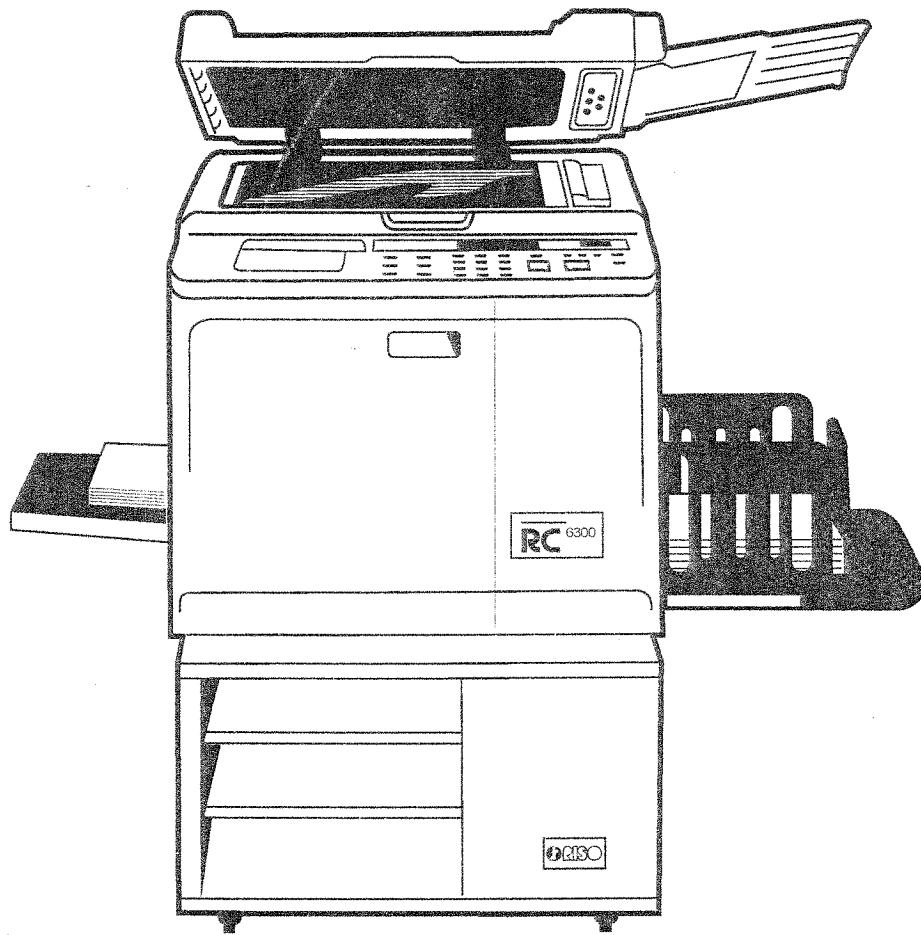




RC6300

Operation Guide



Item #236
RISO, Inc.
300 Rosewood Drive, Danvers, MA 01923

NOTICE

RISO MAKES NO WARRANTY OF ANY KIND WITH REGARD TO THIS MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

RISO shall not be liable for errors contained herein or for incidental consequential damages in connection with the furnishing, performance or use of this material.

This document contains proprietary information which is protected by copyright. All rights are reserved. No part of this document may be photocopied, reproduced, or translated to another language without the prior written consent of RISO, Inc., Marketing Department, 300 Rosewood Drive, Danvers, MA 01923.

Additional copies may be obtained from the same address.

The information in this document is subject to change without notice.

Copyright July, 1992
RISO, Inc.
Danvers, Massachusetts, USA

ABOUT THIS GUIDE

WHAT YOU CAN LEARN

This guide introduces you to the RISO RC6300 Digital Duplicator. With it, you can learn about its features, applications, operation, maintenance and troubleshooting. Information is provided for both first time users of RISOgraphs and for those already familiar with RISO Digital Duplicators.

The guide is designed to make it easy to find information applicable to your particular needs regardless of your knowledge level. The two paragraphs which follow will help you understand which sections of the guide will be most helpful.

FOR BEGINNERS

New users will find it easiest to start with the following sections:

BEFORE USING YOUR RISOGRAPH RC6300

- Product Features
- The Operation Panel
- Printing Process

PRINTING OPERATION

- Quick Reference to Printing Operations
- Basic Printing Procedure

Other sections can be read as needs or interest require.

FOR ADVANCED USERS

Read this guide to learn about many new features of the RISO RC6300 Digital Duplicator. The operation of the machine and control panel is similar to other RC Series RISOgraphs. However there are many additional capabilities and the controls and messages are different. In particular, look at the following sections:

BEFORE USING YOUR RISOGRAPH RC6300

- Product Features
- The Operation Panel
- Specifications

PRINTING OPERATION

- Printing Tips

A VARIETY OF USEFUL FEATURES

Other sections can be read if you need to refamiliarize yourself with particular features or operations.

GENERAL CONTENTS

BEFORE USING YOUR RISOGRAPH RC6300

Product Features	2
The Operation Panel	4
Printing Process	8
Original	9
Printing Paper	10
Warnings	12
Specifications	15

PRINTING OPERATION

Quick Reference to Printing Operations	18
Preparing to Print	20
Basic Printing Procedure	22
Printing Tips	25

A VARIETY OF USEFUL FEATURES

Printing Without Intermission After Master Making	34
Printing Clearly First in the Morning	35
Duplicating An Original Side By Side On A Sheet	36
After Printing Confidential Documents	37
Sorting Prints Into Different Size of Groups	38

ADVICES WHEN IN TROUBLE

Advisory Messages And Actions To Take	44
Troubleshooting	55
Cleaning	58

OPTIONS

Option's Line-up	60
Digitizer 5800	62
ADF 5800	70
Color Drums	72

BEFORE USING YOUR RISOGRAPH RC 6300

This section provides basic information that is necessary to operate the RISOGRAPH RC6300.

Product Features	2
The Operation Panel.....	4
Using the Operational Description Pocket	6
Viewing Liquid Crystal Display (LCD)	7
Printing Process	8
Original	9
Originals You May Use	9
Margins Around Originals	9
Printing Paper	10
Suitable Printing Paper	10
Unsuitable Printing Paper	10
Standard Paper and Card Stock.....	11
Storing Printing Paper	11
Warnings	12
Replacement of the Lithium Battery	12
Handling of the Lithium Battery	12
Connection to the Power Source	13
Adequate Installation of the Machine	13
FCC CLASS A Computing Device	13
Operation.....	14
Handling	14
Specifications	15

PRODUCT FEATURES

• Scanner Table

Table where the stage glass and the stage cover, (or the ADF unit with the original tray) are provided. Move this table to the left to replace master.

• Master Disposal Box

The area where used masters are disposed.

• Feed Tray Paper Guides

Slide these Guides to hold paper according to the printing paper size.

• Paper Feed Tray

Load printing paper on this tray.

• Stage Cover

Close this cover to hold the original placed on the stage glass.

• Stage Glass

Place an original face-down on this Glass.

• Operation Panel

Use this panel to operate the machine.

• Feed Tray Down Button

Press this button to lower the Feed Tray for replacing or adding printing paper.

• Front Cover

Open this Cover to replace an ink bottle or the drum unit or to remove jammed paper.

• Left/Right Print Position Adjusting Dial

Turn this Dial to move the print position to the left or right.

• Paper Feed Pressure Adjusting Lever

Use this Lever to adjust the pressure of the paper feed roller according to the paper being used.

• Original Tray

Place originals face-down on this tray when you use the ADF unit.

• Original Paper Guides

Slide these Guides to adjust to the original paper size.

