desired copy ratio.**

Zoom ratios: Any ratio from 25% to 400% can be set in 1% increments.

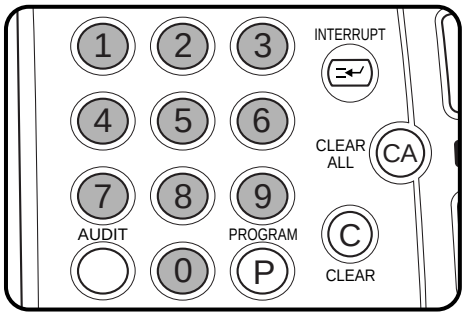
- Press a reduction or enlargement key to set the approximate ratio, then press the ⩔ key to decrease the ratio or the ⩓ key to increase the ratio.
- To set the horizontal and vertical copy ratios separately, use the XY ZOOM feature. See page 3-2.
- To reset the copy ratio to 100%, press the "100%" key on the touch panel.
- The message "**IMAGE IS LARGER THAN COPY PAPER.**" may appear, indicating that the selected copy ratio is too large for the copy paper size. However, if you press the START key, a copy will be made.

5 **Press the "OK" key.**

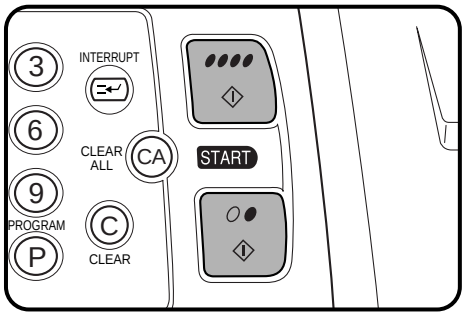


6 **Use the "PAPER SELECT" key to select the paper tray with the desired paper size.**

- If the AUTO PAPER SELECT mode is on, the appropriate copy paper size will have been automatically selected based on the original size and selected copy ratio.
- If a tray of the required size is not installed, use the bypass tray and press the "PAPER SELECT" key to select the bypass tray.



7 **Enter the desired number of copies.**



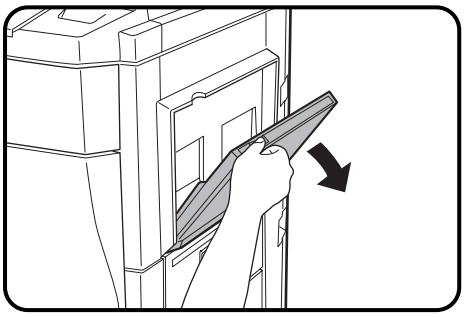
8 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

SPECIAL PAPERS (manual feed)

The bypass tray is used to copy onto transparency film and other special purpose papers. Up to 50 sheets of standard copy paper can be set in the bypass tray.

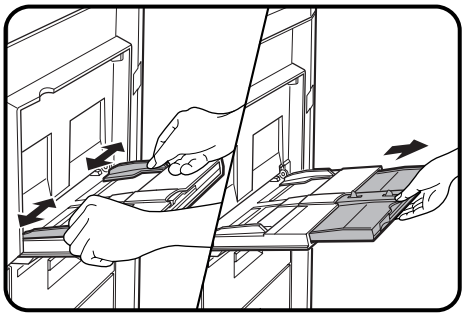
- When copying onto transparency film, the maximum image loss on the copies will be 13/32" (10 mm) along the leading and trailing edges and 1/4" (6 mm) in total along the other edges.
  Transparency film must be fed long edge into the feed slot.

- Automatic duplex copying will not work when a non-standard sized paper is used even if an optional duplex module (AR-DU2N) is installed. If a duplex copying mode is selected and a non-standard sized paper is used from the bypass tray, the corresponding one-sided mode will be selected automatically when a START key is pressed.



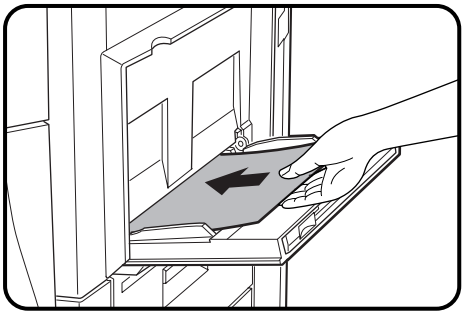
1 **Place the original on the document glass or in the optional document feeder tray.**

2 **Open the bypass tray.**



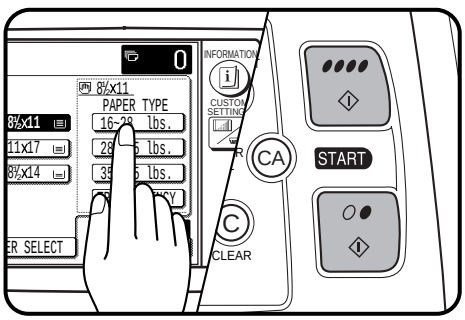
3 **Set the bypass tray guides to the width of the copy paper.**

- Be sure to extend the tray when feeding paper larger than 8-1/2" x 11" size.
- If the bypass tray guides are set wider than the copy paper, the inside of the machine may become soiled, resulting in smudges on succeeding copies.



4 **Insert the copy paper all the way into the bypass tray.**

- Special purpose papers other than SHARP recommended transparency film must be fed individually. Multiple sheets of SHARP recommended transparency film can be loaded in the bypass tray.
- Up to 50 sheets of standard copy paper measuring from 5-1/2" x 8-1/2" to 12" x 18" can be loaded into the bypass tray.
- When adding paper, first remove remaining paper, combine it with the paper to be added and then reload as a single stack.



5 **Press the "PAPER SELECT" key on the touch panel and then select the desired paper type in the bypass tray section.**

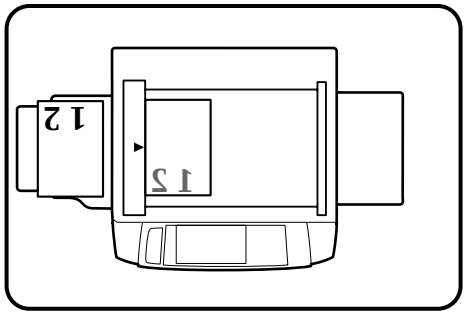
- "16 ~ 28 lbs." ("PLAIN PAPER"), "28+ ~ 35 lbs." ("HEAVY PAPER 1"), "35+ ~ 75 lbs." ("HEAVY PAPER 2") or "TRANSPARENCY" can be set.

6 **Set the number of copies.**

7 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

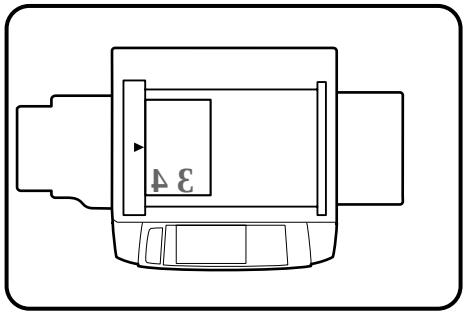
Two-sided copying with bypass tray

Two-sided copies can be made manually using the bypass tray. The procedure described below is useful for users of the copier without an optional duplex module (AR-DU2N).



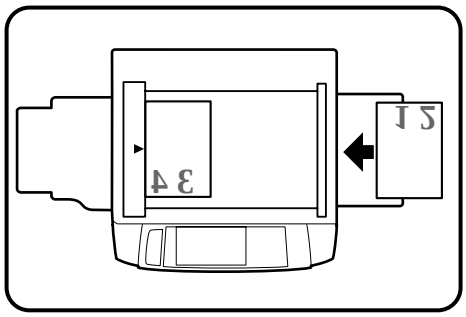
1 Place the first original face down on the document glass and make a copy.

- The first side of the copy can be made using any of the paper feed stations.



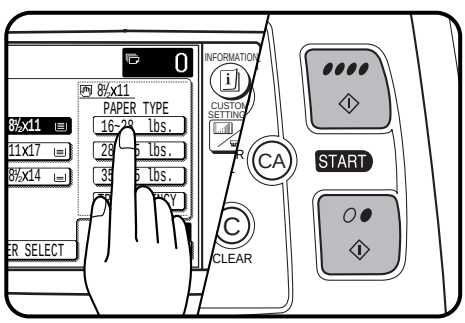
2 Remove the first original and place the second original face down on the document glass.

- Make sure the first and second originals are oriented in the same way on the document glass.
- If an optional document feeder is used, the originals must be fed one at a time.



3 Turn the first copy over without changing its top-bottom orientation and place it into the bypass tray.

- Be sure to feed the copies one sheet at a time.



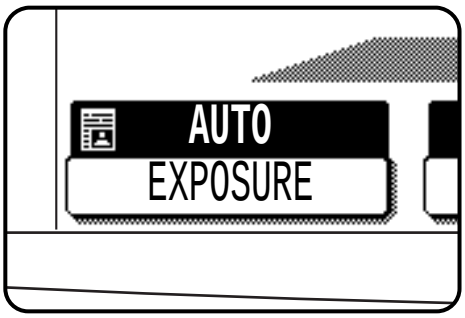
4 Press the "PAPER SELECT" key and select the desired paper type in the bypass tray section.

5 Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.

EXPOSURE ADJUSTMENTS

Exposure selections for this copier should be selected according to the type of originals being copied: TEXT/PRTD. PHOTO, TEXT, TEXT/PHOTO, PHOTO, PRINTED PHOTO or MAP. (Refer to the samples on page 4 to see the effects on copy images in relation to the EXPOSURE ADJUSTMENTS.) If the original image type is TEXT/PRTD. PHOTO, TEXT or TEXT/PHOTO, the exposure can be adjusted automatically or manually. If the original image type is PHOTO, PRINTED PHOTO or MAP, the exposure can be adjusted manually only. If the COPY OF COPY mode is selected only TEXT/PRTD. PHOTO, TEXT, or PRINTED PHOTO exposure can be selected and these can only be manually adjusted. If the COLOR TONE ENHANCEMENT mode is selected, color copies will be more vivid. The standard initial setting of the original image type for this copier is TEXT/PRTD. PHOTO.

When copying a colored original in the Black/White copy mode, a colored background with text in the background area may be copied with the text obscured. Check with the key operator for the setting of "Disabling of Pre-scan in B/W Copy" program (see page 30 of the Key Operator's Guide). If pre-scan is enabled, such obscuring may be reduced.



Automatic

This is the standard initial setting for this copier. In this mode, the characteristics of an original being copied are "read" by the exposure system, and exposure adjustments are made automatically.
This optimizes the contrast of the copied images.

Original image type

TEXT/PRTD. PHOTO: This mode provides the best balance for copying an original which contains both text and printed photographs.

TEXT: This mode is useful in enhancing very low density areas of an original or in suppressing unusually high-density background areas.

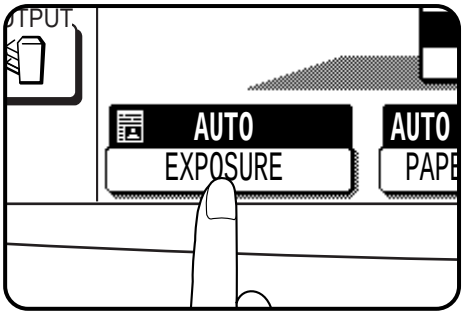
TEXT/PHOTO: This mode provides the best balance for copying an original which contains both text and photographs.

PRINTED PHOTO: This mode is useful for copying printed photographs.

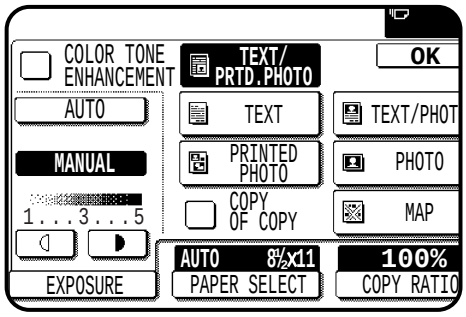
PHOTO: This mode provides the best copies of photographs with fine details.

MAP: This mode is useful to provide the best shading and fine details found on most maps.

COPY OF COPY: This mode provides the best result for originals such as copied text or copied photos. If the check box is checked, only Text/prtd. photo, Text and Printed photo mode keys will be shown on the touch panel and the exposure can only be adjusted manually.

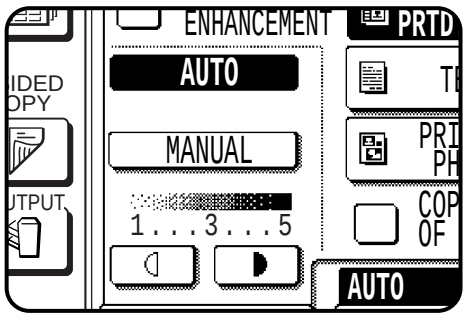


1 **Press the "EXPOSURE" key on the touch panel.**



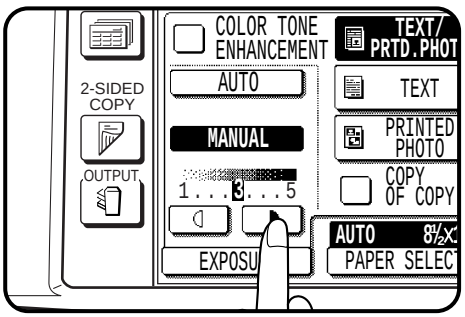
2 **Select "TEXT/PRTD. PHOTO", "TEXT", "TEXT/PHOTO", "PRINTED PHOTO", "PHOTO", or "MAP" depending upon the original type.**

- When making a copy from a copy made by the AR-C160, checking the box of COPY OF COPY then choosing the proper alternatives depending upon the content of the original allows for the best result.
- When checking the COPY OF COPY check box, TEXT/ PRTD.PHOTO, TEXT and PRINTED PHOTO can be selected.
- If COLOR TONE ENHANCEMENT is checked, color copies will be more vivid. COLOR TONE ENHANCEMENT and COPY OF COPY cannot be selected at the same time. The COLOR TONE ENHANCEMENT mode cannot be selected with the single color function. This mode, however, can be used with the RGB adjust function.



3 **If "TEXT/PRTD. PHOTO", "TEXT" or "TEXT/PHOTO" has been selected in step 2, select "AUTO" or "MANUAL".**

- When the COPY OF COPY check box is checked, the exposure is automatically set to "MANUAL".



4 **If the manual mode has been selected, use the [◁] and [▷] keys to adjust the copy density as desired.**

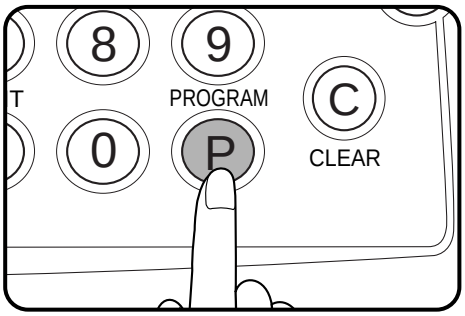
JOB MEMORY

Frequently used job programs can be stored in one of nine storage registers. This is convenient for quick job recall without losing time manually reprogramming each aspect of the job.

- All functions that can be set in the copy mode except the copy quantity setting can be stored in the job memory.
- If any function which has been stored in a job program is modified by a key operator program, the key operator settings will supercede the previous setting.

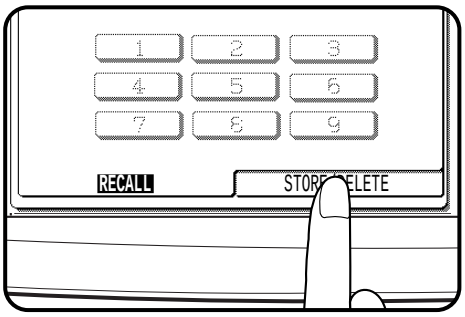
★ ***KEY OPERATOR Job memory replacement/deletion can be prohibited. See page 28 of the KEY OPERATOR'S GUIDE.***

Storing a job program



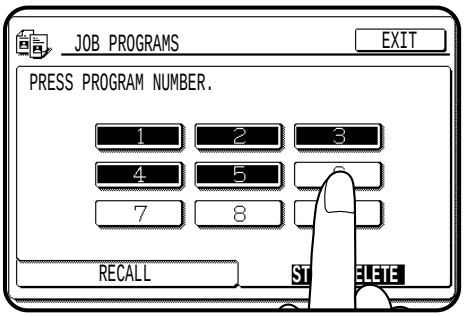
1 **Press the PROGRAM key.**

- The JOB PROGRAMS screen will appear on the touch panel.



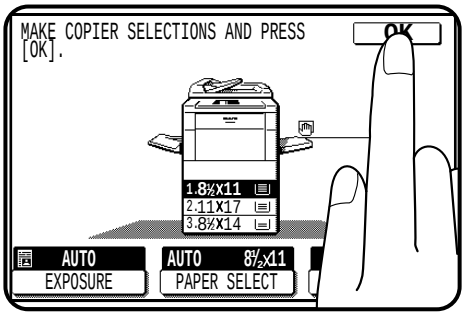
2 **Press the "STORE/DELETE" key on the touch panel.**

- To cancel the job memory mode, press the "EXIT" key or the CLEAR ALL ((CA)) key.



3 **Select a program number from 1 to 9 on the touch panel.**

- The numbers which are highlighted are job registers which already contain job programs.
- If a program number containing a registered job program is selected, a message will appear to confirm the selection. To replace a stored job program with a new program, press the "STORE" key and proceed to the next step.
  To cancel replacement, press the "CANCEL" key.

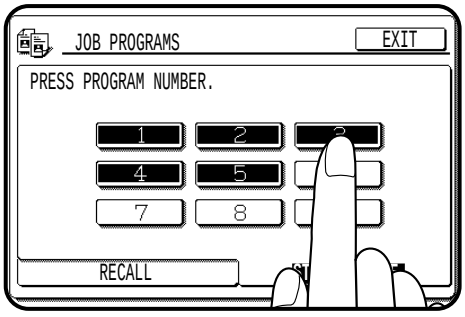


4 **Make all copier selections to be stored.**

NOTE:
When you store color balance settings, make settings before pressing the PROGRAM key in step 1 because sample copies cannot be made after pressing the PROGRAM key.

5 **Press the "OK" key to complete the storage.**

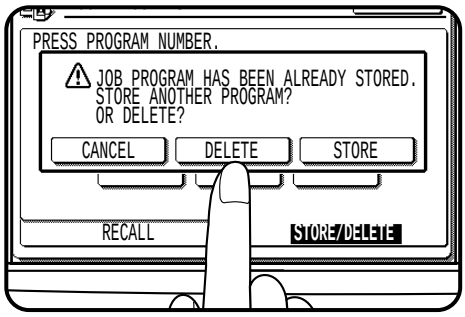
Deleting a stored job program



1 **Follow steps 1 and 2 in "Storing a job program" on the previous page. (1. Press the PROGRAM key. 2. Press the "STORE/DELETE" key.)**

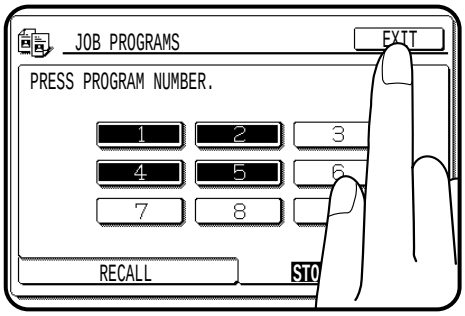
2 **Select the storage register number of the program to be deleted.**

- Be sure to select a number which contains a stored program. If not, "Storing a job program" operation will start.



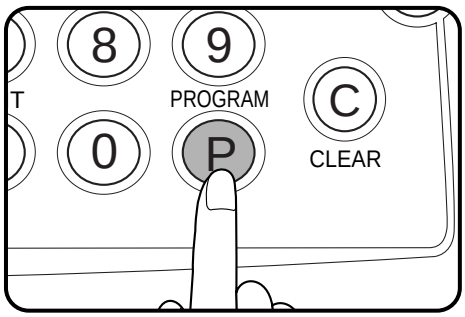
3 **Press the "DELETE" key or the "CANCEL" key.**

- If the "DELETE" key is pressed, the program will be deleted from memory.
- Press the "CANCEL" key to keep the program.



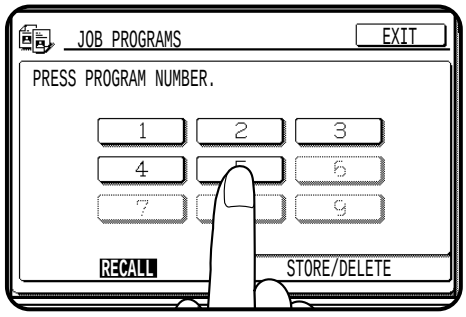
4 **Press the "EXIT" key to exit the job memory mode.**

Recalling a job program



1 **Press the PROGRAM key.**

- The JOB PROGRAMS screen will appear on the touch panel.
- The numbers which are highlighted are program numbers which contain stored programs.



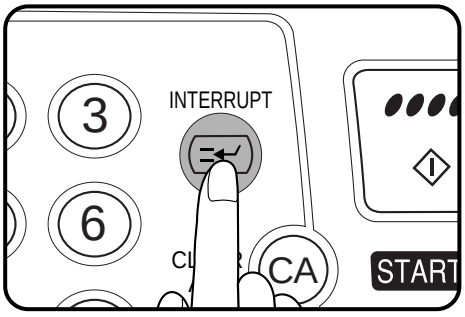
2 **Select a stored program from 1 to 9 on the touch panel.**

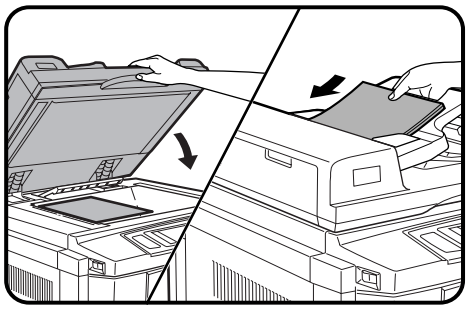
- All selections stored in the program will appear on the touch panel.
- The recalled settings may be modified for a particular job run, but any changes made will not be stored in the job memory. To store the new settings, follow the "Storing a job program" procedure.

INTERRUPTING A COPY RUN

INTERRUPT can be used to temporarily stop a long copy run so that another job can be run.

- INTERRUPT will not function during duplex copying (when an optional duplex module (AR-DU2N) is installed).
- Duplex copying, sort, group, staple sort and offset cannot be selected during interrupt copying. Also job program recall cannot be selected.

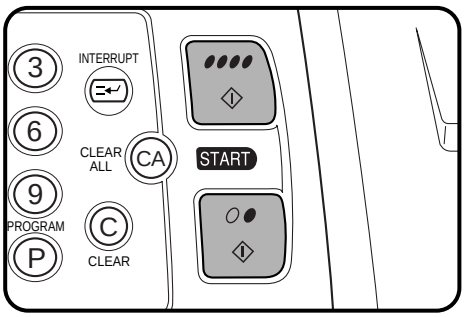




1 **Press the INTERRUPT key.**

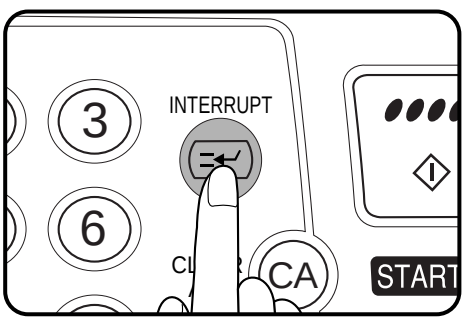
- When the optional document feeder is being used, the copier will stop after copying any originals which have been fed into the document feeder. The INTERRUPT indicator will blink until the copier stops.
  When the copier stops, it will return to its initial settings and the INTERRUPT indicator will light steadily. At this time, the copier is ready for interrupt copying.
- If the copier has been programmed in the auditing mode, the account number entry message will appear. Enter your account number using the 10-key pad. The number of copies of the interrupt copying will be accumulated against this account number.

2 **When the copier stops, remove the original(s) and set the original(s) for interrupt copying on the document glass or in the optional document feeder tray.**



3 **Select the desired available copier functions.**

4 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**



5 **When the interrupt copy run is complete, press the INTERRUPT key again to cancel the mode and remove the original(s) used for interrupt copying.**

- The copier will reset itself to the functions which were in use before the INTERRUPT key was first pressed.

6 **Replace the original(s) for the interrupted job and press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key to resume copying.**

CHAPTER 3

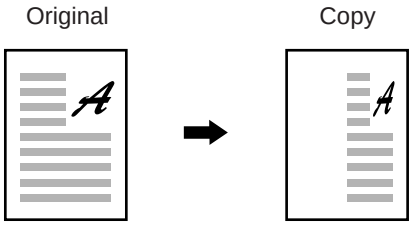
SPECIAL FUNCTIONS

This chapter describes the special copying functions including various image editing functions which have been made possible by digital image processing technology.

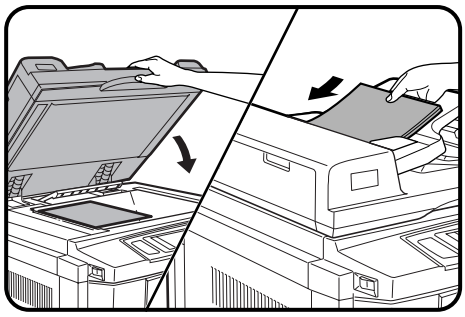
Page

- **XY ZOOM** 3-2
- **MARGIN SHIFT** 3-4
- **ERASE** 3-6
- **DUAL PAGE COPYING** 3-8
- **CENTERING** 3-10
- **TRANSPARENCY FILM WITH INSERT SHEETS** 3-12
- **COVERS** 3-14
- **COLOR ADJUSTMENTS** 3-16
  - RGB adjust 3-16
  - Sharpness 3-18
  - Suppress background 3-20
  - Color balance 3-22
  - Brightness/intensity/contrast 3-24
- **IMAGE EDITING FUNCTIONS** 3-26
  - Single color 3-26
  - Neg. /pos. reverse 3-28
  - Mirror image 3-30
  - Photo repeat 3-32
  - 11 x 17 full-bleed 3-34
  - Multi-page enlargement 3-36
  - Extra size 3-38

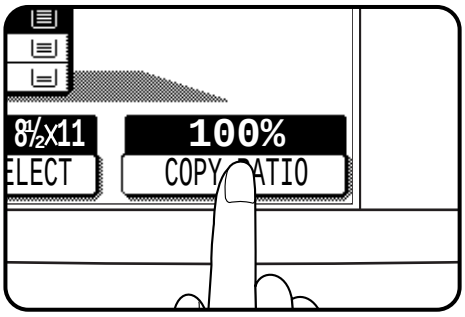
XY ZOOM



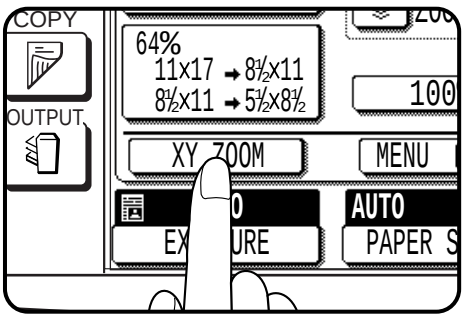
The XY ZOOM feature allows the horizontal and vertical copy ratios to be changed independently. If this feature is selected, the copy ratios can be set from 25% to 400%.



1 **Place the original on the document glass or in the optional document feeder tray.**

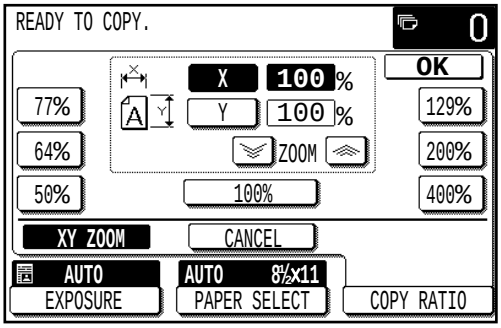


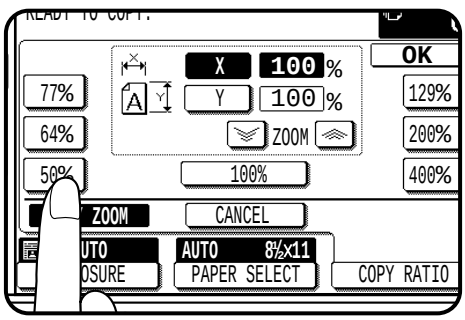
2 **Press the "COPY RATIO" key on the touch panel.**



3 **Press the "XY ZOOM" key.**

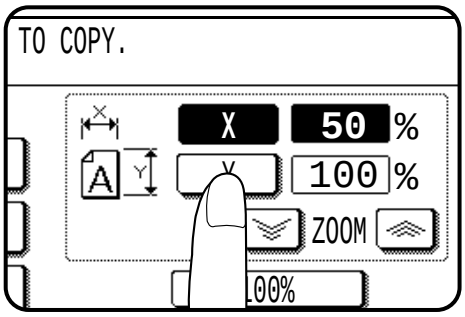
- The following screen will appear.





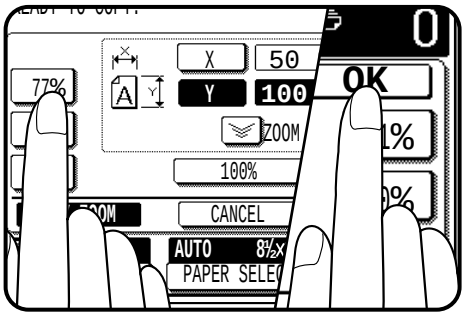
4 **Use the reduction, enlargement , and ZOOM (,) keys to change the copy ratio in the horizontal (X) direction.**

- Press a reduction key or an enlargement key to set the approximate ratio, then press the key to decrease the ratio or key to increase the ratio.



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

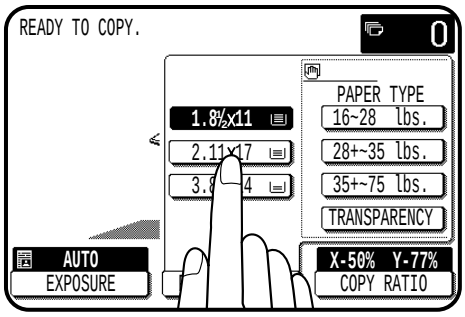
- The copy ratio in the vertical (Y) direction will be highlighted.



6 **Use the reduction, enlargement, and ZOOM ([▽], [△]) keys to change the copy ratio in the vertical (Y) direction.**

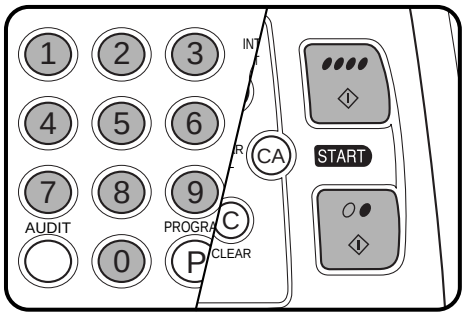
- To change the copy ratio in the horizontal direction again, press the [X] key.
- The message "**IMAGE IS LARGER THAN COPY PAPER.**" may appear, indicating that the selected copy ratio is too large for the copy paper size. However, if you press a START key, a copy will be made.

7 **Press the "OK" key.**



8 **Press the "PAPER SELECT" key and select the paper tray with the desired paper size.**

- If the AUTO PAPER SELECT mode is on, the appropriate copy paper size will have been automatically selected based on the original size and selected copy ratios.

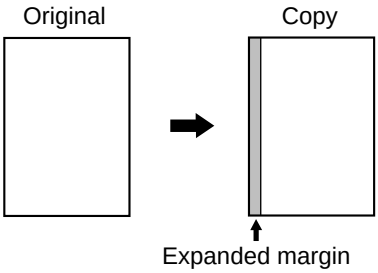


9 **Enter the desired number of copies.**

10 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

- To cancel this function, press the "CANCEL" key or the "XY ZOOM" key again as in step 3.

MARGIN SHIFT



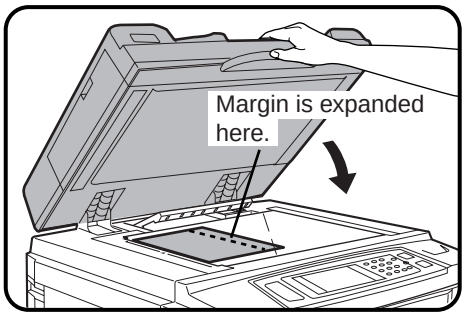
(Initial setting:
copy image shifted to the right)

The MARGIN SHIFT feature, in its initial setting, shifts the text or image to the right on one-sided copies and on the front side of two-sided copies. The text or image is shifted to the left on the reverse side of two-sided copies. Shift direction can be changed to left or right as described in step 4 below.

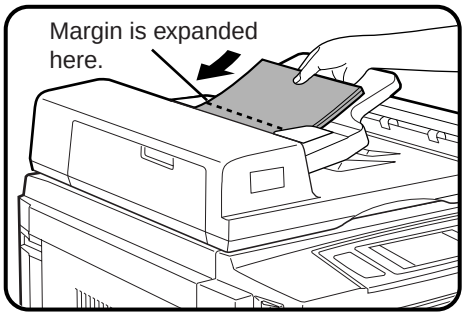
- The standard shift amount is 1/2", but can be changed from 0" to 1" in 1/8" increments.

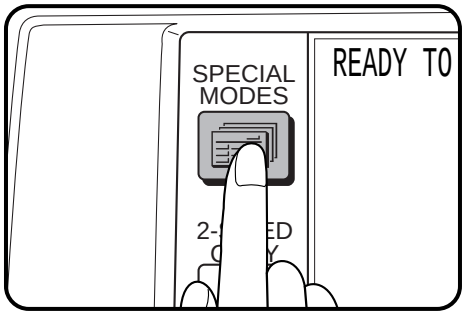
★ ***KEY OPERATOR*** ***The initial shift setting can be changed from 0" to 1" in 1/8" increments. See page 20 of the KEY OPERATOR'S GUIDE.***

NOTE:
The front side and reverse side are referred to as "SIDE 1" and "SIDE 2" respectively on the touch panel.



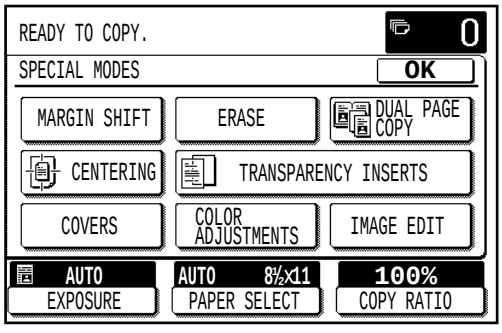
1 **Place an original on the document glass or in the optional document feeder tray.**

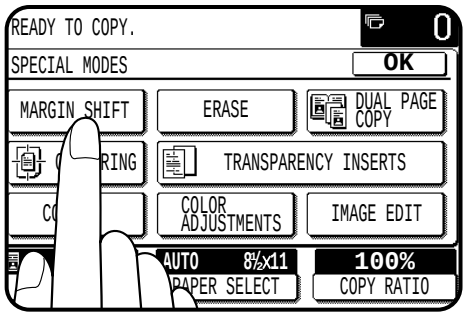


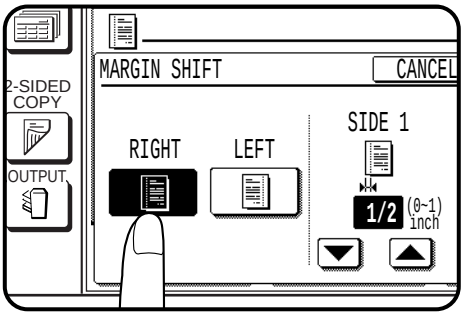


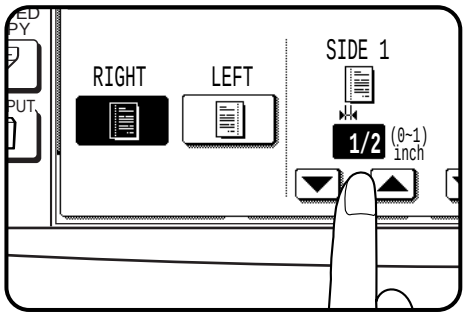
2 **Press the SPECIAL MODES key.**

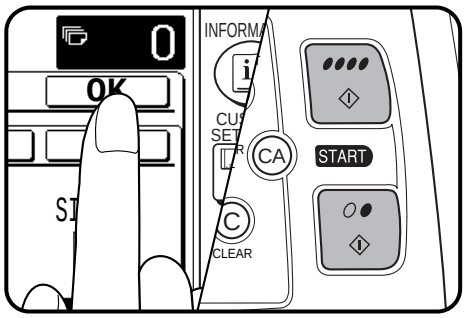
- The SPECIAL MODES screen will appear.