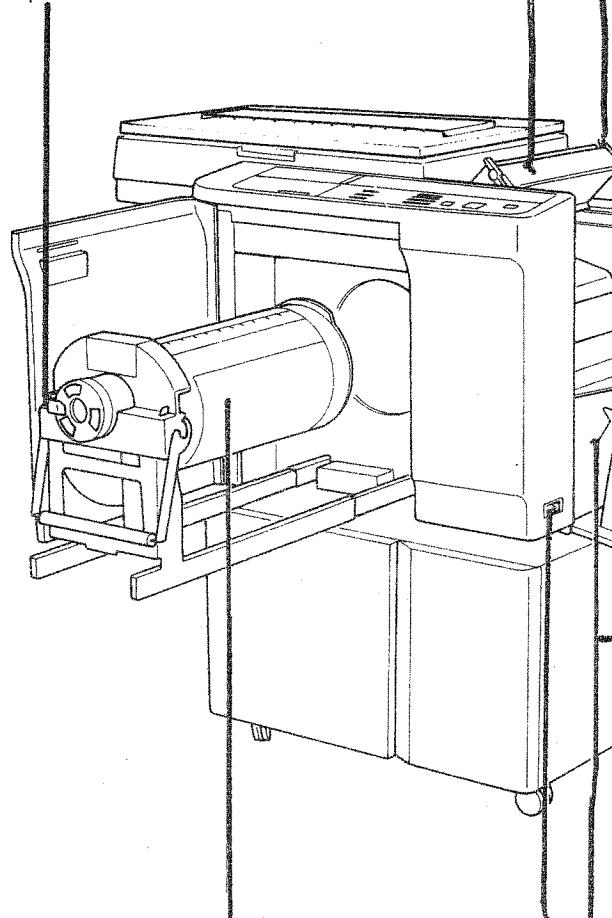
• Original Release Lever
Use this lever to remove an original when it is jammed in the ADF unit.

• **Master Loading Unit**

The area where a master is made. Open this unit to replace a master roll or to clean the thermal print head.

• **Ink Bottle Locking Lever**

Holds the ink bottle in place.



• **Master Loading Unit Release Lever**

Pull this lever to open the Master Loading Unit.

→ • **Master Loading Button**

Press this Button to load and/or cut the master.

• **Master Holder**

Pull and open this Holder to set the master roll.

• **Paper Stop**

Slide this stop according to the printing paper length to stop ejected paper.

• **Paper Receiving Tray**

Holds printed paper.

• **Receiving Tray Paper Guides**

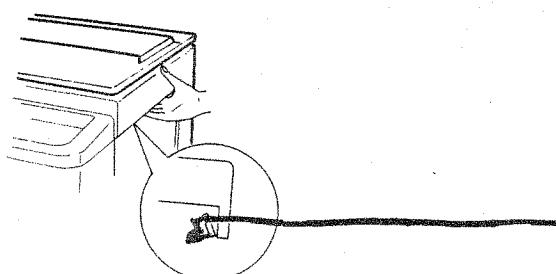
Slide these Guides according to the printing paper width to obtain good paper arrangement.

• **Paper Guiding Arms**

Adjust the positions of these Arms so that the receiving tray holds printed paper neatly.

• **Power Switch**

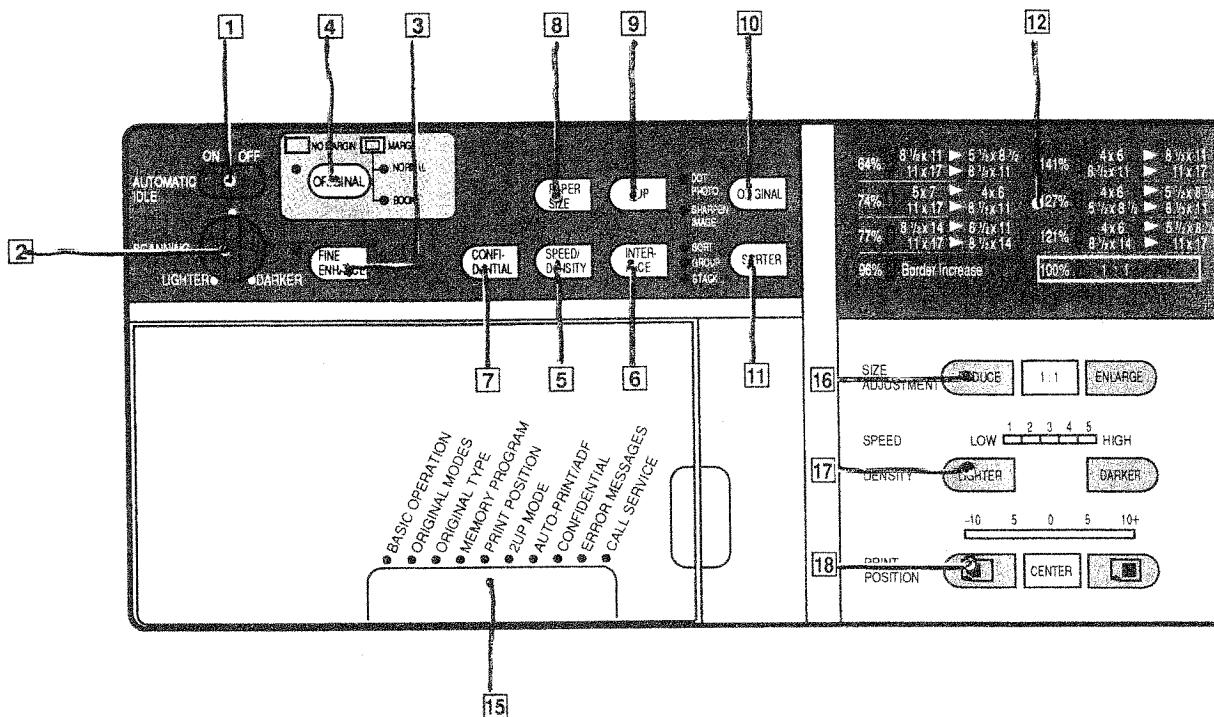
Turns the power ON/OFF.



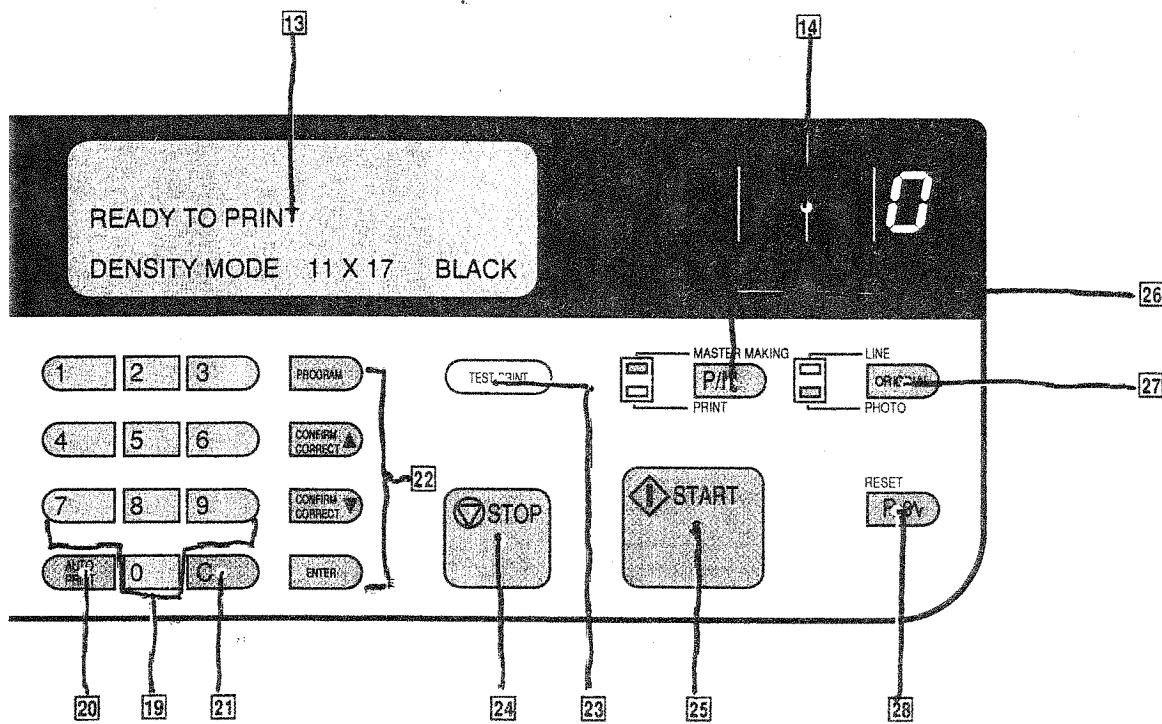
• **Scanner Table Release Lever**

Use this Lever to move the Table to the left or right to open or close it.

THE OPERATION PANEL



	Feature	Function
Sub-panel	[1] Auto-idling Switch	Leaving this switch "ON" saves you from wasting paper after long periods of infrequent use.
	[2] Contrast Adjustment Dial	Allows you to adjust for the darkness of the original being scanned.
	[3] Fine Enhancement Button	Enhances thin lines and small letters to print them clearly.
	[4] Original Type Select Button	Allows you to select the shadow erasing mode depending on the presence of margins on originals.
	[5] Density/Speed Conversion Button	Allows you to convert the print density button to the print speed button or viceversa.
	[6] Interface Button	Enables the data transmission to and from a personal computer connected.
	[7] Confidential Button	Provides for immediate disposal of the master left on the Drum to protect confidential document from unexpected duplication.
	[8] Paper Size Setting Button	Enters the size of paper loaded on the paper feed tray.
	[9] Two-up Function Button	Allows you to print two copies of one original side by side on one sheet of paper.
	[10] Original Mode Button	Allows you to dot a photo or to print letters sharply. This Button is interlocked with the Original Mode Select Button on the main panel.
	[11] Sorter Button	Provides for use of (optional) Sorters.
Display Panel	[12] Reduction/Enlargement Ratio Panel	Indicates the reduction/enlargement ratio selected by a size adjustment button.
	[13] LCD (Liquid Crystal Display)	Displays an operational status or instruction or an error message.
	[14] Print Quantity Display	Displays the number of copies to be printed. During printing, the counter displays the number of remaining copies to be printed.



	Feature	Function
Main-panel	[15] Operational Description Pocket	Contains a group of cards that provides brief operational information.
	[16] Reduction/Enlargement Buttons	Allow you to choose from a ratio of "1:1", four reduction ratios and three enlargement ratios.
	[17] Print Density/Speed Buttons	Allow you to change the print density (in the print density mode) or the print speed (in the print speed mode).
	[18] Print Position Adjusting Buttons	Allow you to adjust vertical printing positions by 0.02" per press.
	[19] Print Quantity Keys	Enter the number of copies to be printed.
	[20] Auto-print Button	Automates the process of master making through printing.
	[21] Clear Key	Resets the number of copies to be printed to zero on the print quantity display.
	[22] Program and Confirm/Correct Buttons	Designate "programmed printing" to sort prints into groups.
	[23] Test Print Button	Allows you to make a sample to check printing quality, for example, when you have changed printing positions.
	[24] STOP Button	Stops printing or master making.
	[25] START Button	Starts master making or printing or resumes printing after troubleshooting.
	[26] Master-making/Print Button	Allows you to change the current mode between "Master Making" and "Print."
	[27] Original Mode Select Button	Allows you to change the current mode between "Line-copy" and "Photo" according to the original.
	[28] All Reset Button	Provides for reinitializing settings on the machine. Also for resetting trouble indications and programmed printing.

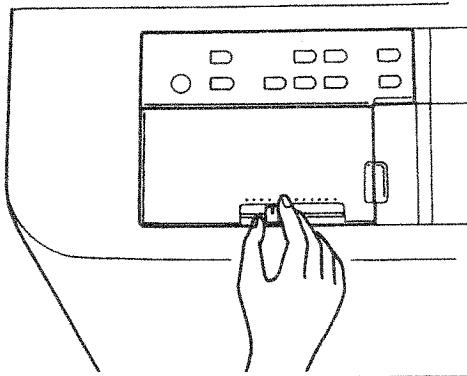
THE OPERATION PANEL

The operational description pocket is provided with quick reference cards that contain the description of error messages and operation procedures.

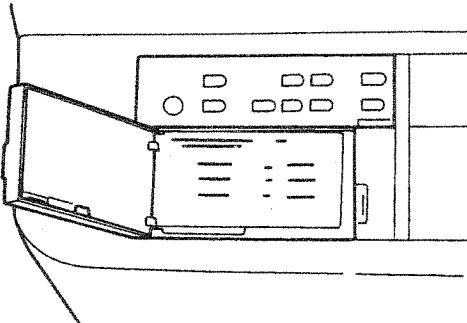
■ Using the Operational Description Pocket

— To view a reference card —

- 1 Simply slide the knob on the operational description pocket to the item of your choice.



- 2 Lift the pocket cover, holding the grip at the right-side edge.



■ Viewing Liquid Crystal Display (LCD)

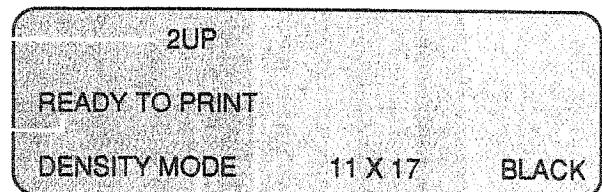
The display normally indicates the status of the machine and the feature that has been selected. However, when a consumable needs to be replaced or in case of trouble such as an unclosed front cover, the information displayed on the display automatically switches to a corresponding advice. The display also shows the illustration of the machine with the related area flashing.

[Example]

- Standard Display -

Feature that has been selected

Present settings and status

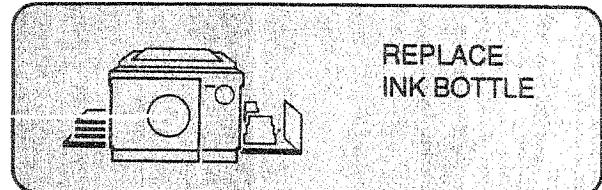


[Example]

- Advice Message Display -

The illustration of the machine and a relevant area

Advice



PRINTING PROCESS

The machine prints an original following the below-mentioned stages. The entire process, from master making to printing, is referred to collectively as the "printing" process.

READY TO MAKE MASTER

As you place an original on the machine, the LCD automatically displays this message. "MASTER MAKING" on the MASTER MAKING/PRINT indicator also lights.

MAKING MASTER

Pressing the "START" button, while this message is displayed, allows writing of the contents of the original on a master. This writing operation is referred to as "master making." One printed sample is produced when master making is completed.

READY TO PRINT

At the end of master making, the LCD automatically displays the message shown to the left, and "PRINT" on the MASTER MAKING/PRINT indicator lights.

Caution! To reset fine enhancement, enlargement or reduction settings (to remake the master), press the "MASTER MAKING/PRINT" button. The machine will return to the "READY TO MAKE MASTER" status.

Refer to "QUICK REFERENCE TO PRINTING OPERATIONS" on page 18.

Pressing the "START" button, while this message is displayed, prints as many copies of the master as you have specified.

PRINTING

Once a master is created, the machine prints based on the master. Until you make the next master, you can repeat printing with the current master as many times as desired even after you remove the original.

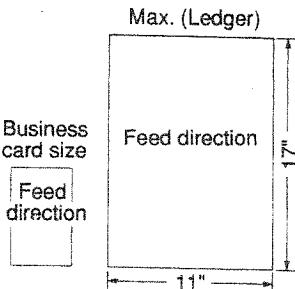
Note:

If you choose the "AUTO PRINT" feature, you can continuously implement the process from master making through printing by pressing the "START" button. However, this automatic process includes sample printing and, therefore, produces one extra copy in addition to the number of copies you have entered.

ORIGINAL

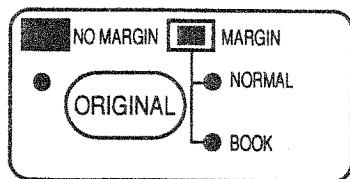
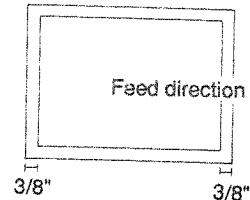
■ Originals You May Use

- You can place originals from 2" x 3.5" (business card size) through 11" x 17" (Ledger size) on the stage glass.
- Do not place anything weighing more than 4.4 lbs. on the glass.
- Place a sheet of blank paper over a transparent original such as an OHP transparency or tracing paper.
- If an original is wrinkled, curled or creased, flatten it thoroughly so that it will come directly into contact with the stage glass.
- Be sure that ink, correction fluid or glue, if used on an original, is thoroughly dry before you place the original on the stage glass.



■ Margins Around Originals

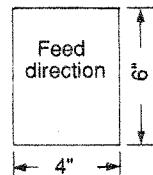
- Be sure to provide a margin of 3/8" or more each at the top and bottom of an original. An insufficient top margin often causes the printing paper to cling to the drum resulting in a paper jam.
- When your original does not have margins, select "NO MARGIN" with the "ORIGINAL" type select button. In this case the image area created on the master becomes narrower than otherwise. However, this does not indicate that the machine is defective.



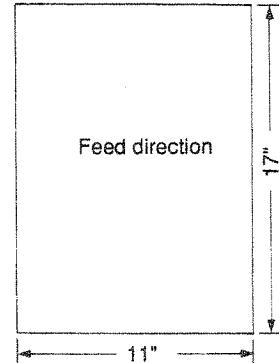
■ Suitable Printing Paper

- Printing paper sizes of 4" x 6" (postcards) through 11" x 17" (Ledger size) may be used.
The maximum printable area is about Ledger size (10.7" x 16.5").
- Use printing paper with a thickness in the range of 13 lbs. bond to 110 lbs.