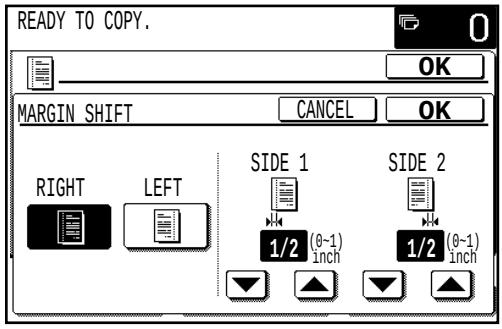






3 **Press the "MARGIN SHIFT" key on the touch panel.**

- The setting screen for MARGIN SHIFT will appear.



- If an optional duplex module (AR-DU2N) is not installed, the margin shift setting for the reverse side will not be displayed.

4 **Select the shift direction.**

- Select "RIGHT" or "LEFT" on the touch panel. The selected shift direction will be highlighted.

5 **Select the desired shift amounts using the ▼ and ▲ keys.**

6 **Press the upper "OK" key on the touch panel.**

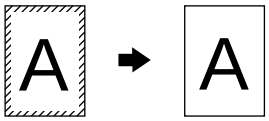
7 **Make all other desired copier selections and press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

- To cancel the MARGIN SHIFT function, select the MARGIN SHIFT function again and press the "CANCEL" key.

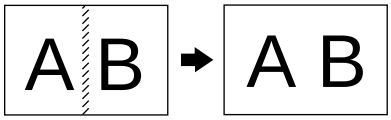
ERASE

(Original) (Copy)

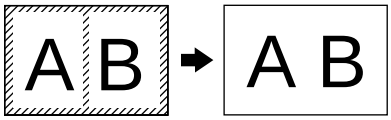
Edge erase



Center erase



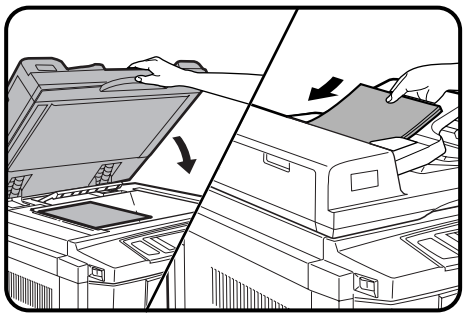
Edge + center erase



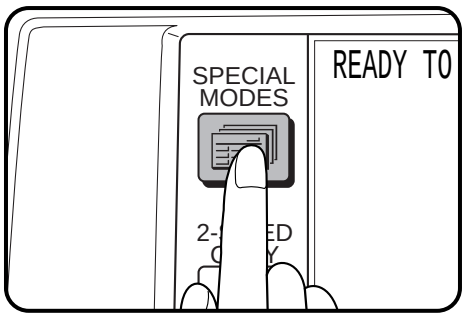
Erase function can be used to eliminate shadow lines around the edges and the center part of copies as shown in the illustrations, which are caused when such originals as thick paper, books or bound documents are used. 3 patterns of erase function, EDGE ERASE, CENTER ERASE and EDGE+CENTER ERASE can be selected.

- The standard erase width is 1/2", but can be changed from 0" to 1" in 1/8" increments.

★ ***KEY OPERATOR*** ***The initial setting of the width for edge erase and center erase can be changed. See page 20 of the KEY OPERATOR'S GUIDE.***

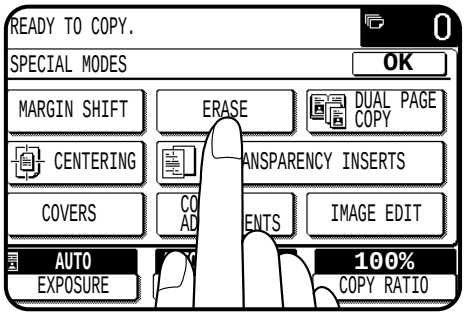


1 Place an original on the document glass or in the optional document feeder tray.



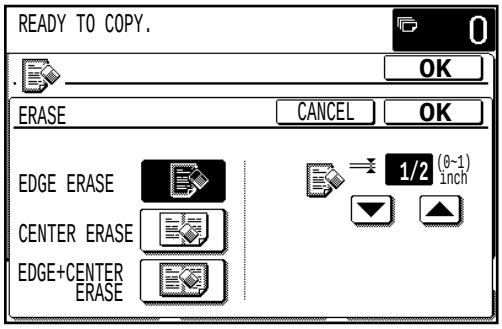
2 Press the SPECIAL MODES key.

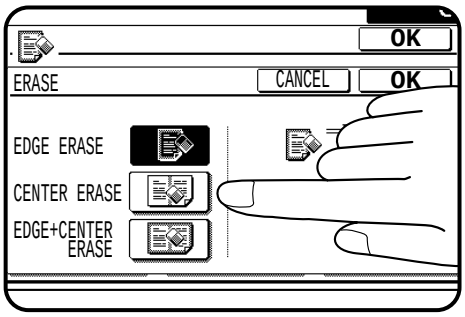
- The SPECIAL MODES screen will appear.



3 Press the "ERASE" key on the touch panel.

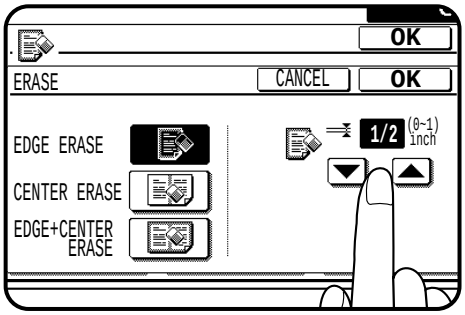
- The setting screen for ERASE will appear.





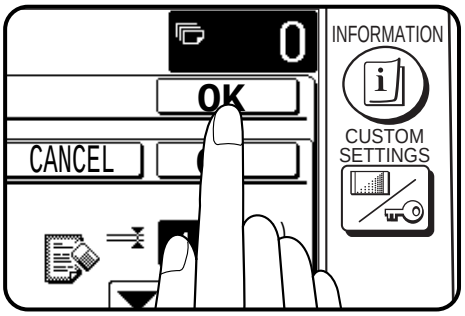
4 **Select the desired erase mode.**

- Select "EDGE ERASE", "CENTER ERASE" or "EDGE+CENTER ERASE" on the touch panel. The selected erase mode will be highlighted.

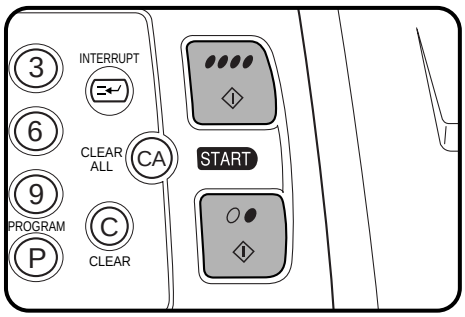


5 **Adjust the amount of edge erase and/or center erase if needed.**

- The amount can be adjusted between 0" and 1" in 1/8" increments.



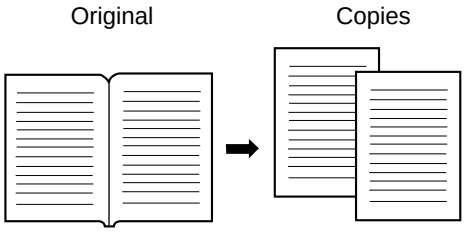
6 **Press the upper "OK" key on the touch panel.**



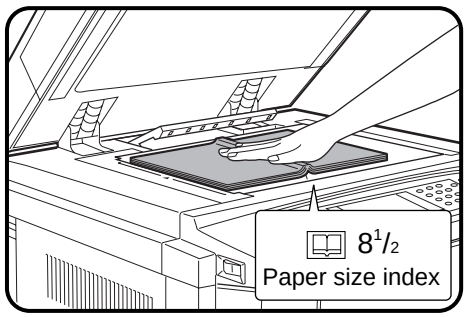
7 **Make all other desired copier selections and press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

- To cancel the ERASE function, select the ERASE function again and press the "CANCEL" key.

DUAL PAGE COPYING

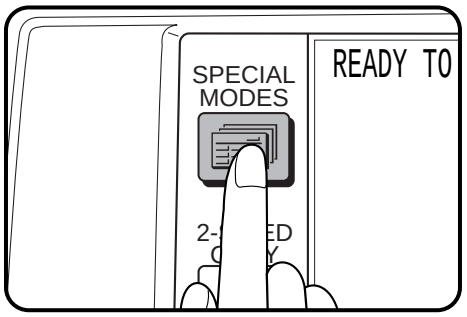


The DUAL PAGE COPY feature produces separate copies of two documents placed side by side on the document glass. It is especially useful when copying books and other bound documents.
This feature can be used in the one-sided to two-sided copying mode.



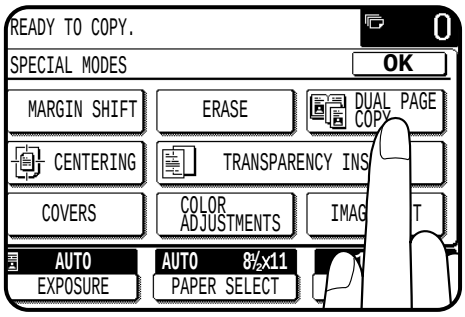
1 **Place the originals on the document glass with the center of the two pages aligned with the paper size index 8 1/2. Close the document cover.**

- Set the page to be copied first on the left part of the document glass.



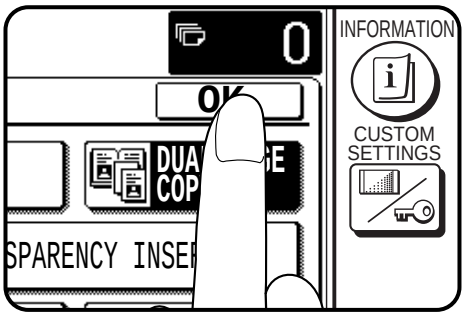
2 **Press the SPECIAL MODES key.**

- The SPECIAL MODES screen will appear.

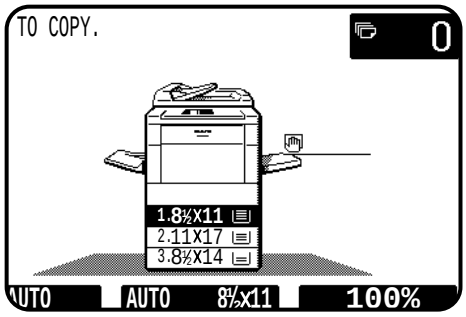


3 **Press the "DUAL PAGE COPY" key on the touch panel.**

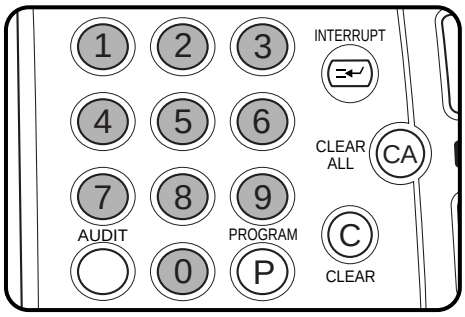
- The "DUAL PAGE COPY" key will be highlighted.
- 8-1/2" x 11" sized copy paper will be automatically selected.
  If 8-1/2" x 11" copy paper is not loaded, copying can be done on another size.
- To leave a binding margin on the copy, select the MARGIN SHIFT function. See page 3-4.
- To erase shadows caused by document binding, use the EDGE ERASE feature. See page 3-6.
- The CENTER ERASE feature is not available with the DUAL PAGE COPY feature.



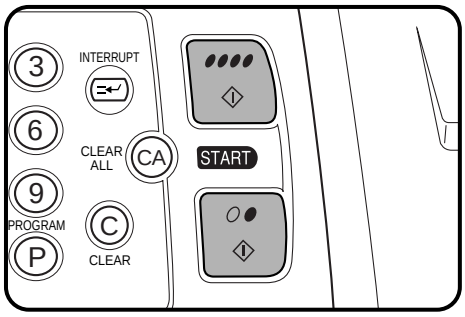
4 **Press the "OK" key.**



5 **Ensure that the desired tray is selected.**



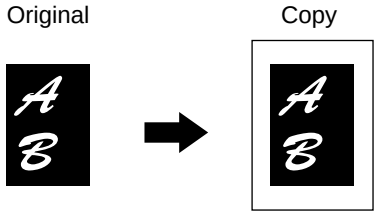
6 **Enter the desired number of copies.**



7 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

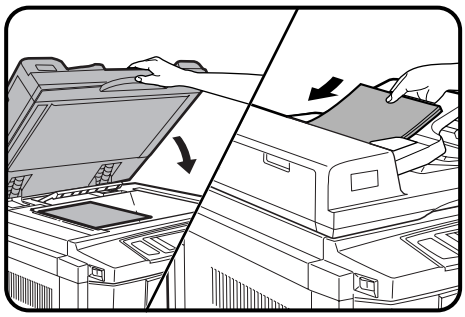
- To cancel the DUAL PAGE COPY function, press the "DUAL PAGE COPY" key again on the SPECIAL MODES screen.

CENTERING

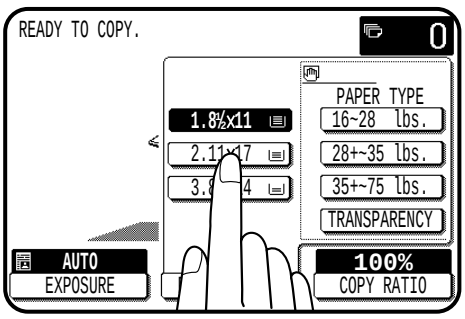


When the original and copy paper are of different sizes, CENTERING is used to shift the image as a whole to the center of the copy paper. The image will shift only in the left to right direction, not in the top to bottom direction.

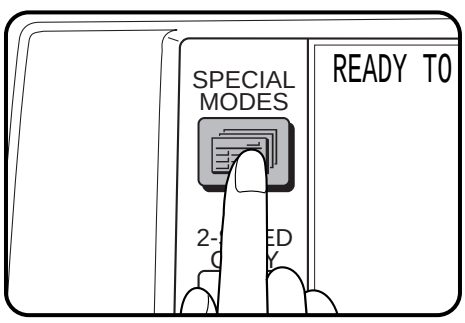
- This function can be used to reduce a larger sized original image and center it on a copy of smaller paper size, as well as center a smaller original onto a larger sized copy.
- This function will not work when non-standard size originals or copy paper are used. This function cannot be selected when enlargement copying has been selected.



1 **Place the originals on the document glass or in the optional document feeder tray.**

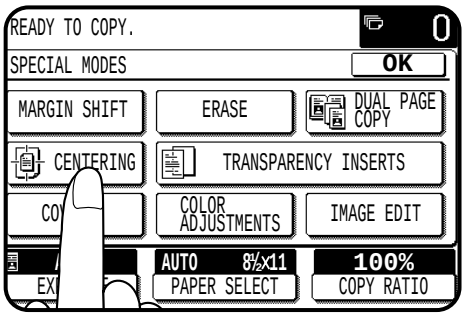


2 **Press the "PAPER SELECT" key on the touch panel and select the desired paper size.**



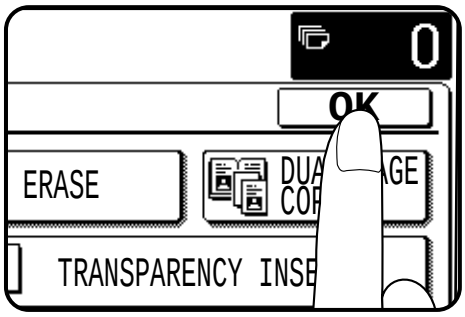
3 **Press the SPECIAL MODES key.**

- The SPECIAL MODES screen will appear.

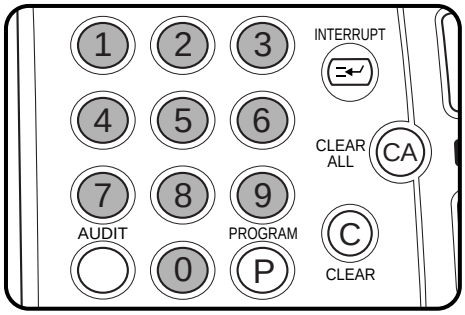


4 **Press the "CENTERING" key on the touch panel.**

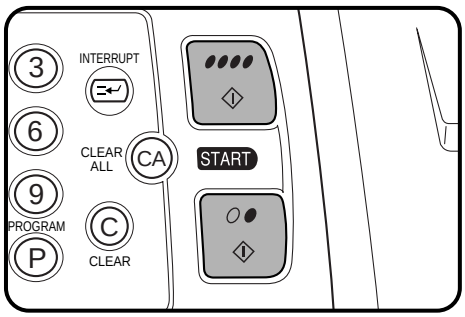
- The "CENTERING" key will be highlighted.



5 **Press the "OK" key.**



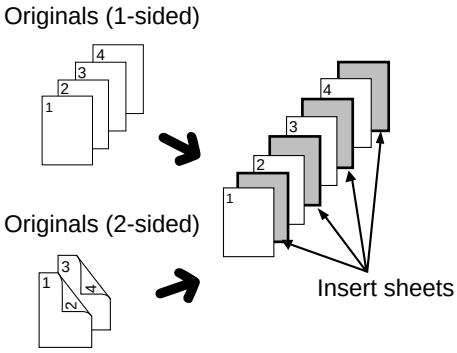
6 **Make all other desired copier selections and enter the desired number of copies.**



7 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

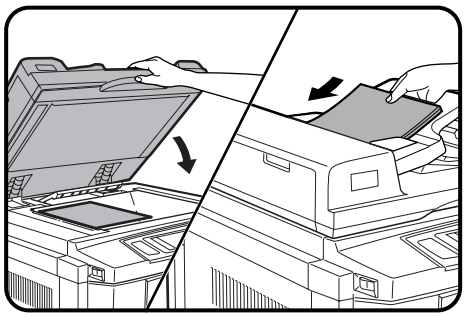
- To cancel the CENTERING function, press the "CENTERING" key again on the SPECIAL MODES screen.

TRANSPARENCY FILM WITH INSERT SHEETS

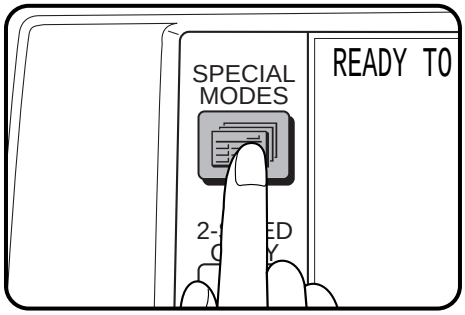


When copying onto transparency film, blank insert sheets can be placed following each transparent sheet.

- Insert sheets cannot be copied on in any mode.
- This mode can be selected only in the 1-sided to 1-sided and 2-sided to 1-sided modes.
- A multiple number of copies cannot be selected in this mode.
- Transparency film must be fed from the bypass tray.
- Insert sheets must be the same size as the transparency film.
- For best results, use SHARP recommended transparency film.

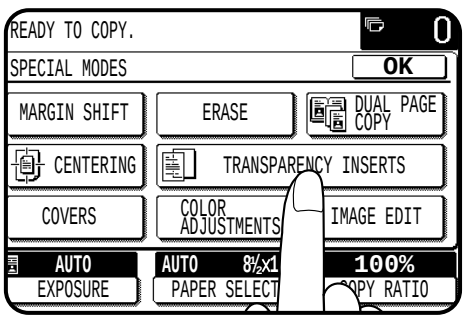


1 **Place the originals on the document glass or in the optional document feeder tray.**



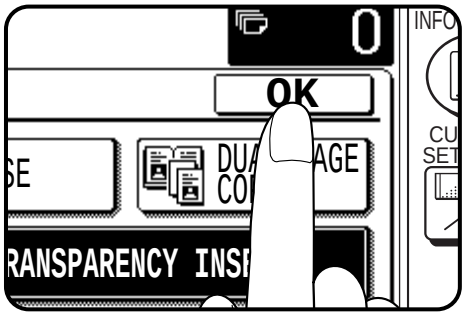
2 **Press the SPECIAL MODES key.**

- The SPECIAL MODES screen will appear.

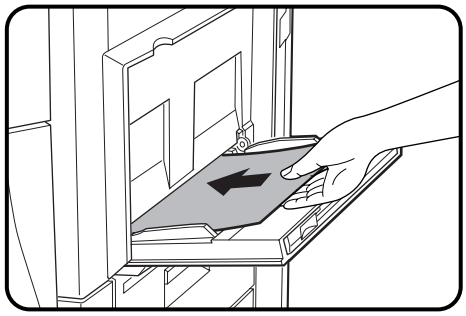


3 **Press the "TRANSPARENCY INSERTS" key on the touch panel.**

- The "TRANSPARENCY INSERTS" key will be highlighted.

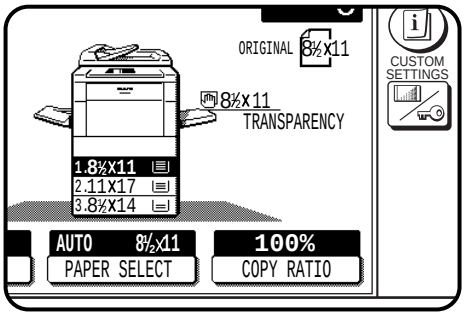


4 **Press the "OK" key.**

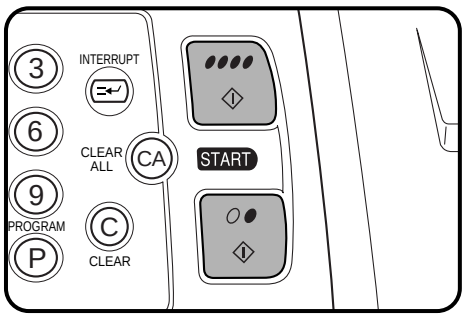


5 **Load transparency film into the bypass tray.**

- Set the long edge of the film to be fed into the machine.



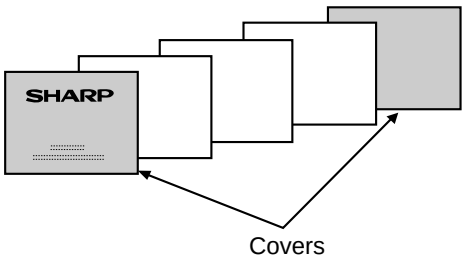
6 **Ensure that the tray selected for the insert sheets contains paper of the same size and orientation of the transparency films.**



7 **Make all other selections and press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

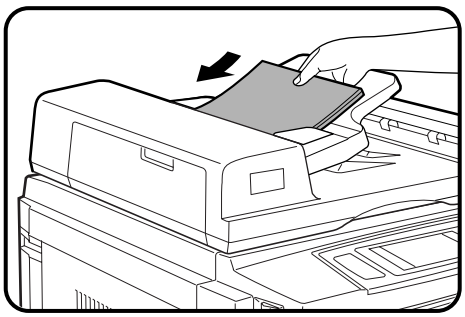
- When copying is completed, remove remaining transparency film.
- To cancel the TRANSPARENCY INSERTS function, press the "TRANSPARENCY INSERTS" key again on the SPECIAL MODES screen.

COVERS

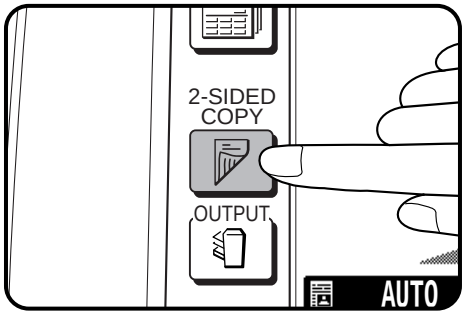


The COVERS mode is used to place covers on the front, back, or both the front and back of multipage documents.

- To use the COVERS mode, an optional RADF must be installed.
- Front cover sheets can be copied on, but only on the front side even in the 1-sided to 2-sided and 2-sided to 2-sided copy modes. The back side of the original designated as the cover will not be copied.
- Back cover sheets cannot be copied on, either on the front side or on the back side.
- Cover sheets must be fed from the bypass tray and must be the same size as the copy paper being used to copy the document.
- When the COVERS mode is selected, the stream feeding mode of the RADF will always be off.

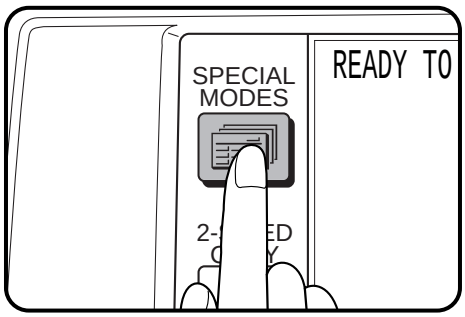


1 **Place the originals in the optional document feeder tray.**



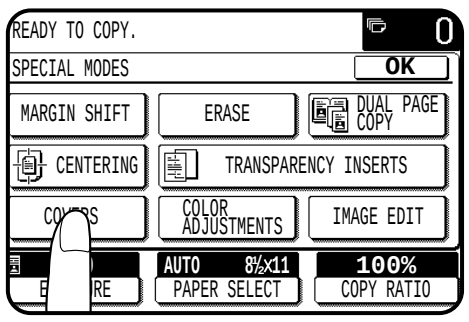
2 **Press the 2-SIDED COPY key and select the desired duplex mode if needed. Press the "OK" key to close the duplex selection window.**

- To copy in the 1-sided to 2-sided or 2-sided to 2-sided copy mode, an optional duplex module (AR-DU2N) must be installed.



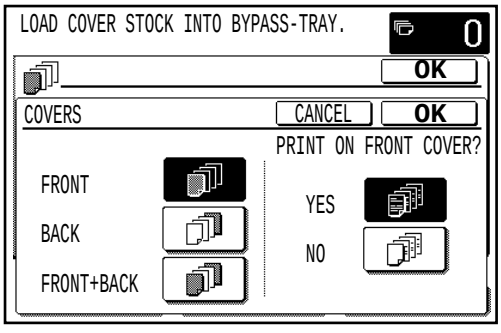
3 **Press the SPECIAL MODES key.**

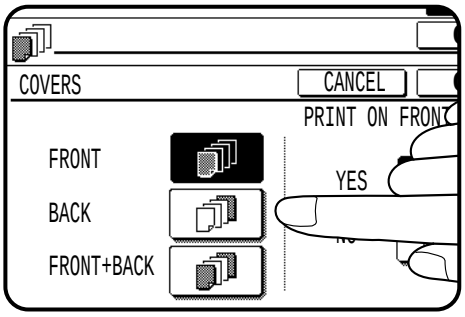
- The SPECIAL MODES screen will appear.



4 **Press the "COVERS" key on the touch panel.**

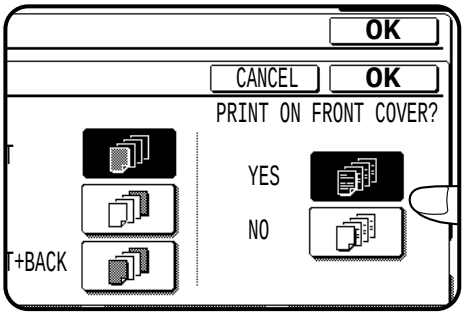
- The setting screen for COVERS will appear.





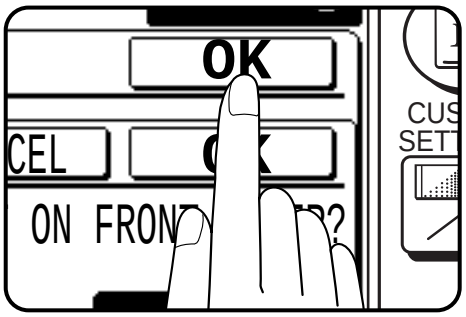
5 **Select cover placement.**

- Select "FRONT", "BACK" or "FRONT+BACK" on the touch panel.

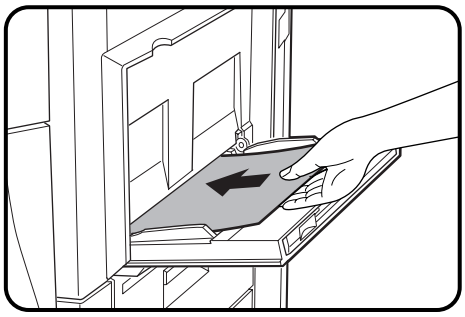


6 **Indicate whether the front cover sheets are copied on or not.**

- Select "YES" or "NO" on the touch panel. If "YES" is selected, the first page of the document will be copied onto the front cover sheet.
- If "BACK" has been selected in step 5, this selection is not needed.

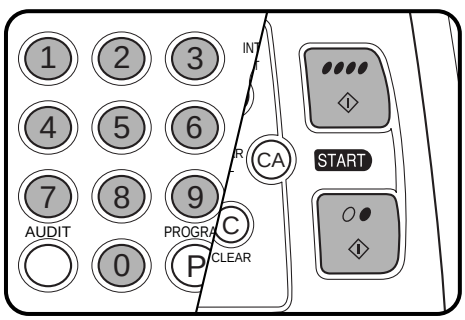


7 **Press the upper "OK" key.**



8 **Load the cover stock into the bypass tray, making sure that the cover stock is the same size as the copy paper.**

- The message "**SELECT PAPER TYPE FOR BYPASS-TRAY.**" will appear if "16 ~ 28 lbs." ("PLAIN PAPER"), "28+ ~ 35 lbs." ("HEAVY PAPER 1") or "35+ ~ 75 lbs." ("HEAVY PAPER 2") has not been selected.



9 **Select the paper type for the bypass tray.**

- Transparency film cannot be selected as cover stock.
- The START key indicators will light up.

10 **Enter the desired number of copies and press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

- To cancel the COVERS function, select the COVERS function again and press the "CANCEL" key.

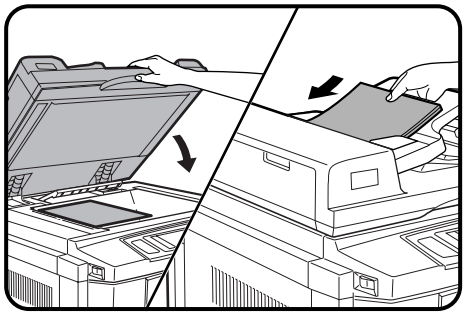
COLOR ADJUSTMENTS

The color adjustments include the following items.

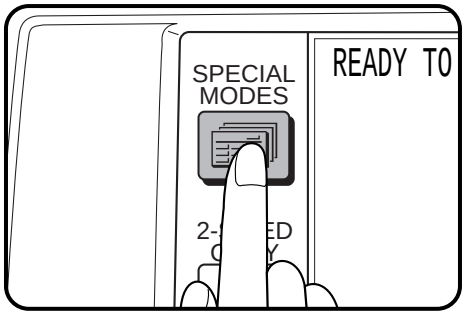
- RGB adjust: Strengthens or weakens one of three primary colors, red (R), green (G), or blue (B).
- Sharpness: Sharpens or softens image outlines.
- Suppress background: Suppresses copying of lighter background areas.
- Color balance: Adjusts the color, tone, and density of color copies.
- Brightness/intensity/contrast: These adjust the level of brightness, intensity or contrast of images.

RGB ADJUST

This function can be used to strengthen or weaken the three primary colors, red (R), green (G), or blue (B).
Only one primary color can be adjusted at a time.
If a second primary color is adjusted, the first adjustment will be cancelled.
(Refer to the samples on page 5 to see the effect on copy images in relation to the RGB ADJUST.)

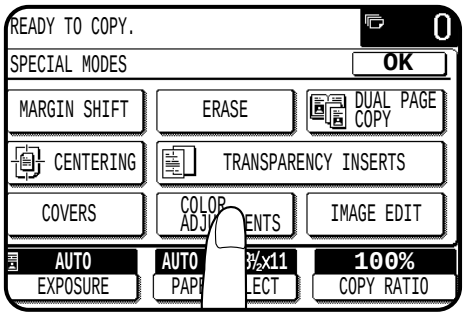


1 Place the original on the document glass or in the optional document feeder tray.



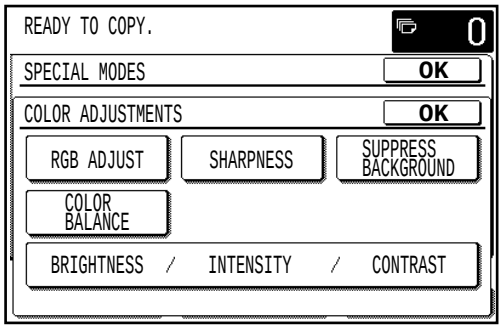
2 Press the SPECIAL MODES key.

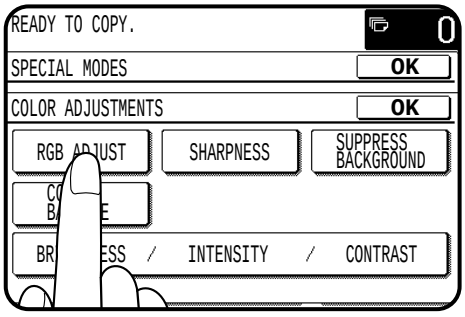
- The SPECIAL MODES screen will appear.



3 Press the "COLOR ADJUSTMENTS" key on the touch panel.

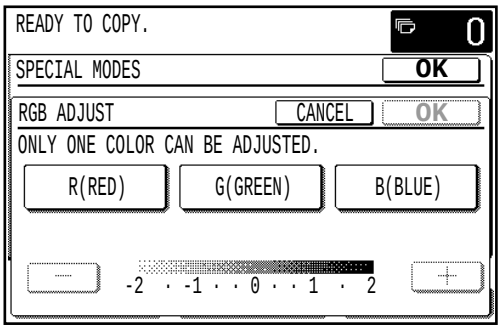
- The COLOR ADJUSTMENTS menu will appear.

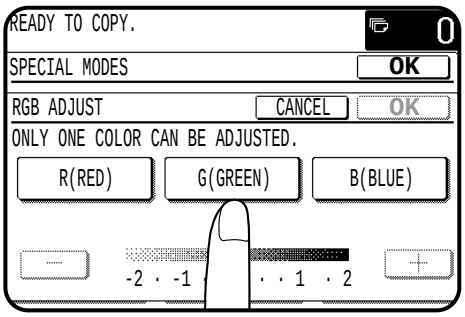




4 Press the "RGB ADJUST" key on the touch panel.

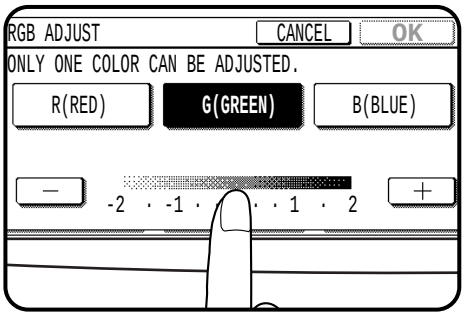
- The setting screen for RGB ADJUSTMENTS will appear.