Min. 13 lbs.



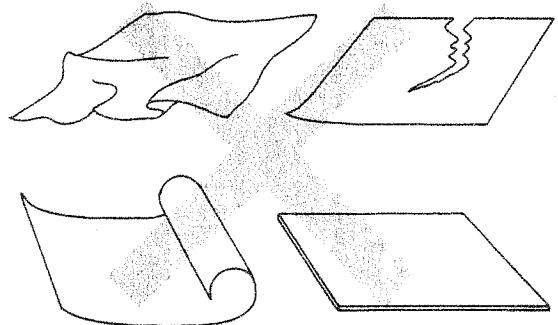
Max. 110 lbs.



■ Unsuitable Printing Paper

The following paper is unsuitable for printing. To avoid malfunctions, do not use such printing paper.

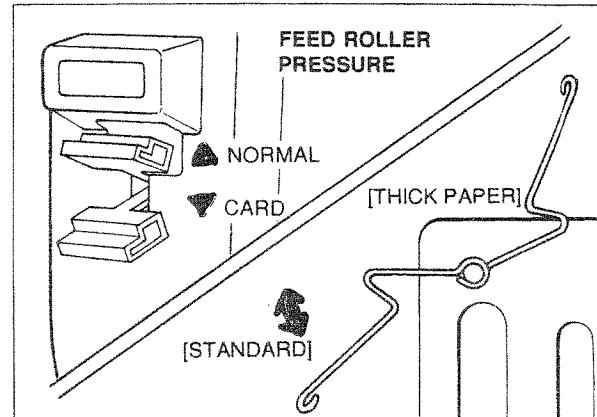
- Wrinkled, curled or creased paper
- Paper of which the surface or back is chemically coated
- Paper with torn or rough edges
- Extremely thin or thick paper (Less than 13 lbs bond or greater than 110 lbs.
- Art paper
- Paper with a chemically treated surface such as thermal paper or carbon paper



■ Standard Paper and Card Stock

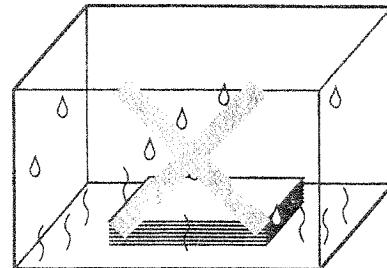
Use dedicated printing paper as much as possible.

- For standard paper, position the paper feed pressure adjusting lever at "NORMAL" and the paper guiding arms at "STANDARD."
- For card stock such as drawing paper, position the paper feed pressure adjusting lever at "CARD" and the paper guiding arms at "THICK PAPER/LEDGER PAPER"
- For ledger paper, position the paper guiding arms at "THICK PAPER/LEDGER PAPER"



■ Storing Printing Paper

- Store printing paper in a dry area. Storing the paper in a humid area could cause paper jams and/or poor printing quality.
- After unpacking printing paper, keep remaining paper wrapped and store it in a moisture-proof box.
- It is highly recommended to put silica gel in the paper storage box.
- Store the paper in a level area.



WARNINGS

To fully utilize features and to operate safely, please observe the following precautions

!! CAUTION !!

– Replacement of the Lithium Battery –

1. The lithium battery must be replaced by a trained and authorized service technician.
2. The battery must be replaced only with the same or equivalent type recommended by the manufacturer.
3. Discard used batteries according to the manufacturer's instructions.

!! DANGER !!

– Handling of the Lithium Battery –

1. Never let the battery short-circuited.

If the (+) and (-) terminals contact each other or metal materials, the battery will short-circuited.
If the batteries are collected and stored in disorderly or one upon another, the above-mentioned case will occur.

IF THE BATTERY IS SHORT-CIRCUITED, IT WILL HEAT UP AND MAY IN SOME CASES EXPLODE.

2. Never heat up battery.

IF THE BATTERY IS HEATED UP TO MORE THAN 212 °F OR PUT INTO THE FIRE, IT MAY BURN OR EXPLODE.

3. Never disassemble the battery or mutilate it.

4. Keep the battery out of reach of children.

If you leave the battery within reach of children, they may swallow it.
Should they swallow the battery, immediately consult a doctor.

CONNECTION TO THE POWER SOURCE

⚠ CAUTION [To Avoid Personal Hazards]

- Securely insert the plug of power cord into the socket.
- Install the machine near the wall socket to avoid using a long cord between the machine and the socket.
- Do not overload wall socket and extension cord as this can result in fire or electric shock.
- Do not allow anything to rest on or roll over the power cord, and do not place the machine where the power cord is subject to traffic or abuse. This may result in a shock or fire hazard.

ADEQUATE INSTALLATION OF THE MACHINE

To obtain optimum machine performance, and to use it safely, please follow the installation guidelines below:

⚠ CAUTION [To Avoid Personal Injury]

- Avoid places with poor ventilation or air circulation.

⚠ IMPORTANT [To Avoid Mechanical Problems]

- Avoid dusty places.
- Select places where the machine can be installed level.
- Avoid direct sunlight on the machine when installing it. (If it is unavoidable, protect the machine with a curtain or shade on windows.)
- Install within the recommended temperature range: 10°C-30°C (50°F-86°F) with moderate humidity.
- Avoid places where there is direct heat or direct air flow on the machine from an air conditioner or hot air from a heater.

FCC CLASS A computing device

– Information to User –

- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.
This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.
Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- This digital apparatus does not exceed the Class A limit for radio noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe A prescrites dans le Règlement sur le Brouillage Radioélectrique édicté par le Ministère des Communications du Canada.

OPERATION

- Be alert and use common sense.
- Open/Close the covers gently.

⚠ CAUTION [To Avoid Personal Injury]

- Don't open the covers or move the machine during operation.
- Avoid loose clothing which can become entangled.
- Keep hands away from openings of the machine during operation.
- Before cleaning any parts of the machine, turn the power off.
- Disconnect the power cord if you think an electrical problem is present.

⚠ IMPORTANT [To Avoid Mechanical Problems]

- Don't turn OFF the main switch or pull out the power cord plug during operation.
- DO NOT place items on top of the machine or in any opening of the machine during operation. This could damage the machine.

HANDLING**⚠ CAUTION [To Avoid Personal Injury]**

- DO NOT allow unauthorized persons to make adjustments or repairs.
- DO NOT remove any fixed covers.
- CALL your Dealer immediately if you suspect any dangerous situations or if you have questions or problems with the machine.
- Precision parts and driving mechanisms are contained in the machine.
So don't perform actions other than those described in the operation manual.
- Don't make any modifications to the machine or remove parts.
- When you want to move the machine, contact your RISO dealer.

⚠ IMPORTANT [To Avoid Mechanical Problems]

- The best safety device is an alert person who demonstrates good common sense.
- Neither RISO nor its dealer is responsible for maintenance service performed by non-RISO authorized personnel.

Note:

Please note that the photographs and descriptions in this manual may differ from the actual machine due to improvements and revisions.

SPECIFICATIONS

Process	Automatic Flat-bed Digital Scanning, Thermal Screening Duplicating System
First Copy Time	35 seconds (Letter-size original)
Copy Speed	Variable from 55 to 120 copies per minute
Scanning Resolution	400 dots per inch
Original Type	Books (4.4 lbs. or less) & Sheets
Original Size	2" X 3.5" to 11" X 17"
Image Area	10.7" X 16.5" (Ledger-size Drum)
Paper Size	4" X 6" to 11" X 17"
Paper Weight	14 to 110 lbs.
Paper Capacity	1000 Sheets (Feed & Receiving Trays)
Print Colors	Black (Option) Blue, green, red, brown, yellow
Reduction Modes	64%, 74%, 77%, 96%
Enlargement Modes	121%, 127%, 141%
Features	Fine Enhancement, Shadow Erasing, Speed Control, Confidential Mode, Job Programmability, Automatic Idle, Photo Enhancement, Line Sharpening, Automatic Screening, Two-Up Copy, Graphic LCD Display
Options	ADF (50 Sheet Capacity), RC Computer Sorter, Job Separator, Computer Interface, Editing Board, Key/Card Counter, Color Drums
Power Source	120 Volt AC, 60 Hz
Power Requirements	5A
Weight	Approximately 223 lbs.
Dimensions (W X D X H)	25.6" X 26.6" X 24.3" in storage 51.0" X 26.6" X 24.3" in use

PRINTING OPERATION

This section describes basic operations.