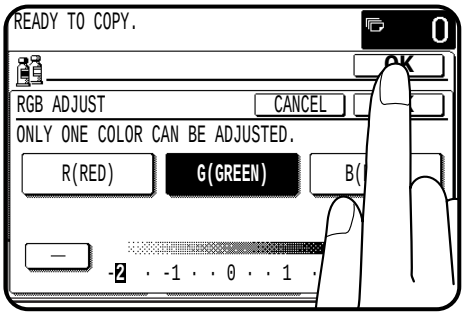
5 Select a color to be adjusted.

- Select a color from R (RED), G (GREEN), and B (BLUE).

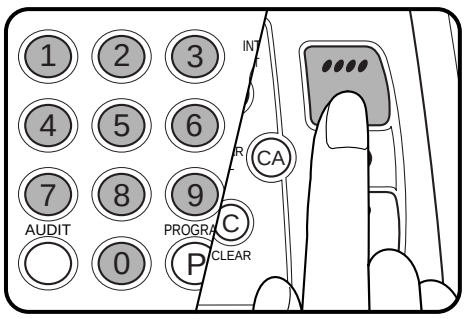


6 Press the "+" to strengthen the selected color or press the "-" key to weaken the color.

- The level can be adjusted from -2 to 2 in eleven steps.



7 Press the upper "OK" key.



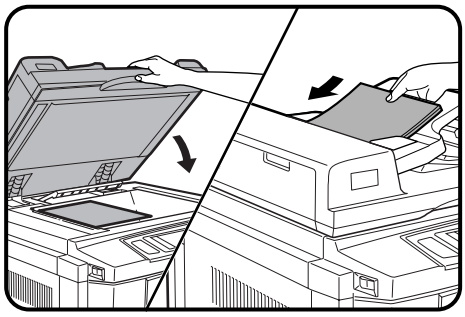
8 Make all other desired copier selections and enter the desired number of copies.

9 Press the COLOR COPY START (●●●●) key.

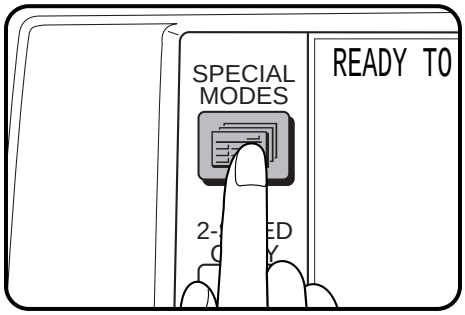
- The BLACK COPY START (○ ●) key can be pressed for copying. However, the RGB ADJUST setting will be ignored.
- To cancel the RGB ADJUST function, select the RGB ADJUST function again and press the "CANCEL" key.

SHARPNESS

This function is used to sharpen or soften image outlines.
(Refer to the samples on page 6 to see the effect on copy images in relation to the SHARPNESS.)

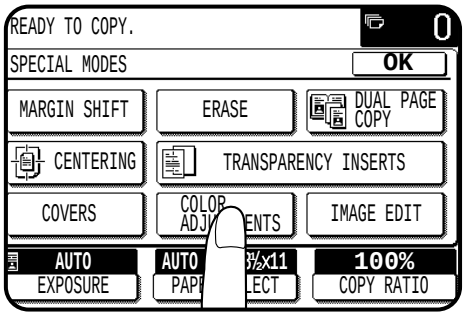


1 **Place the original on the document glass or in the optional document feeder tray.**



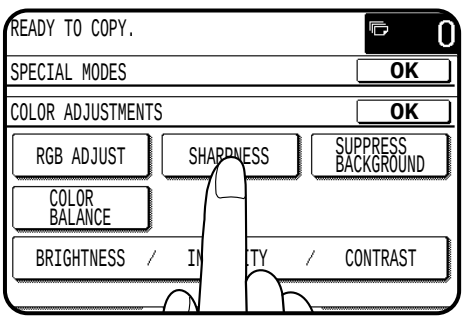
2 **Press the SPECIAL MODES key.**

- The SPECIAL MODES screen will appear.



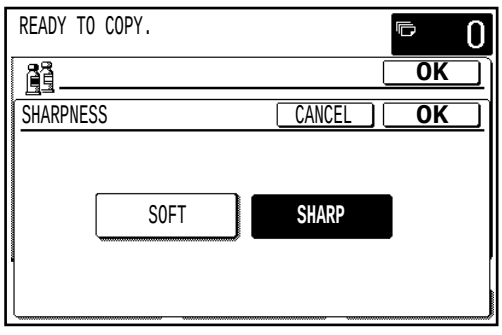
3 **Press the “COLOR ADJUSTMENTS” key on the touch panel.**

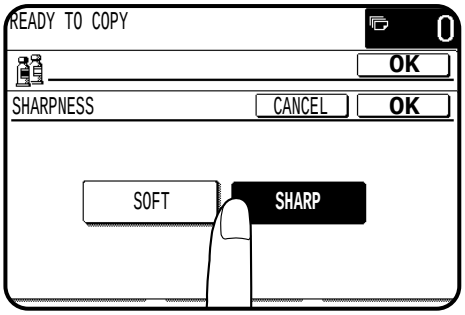
- The COLOR ADJUSTMENTS menu will appear.



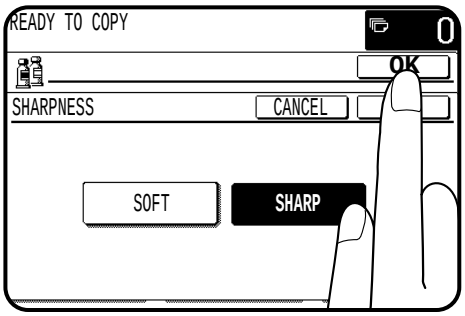
4 **Press the “SHARPNESS” key on the touch panel.**

- The setting screen for SHARPNESS will appear.

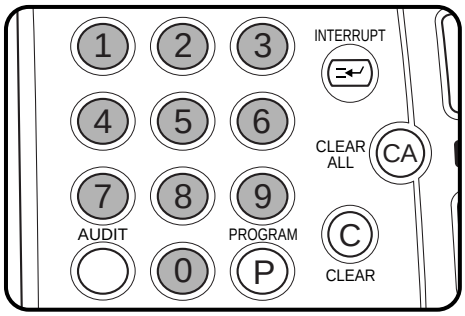




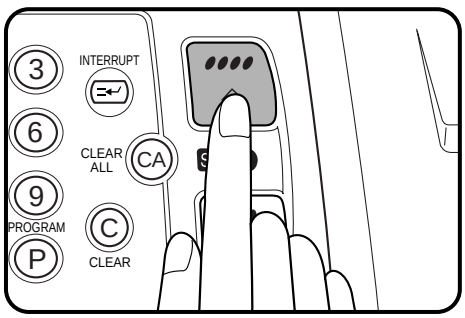
5 **Press the "SOFT" key to soften image outlines or press the "SHARP" key to sharpen them.**



6 **Press the upper "OK" key.**



7 **Make all other desired copier selections and enter the desired number of copies.**

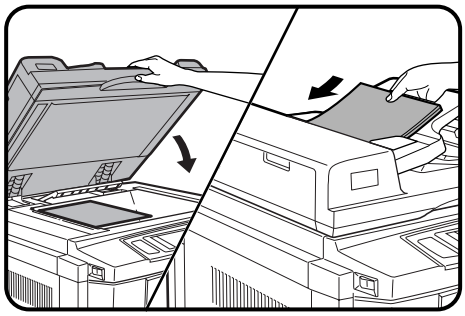


8 **Press the COLOR COPY START (●●●●) key.**

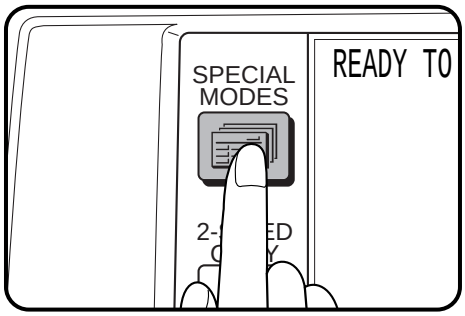
- The BLACK COPY START (○●) key can be pressed for copying. However, the SHARPNESS setting will be ignored.
- To cancel the SHARPNESS function, select the SHARPNESS function again and press the "CANCEL" key.

SUPPRESS BACKGROUND

This copier can suppress unwanted background areas on the original images when copying. This function is used to adjust the density level of background images to be erased.
(Refer to the samples on page 6 to see the effect on copy images in relation to the SUPPRESS BACKGROUND.)

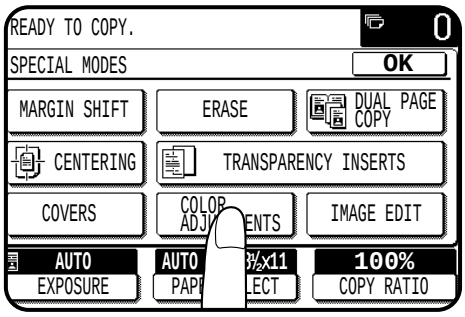


1 Place the original on the document glass or in the optional document feeder tray.



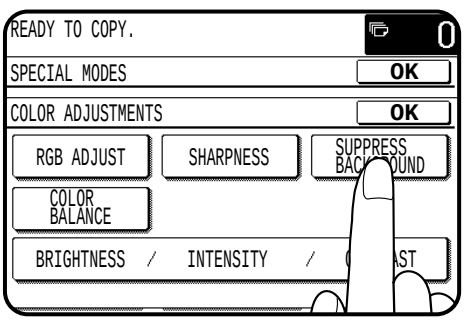
2 Press the SPECIAL MODES key.

- The SPECIAL MODES screen will appear.



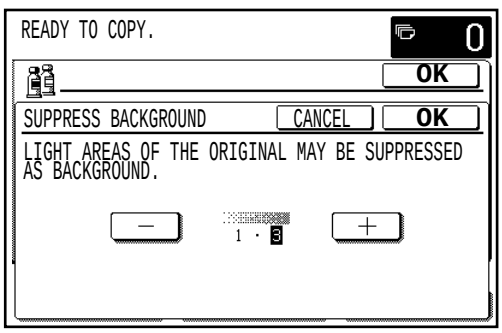
3 Press the "COLOR ADJUSTMENTS" key on the touch panel.

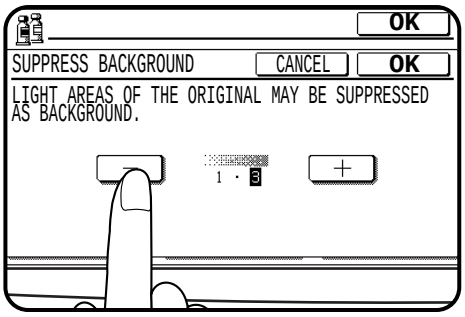
- The COLOR ADJUSTMENTS menu will appear.



4 Press the "SUPPRESS BACKGROUND" key on the touch panel.

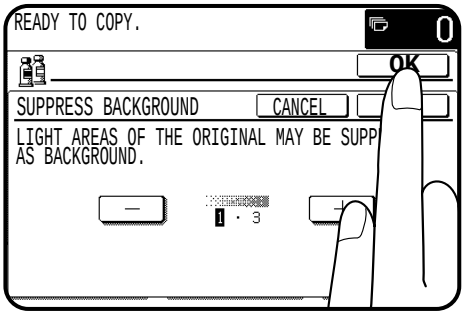
- The setting screen for SUPPRESS BACKGROUND will appear.



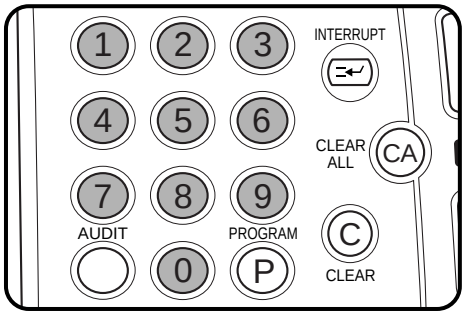


5 **Use the "-" and "+" keys to select the desired background suppression level.**

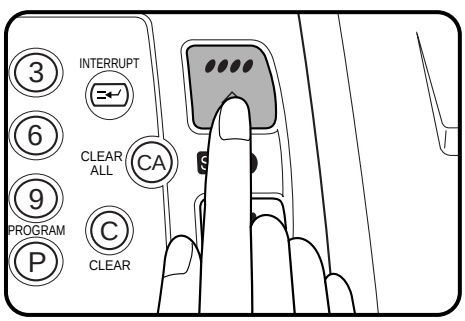
- If level 1 is selected, darker background areas will be erased. The level can be adjusted in three steps. The default setting is level 3.



6 **Press the upper "OK" key.**



7 **Make all other desired copier selections and enter the desired number of copies.**

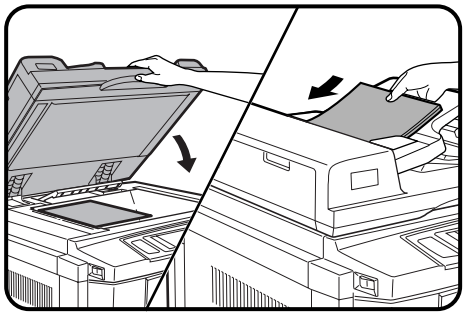


8 **Press the COLOR COPY START (●●●●) key.**

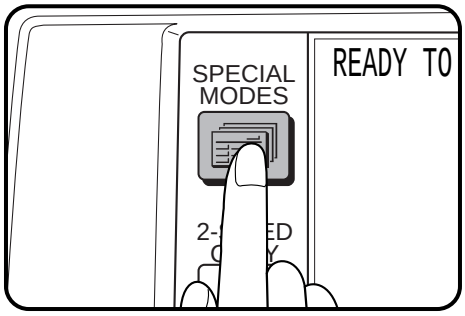
- The BLACK COPY START (○●) key can be pressed for copying. However, the SUPPRESS BACKGROUND setting will be ignored.
- To cancel the SUPPRESS BACKGROUND function, select the SUPPRESS BACKGROUND function again and press the "CANCEL" key.

COLOR BALANCE

This function is used to adjust the color, tone, and density of color copies.
The Color Balance setting allows you to adjust the densities of four colors: cyan, magenta, yellow, and black. The density range is divided into eight levels for each color, from 1 (lowest density areas) to 8 (highest density areas). The density can be adjusted one level at a time or eight levels at once. (Refer to the samples on page 7 to see the effect on copy images in relation to the COLOR BALANCE.)

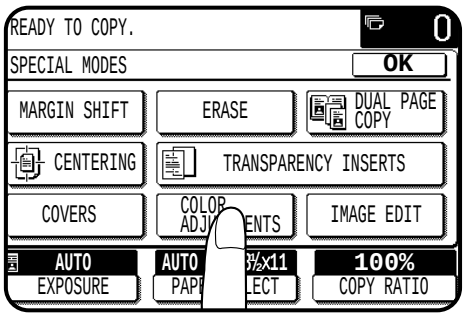


1 **Place the original on the document glass or in the optional document feeder tray.**



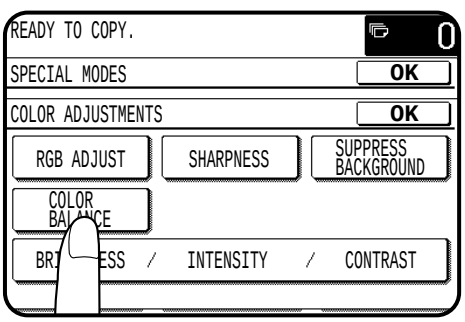
2 **Press the SPECIAL MODES key.**

- The SPECIAL MODES screen will appear.



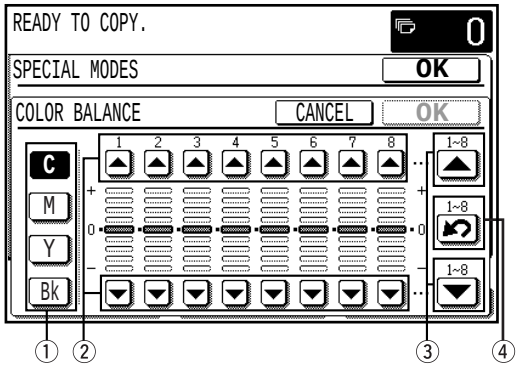
3 **Press the "COLOR ADJUSTMENTS" key on the touch panel.**

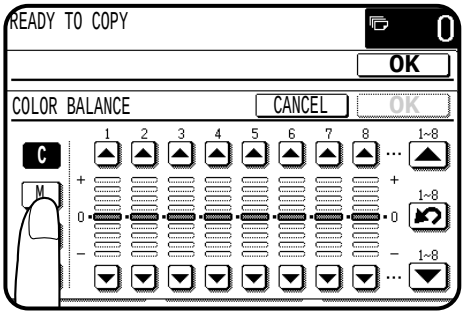
- The COLOR ADJUSTMENTS menu will appear.



4 **Press the "COLOR BALANCE" key on the touch panel.**

- The setting screen for COLOR BALANCE will appear.





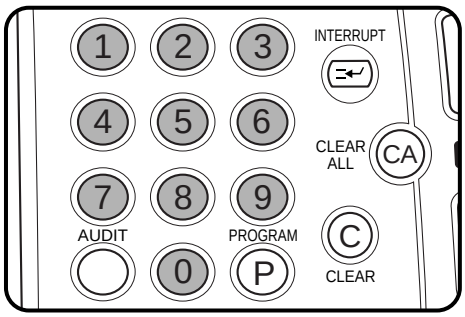
5 Use the keys indicated in the illustration above to adjust the color balance settings.

① Use these keys to select the color to be adjusted (C = cyan, M = magenta, Y = yellow, Bk = black).
If only the area around the letter inside a key is highlighted, the settings have been changed from the factory default settings.

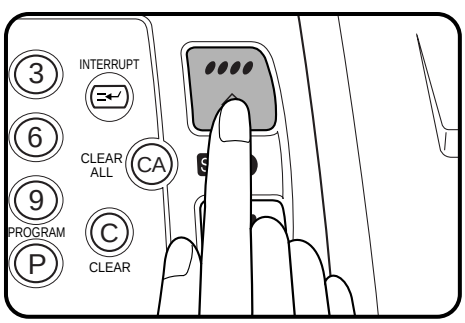
② Use these keys to adjust the densities of each of the eight density levels.
When one of the keys is pressed, the corresponding indicator line will move up or down one step. Press the ▲ key to increase the density of the corresponding level, or the ▼ key to decrease the density.

③ Use these keys to change the densities of all eight levels at once.
When either key is pressed, the indicator lines of all eight levels will move up or down one step.
Press the ▲ key to increase the density, or the ▼ key to decrease the density.

④ Use this key to return the densities of all eight levels to the initial settings.
The initial color balance settings are the values set with key operator program “Initial Color Balance Setting”. For this reason, the initial settings may not necessarily be 0 (the middle indicator position) for all levels. The initial setting of each level is shown by a gray indicator. See page 22 of the KEY OPERATOR'S GUIDE.



6 Make all other desired copier selections and enter the desired number of copies.

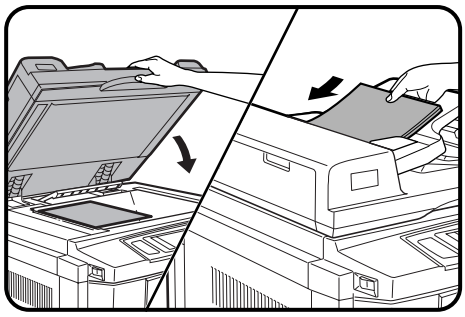


7 Press the COLOR COPY START (●●●●) key.

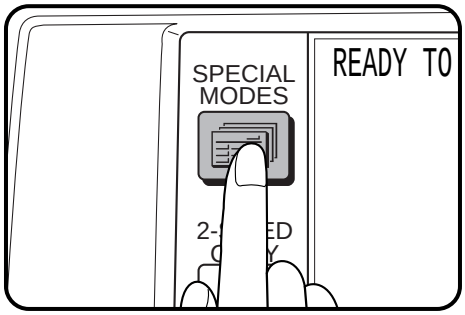
- The BLACK COPY START (○●) key can be pressed for copying. However, the COLOR BALANCE settings will be ignored.
- You can also store color balance settings for repeated use in the future. (Refer to “Storing a Job Program” on page 2-18). In this case, complete the color balance setting before pressing the PROGRAM key bacause color copy samples cannot be made after the PROGRAM key is pressed.

BRIGHTNESS /INTENSITY /CONTRAST

This copier allows the level of brightness, intensity or contrast of images to be adjusted. If brightness is selected, color tone can be darkened or lightened. If intensity is selected, color saturation can be made to be more vivid or more dull. If contrast is selected, the contrast between image areas can be made to be higher or lower. (Refer to the samples on page 8 to see the effect on copy images in relation to the BRIGHTNESS /INTENSITY /CONTRAST adjustments.)

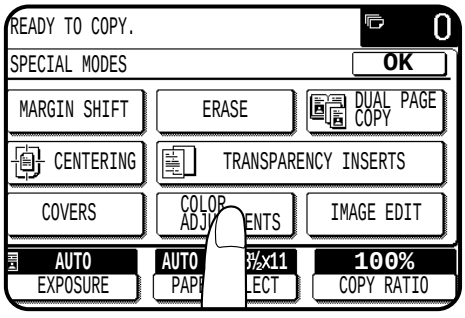


1 Place the original on the document glass or in the optional document feeder tray.



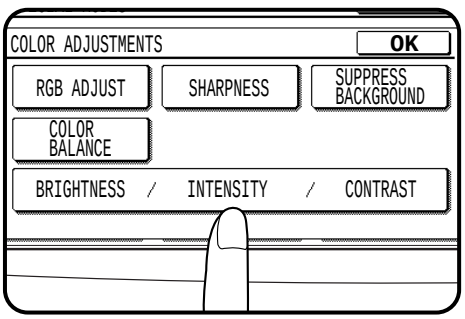
2 Press the SPECIAL MODES key.

- The SPECIAL MODES screen will appear.



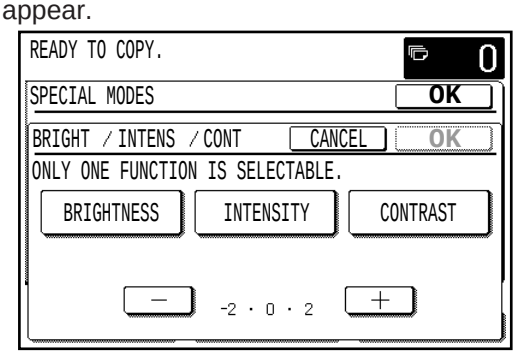
3 Press the "COLOR ADJUSTMENTS" key on the touch panel.

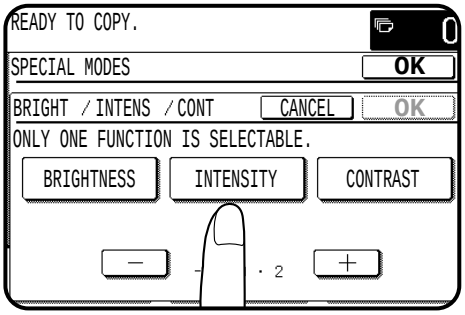
- The COLOR ADJUSTMENTS menu will appear.



4 Press the "BRIGHTNESS/INTENSITY/CONTRAST" key on the touch panel.

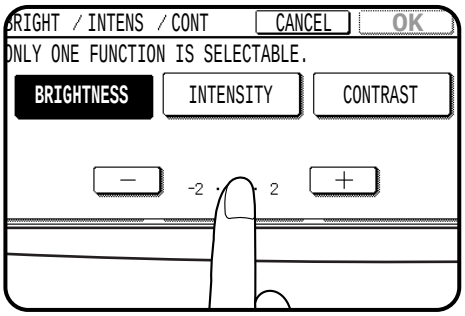
- The setting screen for BRIGHTNESS/INTENSITY/CONTRAST will appear.



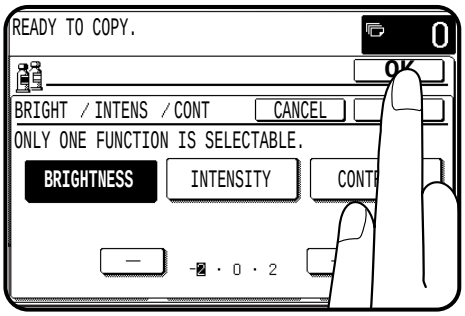


5 **Select the desired item to be adjusted.**

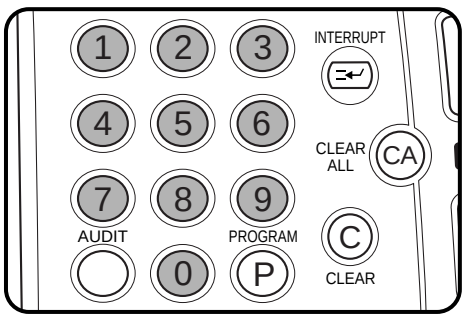
- Select “BRIGHTNESS”, “INTENSITY” or “CONTRAST” on the touch panel.



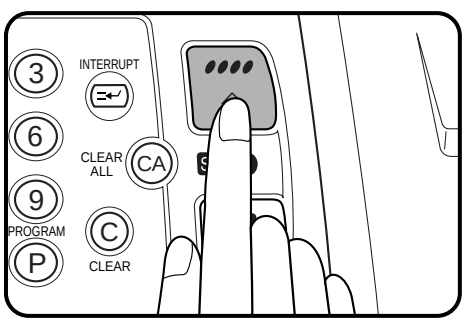
6 **Use the “-” and “+” keys to adjust the level of the selected item.**



7 **Press the upper “OK” key.**



8 **Make all other desired copier selections and enter the desired number of copies.**



9 **Press the COLOR COPY START (●●●●) key.**

- The BLACK COPY START (○●) key can be pressed for copying. However, the BRIGHTNESS/INTENSITY/CONTRAST setting will be ignored.
- To cancel the BRIGHTNESS/INTENSITY/CONTRAST function, select the BRIGHTNESS/INTENSITY/CONTRAST function again and press the “CANCEL” key.

IMAGE EDITING FUNCTIONS

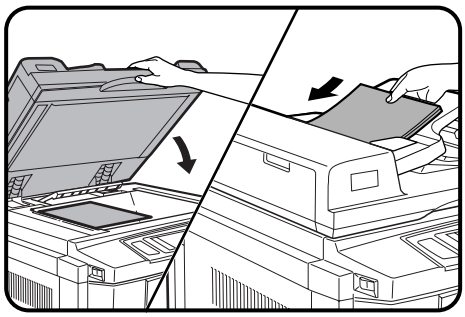
The image editing functions include the following items.

- Single color: Produces copies with a selected single color.
- Neg./pos. reverse: Copies original image in complementary colors.
- Mirror image: A mirror image of the original is printed.
- Photo repeat: Produces repeated images of a photo on a single sheet of copy paper.
- 11 x 17 full-bleed: Produces 11" x 17" full image copies onto 12" x 18" copy paper.
- Multi-page enlargement: Enlarges an original image to a size larger than 11" x 17" and prints divided images onto multiple sheets of copy paper for assembly into large composite copy.
- Extra size: Allows copying from an extra sized original or onto extra sized paper.

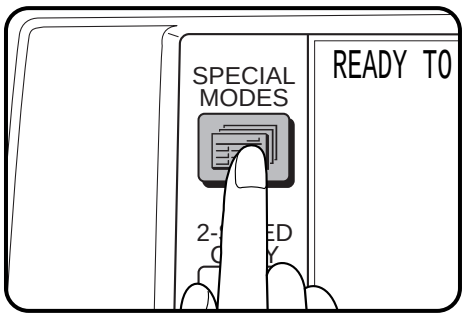
These functions are selected by pressing the “IMAGE EDIT” key on the SPECIAL MODES screen and pressing the key of an individual function.

SINGLE COLOR

The single color function is used to produce copies with a selected single color.
(Refer to the samples on page 1 to see the effect on copy images in relation to the SINGLE COLOR function.)

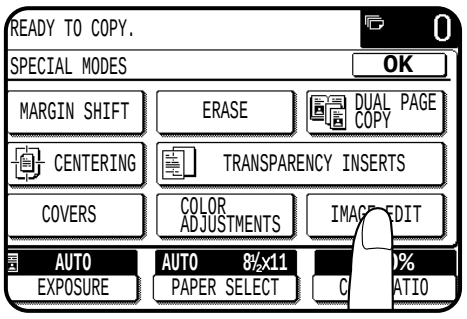


1 Place the originals on the document glass or in the optional document feeder tray.



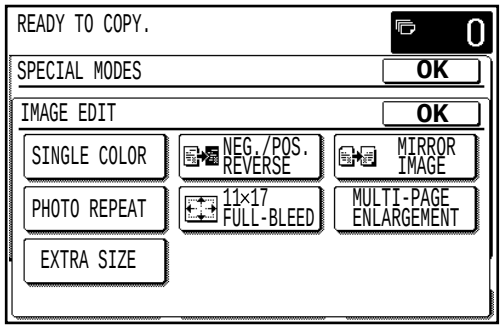
2 Press the SPECIAL MODES key.

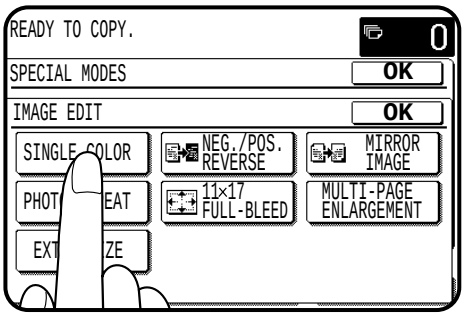
- The SPECIAL MODES screen will appear.



3 Press the “IMAGE EDIT” key on the touch panel.

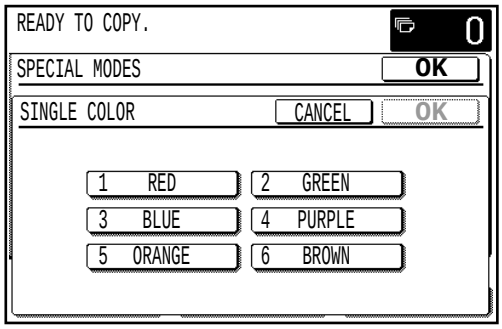
- The IMAGE EDIT menu will appear.

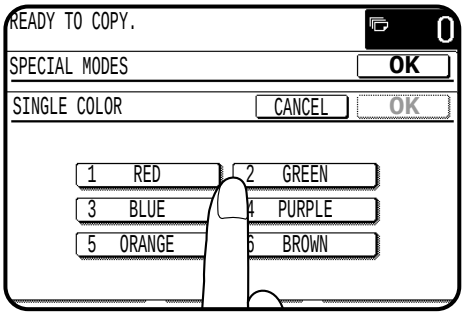




4 Press the "SINGLE COLOR" key on the touch panel.

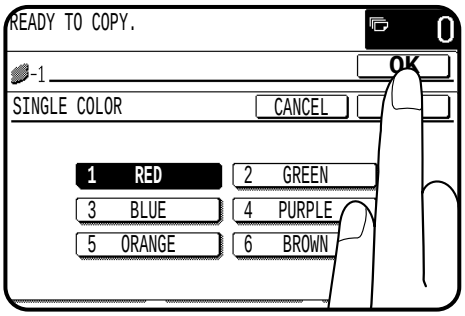
- The setting screen for SINGLE COLOR will appear.



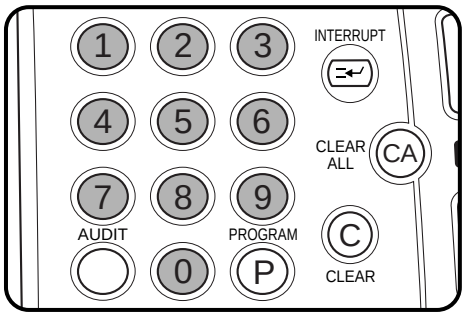


5 Select the desired color.

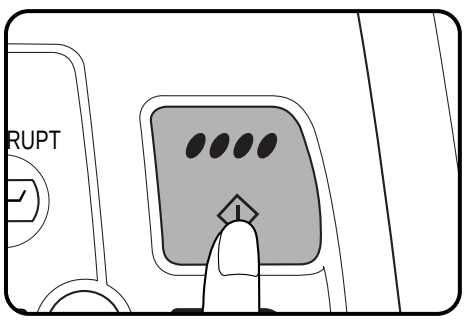
- The selected color key will be highlighted.



6 Press the upper "OK" key.



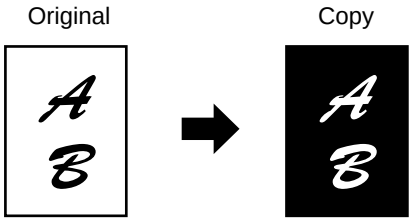
7 Make all other desired copier selections and enter the desired number of copies.



8 Press the COLOR COPY START (▰▰▰▰) key.

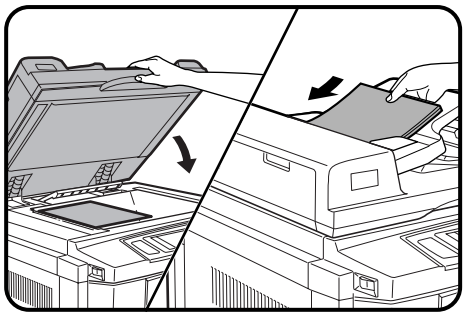
- To cancel the SINGLE COLOR function, select the SINGLE COLOR function again and press the "CANCEL" key.

NEG./POS. REVERSE

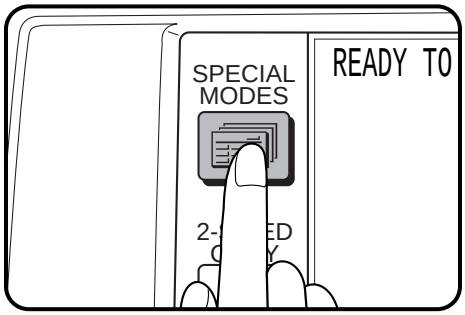


The NEG./POS. REVERSE function is used to copy the original image in complementary colors. If this function is selected in the black/white mode, the black and white areas will be reversed.
(Refer to the samples on page 2 to see the effect on copy images in relation to the NEG./POS. REVERSE.)

- When this function is selected, neither the COLOR ADJUSTMENTS nor the SINGLE COLOR functions can be selected.

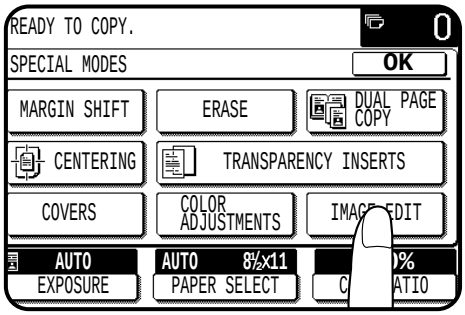


1 Place the original on the document glass or in the optional document feeder tray.



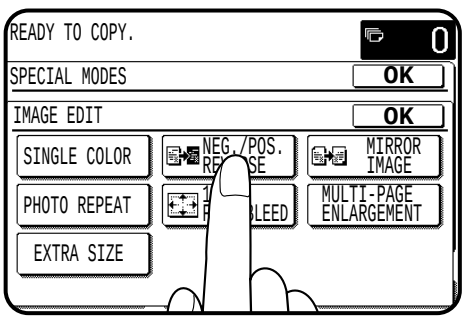
2 Press the SPECIAL MODES key.

- The SPECIAL MODES screen will appear.



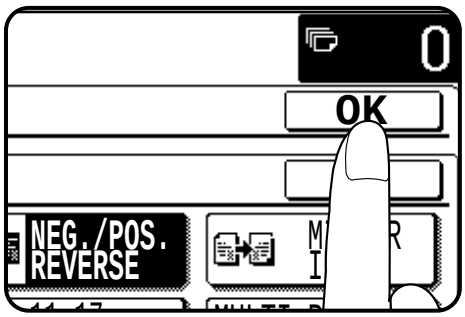
3 Press the “IMAGE EDIT” key on the touch panel.

- The IMAGE EDIT menu will appear.

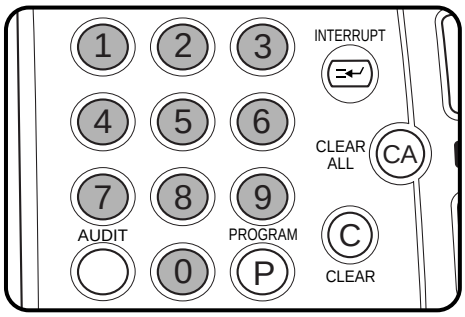


4 Press the “NEG./POS. REVERSE” key on the touch panel.

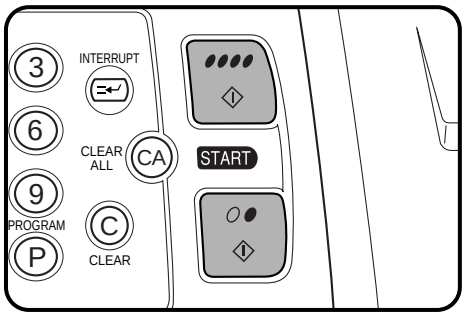
- The “NEG./POS. REVERSE” key will be highlighted.



5 **Press the upper "OK" key.**



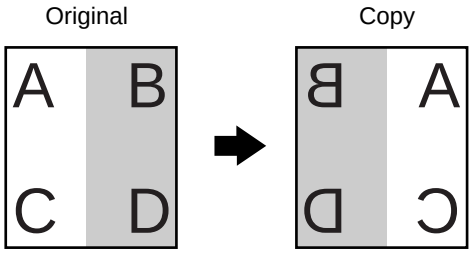
6 **Make all other desired copier selections and enter the desired number of copies.**



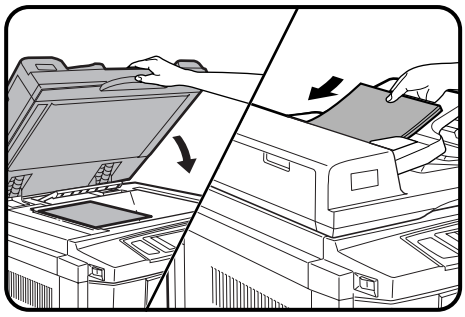
7 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

- To cancel the NEG./POS. REVERSE function, press the "NEG./POS. REVERSE" key again on the IMAGE EDIT menu screen.

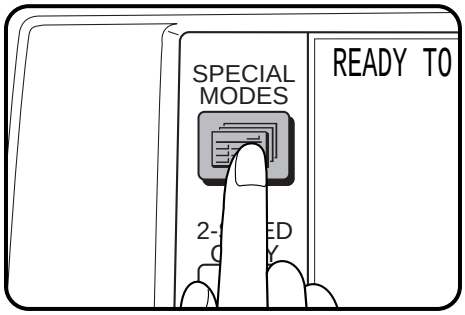
MIRROR IMAGE



This function is used to print a mirror image of the original. The images will be inverted in the right to left direction on the copies.

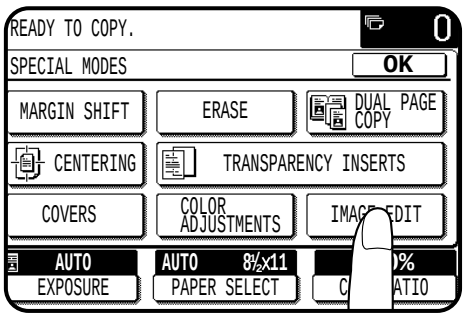


1 **Place the originals on the document glass or in the optional document feeder tray.**



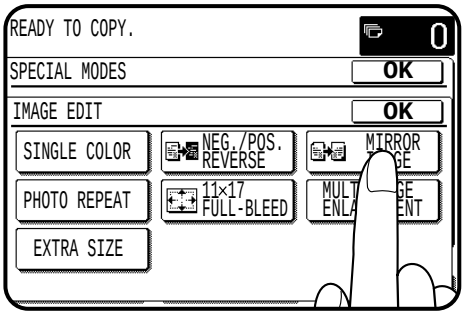
2 **Press the SPECIAL MODES key.**

- The SPECIAL MODES screen will appear.



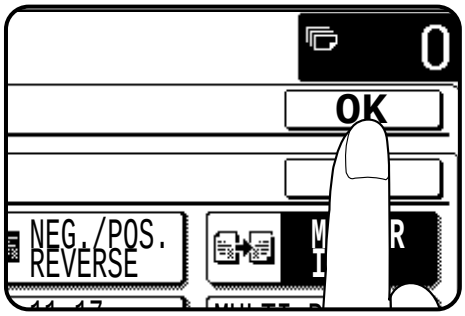
3 **Press the "IMAGE EDIT" key on the touch panel.**

- The IMAGE EDIT menu will appear.

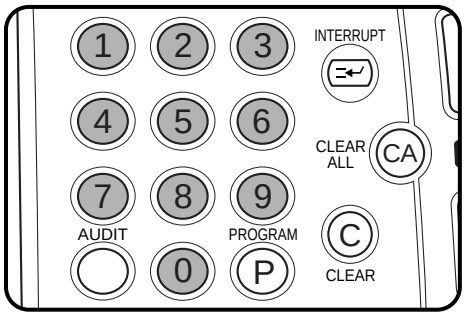


4 **Press the "MIRROR IMAGE" key on the touch panel.**

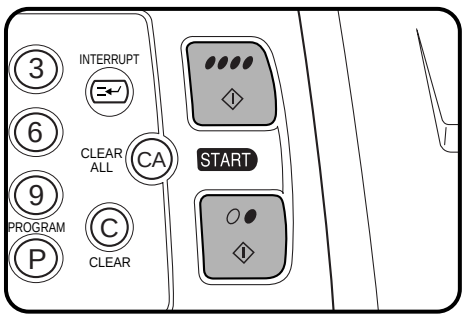
- The "MIRROR IMAGE" key will be highlighted.



5 **Press the upper "OK" key.**



6 **Make all other desired copier selections and enter the desired number of copies.**



7 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

- To cancel the MIRROR IMAGE function, press the MIRROR IMAGE again on the IMAGE EDIT menu screen.

PHOTO REPEAT

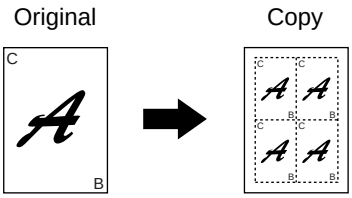
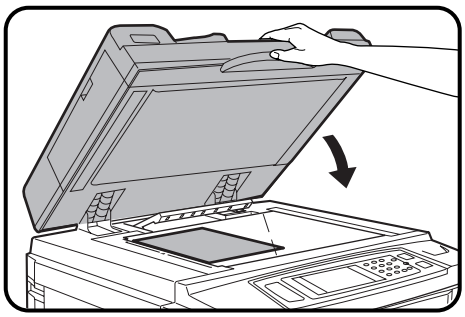


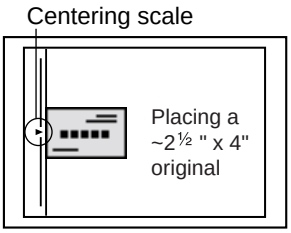
PHOTO REPEAT is used to produce repeated images of a photo on a single sheet of copy paper.
(Refer to the samples on page 2 to see the effect on copy images in relation to the PHOTO REPEAT mode.)

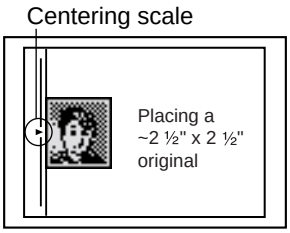
- Up to 24 repeats can be made on a single copy sheet. The number of copies on a single sheet depends on the original size and copy paper size.
- Reduction or enlargement cannot be selected with this function. If reduction or enlargement has been selected, the copy ratio will be reset to 100% when this function is selected.
- This function will not work when non-standard size paper is used.

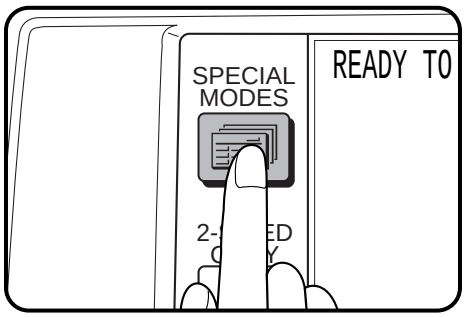


1 **Place the original on the document glass.**

- The optional document feeder cannot be used with this function.
- Place 2 ½" x 4" and 2 ½" x 2 ½" originals as shown below.

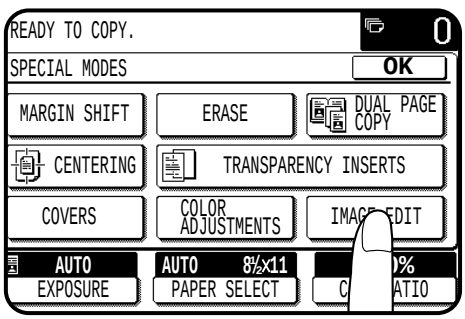






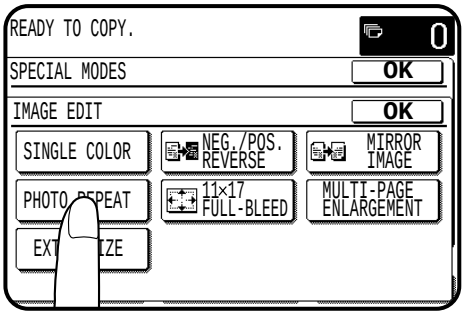
2 **Press the SPECIAL MODES key.**

- The SPECIAL MODES screen will appear.



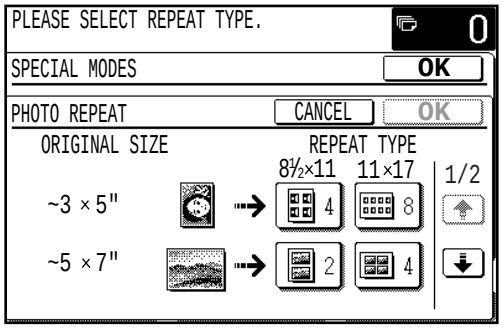
3 **Press the "IMAGE EDIT" key on the touch panel.**

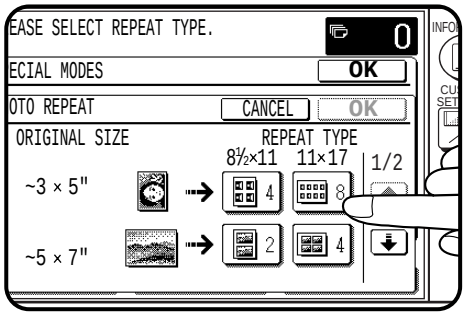
- The IMAGE EDIT menu will appear.



4 Press the "PHOTO REPEAT" key on the touch panel.

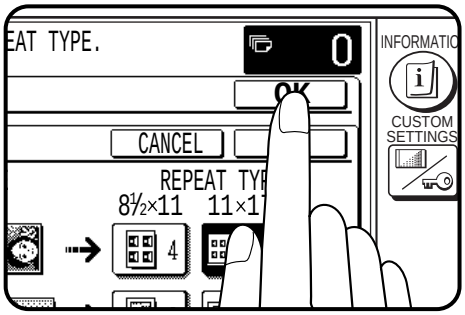
- The setting screen for PHOTO REPEAT will appear.



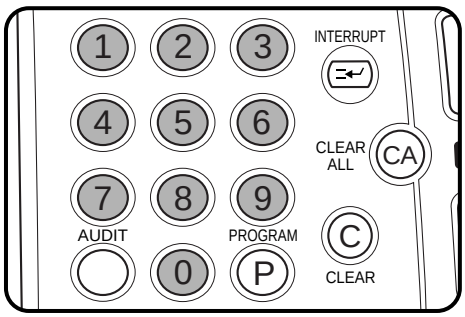


5 Select the desired repeat type.

- Select the copy paper size depending on the original size.
- When making PHOTO REPEAT copies of a ~2 ½" x4" or ~2 ½" x 2 ½" original, press the [↓] key to change the screen, and then press the desired repeat type key (8 ½" x 11" or 11" x 17") as appropriate for the original to be copied.

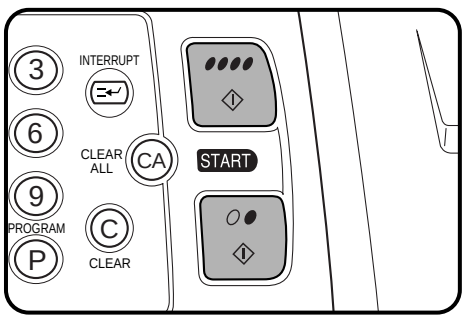


6 Press the upper "OK" key.



7 Make all other desired copier selections and enter the desired number of copies.

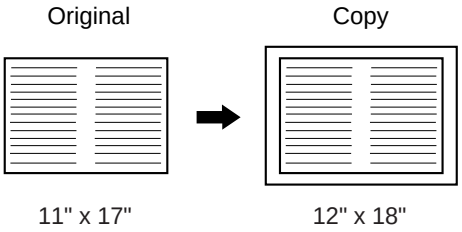
- If the copier has another paper tray (including the bypass tray) that holds paper of the same size as the selected paper tray, the tray can also be selected.



8 Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.

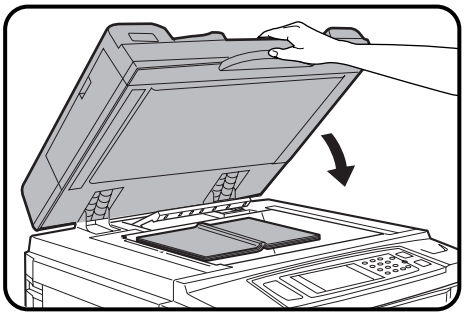
- To cancel the PHOTO REPEAT function, select the PHOTO REPEAT function again and press the "CANCEL" key.

11 x 17 FULL-BLEED



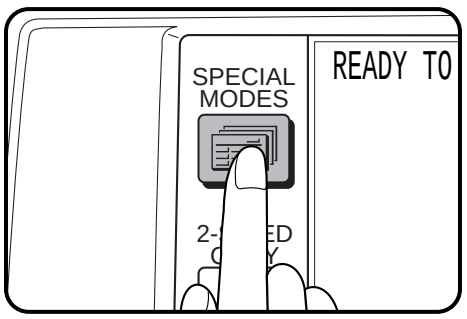
In other copy modes, image loss will occur along the copy edges. When the 11 x 17 FULL-BLEED function is used, the full image of an 11" x 17" size original will be copied onto 12" x 18" size copy paper.

- Reduction or enlargement cannot be selected with this function. If reduction or enlargement has been selected, the copy ratio will be reset to 100% when this function is selected.



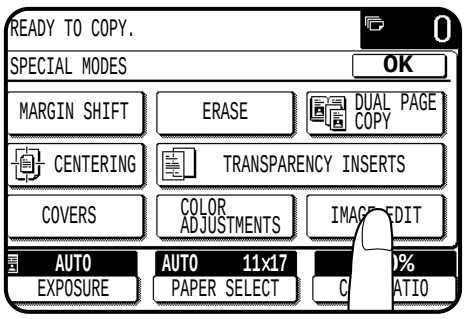
1 Place the original on the document glass and close the document cover.

- The optional document feeder cannot be used with this function.



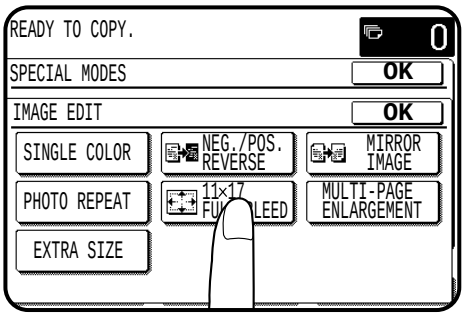
2 Press the SPECIAL MODES key.

- The SPECIAL MODES screen will appear.



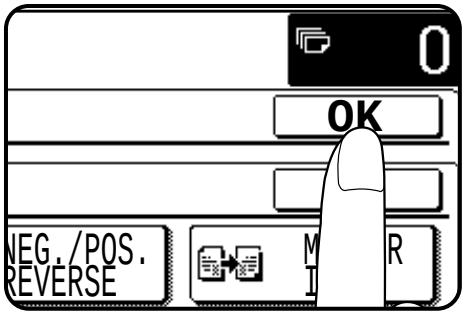
3 Press the “IMAGE EDIT” key on the touch panel.

- The IMAGE EDIT menu will appear.

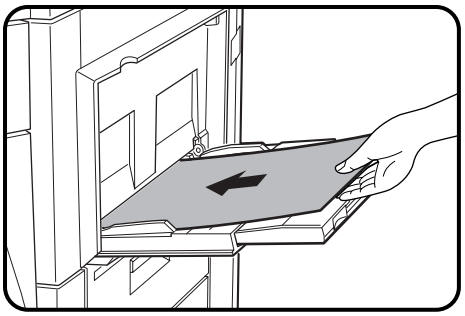


4 **Press the "11 x 17 FULL-BLEED" key on the touch panel.**

- The "11 x 17 FULL-BLEED" key will be highlighted.

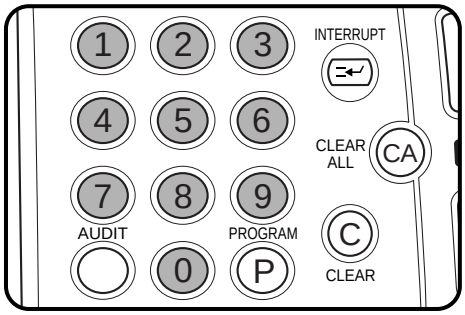


5 **Press the upper "OK" key.**

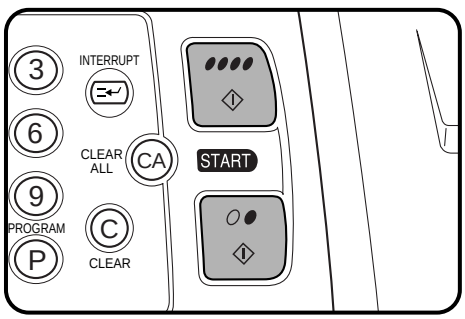


6 **Load 12" x 18" copy paper into the bypass tray.**

7 **Press the "PAPER SELECT" key on the touch panel and then select the paper type (16 ~ 28 lbs., 28+ ~ 35 lbs. or 35+ ~ 75 lbs.) in the bypass tray.**



8 **Make all other desired copier selections and enter the desired number of copies.**

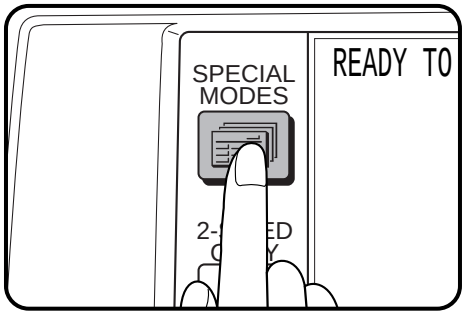


9 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

- To cancel the 11 x 17 FULL-BLEED function, press the "11 x 17 FULL-BLEED" key again on the IMAGE EDIT menu screen.

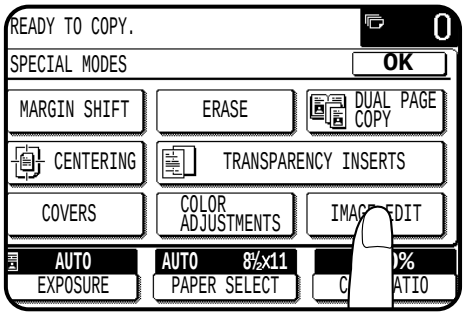
MULTI-PAGE ENLARGEMENT

This function is used to enlarge an original image to a size larger than 11" x 17" and print divided images onto multiple sheets of copy paper. (Refer to the samples on page 3 to see the effect on copy images in relation to the MULTI-PAGE ENLARGEMENT.)



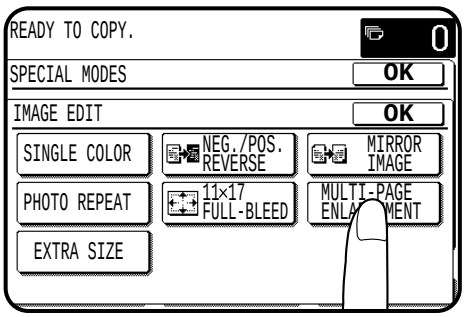
1 **Press the SPECIAL MODES key.**

- The SPECIAL MODES screen will appear.



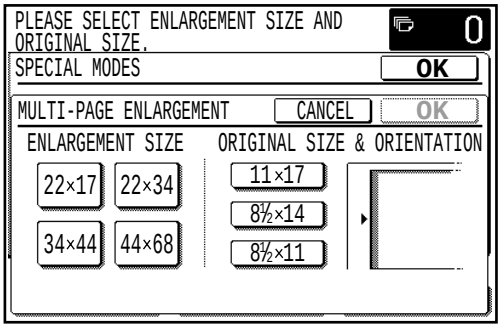
2 **Press the "IMAGE EDIT" key on the touch panel.**

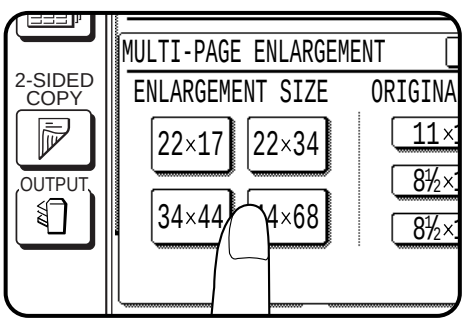
- The IMAGE EDIT menu will appear.



3 **Press the "MULTI-PAGE ENLARGEMENT" key on the touch panel.**

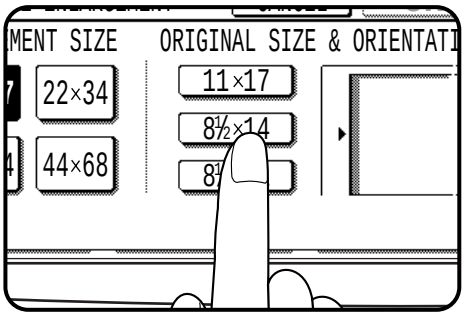
- The setting screen for MULTI-PAGE ENLARGEMENT will appear.





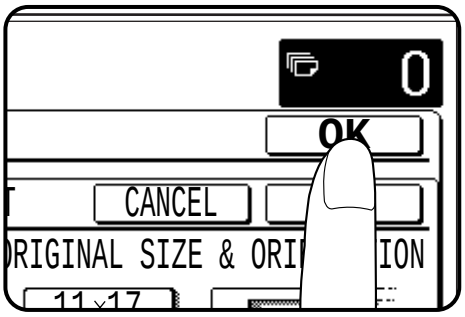
4 **Select the desired enlargement size.**

- Select the desired size among the sizes displayed on the touch panel.

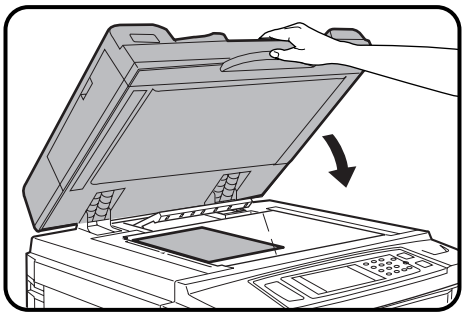


5 **Select the original size.**

- The original sizes that can be used depend on the selected enlargement size.
- The original orientation will be indicated depending on the selected enlargement size and original size.

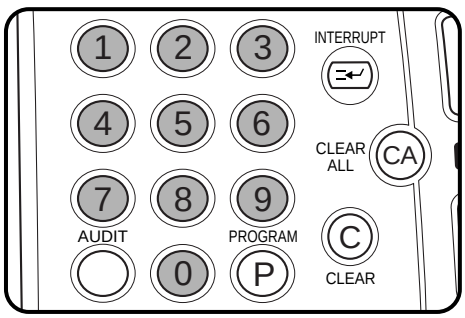


6 **Press the upper "OK" key.**



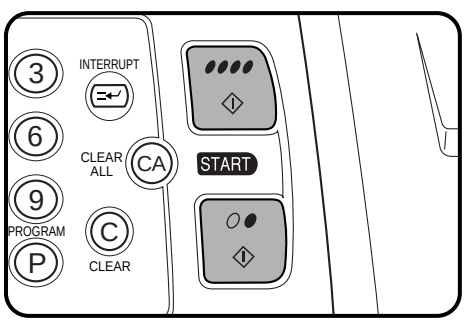
7 **Place the original on the document glass in accordance with the indicated orientation.**

- The area of the original that has been specified on the touch panel will be scanned.
- The optional document feeder cannot be used with this function.



8 **Make all other desired copier selections and enter the desired number of copies.**

- The paper tray will be automatically selected. If the copier has another paper tray (including the bypass tray) that holds the paper of the same size as the selected paper tray, the tray can also be selected.



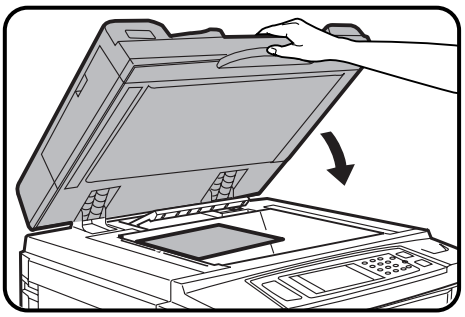
9 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

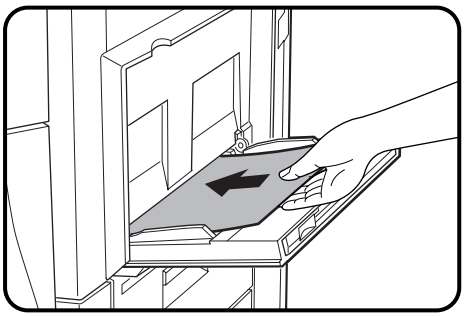
- The original image will be divided and copied onto multiple sheets of paper. Overlapped areas will be made along the leading and trailing edges of each copy.
- To cancel the MULTI-PAGE ENLARGEMENT function, select the MULTI-PAGE ENLARGEMENT function again and press the "CANCEL" key.

EXTRA SIZE

The EXTRA SIZE function provides a method for entering the dimensions of non-standard size copy paper and non-standard size originals for the purpose of automatic enlargement or reduction of the image for a best fit onto the copy paper.

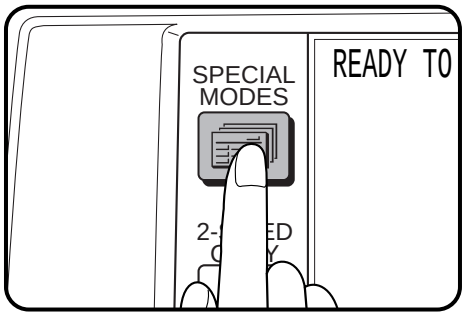
★ ***KEY OPERATOR*** ***Extra paper size setting for each individual paper tray of the copier can be made. See page 22 of the KEY OPERATOR'S GUIDE.***





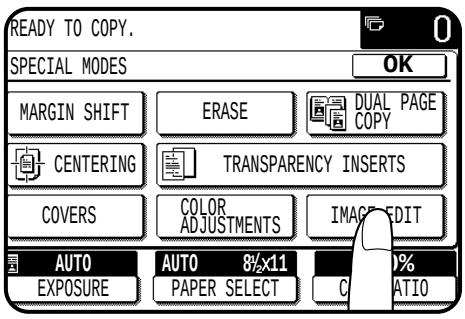
1 **Place the non-standard original on the document glass or the non-standard copy paper into the bypass tray.**

- Either one or both can be set.



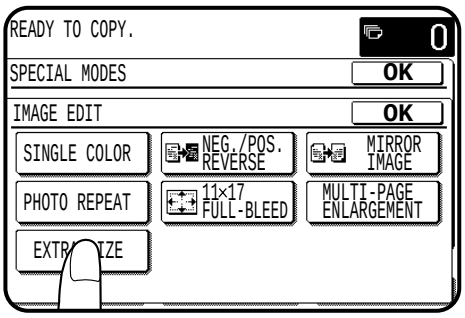
2 **Press the SPECIAL MODES key.**

- The SPECIAL MODES screen will appear.



3 **Press the "IMAGE EDIT" key on the touch panel.**

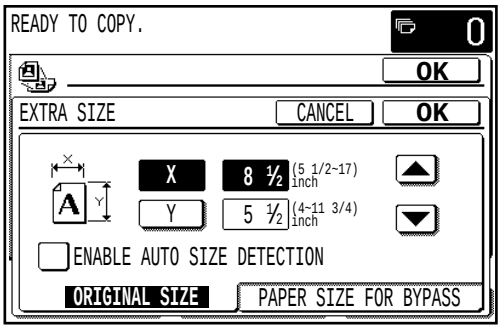
- The setting screen for IMAGE EDIT selections will appear.

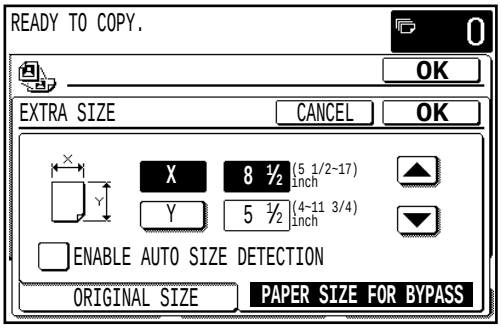


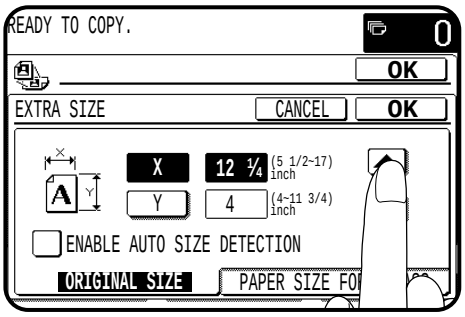
4 Press the "EXTRA SIZE" key on the touch panel.

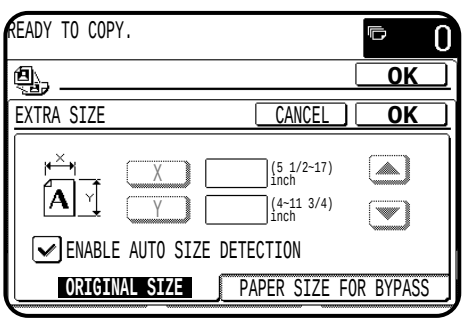
- The setting screen for EXTRA SIZE will appear.
- If an original on the document glass or paper in the bypass tray is set on opening the EXTRA SIZE screen, the original and paper dimensions in X (horizontal) and Y (vertical) will be shown respectively on the ORIGINAL SIZE tab and the PAPER SIZE FOR BYPASS tab.

  As a starting point, the dimensions shown for extra size originals or paper will be the closest match to standard sizes.



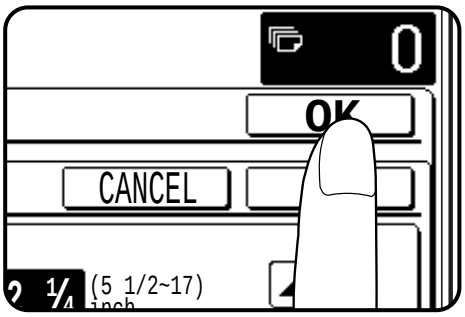




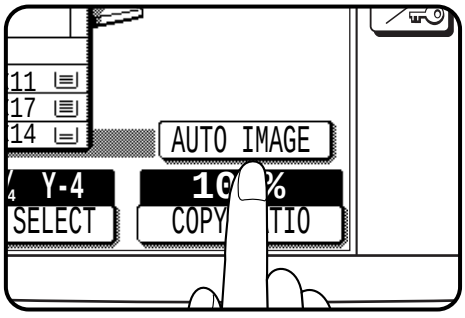


5 Adjust the original size on the "ORIGINAL SIZE" tab and paper size on the "PAPER SIZE FOR BYPASS" tab, respectively.

- Adjust each X (horizontal) and Y (vertical) dimension using the ▲ and ▼ keys.
- If the "ENABLE AUTO SIZE DETECTION" check box is checked on either tab, the size detection function will be activated. In this case, the "X/Y" keys and "▲ / ▼" keys will be grayed out not to allow any input.

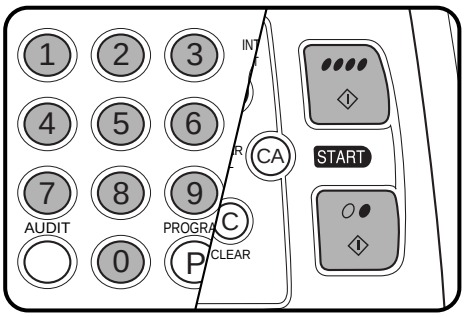


6 **Press the upper “OK” key on the touch panel.**



7 **Press the “AUTO IMAGE” key on the touch panel.**

- Refer to page 2-11 for the AUTO IMAGE function.



8 **Enter the desired number of copies and press either of the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

CHAPTER 4

SUPPLIES

This chapter describes the supplies for this copier such as paper and toner.

Page

- **PAPER** 4-2
  - Types and sizes of copy paper 4-2
  - Loading copy paper 4-2
- **ADDING TONER** 4-5
- **USED TONER DISPOSAL** 4-8
- **STORAGE OF SUPPLIES** 4-9

PAPER

Types and sizes of copy paper

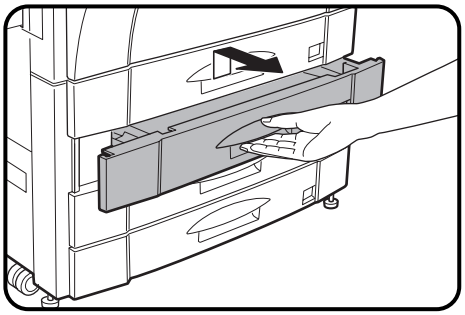
	Size	Weight	Capacity (20 lb. bond paper)	Special paper
Paper trays	5-1/2" x 8-1/2" to 11" x 17"	16 lbs. to 28 lbs.	500 sheets	
Bypass tray	5-1/2" x 8-1/2" to 12" x 18"	16 lbs. to 75 lbs. (Ordinary paper)	50 sheets	Transparency film, cover stock (104 lbs.), index stock (155 lbs.)