Quick Reference to Printing Operations	18
Preparing to Print.....	20
Setting Up the Paper Feed Tray	20
Setting Up the Paper Receiving Tray	21
Basic Printing Procedure	22
Printing Tips.....	25
Printing with Irregular-size Paper/Original	25
Selecting Original Types	26
[ORIGINAL type select]	
Selecting According to Contents of Original	27
[ORIGINAL mode]	
Adjusting Scanning Contrast	28
[SCANNING contrast]	
Enhancing Small Characters	28
[FINE ENHANCE]	
Reduction/Enlargement	29
[SIZE ADJUSTMENT]	
Checking Printing Quality	30
[TEST PRINT]	
Adjusting the Printing Position	31
[PRINT POSITION Button]	
[Left/Right Position Adjusting Dial]	
Adjusting the Print Density	32
[PRINT DENSITY]	
Adjusting the Print Speed	32
[PRINT SPEED]	

1 Open the paper feed tray and load printing paper

2 Open the paper receiving tray

3 Connect the power and check the operation panel

4 Place an original face-down

5 Select the printing paper size



6 Set the desired print quantity



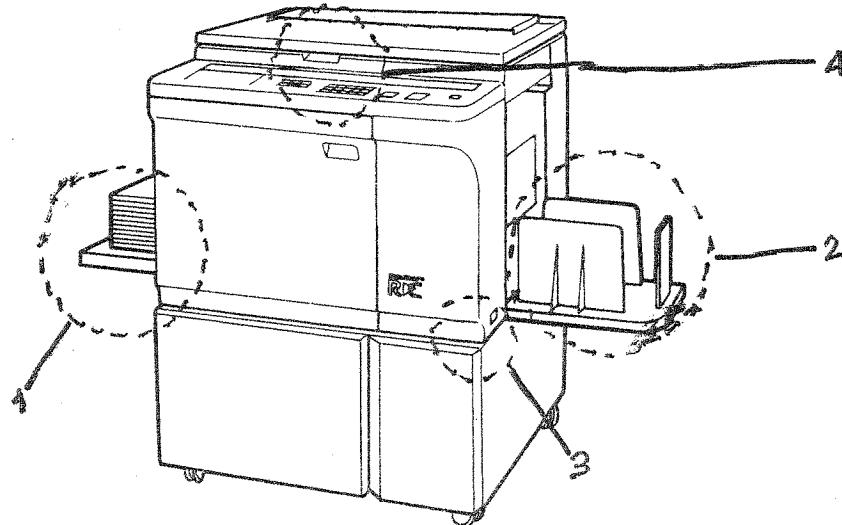
7 Press the START button
• A sample print is produced.



8 Check printing quality

9 Press the START button





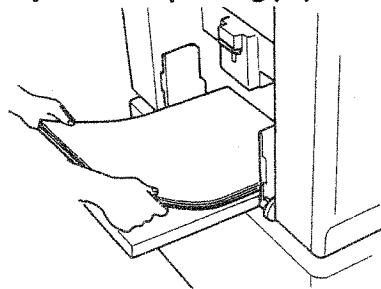
[Select settings according to the quality of originals or to your liking.]

Enter these settings while the display panel shows "READY TO MAKE MASTER" (Pag. 26).

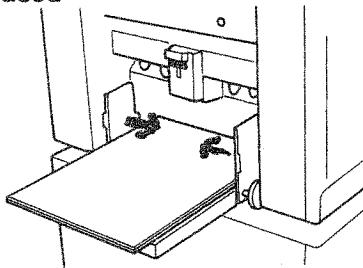
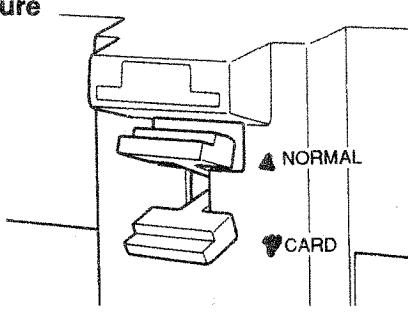
- Are there margins on the original? Or, is it a book?
→ "[Original Type Select]" (Pag. 26)
- Does your original contain only text or does it also have graphics?
→ "[Original Mode]" (Pag. 27)
- Do you wish to adjust the scanning contrast?
→ "[Scanning Contrast]" (Pag. 28)
- Do you wish to enlarge or reduce the original?
→ "[Size Adjustment]" (Pag. 29)
- Does your original have small letters?
→ "[Fine Enhance]" (Pag. 28)

[You can adjust printing quality after a sample copy is printed.]

- To adjust the vertical and/or horizontal printing positions:
→ "[Print Position Adjustment]" (Pag. 31)
- To adjust the printing density:
→ "[Print Density]" (Pag. 32)
- To print faster or slower:
→ "[Print Speed]" (Pag. 32)

■ Setting Up the Paper Feed Tray**1 Open the paper feed tray and load printing paper**

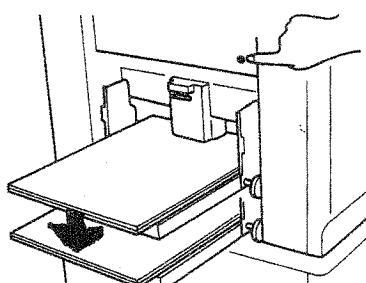
Do not mix different-size printing paper.

2 Slide the feed tray paper guides to the size of the printing paper being used**3 Adjust paper feed pressure**

Adjust the "Paper Feed Pressure Adjusting Lever" according to the quality of printing paper.

- For standard paper, position the lever at "NORMAL."
- For card stock such as drawing paper, set the lever at "CARD."

Set the lever also at the "CARD" position if frequent misfeeds occur.

4 Add or replace printing paper

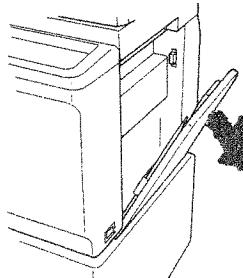
If you press the "Feed Tray Down" button, the paper feed tray lowers. Lower the tray to a desired height for easy addition or replacement of paper.

Returning the paper feed tray:

Open the feed tray paper guides all the way and return the tray to its original position.

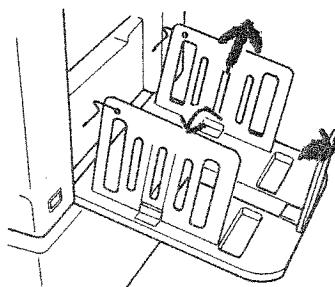
■ Setting Up the Paper Receiving Tray

1 Open the paper receiving tray

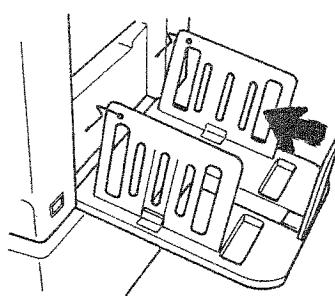


Note: The paper receiving tray can be positioned at two levels, high and low. At the high level, the tray is on the angle. At the low level, it can be either level or on the angle. Choose the best tray position according to the size, thickness and quantity of printing paper so that printed paper stacks satisfactorily.

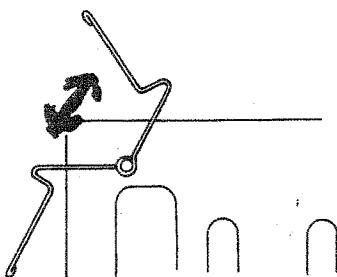
2 Slide the receiving tray paper guides according to paper width



3 Raise and slide the paper stop according to paper length



— Adjusting paper discharge —

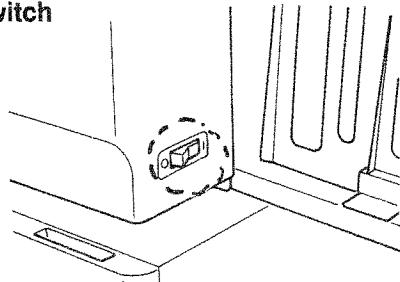


Adjust the direction of the paper guiding arms according to the size and quality of printing paper so that discharged copies are stacked satisfactorily.

- For standard paper: Lower the arms.
- For card stock and ledger paper: Raise the arms.