- For best results, use only paper recommended by SHARP.

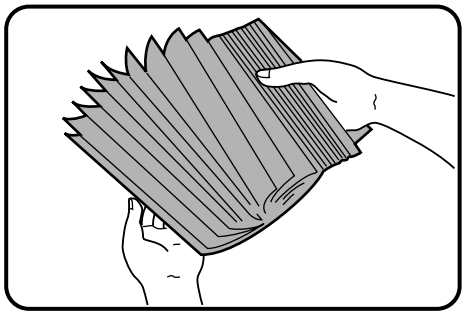
Loading copy paper

"**OPEN TRAY □ AND ADD PAPER.**" will be displayed when there is no copy paper in a selected paper feed station.
When a selected paper tray is not installed or is improperly installed, "**PUSH PAPER TRAY □ INTO MACHINE UNTIL IT LATCHES.**" will be displayed. Install it or push it back firmly into place.
For best results, use only Sharp recommended paper.

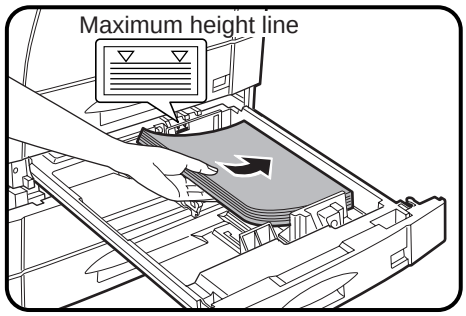
Loading paper in the paper trays



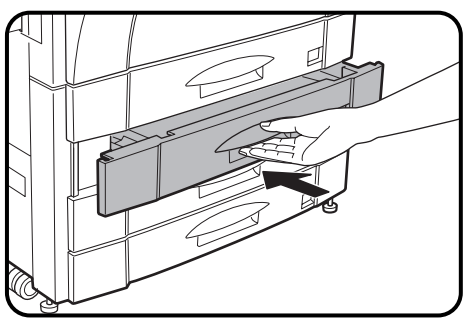
1 **Gently lift and pull out the paper tray.**



2 **Fan the copy paper and insert it into the tray.**

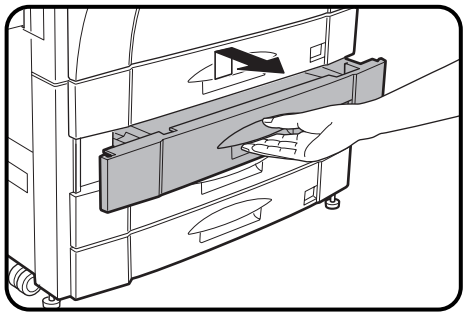


- The tray holds 500 sheets of 20 lb. bond paper.
  Do not load paper above the maximum height line.

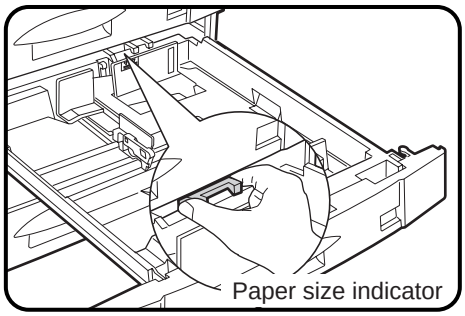


3 **Push the paper tray firmly back into the copier.**

Changing the copy paper size in the tray

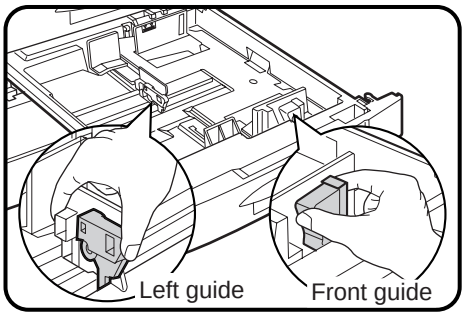


1 **Gently lift and pull out the paper tray until it stops.**



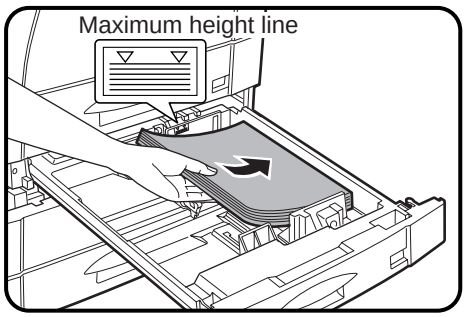
2 **Adjust the paper size indicator to match the paper size to be set.**

- Slide the paper size indicator to the right or left to match the paper size.

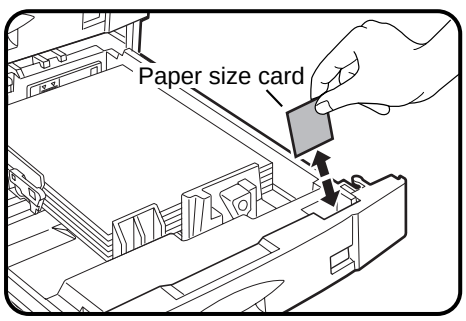


3 **Adjust the front guide and left guide while squeezing their lock levers.**

- Slide the front and left guides to match the width and length of the copy paper.



4 **Load copy paper into the tray.**



5 **Place the paper size card in the front of the paper tray.**

- The paper size card has three faces. Fold the card properly to show the selected paper size. The paper size indication which shows through the slot on the front of the copier should match the selected paper size.

6 **Push the paper tray firmly back into the copier.**

ADDING TONER

The message "□□□□ **TONER SUPPLY IS LOW.** [i]" will appear in the message display before the toner supply is completely empty. (□□□□ indicate toner types. [Y] : yellow, [M] : magenta, [C] : cyan, [BK]: black) If copying is continued, copies will gradually become lighter until the copier stops and the message display changes to "**ADD** □□□□ **TONER.PRESS** [i]**.**" indicating that the toner supply is empty. Toner can be added any time after the message "□□□□ **TONER SUPPLY IS LOW.** [i]" appears. To add toner, stop the copier and proceed as below. When either message appears, you can use the INFORMATION key for detailed information as necessary.

If any color toner supply is empty, color copying cannot be performed. However, black/white copying can be performed unless the black toner supply is empty.

During long copy runs of multiple originals containing many images and/or dark shades, "**TONER REPLENISHMENT IN PROGRESS.**" may appear and the copier may stop making copies even though toner is left.

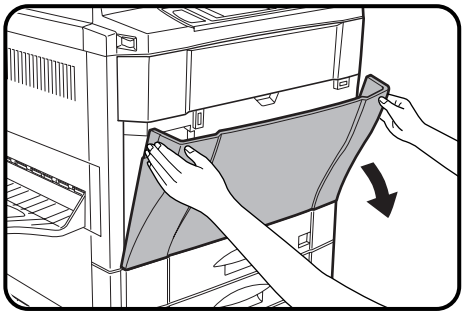
The copier will automatically cycle and replenish the toner to the normal level and then the START key indicator will light up. Press the START key to resume copying.

For best copying results, be sure to use only Sharp Genuine Supplies which are designed, engineered, and tested to maximize the life and performance of Sharp copiers.

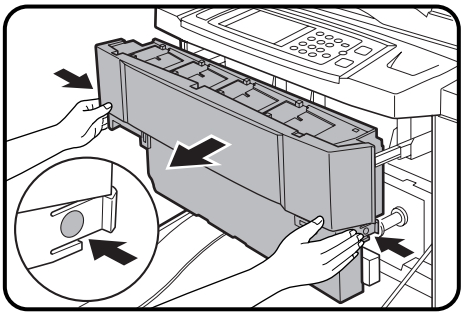
Look for the Genuine Supplies label on the toner package.

SHARP

GENUINE SUPPLIES

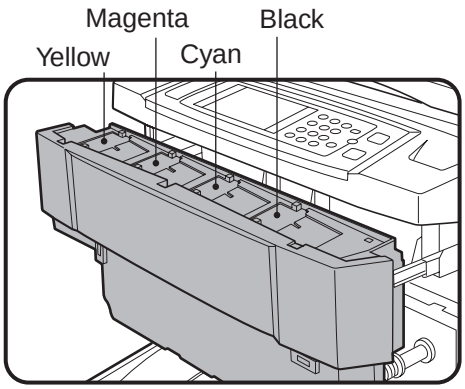


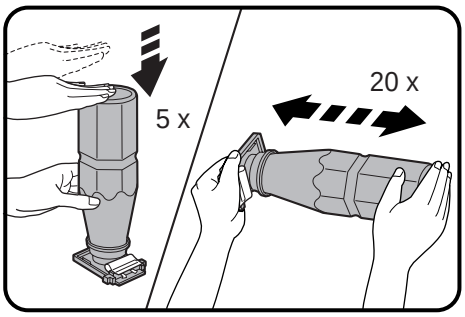
1 **Open the front cover.**



2 **Push the lock release buttons on both sides of the toner box and pull the toner box out slowly until it stops.**

- The toner hoppers are located as below.

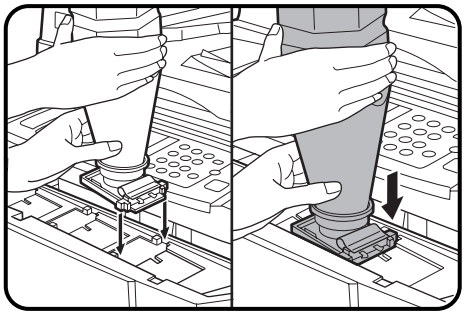




3 **Tap on the top of the new toner cartridge 5 times. Then hold the toner cartridge horizontally and vigorously shake it about 20 times. This will loosen the toner and allow it to flow more easily into the toner hopper.**

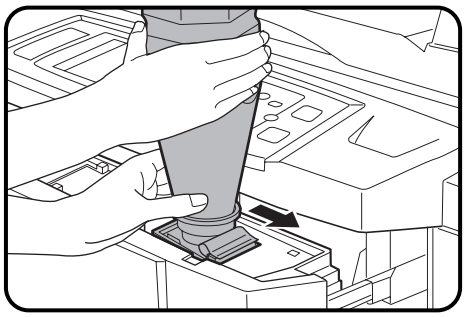
CAUTION

Be sure to perform these steps. If not, toner may not flow easily into the toner hopper.

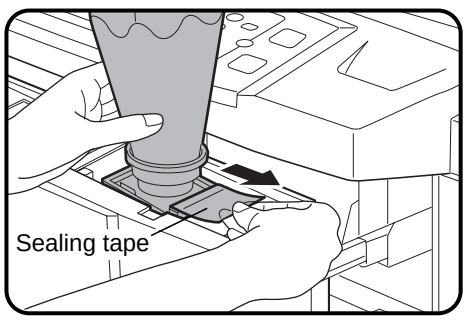


4 **Place the new toner cartridge with the protrusions into the notches of the relevant toner hopper as shown.**

- The left example shows the toner hopper of black toner.

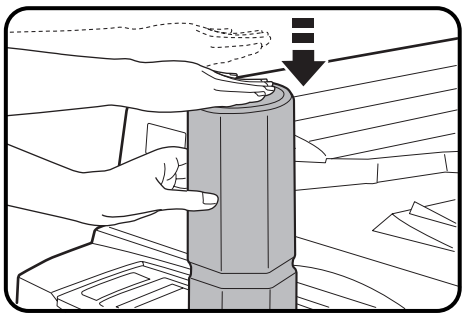


5 **Slide the toner cartridge along the guides over the toner hopper.**



6 **Hold the toner cartridge with one hand while pulling on the sealing tape to remove it.**

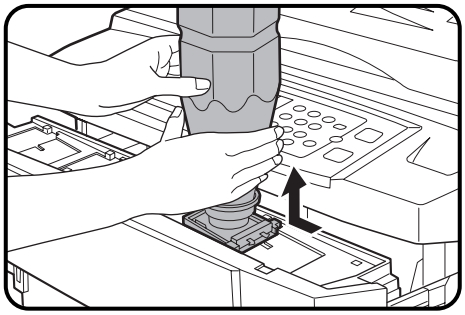
- It will take about 40 seconds for the cartridge to empty.



7 **Tap on the top of the toner cartridge to ensure that the cartridge completely empties.**

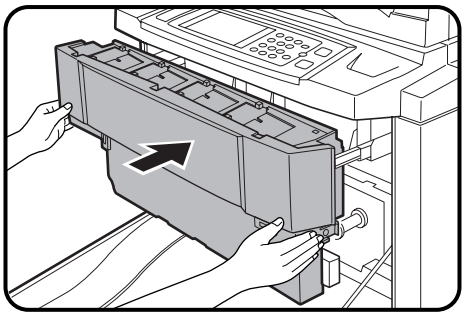
CAUTION

Be sure to perform this step. If not, some toner may be scattered when the cartridge is removed.



8 **Slide the empty toner cartridge back along the guides and remove it.**

- The cartridge opening will be closed as it is moved back along the guides.



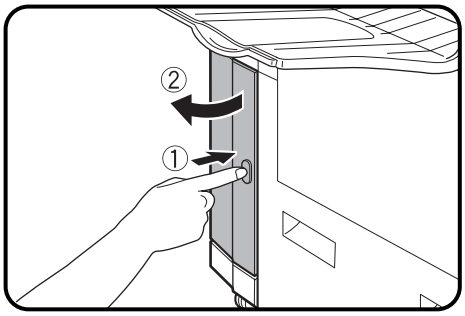
9 **Push the toner box back into the copier.**

10 **Close the front cover.**

NOTE:
Add only one cartridge of the color toner indicated as being low or empty.

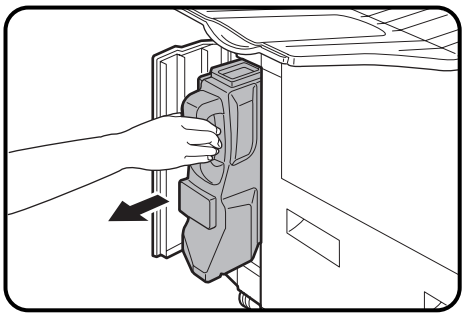
USED TONER DISPOSAL

"**REPLACE USED TONER CONTAINER. PRESS** [i] **FOR GUIDANCE.**" will appear when the toner collecting container is full.
The copier will stop and will not operate until a new container has been installed. Replace the toner collecting container as described below.
When the above message is displayed, you can use the INFORMATION key for detailed information as necessary.



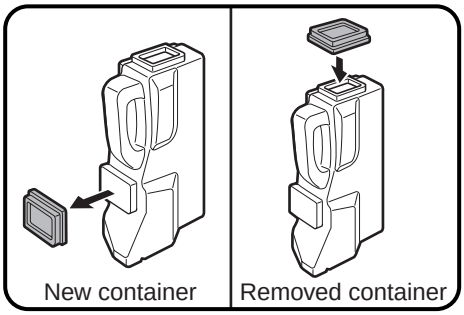
1 **Open the toner collecting container cover.**

- Push once on the door to unlatch and open it.

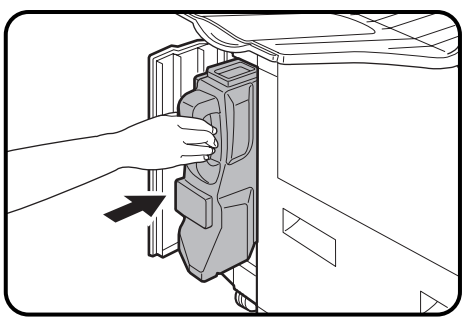


2 **Disengage and remove the container from the copier.**

- Toner cannot be reused. Do not transfer used toner to the toner hopper.



- Remove the cap from a new toner collecting container and use it to cover the full toner collecting container.
- Keep the full toner collecting container until the next regular service call. Your authorized Sharp Service Technician will collect the container for disposal.



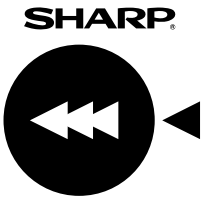
3 **Install a new toner collecting container until it clicks into place.**

4 **Close the toner collecting container cover.**

STORAGE OF SUPPLIES

The supplies of this copier replaced by the user include copy paper, toner, toner collecting container, and staple cartridges for the optional staple sorter (AR-SS2) and the finisher (AR-FN4).

For best copying results, be sure to use only Sharp Genuine Supplies which are designed, engineered, and tested to maximize the life and performance of Sharp copiers. Look for the Genuine Supplies label on the toner package.



GENUINE SUPPLIES

Photoconductive drum

The AR-C160 Copier has advanced process control technology which improves copy quality uniformity. This feature stabilizes copy quality throughout the life of the photoconductive drum by automatically compensating for the changes in drum characteristics due to wear, operator use patterns, and environmental conditions. The automatic adjustments are made in response to a sensor that detects the reflectance characteristics of the drum.

WARNING

This feature requires drums containing the special reflectance area (recommended Sharp genuine photoconductive drum), to prevent low image density copies from poor process control and possible damage to the machine. If you use other drums, the process control system cannot run properly.

Proper storage

1 **Store the supplies in a location that is:**

- clean and dry,
- at a stable temperature,
- not exposed to direct sunlight.

2 **Store copy paper in the wrapper and lying flat.**

- Paper stored in packages standing up or out of the wrapper may curl or become damp, resulting in paper misfeeds.

CHAPTER 5

COPIER TROUBLE?

This chapter describes how to remove misfed originals and paper and other common trouble remedies.

Page

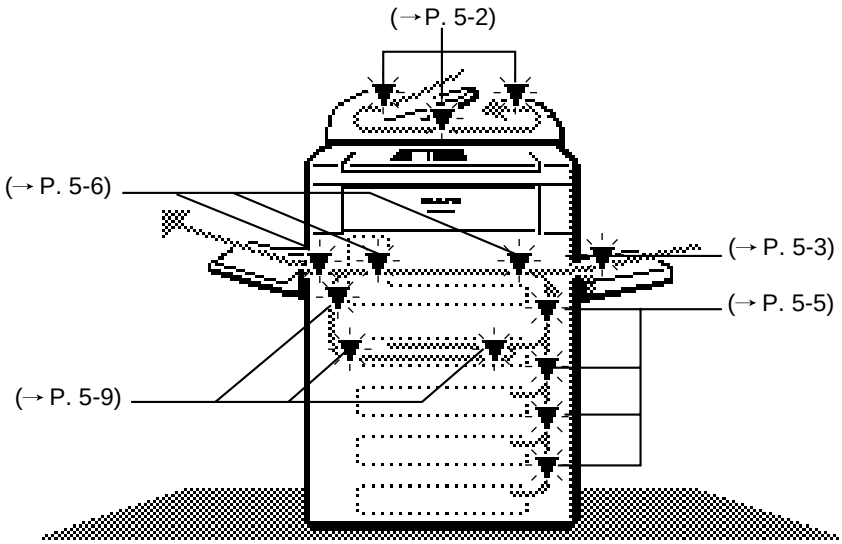
- **MISFEED REMOVAL** 5-2
- **MAINTENANCE REQUIRED** 5-11
- **TONER COLLECTING CONTAINER OF TRANSFER UNIT** . . . 5-12
- **TROUBLESHOOTING** 5-13

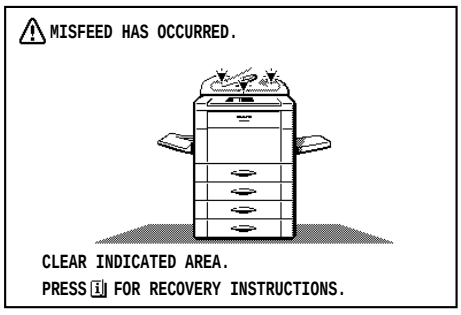
MISFEED REMOVAL

When a misfeed occurs, the copier will stop.
The message "**MISFEED HAS OCCURRED. CLEAR INDICATED AREA. PRESS [i] FOR RECOVERY INSTRUCTIONS.**" will appear with a display of paper misfeed locations. Press the INFORMATION key for more detailed information as necessary.

If paper becomes accidentally torn during removal, be sure to remove all pieces. Be careful not to damage the photoconductive drum or the corona wires.

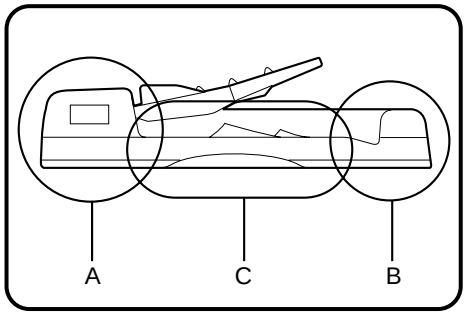
First confirm the misfeed locations.
For misfeeds in an optional staple sorter, see page 7-13.
For misfeeds in an optional large capacity tray, see page 7-17.
For misfeeds in an optional finisher, see page 7-26.



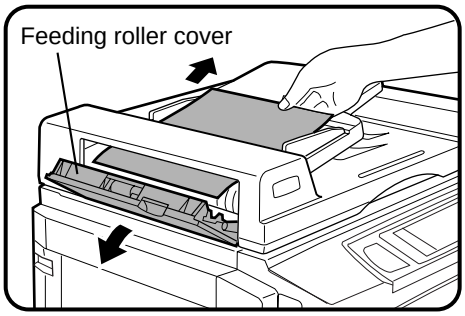


Misfeed in the optional RADF

When the optional RADF misfeeds an original sheet, the copier will stop and the misfeed message will appear.

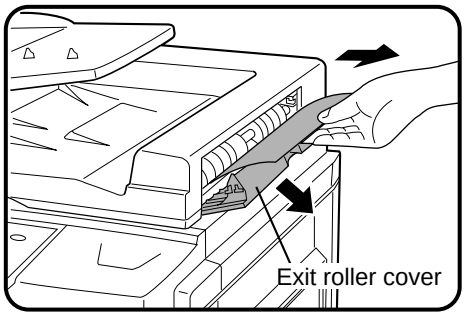


An original misfeed may occur at one of three locations: (A) in the RADF feed section, (B) in the exit roller, or (C) under the transport belt.



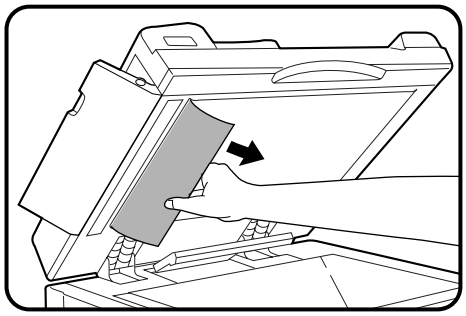
(A) Open the feeding roller cover and pull the original gently to the right and out from the document feeder tray.

- Be sure to open and close the document feeder cover to cancel the misfeed display.



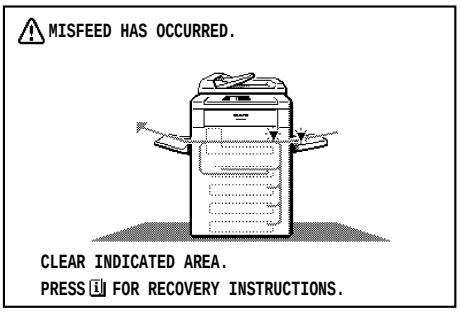
(B) Open the exit roller cover and gently pull the original out.

- Be sure to open and close the document feeder cover to cancel the misfeed display.

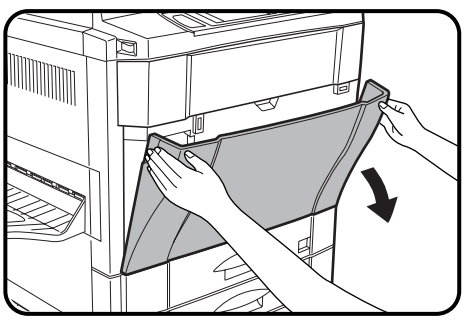


(C) Open the feeding roller cover and the document feeder cover, and remove the original.

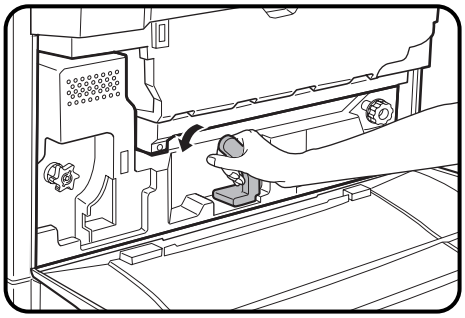
NOTE:
After misfed originals are removed from locations A, B and/or C, a message may appear indicating the number of originals which must be returned to the document feeder tray. Return the originals and press the START key to resume copying.



Misfeed in the bypass tray

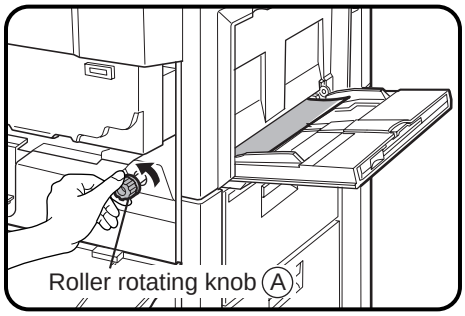


1 Open the front cover.



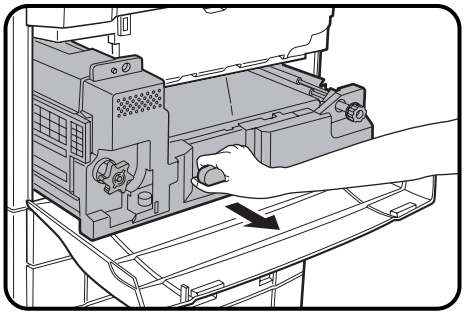
2 **Turn the transport lever to the left.**

- Do not pull out the paper transport in this step.

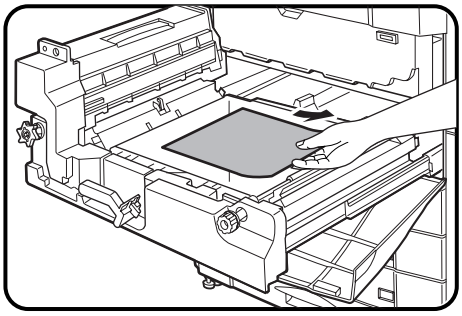


3 **Turn roller rotating knob Ⓐ in the direction of the arrow to feed the misfed paper into the copier.**

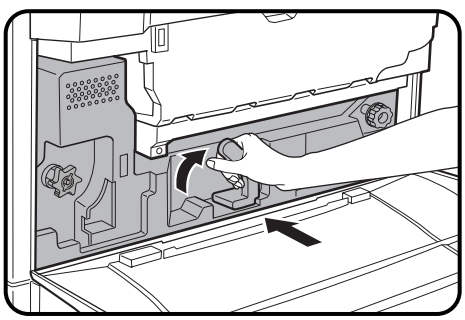
- Do not pull the misfed paper out through the bypass tray because unfixed toner may soil the inside of the copier.



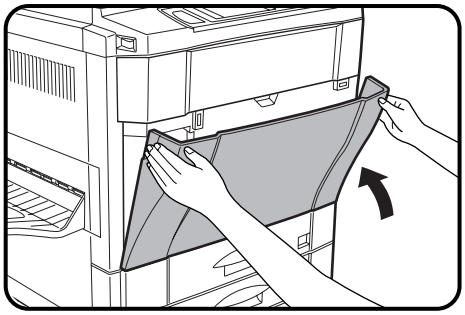
4 **Pull out the paper transport.**



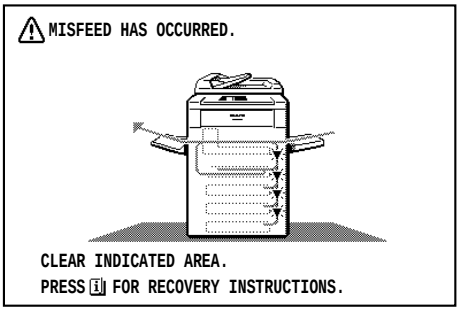
5 **Remove the misfed paper.**



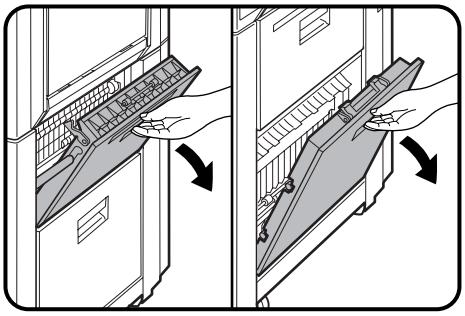
6 **Push the paper transport back securely into the copier and turn the transport lever back.**



7 **Close the front cover.**

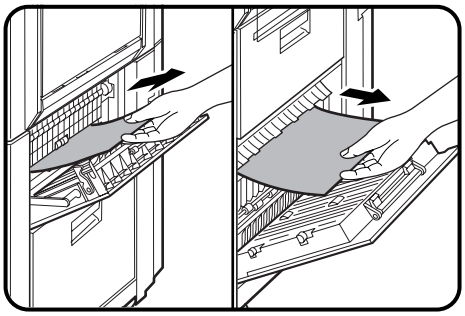


Misfeed in the paper trays



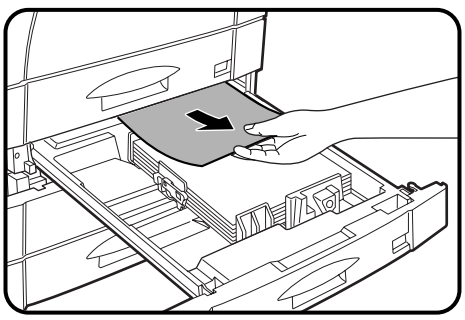
1 **Open the right side covers.**

- Grasp the handle and gently open the cover.



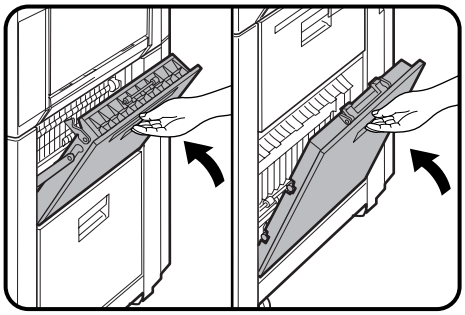
2 **Remove the misfed paper.**

- Be careful not to tear the misfed paper during removal.



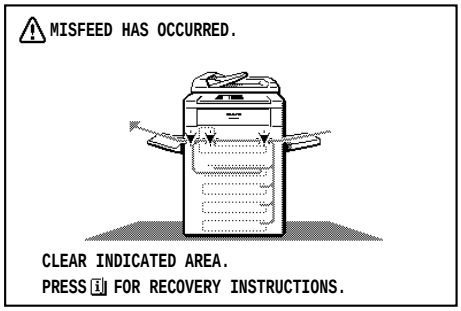
3 **If the paper cannot be seen from the side, pull out the paper tray which was in use and remove the misfed paper.**

- Be careful not to tear the misfed paper during removal.

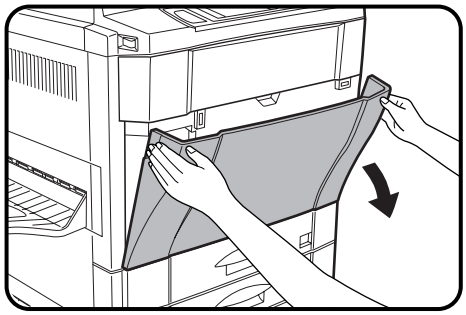


4 **Close the paper tray and the side covers.**

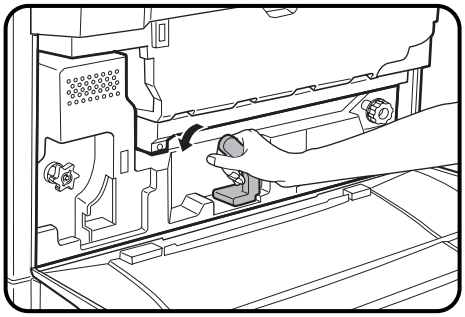
- Confirm that the misfeed display is cleared.



Misfeed in the transport area, exit area and fusing area

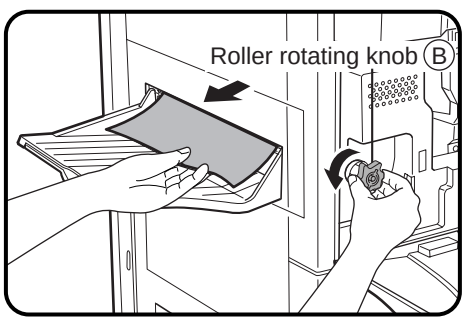


1 **Open the front cover.**



2 **Turn the transport lever to the left.**

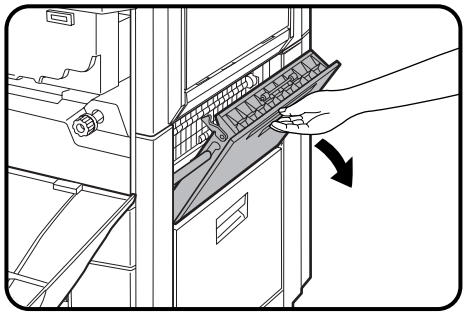
- Do not pull out the paper transport in this step.



3 **Check to see if any paper is misfed in the exit area.**

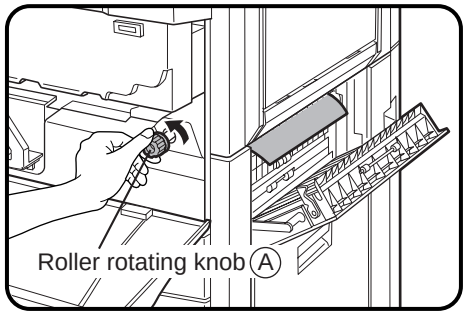
- If any paper is misfed, turn roller rotating knob Ⓑ in the direction of the arrow to remove the misfed paper.

NOTE:
Be sure to turn roller rotating knob Ⓑ only in the direction of the arrow. If the knob is turned in the opposite direction, the copier may malfunction.

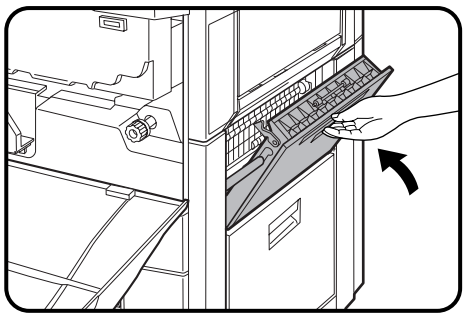


4 Open the upper right side cover to check to see if any paper is misfed.

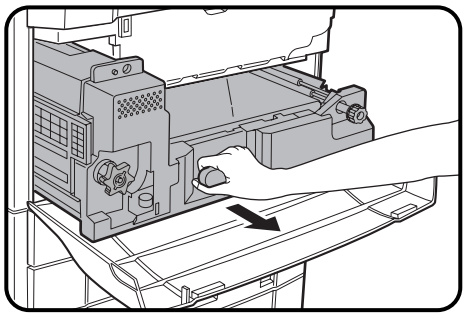
① Grasp the handle and open the cover.



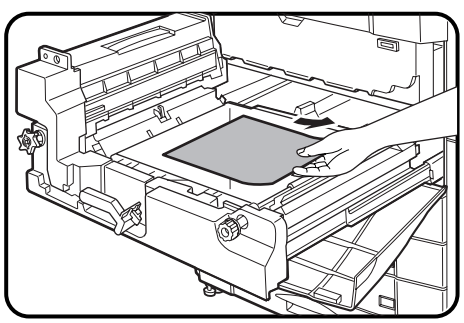
② If any misfed paper is seen, turn roller rotating knob Ⓐ in the direction of the arrow to feed the misfed paper into the copier.



③ Gently close the upper right side cover.

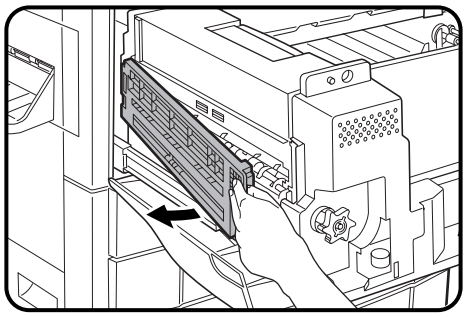


5 Pull out the paper transport.



6 Remove any misfed paper from the paper transport.

- If misfed paper has been fed into the copier in step 4 or paper has misfed on the transport belt, gently remove misfed paper not to touch the belt.

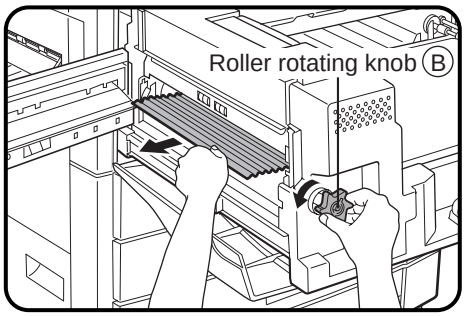


If the misfed paper is in the fusing unit:

① Open the fusing unit cover in the direction of the arrow.

CAUTION

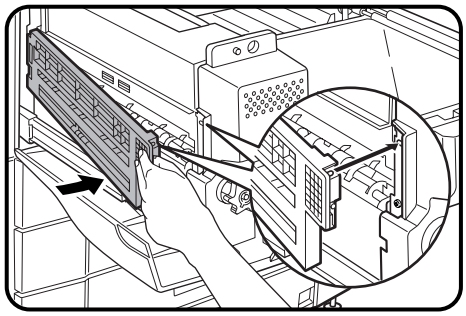
The fusing unit is hot. Use care in removing paper.



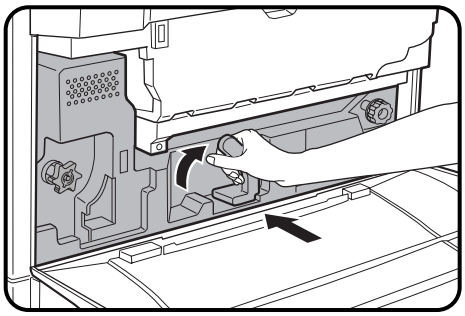
② Turn roller rotating knob Ⓑ in the direction of the arrow to remove the misfed paper.

NOTE:

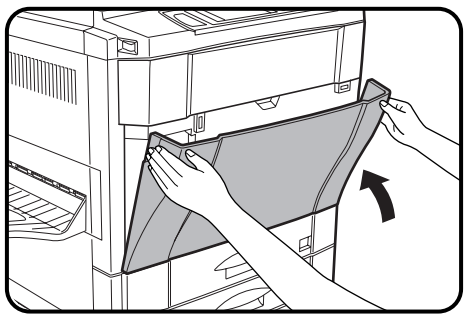
Be sure to turn roller rotating knob Ⓑ only in the direction of the arrow. If the knob is turned in the opposite direction, the copier may malfunction.



③ Return the fusing unit cover securely to its original position.

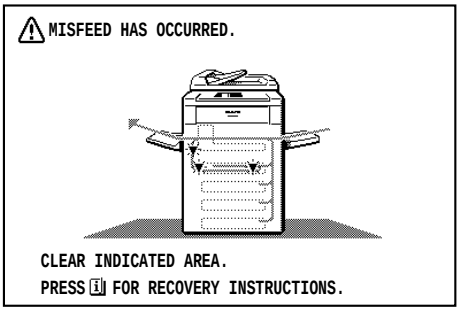


7 **Push the paper transport back securely into the copier and turn the transport lever back.**



8 **Close the front cover.**

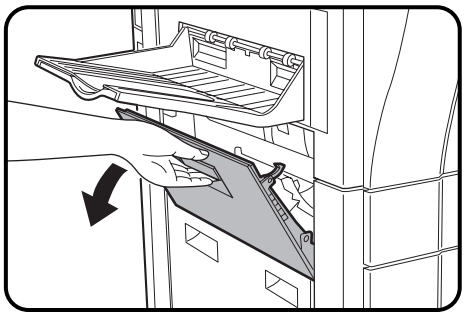
- Confirm that the misfeed display is cleared.



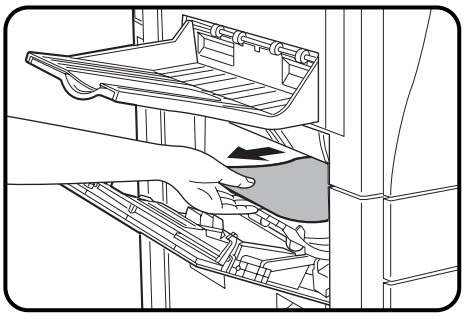
Misfeed in the optional duplex module

NOTES:

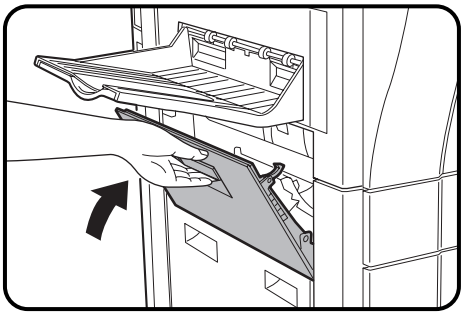
- For misfeed removal from an optional staple sorter (AR-SS2) or an optional finisher (AR-FN4), please refer to chapter 7 Optional Equipment.
- If any other misfeed locations are indicated, be sure to remove any misfed paper from these locations before pulling out the duplex module. If not, a sheet of paper in another location may become torn and difficult to remove.



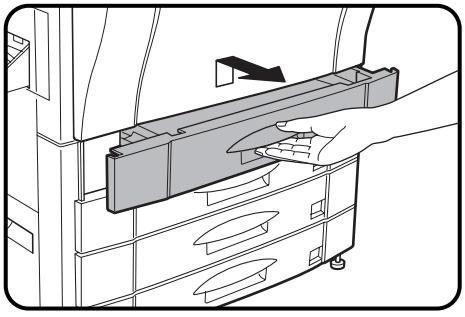
1 **Open the left side cover.**



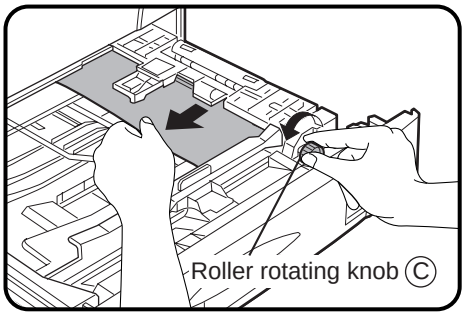
2 **Remove the misfed paper.**



3 **Close the left side cover**

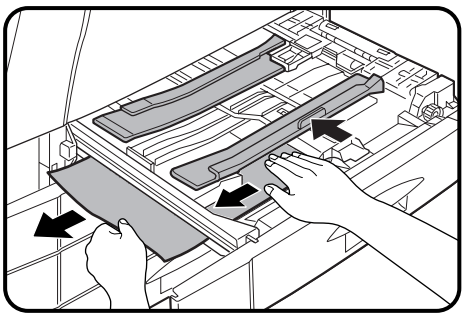


4 **Pull out the duplex module.**

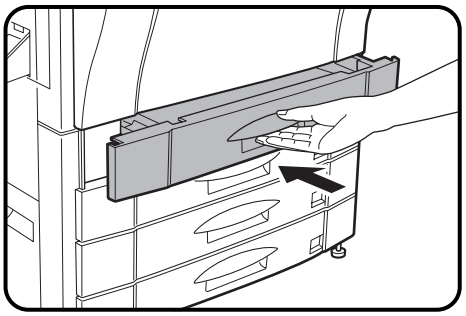


5 **Remove the misfed paper.**

- Turn roller rotating knob Ⓒ in the direction of the arrow and remove the misfed paper.



- Slide the paper guide if needed.



6 **Push the duplex module back into the copier.**

MAINTENANCE REQUIRED

When the message "**READY TO COPY. (MAINTENANCE REQUIRED. CODE:□□)**" appears in the message display, service by an authorized Sharp Service Technician will be required soon. Contact your Service Center as soon as possible.

TONER COLLECTING CONTAINER OF TRANSFER UNIT

When the message "**TONER COLLECTING CONTAINER OF TRANSFER UNIT IS FULL. CALL FOR SERVICE.**" appears in the message display, contact your Service Center.

TROUBLESHOOTING

Always check the message display whenever the copier stops or operation is not possible. The messages will give you easy-to-follow directions. If the messages do not give specific instructions, check the list below.

Problem	Solution	
Copier does not operate.	● Copier plugged in?	Plug the copier into a grounded outlet.
	● Power switch on?	Turn the power switch on.
Copies are too dark or too light.	● Copy density properly adjusted?	See page 2-16.
Blank copies.	● Is the original placed face down on the document glass or face up in the optional RADF?	Place the original face down on the document glass or face up in the RADF.
Copies smear if rubbed.	● Paper too heavy?	Use copy paper within the specified range. See page 4-2.
	● Paper damp?	Replace with dry copy paper. Be sure to store copy paper in a dry location.
Copy size is different from the selected paper size.	● Paper size indicator properly set?	When changing the copy paper size in a tray, be sure to adjust the paper size indicator. See page 4-4.

Problem	Solution	
Paper misfeeds frequently.	● Non-standard paper used?	Use standard paper. If using special papers, feed the paper through the bypass tray.
	● Is paper properly installed?	See pages 2-14 and 4-2.
	● Pieces of paper inside copier?	Remove all pieces of misfed paper. See page 5-2.
	● Paper curled or damp?	Store copy paper flat in the wrapper in a dry location. See page 4-9.
Dust, dirt, smudges appear on copies.	● Document glass, optional document cover or optional RADF transport belt dirty?	Clean regularly. See page 6-6.
Touch panel is too dark or too light.	● Is LCD contrast properly adjusted?	Adjust the LCD contrast. See page 6-7.

If a problem persists after checking the above, please consult your authorized Sharp Service Center.

Self-diagnostic function

An automatic self-diagnostic function is built into this copier. Should the copier malfunction, the self-diagnostic function will locate the problem and stop the copier to prevent damage. An alphanumeric code will appear in the message display.

Example
Should the copier stop completely, and the message "**CALL FOR SERVICE. CODE:□□-□□**" appear in the message display, contact your authorized Sharp Service Center.

★ ***KEY OPERATOR*** ***See page 35 of the KEY OERATOR'S GUIDE.***

CHAPTER 6

GENERAL INFORMATION

This chapter describes general information for using this copier.

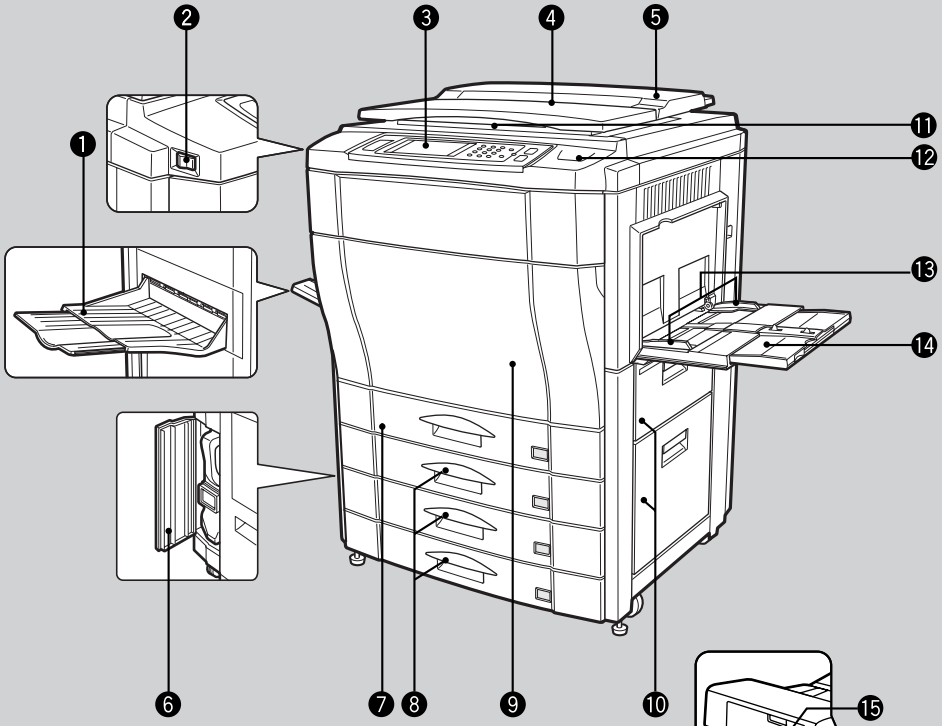
Page

- **PART NAMES AND FUNCTIONS** 6-2
  - Exterior 6-2
  - Interior 6-3
  - Operation panel 6-4
  - Touch panel (Basic screen) 6-5
- **USER MAINTENANCE** 6-6
- **TOUCH PANEL CONTRAST ADJUSTMENT** 6-7
- **SPECIFICATIONS** 6-8

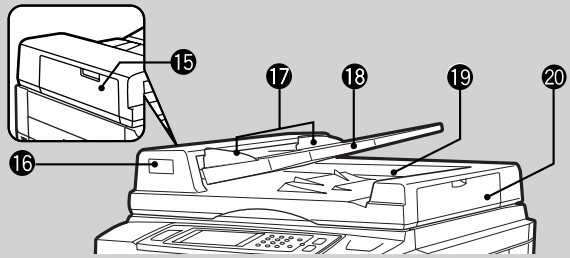
PART NAMES AND FUNCTIONS

Exterior

[AR-C160 with optional document cover]



[Optional RADF]



❶ **Exit tray**
Finished copies are deposited in the exit tray.

❷ **Power switch**
Press to turn copier power on and off.

❸ **Operation panel**
All copier controls are located here for easy operation.

❹ **Original holder (optional)**
Keep originals here.

❺ **Document cover (optional)**
Place the original on the document glass and close the document cover before copying starts.

❻ **Toner collecting container cover**
Open to replace the toner collecting container.

❼ **Duplex module or 500-sheet paper drawer (optional)**
The copier can be equipped with either a duplex module or a 500-sheet paper drawer. When neither is installed, the opening is covered. The duplex module provides duplex copying capability.

❽ **Paper trays**
Each tray holds 500 sheets of 20 lb. bond paper.

❾ **Front cover**
Open to remove misfeeds and to service the copier.

❿ **Right side covers**
Open to remove misfeeds in the paper feed area.

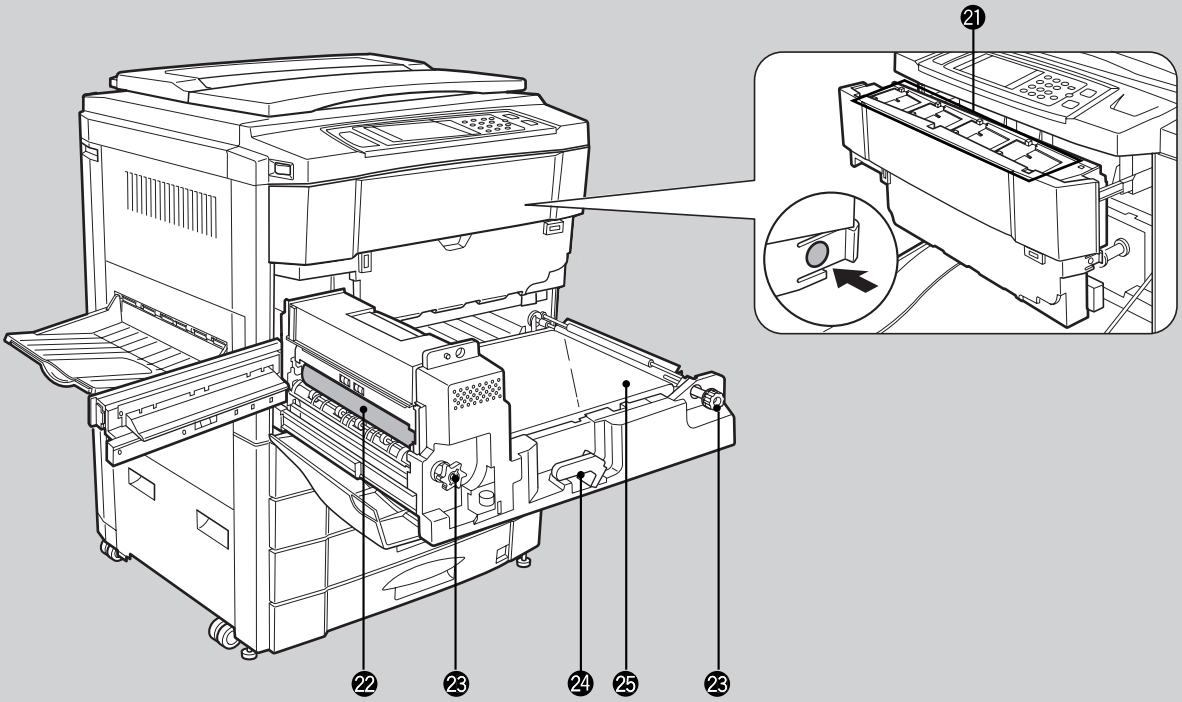
⓫ **Document glass**
All originals which cannot be copied from the optional RADF must be copied here.

⓬ **Paper clip tray**
Keep paper clips here.

⓭ **Bypass tray paper guides**
Adjust to the width of the copy paper.

⓮ **Bypass tray**
Special papers (including transparency film) and copy paper can be fed from the bypass tray.

Interior



⓯ **RADF feeding roller cover (optional)**
Open to remove misfed originals.

⓰ **Document feeder indicators (document feeder is optional)**
Original feed indicator
Indicates the originals in the tray will be fed.
Original reminder
Indicates an original is still on the document glass.

⓱ **Original guides (optional)**
Adjust to the size of the originals.

⓲ **Document feeder tray (optional)**
Holds up to 50 originals.

⓳ **RADF exit area (RADF is optional)**
Finished originals are output here.

⓴ **RADF exit roller cover (RADF is optional)**
Open to remove misfed originals.

㉑ **Toner box**
Contains four toner hoppers. Each toner hopper contains relevant color toner or black toner.

㉒ **Fusing unit**
The fusing unit is hot. Exercise care in this area.

㉓ **Roller rotating knobs**
Turn to remove misfed paper.

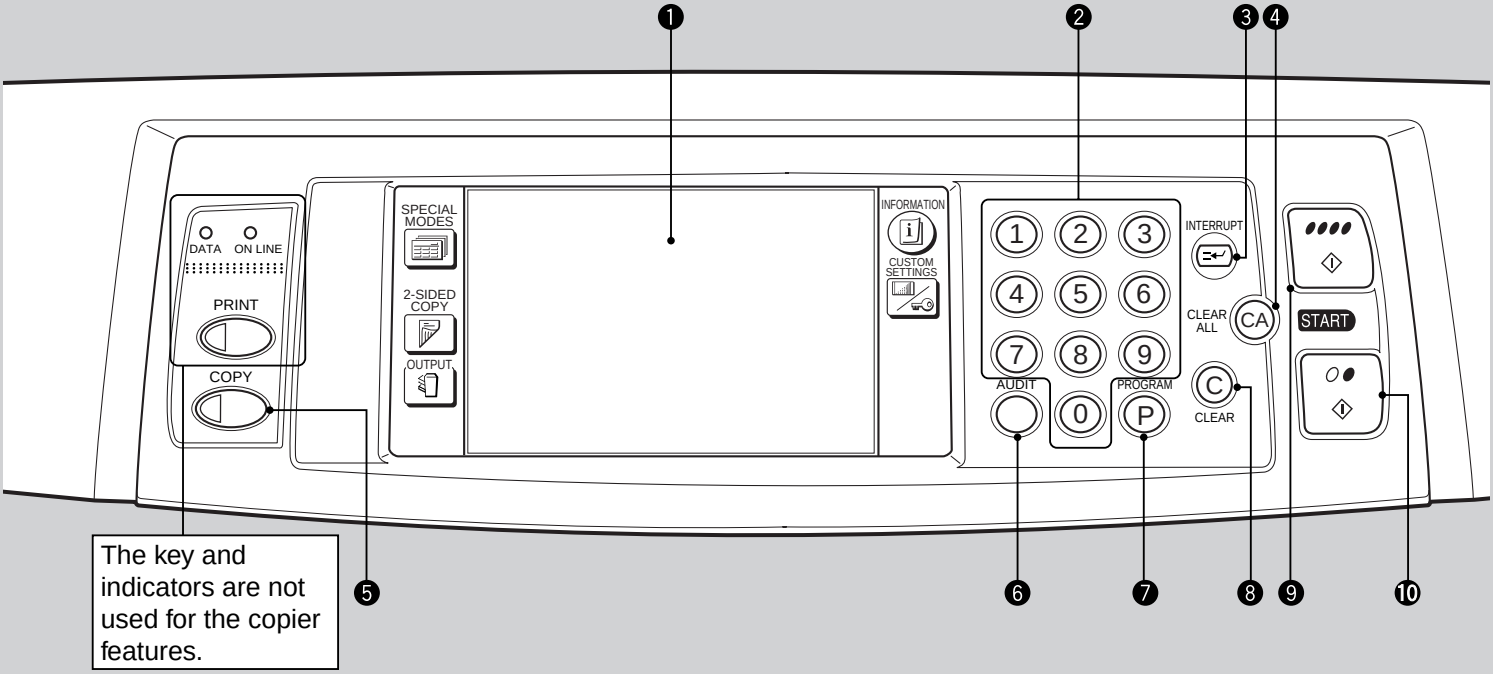
㉔ **Transport lever**
Turn to pull out the paper transport.

㉕ **Paper transport**
Pull out to remove misfed paper.

NOTE:
Follow information messages for misfeed removal procedure. (See page 5-2 to 5-10.)

Accessories	
Operation manual	1
Key operator's guide	1
Toner collecting containers (including 1 pre-installed at the factory)	2

Operation Panel



The key and indicators are not used for the copier features.

❶ **LCD touch panel**
Displays information to assist the operator. Various operation keys are included in the touch panel depending on the particular screen being displayed.

❷ **10-key pad**
Used to set the copy quantity.

❸ **INTERRUPT key and indicator** (p. 2-20)
Interrupts a copy run.

❹ **CLEAR ALL (Ⓒ) key**
Clears all selected settings and returns the copier to the initial settings.

❺ **COPY key**
Press to return to the COPY mode when the PRINT mode is active. If pressed in the COPY mode, the total output count will be displayed during the key press.
Press to exit the sleep mode.

❻ **AUDIT key**
Press to enter the account number if the auditing mode has been set for only the color copy mode. Also closes an open account.

❼ **PROGRAM (Ⓟ) key** (p. 2-18)
Press to select the job memory mode.

❽ **CLEAR (Ⓒ) key**
Press to clear the copy quantity display, or press during a copy run to terminate copying. The copier will stop after copies in progress are finished.

❾ **COLOR COPY START (●●●●) key and indicator**
Color copying is possible when the indicator is on.
Press to start color copying.

❿ **BLACK COPY START (○●) key and indicator**
Black/white copying is possible when the indicator is on.
Press to start black/white copying.

⓫ **SPECIAL MODES key** (p.3-1)
Press to select special functions.

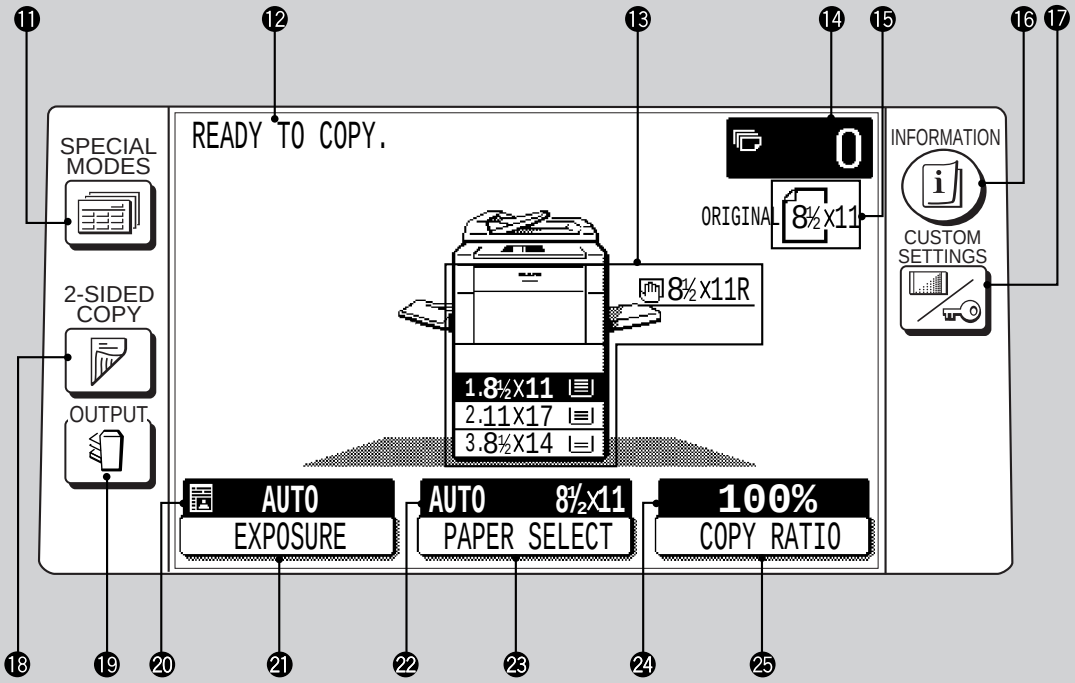
⓬ **Message display**
Messages are displayed regarding copier status and operation.

⓭ **Paper size display**
The sizes of loaded copy paper are displayed and the selected paper feed location is highlighted.
indicates the amount of copy paper.

⓮ **Copy quantity display**
Displays the specified number of copies.

⓯ **Original size display**
The original paper size is displayed.

Touch Panel (Basic screen)



⑯ **INFORMATION key** (p. 1-7)
Press for operation guidance on use of various features of this copier.
Press for guidance when a misfeed occurs, when adding toner, or when used toner must be disposed of.

⑰ **CUSTOM SETTINGS key**
Press to set key operator programs or adjust the contrast of the touch panel.

⑱ **2-SIDED COPY key**
Press to select the 1-sided to 1-sided, 1-sided to 2-sided*, 2-sided to 2-sided* or 2-sided to 1-sided* copy mode.
* To select the 1-sided to 2-sided or 2-sided to 2-sided copy mode, an optional duplex module (AR-DU2N) must be installed. To select the 2-sided to 1-sided or 2-sided to 2-sided copy mode, an optional RADF must be installed.

⑲ **OUTPUT key**
Press to select the sorter mode when an optional staple sorter (AR-SS2) is installed.

⑳ **EXPOSURE display**
Indicates the selected exposure mode.

㉑ **EXPOSURE key** (p. 2-16)
Press to select the exposure mode: AUTO or MANUAL and TEXT/PRTD. PHOTO, TEXT/PHOTO, TEXT, PHOTO, PRINTED PHOTO or MAP. The COPY OF COPY and COLOR TONE ENHANCEMENT modes can also be selected with this key.

㉒ **PAPER SELECT display**
Displays the selected paper size. When "AUTO" is displayed, paper size matching the original and copy ratio will be automatically selected.

㉓ **PAPER SELECT key**
Press to select the desired paper tray.

㉔ **COPY RATIO display**
Displays the copy ratios for reductions or enlargements.

㉕ **COPY RATIO key**
Press to select a reduction or enlargement copy ratio or select the automatic copy ratio selection mode.

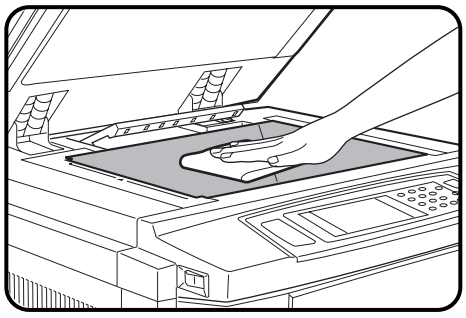
Initial settings
The copier assumes the initial settings when it is turned on, when the CLEAR ALL (CA) key is pressed, and approximately 1 minute after the last copy is made in any mode.
- Copy ratio: 100%
- Automatic exposure, TEXT/PRTD. PHOTO mode
- Copy quantity: 0
- All special copier modes are set to off.
- Tray select: Paper tray 1.
  Optional large capacity tray will be selected when installed.

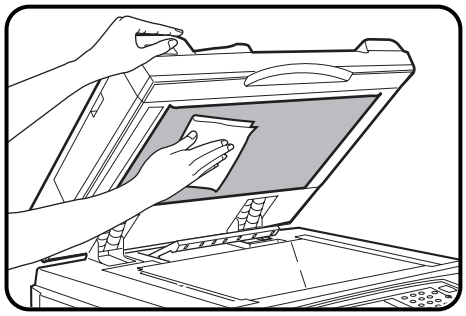
★ ***KEY OPERATOR Initial settings can be programmed as desired. The auto clear time can also be changed. See pages 21 and 25 of the KEY OPERATOR'S GUIDE.***

USER MAINTENANCE

The document glass, the optional document cover or the transport belt of the optional RADF must be kept clean to avoid dirty areas from being copied onto the copies.

Document glass and document cover



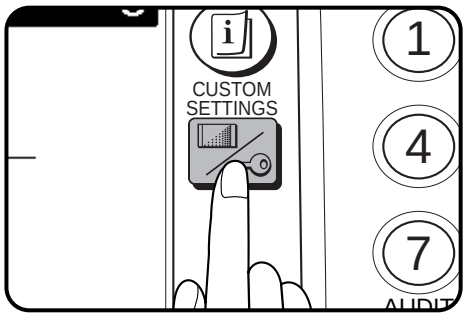


Wipe the document glass, the optional document cover or the transport belt of the optional RADF with a soft, clean cloth.

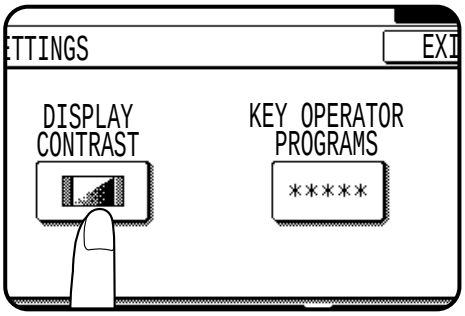
- If necessary, dampen the cloth with water. Do not use thinner, benzene, or similar volatile cleaning agents.

TOUCH PANEL CONTRAST ADJUSTMENT

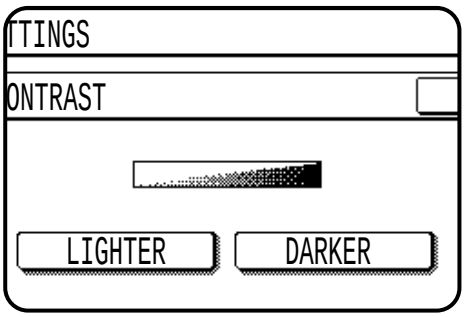
The contrast of the touch panel can be adjusted as below.



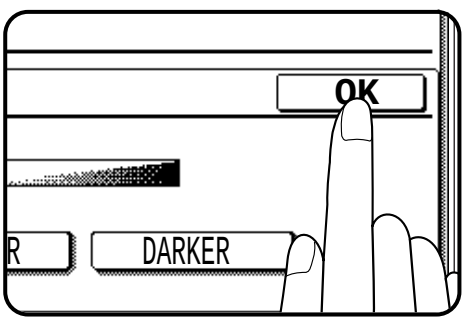
1 **Press the CUSTOM SETTINGS key.**



2 **Press the "DISPLAY CONTRAST" key on the touch panel.**



3 **Press the "LIGHTER" or "DARKER" key to adjust the contrast.**



4 **Press the "OK" key.**

SPECIFICATIONS

COPIER

Type	Console	
Copy system	Dry, electrostatic transfer system	
Originals	Sheets, bound documents	
Original sizes	Max. 11" x 17"	
Copy paper sizes	Max. 12" x 18", min. 5-1/2" x 8-1/2" Image loss: Max. 13/64" (5 mm) (leading edge) Max. 9/32" (7 mm) (trailing edge) Max. 1/4" (6 mm) (along all other edges in total)	
Copying speed	Color: 16 copies/min. (8-1/2" x 11") 11 copies/min. (8-1/2" x 11"R) 9 copies/min. (8-1/2" x 14") 7 copies/min. (11" x 17")	Black/White: 32 copies/min. (8-1/2" x 11") 22 copies/min. (8-1/2" x 11"R) 17 copies/min. (8-1/2" x 14") 15 copies/min. (11" x 17")
Continuous copy	Max. 999 copies; subtractive counter	
First-copy time*	Color : 9.8 sec. , Black/White : 19.5 sec. *From the first tray. In the default setting.	
Warm-up time	Approx. 330 sec. (at 68°F)	
Copy ratio	Variable: 25 to 400% in 1% increments, total 376 steps (can be set in the horizontal and vertical directions independently) Fixed presets: 25%, 50%, 64%, 77%, 95%, 100%, 121%, 129%, 141%, 200%, 400%	
Exposure system	Moving optical source (stationary platen) with automatic exposure function	
Copy paper feed	Three paper trays with automatic paper feed (500 sheets each); one bypass tray with 50-sheet automatic feed capability	
Fusing system	Heat rollers	
Developer system	Magnetic brush development	
Light source	Halogen lamp	
Resolution	Scan: 600 dpi Output: 600 dpi	
Gradation	Scan: 256 levels Output: 256 levels	
Required power supply	AC 120V, 60 Hz, 12 amperes	
Power consumption	Max. 1.5 kW	
Overall dimensions	55-19/32" (W) x 27-3/8" (D) (1412 mm (W) x 695 mm (D))	
Weight	Approx. 335 lbs. (152 kg)	

Copier dimensions (with optional document cover)	29-17/32" (W) x 27-3/8" (D) x 41-47/64" (H) (750 mm (W) x 695 mm (D) x 1060 mm (H))
Opperating conditions*	Temperature: 59°F to 95°F (15°C to 35°C) Humidity: 20% to 80% * If the temperature is higher than 86°F (30°C), the humidity should be lower than 60%.
Optional equipment	Document cover (AR-VR2) Reversing automatic document feeder (AR-RF1) 20-bin staple sorter (AR-SS2) Finisher (AR-FN4) Large capacity tray (AR-LC2N) 500-sheet paper drawer (AR-CS2N) Duplex module (AR-DU2N) Fiery print controller (AR-PE2) Print engine power supply unit (AR-PX4)

REVERSING AUTOMATIC DOCUMENT FEEDER (optional)

Acceptable originals Weight:	Single-sided originals: 14 to 34 lbs. Two-sided originals: 14 to 34 lbs. for 5-1/2" x 8-1/2"and 8-1/2" x 11" originals. 14 to 29 lbs. for 8-1/2"x 14" and 11" x 17" originals.
Size:	5-1/2" x 8-1/2" to 11" x 17"
Capacity:	Up to 50 sheets for 5-1/2" x 8-1/2" and 8-1/2" x 11" originals provided the total aggregate thickness does not exceed 1/4" or 6.5 mm (14 to 20 lbs.) or 3/16" or 5 mm (21 to 34 lbs.) Up to 30 sheets for 8-1/2" x 14" and 11" x 17" originals.