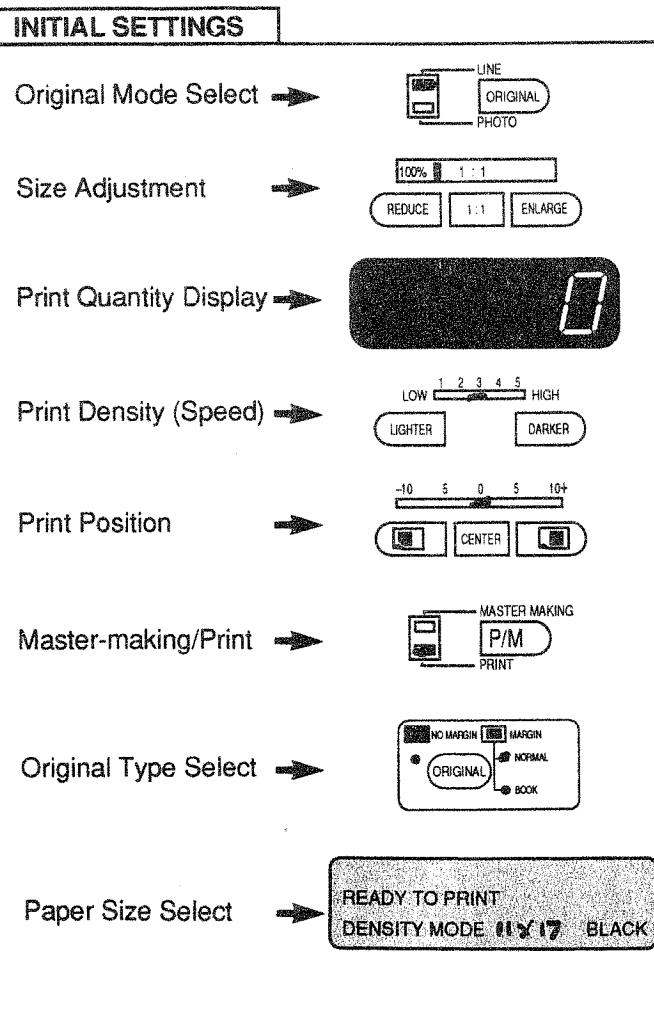
Returning the paper receiving tray:

Turn down the paper stop, slide the receiving tray paper guides to the "11"-marked position and turn them down. Then return the tray to its original position.

1 Turn on the power switch

The power switch is located on the lower right side of the machine.

----- ON ○ ----- OFF

2 Check the operation panel

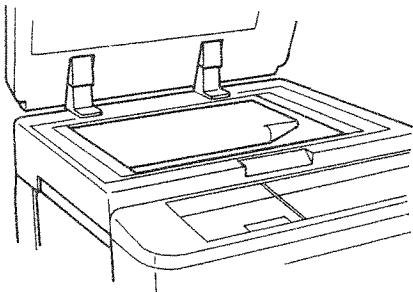
When power is connected, the operation panel displays settings shown on the left. These are the initial settings. Check each setting and make any necessary changes.

Note: If you reset an original while "READY TO PRINT" is displayed on the LCD, this message will be replaced with "READY TO MAKE MASTER."

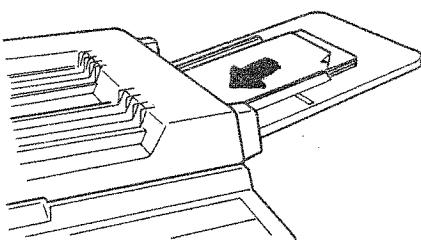
Note:

By pressing the "ALL RESET" button, you can reset the operation panel to the initial settings.

3 Place an original



Option



Placing on the stage glass

To print originals one by one, place each original on the stage glass. Open the stage cover and place an original face down on the glass against the stopper to the left.

Caution: When placing an open book, do not press it hard with the stage cover.

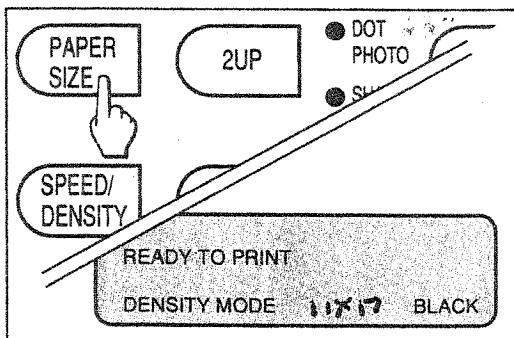
Placing on the (optional) ADF unit

To allow you to print more than one original continuously, the ADF unit is available as optional. With the ADF unit installed, close the ADF unit and place originals face down on the original tray. Then adjust the paper guides on the original tray to the width of the originals. You can place a maximum of 50 originals at a time.

Caution:

- Be sure to remove paper clips and staples, if any.
- Originals will be printed in the order of last-in first-out. To print more than 50 originals, place the first 50 counting from the last original so that they will be printed and stacked in the correct order.

4 Select the size of printing paper



Press the "PAPER SIZE" button to select the size of printing paper. Each pressing of the button allows you to shift from Ledger (11" x 17") to Legal (8.5" x 14") to Letter (8.5" x 11") to Statement (5.5" x 8.5"). Be sure to display the same size as of the printing paper you have placed on the paper feed tray.

Caution: Entry of a size greater than that of the printing paper could cause smudges on printed copies.

5 Enter the print quantity you wish to produce



Using the print quantity keys, enter the number of copies, which is displayed on the "Print Quantity Display."

Note: To change the print quantity you have entered, press the "CLEAR" key to reset it to "zero" and then re-enter the desired number.

6 Print



Press the "START" button. A sample copy will be produced. Check the sample for finishing quality such as print positions and density.

Ref.: To adjust print positions and density, follow the instructions in "Adjusting the Printing Position" and "Adjusting the Print Density."

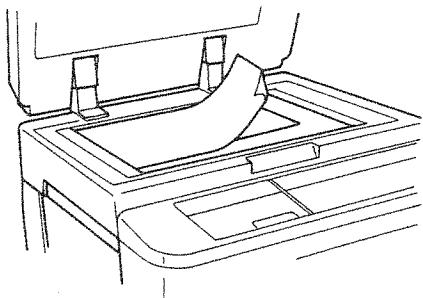
Press the "START" button once again. As many copies as the number you have entered will be produced.

Note: If you press the "START" button for the second time (when "0" is displayed on the print quantity display), the LCD panel will display a message "SELECT PRINT QUANTITY." Re-enter the number of copies and then press the "START" button again.

Note: Print quantity can also be entered before pressing the "START" button again.

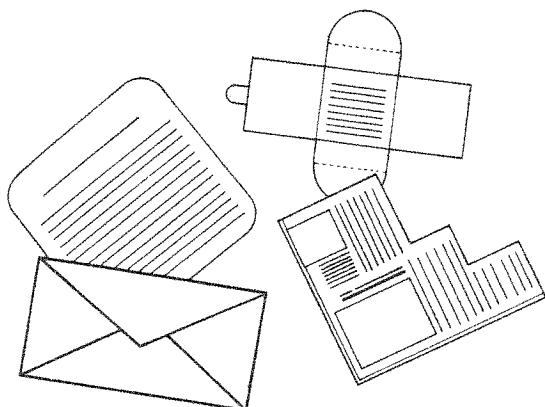
PRINTING TIPS

■ Printing with Irregular-size Paper/Original



When printing on irregular-size paper with an irregular-size original, place them as described below:

- Press the "PAPER SIZE" button to select "Ledger (11" X 17")"
- If the original has margins, center the original at the stopper (at a triangle symbol) which is located on the left side of the stage glass.
- If the original has no margins, place a blank Ledger-size (11" X 17") sheet of paper over the original.



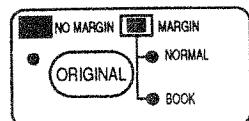
[An example irregular size]

Postcard

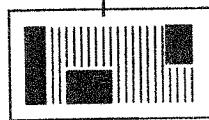
■ Selecting Original Types [ORIGINAL type select]

Select the original type according to the presence or absence of margins on the original or if it is a sheet of paper or a book.

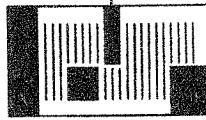
If you press the [ORIGINAL] type select button, the following indicators will light in sequence. Choose the proper indicator.



Original with margins



Original without margins



"MARGIN" – "NORMAL"

Select this when your original has margins and it is a sheet of paper.

"MARGIN" – "BOOK"

Select this when your original is a book and you wish to avoid printing its binding dark.

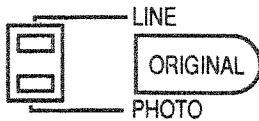
"NO MARGIN"

Select this if your original has no margins.