DUPLEX MODULE (optional)

Paper type	Ordinary paper only
Number of copies	1 (trayless system)
Copy paper size	5-1/2" x 8-1/2", 7-1/4" x 10-1/2"R, 8-1/2" x 11", 8-1/2" x 11"R, 8-1/2" x 13", 8-1/2" x 14", 11" x 17"
Copy paper weight	15 lbs. to 28 lbs.

Acoustic Noise Emission (measurement according to ISO7779)

		Printing mode		Standby mode
		Black/White	Color	
Sound power level L_{wA}		6.4B	6.3B	5.2B
Sound pressure level L_{pA}	Bystander positions	50dB(A)	48dB(A)	24dB(A)
	Operator position	50dB(A)	49dB(A)	24dB(A)

Emission Concentration (measurement according to RAL UZ62)

Ozone	0.02 mg/m^3 or less
Dust	0.075 mg/m^3 or less
Styrene	0.07 mg/m^3 or less

Specifications are subject to change for improvement without notice.

CHAPTER 7

OPTIONAL EQUIPMENT

This chapter describes operating instructions for the 20-Bin Staple Sorter (AR-SS2), Large Capacity Tray (AR-LC2N) and Finisher (AR-FN4).

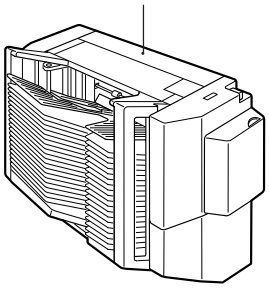
Page

- **SYSTEM CONFIGURATION** 7-2
- **20-BIN STAPLE SORTER (AR-SS2)** 7-3
  - Part names 7-3
  - Using the staple sorter 7-4
  - Sorter capacity 7-5
  - Staple sort 7-6
  - Manual stapling 7-8
  - Staple cartridge replacement 7-9
  - Staple jam removal 7-11
  - Misfeed removal 7-13
  - Specifications 7-14
- **LARGE CAPACITY TRAY (AR-LC2N)** 7-15
  - Part names 7-15
  - Specifications 7-15
  - Loading copy paper 7-16
  - Misfeed removal 7-17
- **FINISHER (AR-FN4)** 7-19
  - Part names 7-19
  - Specifications 7-19
  - Offset stack 7-20
  - Staple print 7-21
  - Staple cartridge replacement 7-22
  - Staple jam removal 7-24
  - Misfeed removal 7-26

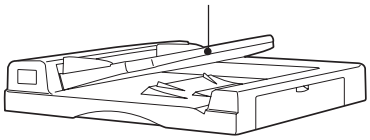
SYSTEM CONFIGURATION

The options which are available for this copier are shown below.

20-bin staple sorter (AR-SS2)

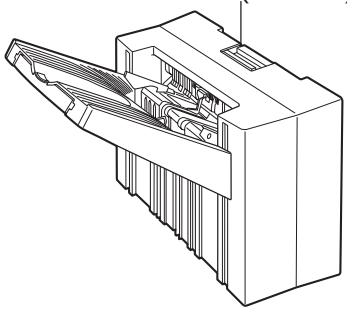


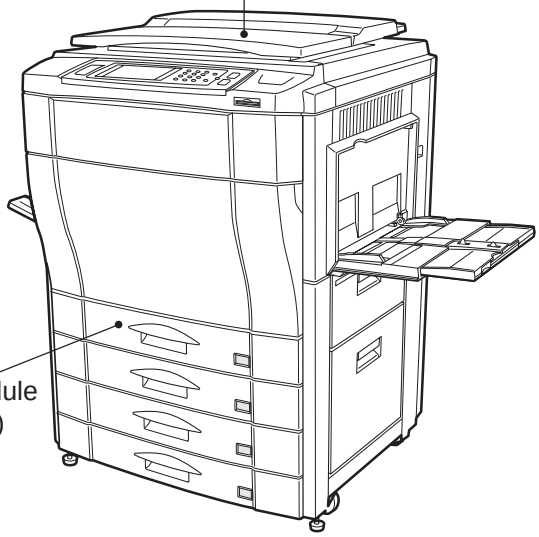
Reversing automatic document feeder (AR-RF1)



Document cover (AR-VR2)

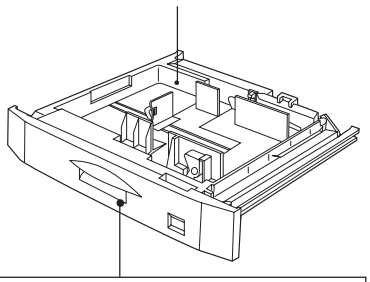
Finisher (AR-FN4)





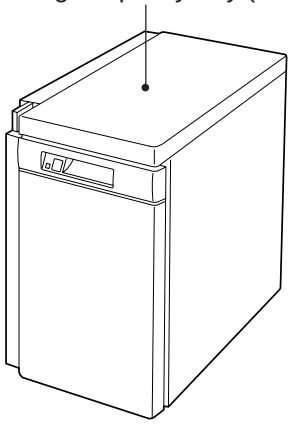
Duplex module (AR-DU2N)

500-sheet paper drawer (AR-CS2N)



The front cover is to be transferred from the main unit.

Large capacity tray (AR-LC2N)



NOTE:
The specifications of the 500-sheet paper drawer (AR-CS2N) are the same as those of the paper trays in the copier.
See page 4-2.

Print engine power supply unit (AR-PX4)
Fiery print controller (AR-PE2)

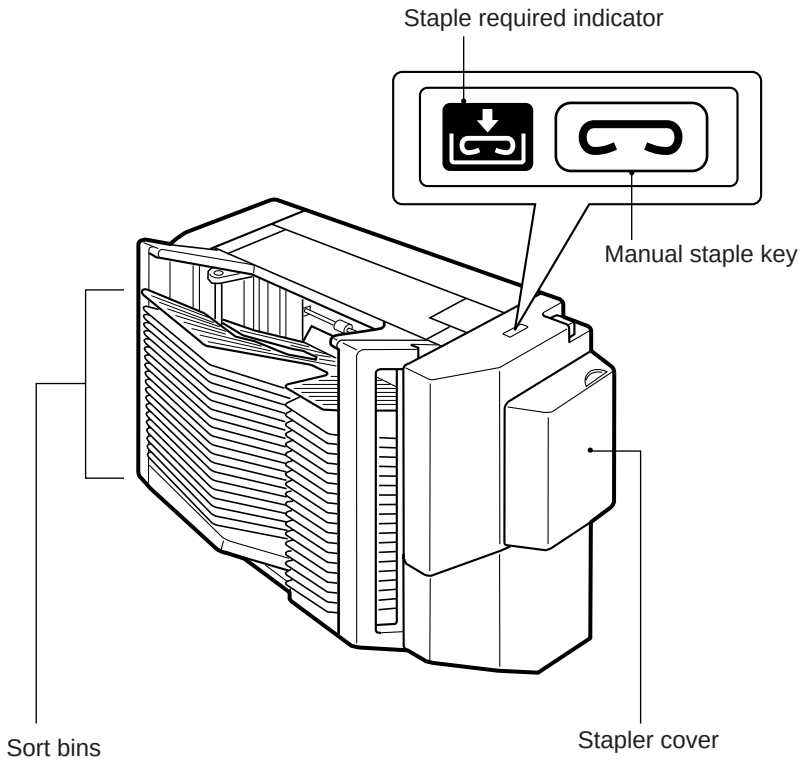
The operation manuals for the printer controller are supplied with this controller.

20-BIN STAPLE SORTER (AR-SS2)

There are two sorter modes for different copying jobs: one sorts copies into sets matching the sequence of the originals and the second groups copies from different originals into separate sort bins. The AR-SS2 20-Bin Staple Sorter has, in addition to the above two modes, a STAPLE SORT mode. Sorted copies can be automatically stapled together.
The maximum allowable number of copies varies with the selected mode.
The number of copies will be automatically reset to the maximum number allowable for the selected mode when copying begins if this maximum is exceeded.

★KEY OPERATOR In the default setting, if the number of copies exceeds the bin capacity in the SORT or the STAPLE SORT mode, the copying will be automatically stopped. To cancel this setting, see page 24 of the KEY OPERATOR'S GUIDE.

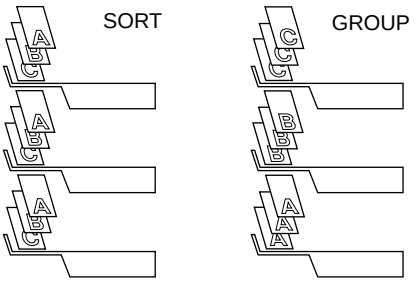
PART NAMES



CAUTION

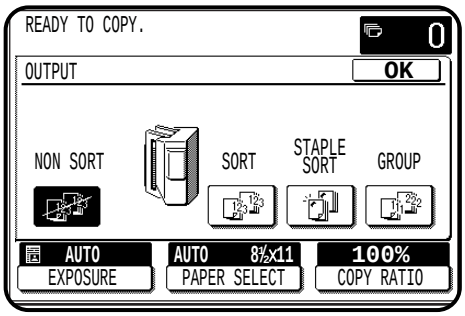
- Do not put pressure on the sorter or subject it to undue force.
- Do not place your hands on the sorter during copying because the sorter moves up and down.

Using the staple sorter



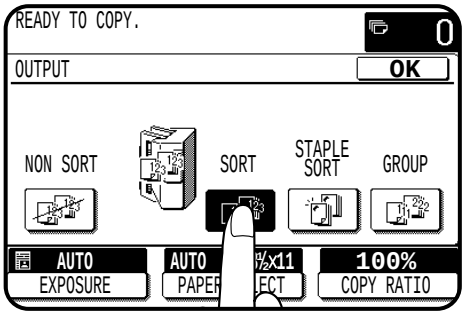
Press the OUTPUT key and select the desired mode.

To cancel the mode, press the OUTPUT key and select “NON SORT” on the touch panel.



NON-SORT

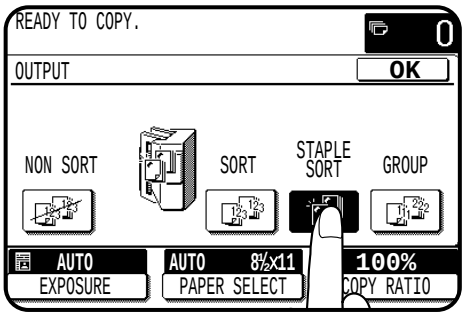
When none of the three sorter modes, SORT, STAPLE SORT or GROUP is selected, the copier is in the NON-SORT mode. In this mode, all copies will be deposited in the top bin of the sorter.
Be sure to use the NON-SORT mode when copying onto special papers such as transparency film or label stock.



SORT

Press the OUTPUT key and select the SORT mode.

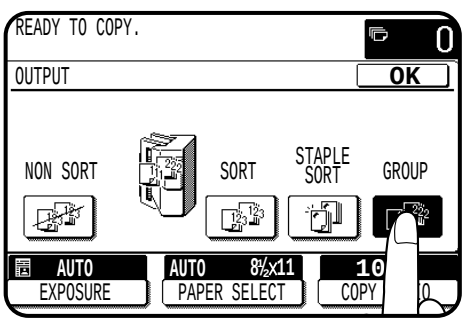
SORT is used for automatic copy collating. Copies of each original will be sequentially deposited in the sort bins.



STAPLE SORT

Press the OUTPUT key and select the STAPLE SORT mode.

In this mode, copies will be automatically sorted and finished sets of copies can be stapled with the manual staple key.
When used in conjunction with an optional RADF, sorted copies will be automatically stapled.



GROUP

Press the OUTPUT key and select the GROUP mode.

In the GROUP mode, all copies of the same original will be deposited in the same bin.

SORTER CAPACITY

Sort bins
Sort Mode:

Paper size	Bin capacity (max.)
5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R	50
8-1/2" x 13", 8-1/2" x 14", 11" x 17"	25

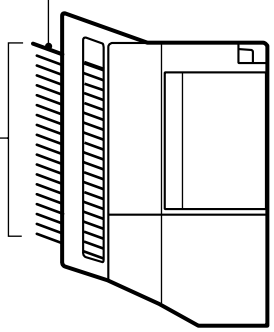
Staple Sort Mode:

Paper size	Bin capacity (max.)
8-1/2" x 11", 8-1/2" x 11"R	30
8-1/2" x 13", 8-1/2" x 14", 11" x 17"	25

Group Mode:

Paper size	Bin capacity (max.)
5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R	30
8-1/2" x 13", 8-1/2" x 14", 11" x 17"	25

Top bin
100 sheets in the NON-SORT mode
(60 sheets for 8-1/2" x 13, 8-1/2" x 14", 11" x 17", and 12" x 18")



The limits for the number of originals which can be used and the number of copies that can be set for each paper size are as follows:

Mode	Paper size	Max. No. of originals	Max. No. of copies to be set
NON-SORT	Min.: 5-1/2" x 8-1/2" Max.: 12" x 18"	–	100
SORT	5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R	50	20
	8-1/2" x 13", 8-1/2" x 14", 11" x 17"	25	
STAPLE SORT	8-1/2" x 11", 8-1/2" x 11"R	30	20
	8-1/2" x 13", 8-1/2" x 14", 11" x 17"	25	
GROUP	5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R	20	30
	8-1/2" x 13", 8-1/2" x 14", 11" x 17"		25

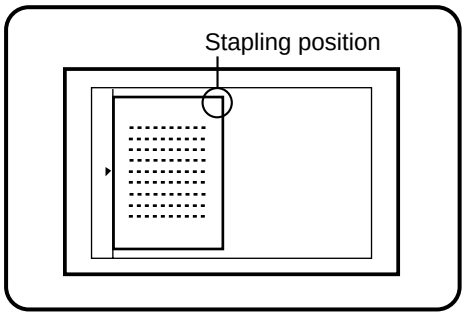
NOTES:

- When color copying is performed, much toner may be put on copy paper depending on the image. In this case, the copies may be curled, resulting in improper stapling or improperly aligned copies.
- If the specified number of copies is more than the maximum number of copies that can be set, the copy quantity display will change to the corresponding number in the above table in the SORT, STAPLE SORT, or GROUP mode after copying starts.
- When making single-sided copies from two-sided originals, the maximum number of originals that can be copied is half the number shown in the above table.
- Do not use special paper in the SORT, STAPLE SORT, or GROUP mode.

Staple sort

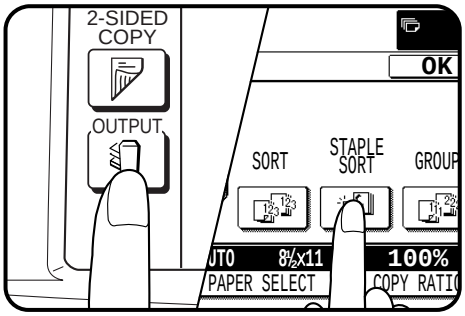
The STAPLE SORT mode staples copies of 8-1/2" x 11", 8-1/2" x 11"R, 8-1/2" x 14", and 11" x 17" sizes. For other paper sizes, use the manual stapling mode. See page 7-8.

Using the document glass



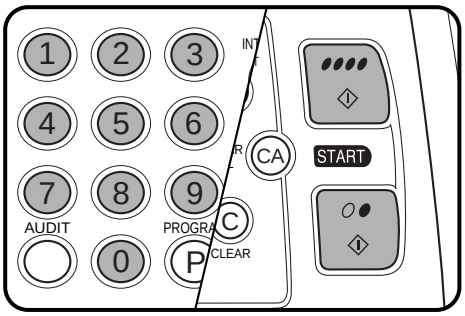
1 **Set the original on the document glass with the corner to be stapled to the upper right.**

- Copy from the last page to the first page.
- If the number of copies to be delivered into each bin is more than 30 for 8-1/2" x 11" or 8-1/2" x 11"R paper or 25 for 8-1/2" x 14" or 11" x 17" paper, the copies will not be stapled.



2 **Press the OUTPUT key and select the STAPLE SORT mode.**

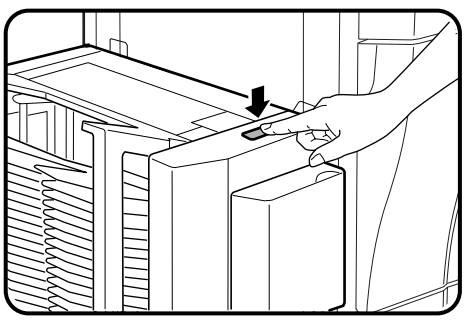
- Make sure that there is no paper in any sort bin before selecting the STAPLE SORT mode.



3 **Set the number of copies.**

- Up to 20 sets can be made.

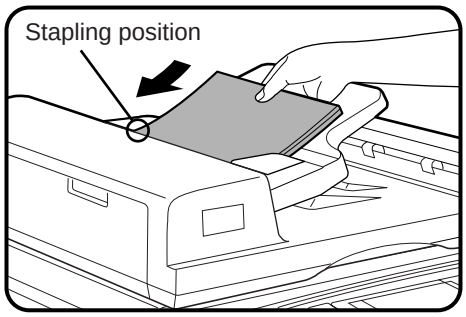
4 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**



5 **When all copies are made and sorted, press the manual staple key.**

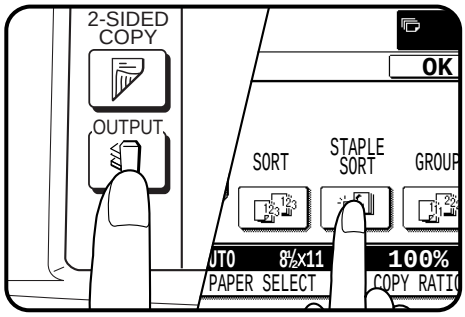
- Each set of copies will be stapled.
- Sets of copies containing copies of different width will not be stapled.

Using the optional RADF



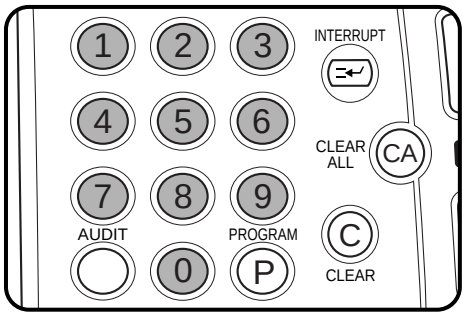
1 **Set the originals in the document feeder tray face up with the stapling position in the upper left corner.**

- If the number of copies to be delivered into each bin is more than 30 for 8-1/2" x 11" or 8-1/2" x 11"R paper or 25 for 8-1/2" x 14" or 11" x 17" paper, the copies will not be stapled.



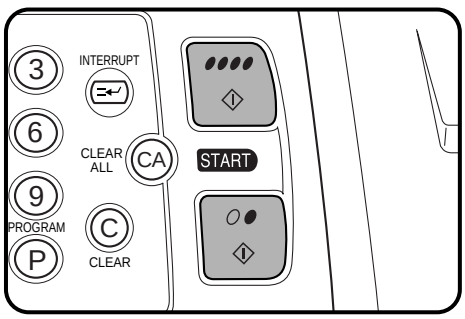
2 **Press the OUTPUT key and select the STAPLE SORT mode.**

- Make sure that there is no paper in any sort bin before selecting the STAPLE SORT mode.



3 **Set the number of copies.**

- Up to 20 sets can be made.

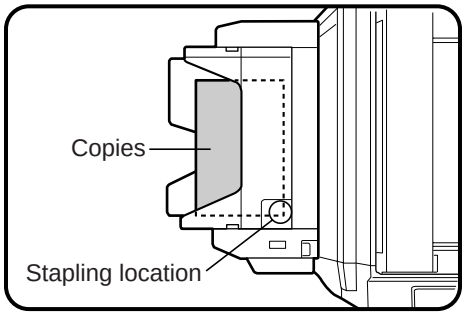


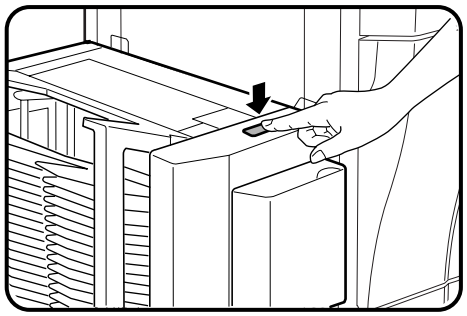
4 **Press the COLOR COPY START (●●●●) key or BLACK COPY START (○●) key.**

- When copying and sorting are completed, each set of copies will be automatically stapled.
- Sets of copies containing copies of different width will not be stapled.

Manual stapling

To use the stapling feature only, without using the STAPLE SORT mode, follow the procedure below.





1 **Align the edges of the copies to be stapled.**

2 **Place the set of copies into the top bin, making sure the edges are flush with the inner right corner, as shown in the figure.**

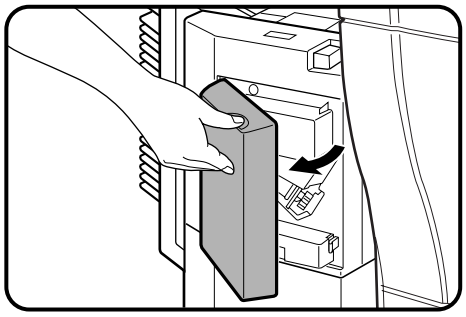
- Make sure that there is no paper in the other sort bins. If there is, the manual staple key will not light up.
- Up to 30 sheets of paper can be stapled together. Exceeding this maximum may result in damage to the stapler.

3 **Press the manual staple key when it lights up.**

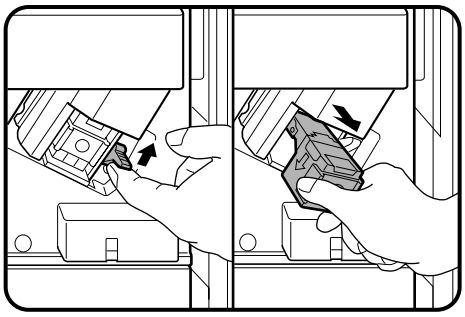
- The set of copies will be stapled.

Staple cartridge replacement

When the staple cartridge becomes empty, the message "**ADD STAPLES.**" will appear. Replace the staple cartridge as follows:

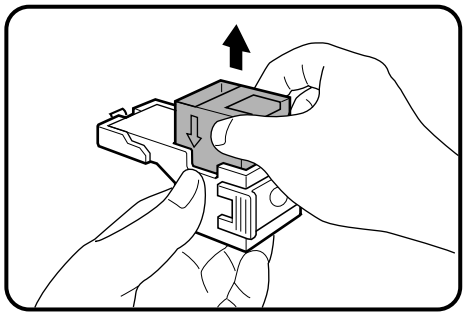


1 **Open the stapler cover.**

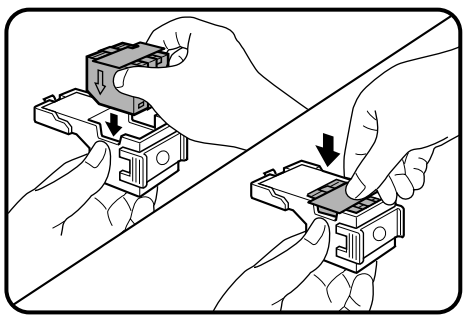


2 **Lift the release lever and pull out the staple box.**

- Lift the release lever to unlock the staple box. Then pull out the box.



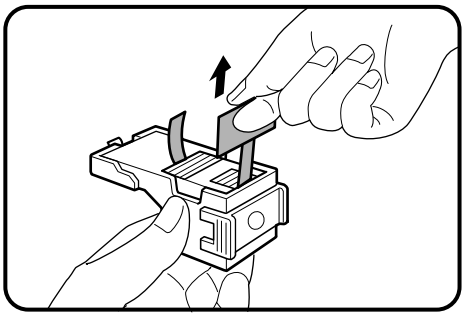
3 **Remove the empty staple cartridge from inside the staple box.**



4 **Insert the new staple cartridge into the box until it clicks in place.**

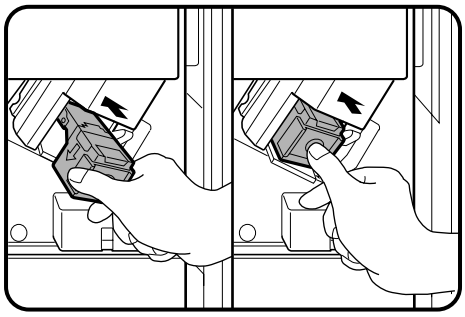
- Insert the new cartridge by aligning the arrows on the cartridge with those on the box. Check that the cartridge locks in place by pulling it slightly.
- The cartridge holds 5,000 staples.

NOTE:
Be sure not to remove the rear paper and tape before inserting the cartridge.

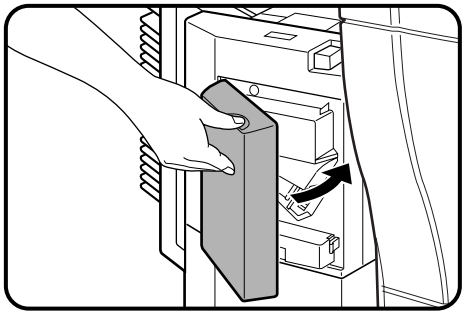


5 **Remove the rear paper and tape from the cartridge.**

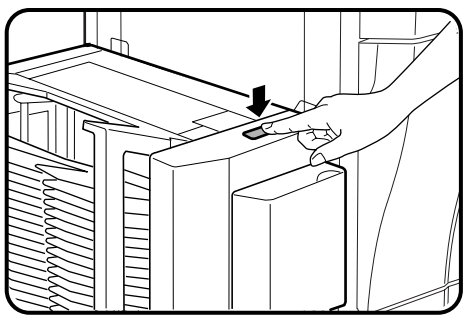
- Pull them straight. If they are pulled obliquely, the tape may be torn.



6 **Insert the staple box into the stapler until it clicks in place.**



7 **Close the stapler cover.**

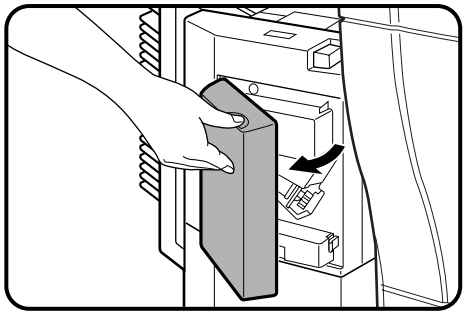


8 **Place a sheet of paper into the top bin. Press the manual staple ( ) key on the staple sorter when it lights up.**

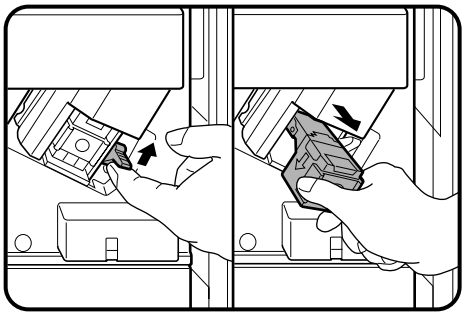
- Check to see whether the sheet is stapled.
  If it is not stapled, press the manual staple key again.
- If the stapler does not operate properly even after replacement, a staple may be jammed in it. See next page.
- Staples for the staple sorter are available from your Sharp dealer.

Staple jam removal

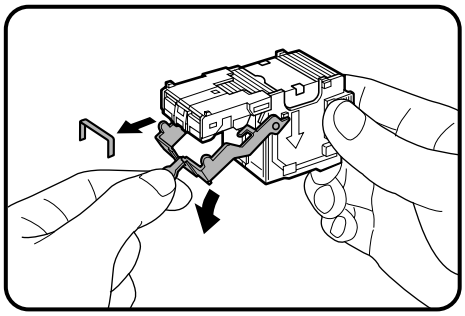
If staples become jammed in the stapler, the message "**CHECK STAPLER POSITION OR STAPLE JAM.**" will appear. Remove the jammed staples in the manner described below:



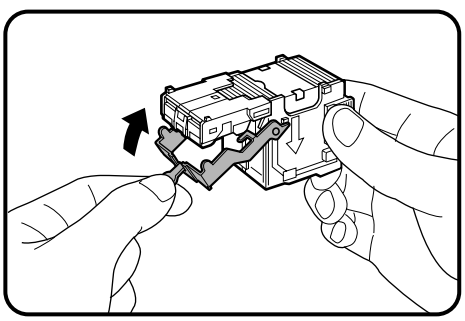
1 **Open the stapler cover.**



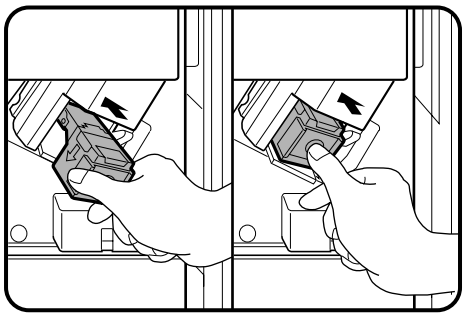
2 **Lift the release lever and pull out the staple box.**



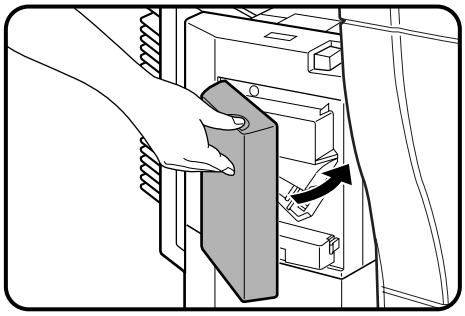
3 **Lower the lever at the end of the staple box and remove the jammed staples.**



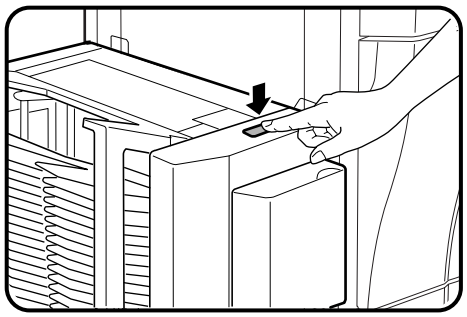
4 **Return the lever to its original position.**



5 **Insert the staple box into the stapler unit until it clicks in place.**

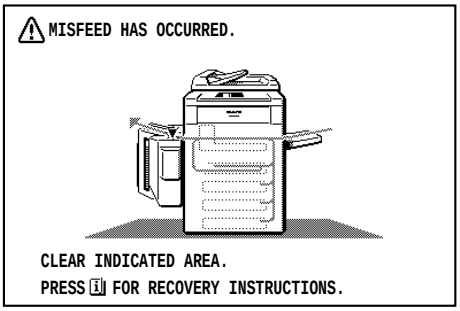


6 **Close the stapler cover.**

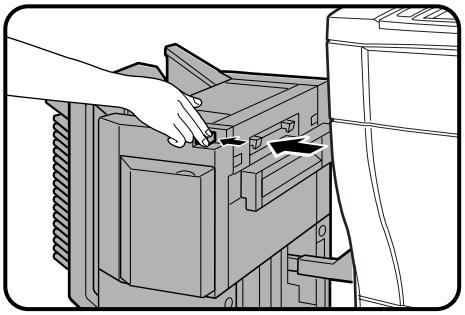


7 **Following the stapling procedure on page 7-8, staple a copy to check that the stapler works properly.**

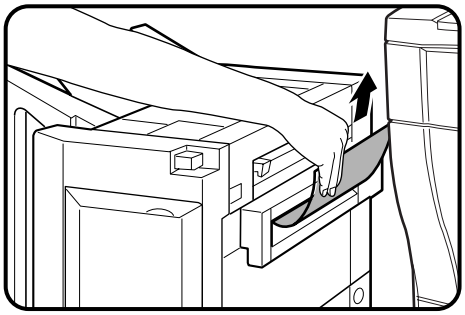
Misfeed removal



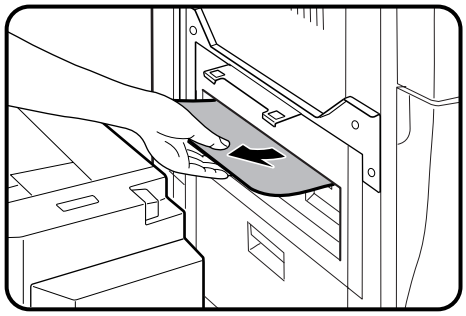
The copier will stop when a misfeed occurs.
The message "**MISFEED HAS OCCURRED. CLEAR INDICATED AREA. PRESS FOR RECOVERY INSTRUCTIONS.**" will appear with a display of paper misfeed locations. Press the INFORMATION key for more detailed information as necessary.

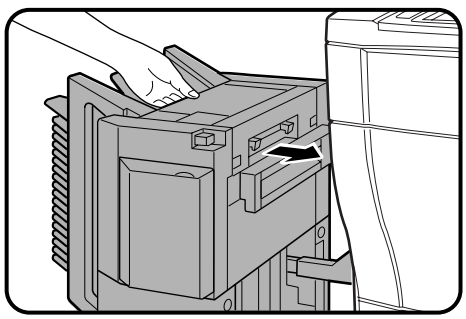


1 **Push the sorter release button and slide the sorter carefully along the guides away from the copier.**



2 **Remove the misfed paper from the sorter or from the exit area of the copier.**





3 **Slide the sorter back toward the copier and latch it into place.**

- Confirm that the misfeed display is cleared.
- If the message indicating a misfeed is still displayed, check the inside of the copier and remove any remaining misfed paper.

Specifications

No. of bins	20
Paper size	Max. 12" x 18" Min. 5-1/2" x 8-1/2"
Stapling capacity	30 sheets (28 lbs.)
Power supply	Drawn from the copier
Weight*	Approx. 58.2 lbs. (26.4kg) *with mounting kit
Dimensions	16-37/64" (W) x 23-25/64" (D) x 24-37/64" (H) (421 mm (W) x 594 mm (D) x 624 mm (H))

Bin capacity						
Bin		Top Bin		Top Bin and Other Bins		
Mode		NON-SORT		SORT	GROUP	STAPLE SORT
Paper Weight		13 ~ 28 lbs.	28+ ~ 75 lbs.	17 ~ 28 lbs.*	17 ~ 28 lbs.	17 ~ 28 lbs.*
Paper Size	8-1/2" x 13", 8-1/2" x 14", 11" x 17"	60	10	25	25	25
	12" x 18"	60	10	-	-	-
	8-1/2" x 11", 8-1/2" x 11R"	100	10	50	30	30
	5-1/2" x 8-1/2"	100	10	50	30	-
	7-1/4" x 10-1/2"R	100	10	-	-	-

* In the COVERS mode, 2 sheets of 75 lb, paper can be fed for each set from by-pass.

If the stapler capacity limits are exceeded, stapling jams, poorly stapler sets or damage may occur to the stapler.

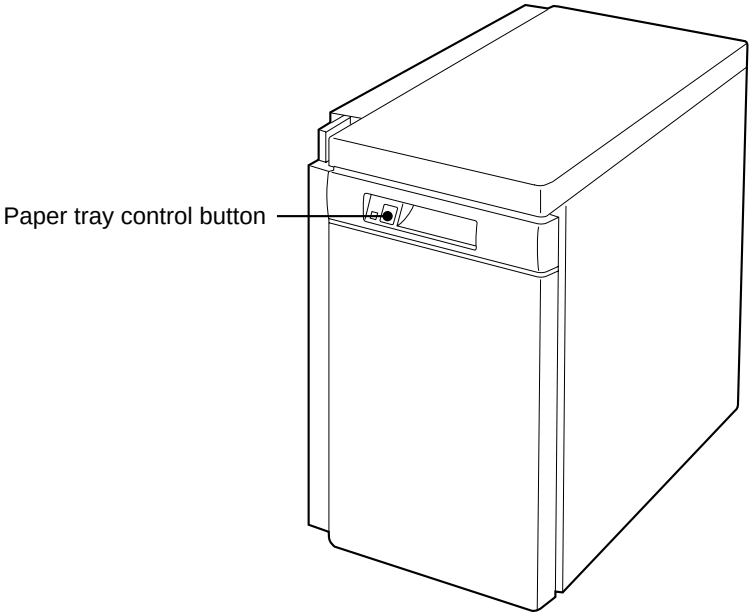
Use SHARP recommened paper for best performance.

Specifications are subject to change for improvement without notice.

LARGE CAPACITY TRAY (AR-LC2N)

The large capacity tray provides the added convenience of having 3,000 additional sheets of 8-1/2" x 11" paper available.

PART NAMES



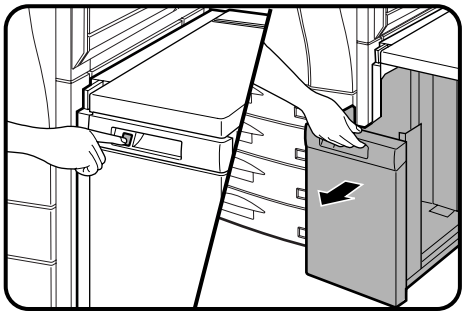
Specifications

Paper size	8-1/2" x 11"
Paper weight	15 lbs. to 28 lbs.
Paper capacity	3,000 sheets (20 lbs.)
Weight	Approx. 70.6 lbs. (32 kg)
Dimensions	13" (W) x 21-17/64" (D) x 23-7/16" (H) (330 mm (W) x 540 mm (D) x 595 mm (H))

Specifications are subject to change for improvement without notice.

Loading copy paper

The large capacity tray will automatically lower when the tray runs out of paper.

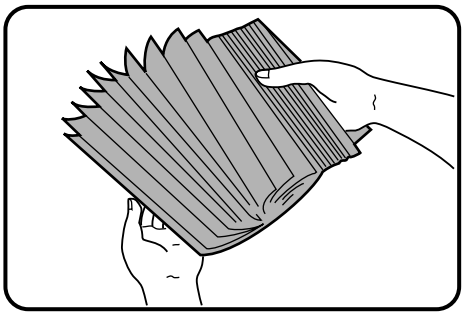


1 **Press the paper tray control button on the large capacity tray.**

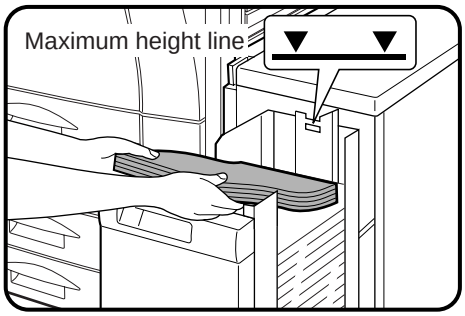
- The button lamp will blink while the feed table is lowering and will go out when the tray is ready to be opened.

2 **When the button lamp goes out, pull the paper tray out.**

- Do not pull the paper tray out before the button lamp goes out.

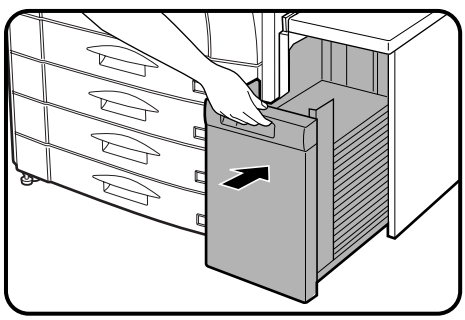


3 **Fan the copy paper.**



4 **Load the paper onto the feed table.**

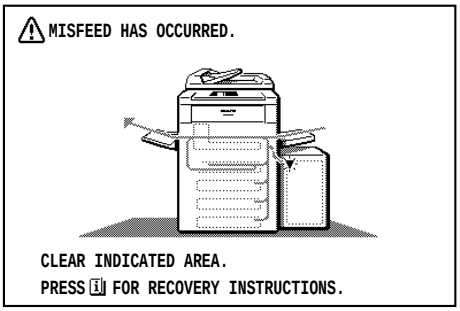
- Be sure to load paper appropriate for the large capacity tray. See page 7-15.
- Do not exceed the maximum height line.



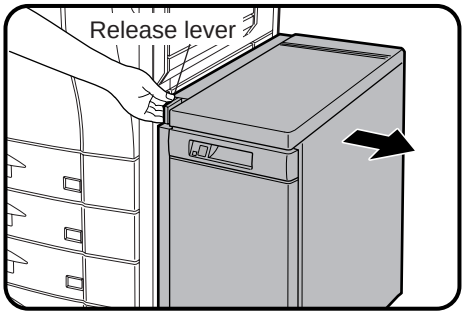
5 **Gently push the large capacity tray back into place.**

- The paper tray control button lamp will blink as the feed table returns to the feed position and will light up steadily when it is in position to feed.

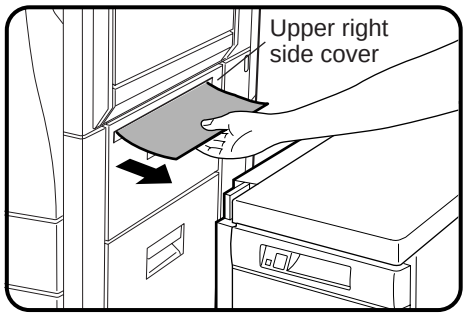
Misfeed removal



The copier will stop when a misfeed occurs.
The message "**MISFEED HAS OCCURRED. CLEAR INDICATED AREA. PRESS FOR RECOVERY INSTRUCTIONS.**" will appear with a display of paper misfeed locations. Press the INFORMATION key for more detailed information as necessary.



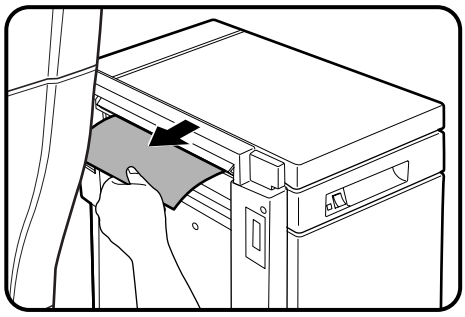
1 **While holding the tray release lever, carefully slide the large capacity tray away from the copier until it stops.**

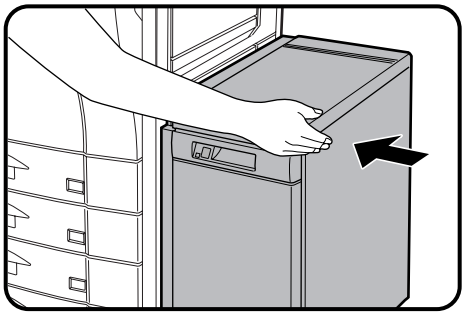


2 **Remove any misfed paper from the copier and the large capacity tray.**

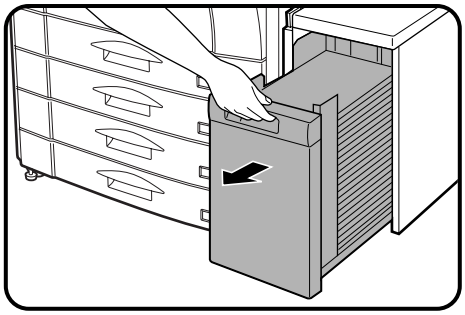
- Be sure not to tear the misfed paper during removal.
- Open and close the upper right side cover of the copier after removing the misfed paper from the copier.

  If the misfed paper cannot be removed easily, open the upper right side cover to remove the paper.



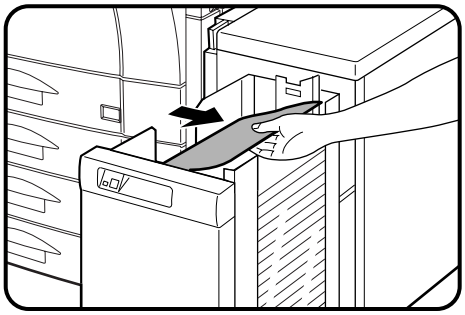


3 **Push the large capacity tray toward the copier and latch it into place.**

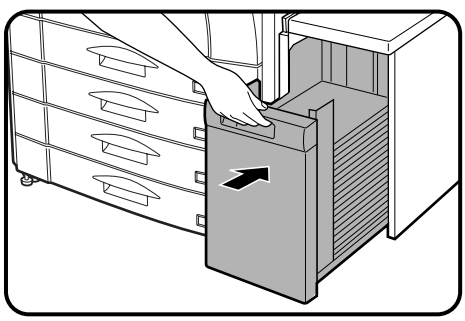


4 **If misfed paper is not found in step 2, pull the tray out.**

- When pulling the large capacity tray out, be sure to pull it out after the paper tray control button lamp goes out.



5 **Remove the misfed paper.**



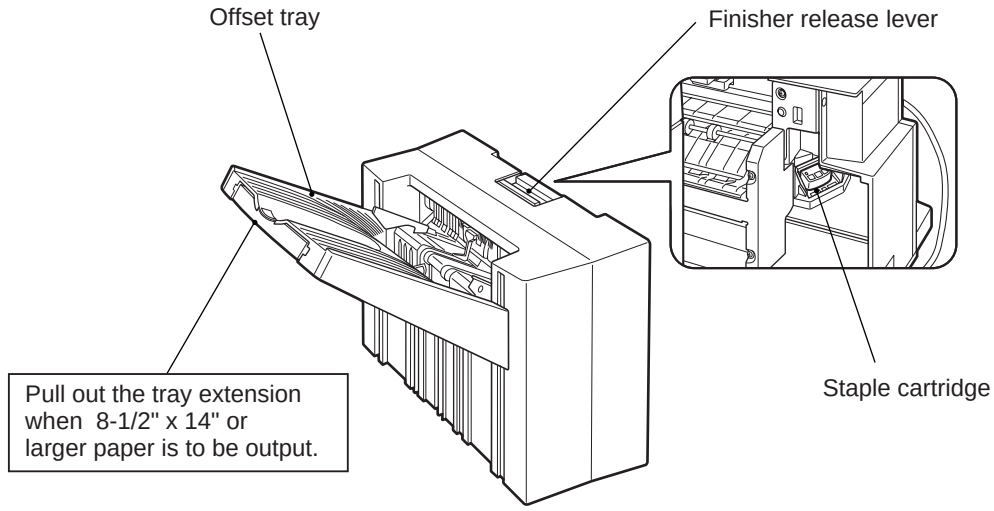
6 **Gently push the tray back into place.**

- Confirm that the misfeed display is cleared.

FINISHER (AR-FN4)

The AR-FN4 finisher provides an offset stack mode of the output for both copying and printing. A staple print mode is provided for the print mode only and will not function in the copy mode.

PART NAMES



Specifications

Paper capacity/size	Ordinary paper (16~28 lbs.)	Face-up	Non offset: 1,000 sheets 5-1/2" x 8-1/2", 5-1/2" x 8-1/2"R, 8-1/2" x 11", 8-1/2" x 11"R, 7-1/4" x 10-1/2"R 700 sheets 8-1/2" x 13", 8-1/2" x 14" 500 sheets 11" x 17", 12" x 18"
			Offset: 1,000 sheets 5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R 700 sheets 8-1/2" x 13", 8-1/2" x 14" 500 sheets 11" x 17"
		Face-down (*For printer use)	Non offset: 1,000 sheets 5-1/2" x 8-1/2", 5-1/2" x 8-1/2"R, 8-1/2" x 11", 8-1/2" x 11"R, 7-1/4" x 10-1/2"R 700 sheets 8-1/2" x 13", 8-1/2" x 14" 500 sheets 11" x 17", 12" x 18"
			Offset: 1,000 sheets 5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R 700 sheets 8-1/2" x 13", 8-1/2" x 14" 500 sheets 11" x 17"
	Heavy paper* (*Transparency film)	Face-up	Non offset: 10 sheets 8-1/2" x 11", 8-1/2" x 11"R, 11" x 17"
Paper weight		Face-up	16-75 lbs.
		Face-down (*For printer use)	17-34 lbs.
Offset			0.8 inches (20 mm)
Paper size for stapling (*For printer use)			5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R, 8-1/2" x 13", 8-1/2" x 14", 11" x 17"
Stapling capacity* (*For printer use /for 28 lbs. paper)			20 sheets 5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R, 8-1/2" x 13", 8-1/2" x 14" 15 sheets 11" x 17"
Power supply			24V, 2.5A Max. 6.5A (drawn from the copier)
Weight			Approx. 30.9 lbs. (14kg) *without mounting kit
Dimensions			20.3"(W) x 22.6"(D) x 15.0"(H) *without mounting kit (515mm(W) x 574mm(D) x 381mm(H))

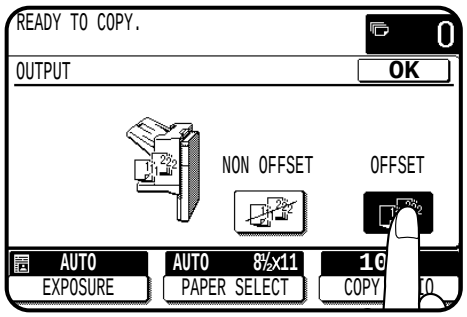
Specifications are subject to change for improvement without notice.

Offset stack

In the initial settings, the offset stack function is set to off. To enable the offset stack function, press the “OUTPUT” key and then touch the “OFFSET” icon on the touch panel. To disable the “OFFSET” function, press the “OUTPUT” key and then touch the “NON OFFSET” icon. When the offset function is selected, the output tray will move side to side each time a set is output so that each set is offset by approximately 0.8 inches (20 mm) from the previous set.

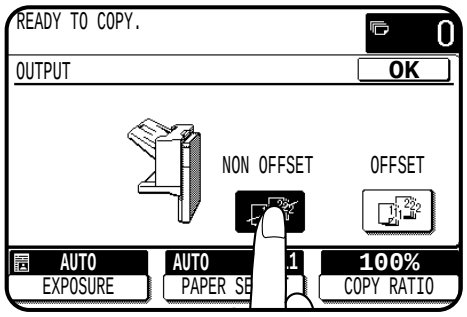
NOTE:
Some type or quality of paper might cause tight curl when it is output. In this case, remove the paper out of the paper tray or the bypass tray and reload it upside down.

OFFSET mode



When making copies, the output tray will shift from its previous position by approximately 0.8 inches (20 mm) each time a “START” key is pressed. In this way, the set in progress will be offset from the previous set. Copies in the size of 5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R, 8-1/2" x 13", 8-1/2" x 14" and 11"x 17" can be offset.

NON OFFSET mode

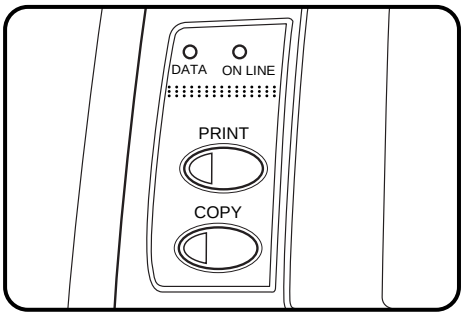


All copies will be aligned in one stack in the tray with no offset.

Staple print* (*In the PRINT mode only)

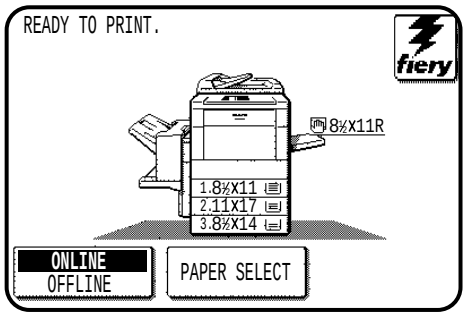
The staple print mode can be selected for stapling printed sets in the size of 5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R, 8-1/2" x 13", 8-1/2" x 14", and 11" x 17".

NOTE:
In the COPY mode, which delivers the paper face up, this function is not available.



1 **Check the operation panel to confirm that the ONLINE indicator is lit. If not lit, press the "PRINT" key to enter the print mode and then press the ONLINE key on the touch panel.**

- An optional power supply kit (AR-PX4) and an optional printer controller (AR-PE2) are needed for the printing from computer.

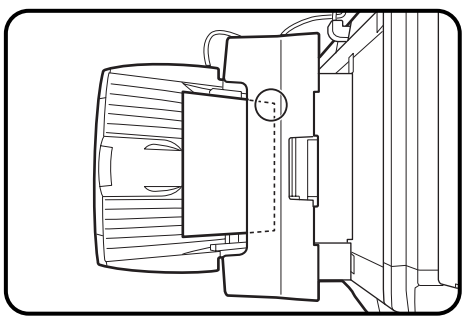


2 **Check the paper tray(s) to ensure that the desired paper is loaded.**

- The maximum number of sheets for stapling is 20 for paper in the size of 5-1/2" x 8-1/2", 8-1/2" x 11", 8-1/2" x 11"R, 8-1/2" x 13", or 8-1/2" x 14" paper and 15 for 11" x 17" paper. If the maximum is exceeded, the sheets will not be stapled.
- Ensure that no paper remains in the output tray. Stapling will not be done if paper remains at the start of the print job.

3 **Make all print selections by the printer driver at your computer and give the print command.**

- Refer to the documentation for the computer and/or the application software for help on issuing the necessary commands.

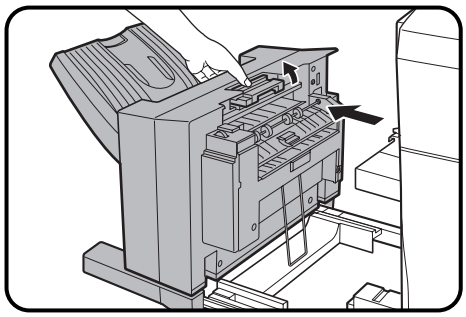


4 **The printed output will be stapled.**

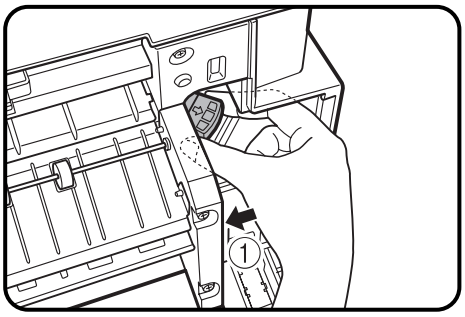
- The printed sets will be delivered face down with one staple in their top left edge.

Staple cartridge replacement

When the staple cartridge is empty, the message "**SLIDE THE FINISHER AWAY FROM THE COPIER AND ADD STAPLES.**" will appear.
Replace the staple as follows:



1 **While holding the finisher release lever, slide the finisher away from the copier.**

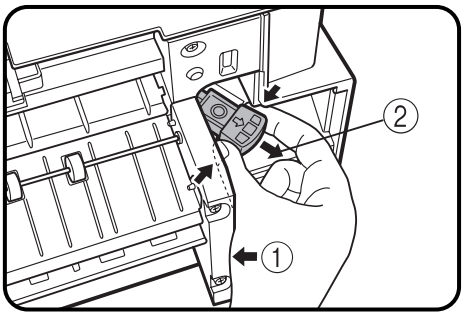


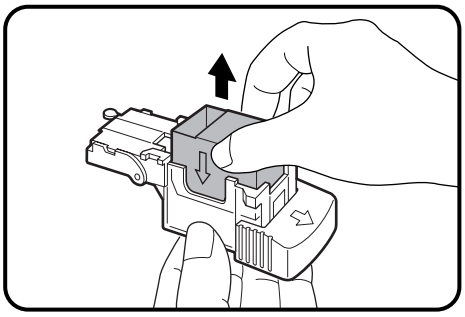
2 **Pull out the staple box.**

- To prevent bumping or scraping your hand during removal of the staple box, proceed as shown in the illustration and as follows:

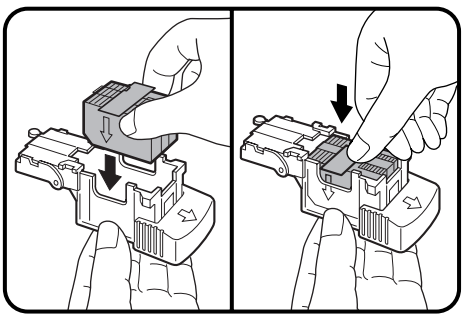
  Grasp the staple box with your thumb and index finer, and place the heel of your hand against the finisher frame as shown with arrow ① in the illustration.

  Remove the staple box in the direction of the arrow ② by squeezing with your fingers and rotating against the heel of your hand.





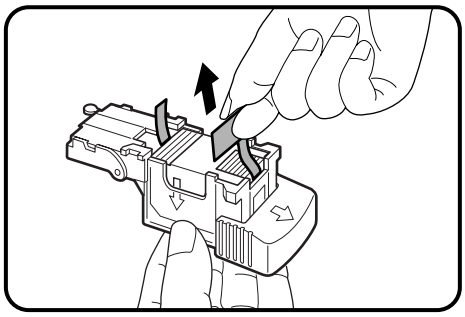
3 **Remove the empty staple cartridge from inside the staple box.**



4 **Insert the new staple cartridge into the box until it clicks in place.**

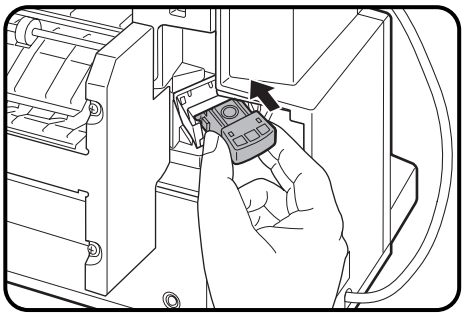
- Insert the new cartridge by aligning the arrows on the cartridge with those on the box. Check that the cartridge locks in place by pulling it slightly.
- The cartridge holds 3,000 staples.

NOTE:
Be sure to remove the rear paper and tape before inserting the cartridge.

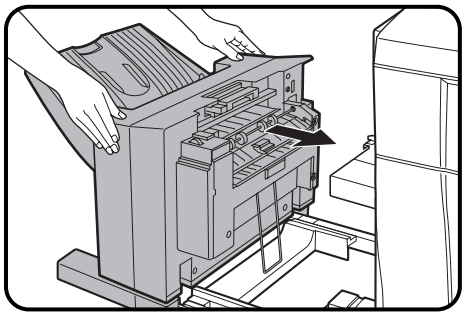


5 **Remove the rear paper and tape from the cartridge.**

- Pull them straight. If they are pulled obliquely, the tape may be torn.



6 **Insert the staple box into the stapler until it clicks in place.**



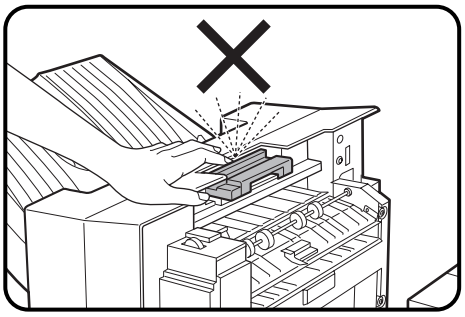
7 **Push the finisher toward the copier and latch it in place.**

- If the stapler does not work properly after cartridge installation, it may have a jammed staple in it. See next page.
- Staples for the finisher are available from your Sharp dealer.

CAUTION

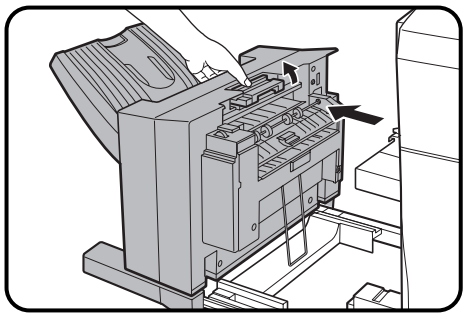
Use caution while latching the finisher into place.

To prevent pinching your fingers, do not place your hand or fingers on the release lever while moving the finisher toward the copier.

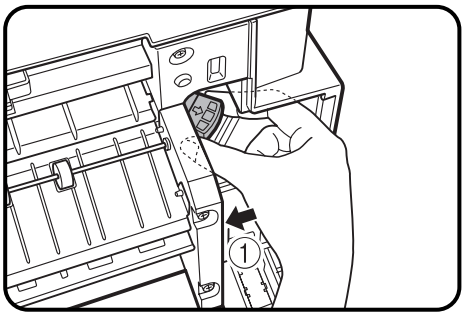


Staple jam removal

If staples become jammed in the stapler, the message “CHECK STAPLER POSITION OR STAPLE JAM” will appear. Remove the jammed staples in the manner described below:



1 **While holding the finisher release lever, slide the finisher away from the copier.**

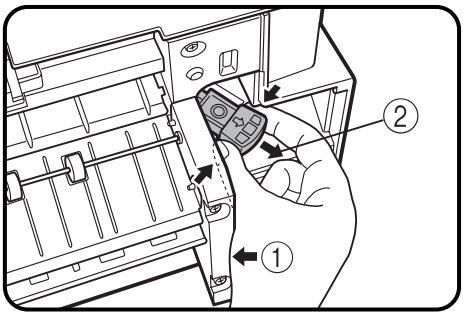


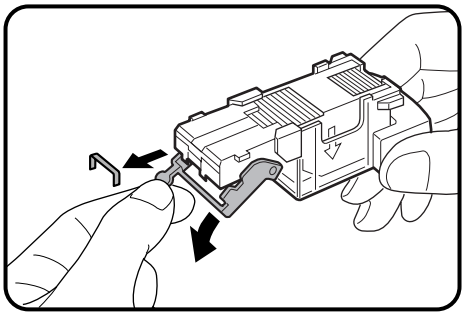
2 **Pull out the staple box.**

- To prevent bumping or scraping your hand during removal of the staple box, proceed as shown in the illustration and as follows:

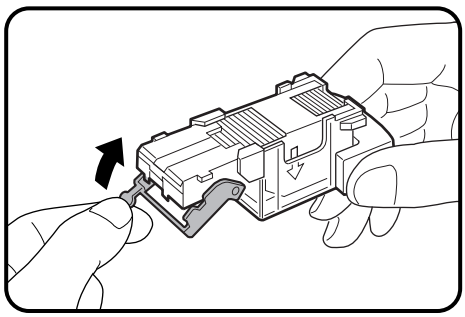
Grasp the staple box with your thumb and index finer, and place the heel of your hand against the finisher frame as shown with arrow ① in the illustration.

Remove the staple box in the direction of arrow ② by squeezing with your fingers and rotating against the heel of your hand.

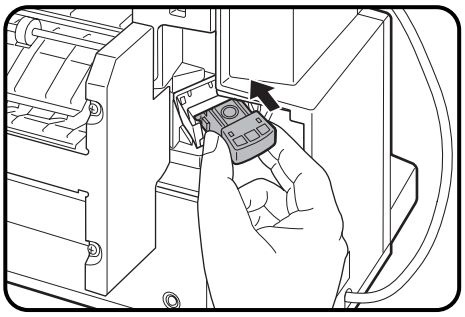




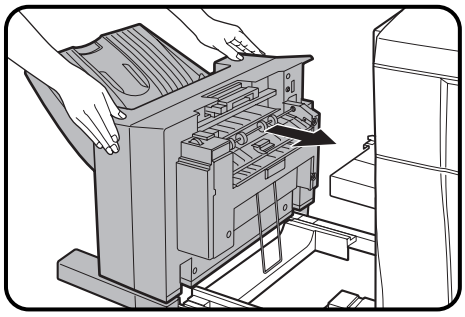
3 **Lower the lever at the end of the staple box and remove the jammed staples.**



4 **Return the lever to its original position.**



5 **Insert the staple box into the stapler unit until it clicks in place.**

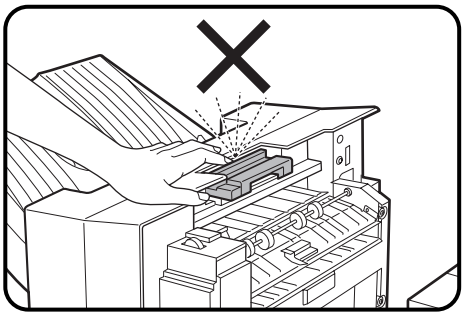


6 **Push the finisher toward the copier and latch it in place.**

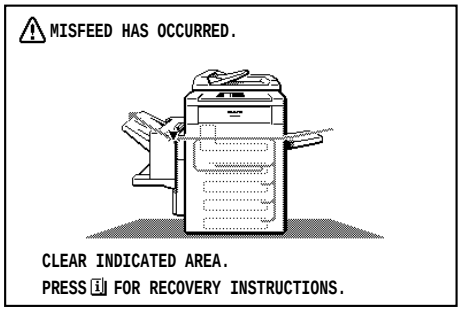
CAUTION

Use caution while latching the finisher into place.

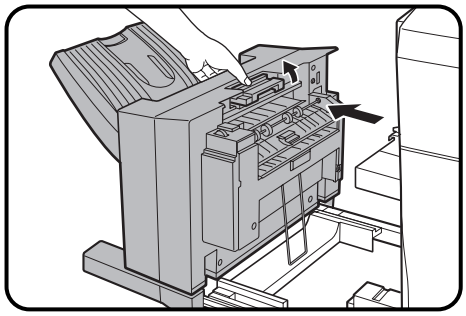
To prevent pinching your fingers, do not place your hand or fingers on the release lever while moving the finisher toward the copier.



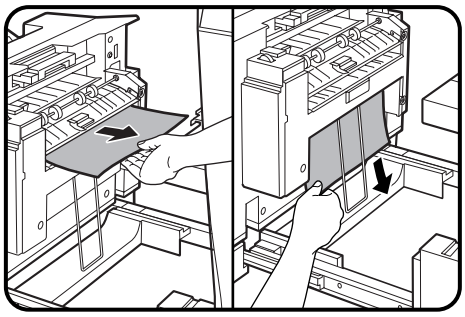
Misfeed removal



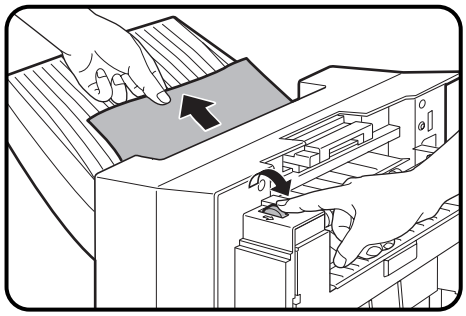
The copier will stop when a misfeed occurs.
The message "**MISFEED HAS OCCURRED. CLEAR INDICATED AREA. PRESS FOR RECOVERY INSTRUCTIONS.**" will appear with a display of paper misfeed locations. Press the INFORMATION ( ) key for more detailed information as necessary.



1 While holding the finisher release lever, slide the finisher away from the copier.

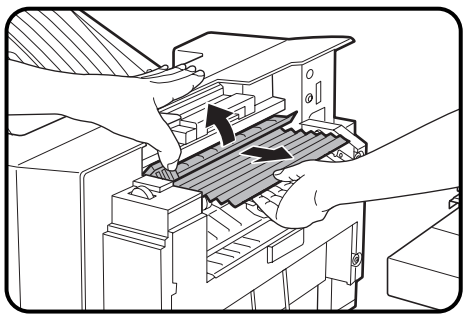


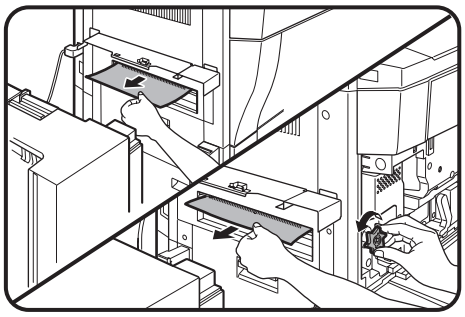
2 Remove the misfed paper from the finisher or from the exit area of the copier.



Misfeed in the finisher

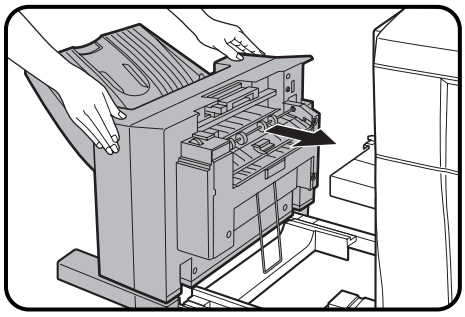
When a misfeed occurs in the finisher, turn the roller rotating knob in the direction of arrow. The misfed paper will be delivered to the offset tray. If the paper is not delivered to the offset tray, open the paper guide as shown and remove the paper.





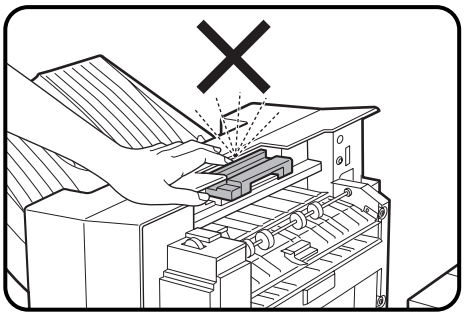
Misfeed in the exit area of the copier

When misfed paper is lodged in the fusing roller of the copier and can not be pulled out, open the front cover of the copier and turn the roller rotating knob in the direction of arrow to remove the misfed paper.



3 **Push the finisher toward the copier and latch it in place.**

- Confirm that the misfeed display is cleared.
- If the message indicating a misfeed is still displayed, check the inside of the copier and remove any remaining misfed paper.



CAUTION

Use caution while latching the finisher into place.

To prevent pinching your fingers, do not place your hand or fingers on the release lever while moving the finisher toward the copier.

WARNING:

FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the operation manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTICE

BE SURE TO ASK YOUR AUTHORIZED SHARP DEALER ABOUT THE WARRANTY THAT YOUR SELLING DEALER EXTENDS TO YOU. In order to assure you, the end-user, of warranty protection, Sharp extends a limited warranty to each of its authorized dealers and, in turn, requires each of its authorized dealers to extend its own warranty to you on terms that are no less favorable than those given to the dealer by Sharp. You should be aware, however, that Sharp does not itself extend any warranties, either express or implied, directly to you, the end-user and no one is authorized to make any representations or warranties on behalf of Sharp. Specifically, SHARP DOES NOT EXTEND TO YOU, THE END-USER, ANY EXPRESS WARRANTY OR ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR USE OR FITNESS FOR ANY PARTICULAR PURPOSE IN CONNECTION WITH THE HARDWARE, SOFTWARE OR FIRMWARE EMBODIED IN, OR USED IN CONJUNCTION WITH THIS PRODUCT. Sharp is not responsible for any damages or loss, either direct, incidental or consequential, which you, the end-user, may experience as a result of your purchase or use of the hardware, software or firmware embodied in or used in conjunction with this Product. Your sole remedy, in the event that you encounter any difficulties with this Product, is against the authorized dealer from which you purchased the Product.

In the event that this authorized dealer does not honor its warranty commitments, please contact the General Manager , Business Products Group, Sharp Electronics Corporation, Sharp Plaza, Mahwah, NJ 07430-2135, so that Sharp can try to help assure complete satisfaction of all the warranty rights to which you are entitled from the authorized dealer.

SHARP®

SHARP ELECTRONICS CORPORATION

Sharp Plaza, Mahwah, New Jersey 07430-2135.

SHARP CORPORATION

PRINTED IN JAPAN
2001E KS1
TINSE2098FCZZ