■ Selecting According to Contents of Original [ORIGINAL mode]

You can produce crisp letters when your original contains only letters. When your original contains photos, you can faithfully reproduce its different shades of gray or process it with a dot screen. Press the "ORIGINAL" mode select button on the main panel or the "ORIGINAL" mode button on the sub-panel according to the contents of your original.

[Main Panel]



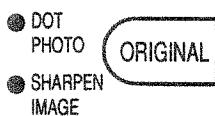
— LINE —

Select "LINE" for word-processed originals, photo copies and newspaper. Since images are processed in two scales, characters are printed crisp. However, if you select "LINE" for a photo, its copy could appear to be smudged.

— PHOTO —

Select "PHOTO" if your original contains a photo. Since it will be graphically processed, delicate shades are faithfully reproduced as in the original photo.

[Sub-panel]



— DOT PHOTO —

If you select "DOT PHOTO," the machine will process a photo original with a dot screen, and the "ORIGINAL" mode automatically changes to "PHOTO" on the main panel.

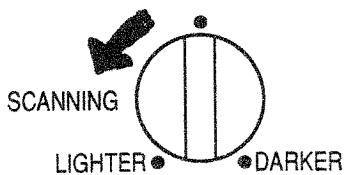
— SHARPEN IMAGE —

Make this selection to sharpen images when original letters are no longer crisp after frequent copying or to minimize adverse effect by broken letters printed on a dot-matrix printer. As you select "SHARPEN IMAGE," the "ORIGINAL" mode automatically switches to "LINE" on the main panel.

■ Adjusting Scanning Contrast [SCANNING contrast]

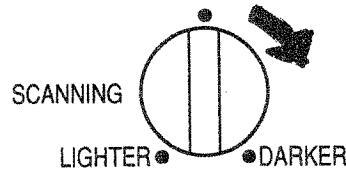
You can adjust the scanning contrast according to the contrast of an original when making a master. To adjust contrast, turn the contrast adjustment dial on the sub-panel.

LIGHTER



Move the dial toward "LIGHTER" for originals with a dark background like newspapers or colored stock.

DARKER



Move the dial toward "DARKER" for very faint images like an original written lightly with a pencil.

■ Enhancing Small Characters [FINE ENHANCE]

If an original has small characters which may be illegible when printed, press the "FINE ENHANCE" button to make a master that allows printing of clearly defined characters.



Select this feature when character sizes are about the same size as found in newspapers, dictionaries or telephone directories.

Caution: If an original has a dark background, it may be partly printed.

■ Reduction/Enlargement [SIZE ADJUSTMENT]

Press one of the size adjustment buttons to select the proper duplicating size (ratio). The corresponding ratio indicator will light.

ENLARGEMENT

REDUCE

1:1

ENLARGE

As you press the "ENLARGE" button, the following indicators will light in sequence on the Reduction/Enlargement Ratio panel offering three enlargement ratios to choose from:

- 121%: 4" x 6" to 5.5" x 8.5"
- 127%: 5.5" x 8.5" to 8.5" x 11"
- 141%: 4" x 6" to 8.5" x 11",
5.5" x 8.5" to 8.5" x 14"

REDUCTION

REDUCE

1:1

ENLARGE

As you press the "REDUCE" button, the following indicators will light in sequence on the Reduction/Enlargement Ratio panel offering four reduction ratios to choose from:

- 96%: Border Increase
- 77%: 8.5" x 14" to 8.4" x 11",
11" x 17" to 8.5" x 14"
- 74%: 11" x 15" to 8.5" x 11"
- 64%: 8.5" x 11" to 5.5" x 8.5",
11" x 17" to 8.5" x 11"

1:1

REDUCE

1:1

ENLARGE

As you press the "1:1" button, the following indicator will light:

- 100%: 1:1

■ Checking Printing Quality [TEST PRINT]

Pressing of the "TEST PRINT" button produces one sample copy so that you can check its quality before you print as many copies as you have preset.

TEST PRINT

You can produce as many samples as you wish by pressing the "TEST PRINT" button at any time the machine is at rest.

Note: This test printing does not affect the quantity which has been preset on the panel or which is recorded in the total counter. By holding the button down, you can print continually.

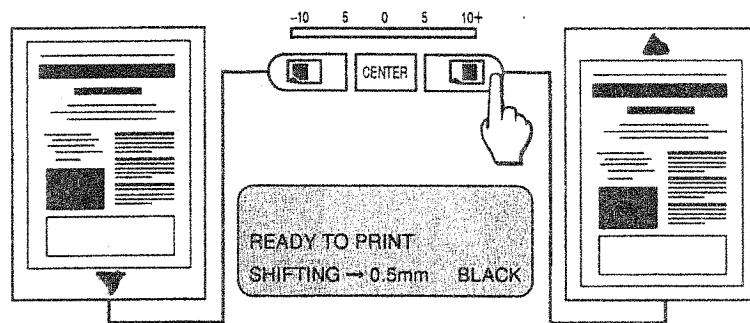
Check your sample and adjust printing positions and density accordingly.

■ Adjusting the Printing Position

After checking the sample printout, the printing position can be adjusted up and down and/or right and left if necessary.

Adjusting the Vertical Printing Position [PRINT POSITION Button]

With the print position adjusting button, you can move the printing position up or down within a maximum range of ± 10 mm (3/8").

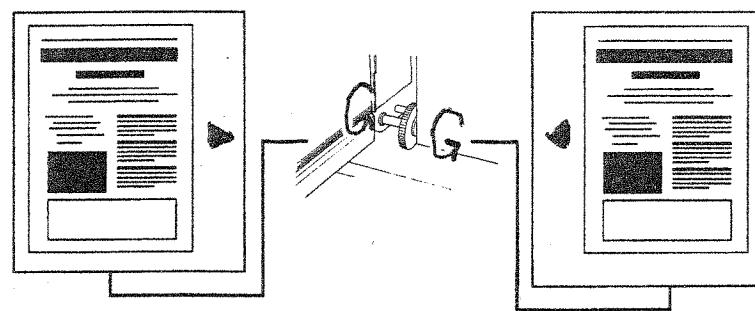


The distance by which the printing position has moved will be displayed next to "SHIFTING" on the LCD panel.

- Light moves for each distance of 2.5 mm (0.1") along the print position adjusting indicator.
- Each pressing of the left button moves the printing position down by 0.5 mm (0.02").
- Each pressing of the right button moves the printing position up by 0.5 mm (0.02").
- Pressing the "CENTER" button sets the printing position to the same as that of the original.

Adjusting the Horizontal Printing Position [Left/Right Position Adjusting Dial]

By turning the left/right position adjusting dial on the paper feed tray, you can adjust the horizontal printing position either to the left or right.



The distance by which you can move the horizontal printing position is predetermined as follows according to printing paper size:

- 4" x 6" (postcards): $\pm 3/8"$
- 5" x 7.2" to 11" x 17": $\pm 3/4"$

■ Adjusting the Print Density [PRINT DENSITY]

If the print density is either too high or too low, you can adjust the density by pressing the "PRINT DENSITY/SPEED" buttons.



LIGHTER

DARKER

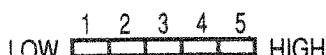
READY TO PRINT

DENSITY MODE 11 X 17 BLACK

There are five levels of print density to choose from.
To print at a lower density, press "LIGHTER."
To print at a higher density, press "DARKER."

■ Adjusting the Print Speed [PRINT SPEED]

**SPEED/
DENSITY**



LIGHTER

DARKER

[Speed Display]

< 1 > ← → < 5 >

Approx.
55 sheets/min.

Approx.
120 sheets/min.

READY TO PRINT

SPEED MODE 11 X 17 BLACK

There are five print speeds to choose from.
First, press the "DENSITY/SPEED" Conversion Button on the sub-panel to switch the "DENSITY" mode on the LCD panel to the "SPEED" mode.
Second, adjust the printing speed with the "PRINT DENSITY/SPEED" button.
To increase the print speed, press the "DARKER" button.
To decrease the print speed, press the "LIGHTER" button.

Note:

The original scanning contrast setting is relevant to master making. On the other hand, the printing density is controlled by the amount of ink.

A VARIETY OF USEFUL FEATURES

This section describes a variety of RISOGRAPH features and how to utilize them. Familiarize yourself with these features and take advantage of RISOGRAPH's potential.

Printing Without Interruption After Master Making	34
[AUTO PRINT]	
Printing Clearly First in the Morning	35
[AUTO IDLING]	
Duplicating An Original Side by Side on A Sheet.....	36
[2UP]	
After Printing Confidential Documents	37
[CONFIDENTIAL]	
Sorting Prints Into Different Size of Groups	38
[MEMORY PROGRAM]	
Programming Procedure	38
Cancelling "MEMORY PROGRAM"	40
Confirming & Correcting a Program	41

PRINTING WITHOUT INTERMISSION AFTER MASTER MAKING

[AUTO PRINT]

The auto print feature automates the process of master making through printing and produces the preset print quantity as easily as on a copier.

- 1 Press the "AUTO PRINT" button

AUTO
PRINT

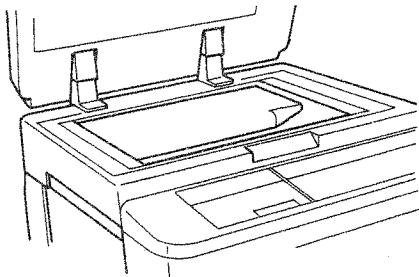
AUTO PRI

READY TO PRINT

DENSITY MODE 11 X 17 BLACK

The LCD panel displays "AUTO PRI."

- 2 Place an original face-down on the stage glass



Open the stage cover to place an original face down on the stage glass against the original stopper, which is located on the left side of the glass.

Note: To avoid interruption when reproducing multiple originals, place the originals on the original tray of the ADF unit (optionally installed).

- 3 Enter a desired print quantity

1

0

Enter the quantity with the print quantity keys. The entered number will be displayed on the print quantity display.

Note: To change the print quantity you have entered, press the "CLEAR" key to reset to "0" and then re-enter the desired number.

- 4 Press the START button



Master making through printing will take place automatically, producing as many copies as the preset print quantity.

In addition to the preset print quantity, one extra copy will always be printed for each original. This extra, which is printed in the beginning, is a test print.

Note:

Pressing the "AUTO PRINT" button again will cancel the auto printing feature.

PRINTING CLEARLY FIRST IN THE MORNING [AUTO IDLING]



If the machine remains unused for a long period of time, the ink dries on the drum, possibly causing the first few sheets to be blurred when printing resumes. However, by leaving the AUTO IDLING switch ON, you can produce a clear print from the very first sheet even after the machine has been left unused for more than 12 hours.

Note:

To cancel the auto idling feature, turn off the "AUTO IDLING" switch.

DUPLICATING AN ORIGINAL SIDE BY SIDE ON A SHEET

[2UP]

When an original of up to letter size needs to be copied in a large quantity, you can double your productivity by reproducing two prints side by side.

[For two-up printing, you must use the printing paper that is twice as large as your original and cut the prints in half.]

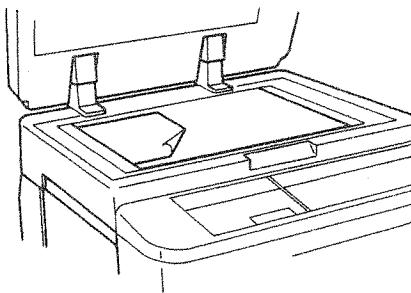
1 Press the "2UP" button



2UP
 READY TO PRINT
 DENSITY MODE 11 X 17 BLACK

The LCD panel will display "2UP."

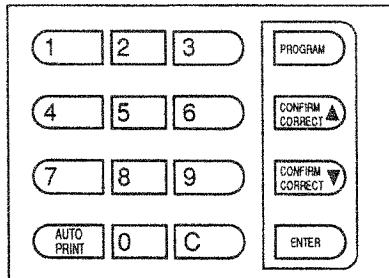
2 Place an original



Place an original face down on the stage glass against the original stopper.

Note: To reproduce two-up prints continuously from multiple originals, place the originals on the original tray of the ADF unit (optionally installed).

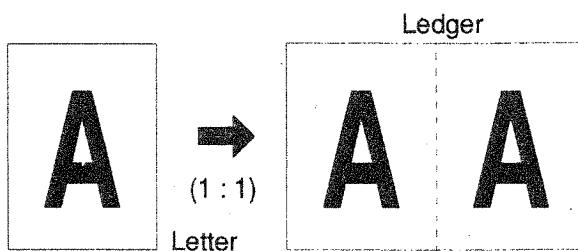
3 Enter the desired print quantity



Enter the quantity with the print quantity keys. The entered number will be displayed on the print quantity display.

Note: To change the print quantity you have entered, press the "CLEAR" key to reset to "zero" and then re-enter the desired number.

4 Press the "START" button



Two prints will be reproduced side by side on one sheet from an original.

Note:

To cancel the 2UP feature, press the "2UP" button while "2UP" is displayed on the LCD panel.

AFTER PRINTING CONFIDENTIAL DOCUMENTS

[CONFIDENTIAL]

To protect against unauthorized printing of sensitive or confidential documents, you can discard an original's master immediately after the original has been printed, by using the confidential feature.

Even after finishing printing, an original's master remains on the drum until the next original is printed. The master could therefore be reprinted only by pressing the "START" button, even after the original has been removed.

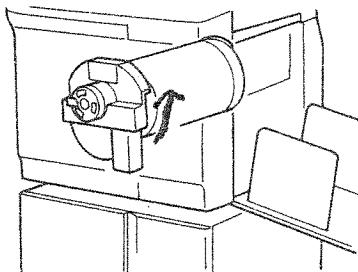
- 1 After printing is completed, press the "CONFIDENTIAL" button



CONFIDENTIAL
PRESS START BUTTON
DENSITY MODE 11 X 17 BLACK

The LCD panel displays "CONFIDENTIAL."

- 2 Press the "START" button



The existing master on the drum will be discarded and replaced with a blank master.

To protect against an unauthorized reading of the master itself, one should remove the master from the machine. → Refer to the section "EMPTY DISPOSAL BOX" on P. 45.

Note:
To cancel the confidential feature, press the "CONFIDENTIAL" button while "CONFIDENTIAL" is displayed on the LCD panel.

SORTING PRINTS INTO DIFFERENT SIZE OF GROUPS

[MEMORY PROGRAM]

Different quantities of different originals can be printed automatically.

(Up to 15 originals with 9999 copies)

* "Memory Program" feature is available only along with the ADF (Option.)

■ Programming Procedure

- Example -

- 50 sheets for 1st original
- 20 sheets for 2nd original

1 Press "AUTO PRINT" button



Programmed printing is not available without the ADF installed.

2 Press "PROGRAM" button



AUTO PRI

1ST ORIGINAL X

COPY

BLACK

The number of originals programmed must be the same as the number of originals in the ADF.

3 Place 1st original face-down in the ADF and enter the print quantity desired

5 0

Input [50] for the print quantity for 1st original with print quantity keys.

4 Press "ENTER" button to confirm the 1st original



AUTO PRI

2ND ORIGINAL X

COPY

BLACK

Programmed mode for the next original is automatically started by pressing "ENTER".

- 5 Place 2nd original face-down in the ADF and enter the point quantity desired

2 0

AUTO PRI
2ND ORIGINAL X 20 COPY
BLACK

Input [20] for the print quantity for 2nd original with print quantity keys.

- 6 Press "ENTER" button to confirm the program of the 2nd original

ENTER

AUTO PRI
3RD ORIGINAL X COPY
BLACK

Pressing "ENTER" without inputting the print quantity will automatically program the print quantity selected for the previous original for the current one.

Repeat steps #5 and #6 for more originals (up to 15).

- 7 Press "START" button to start programmed printing



AUTO PRI
3RD ORIGINAL X COPY
BLACK

"Two-up" feature is not available with "Memory program".

SORTING PRINTS INTO DIFFERENT SIZE OF GROUPS

[MEMORY PROGRAM]

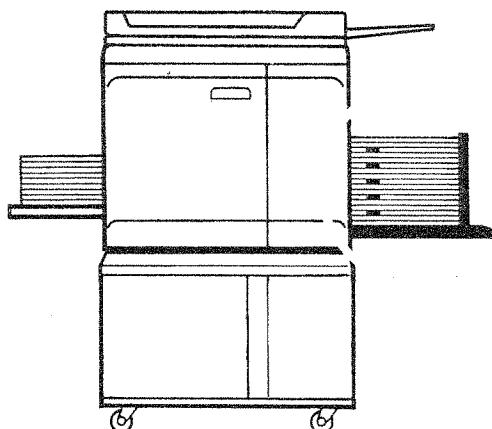
■ Cancelling "MEMORY PROGRAM"

Press "RESET" button



"Memory program" is automatically cancelled if all originals are cleared from the ADF when printing finishes.

■ Programmed Printing Example



1st Original	20 Sheets
2nd Original	40 Sheets
3rd Original	15 Sheets
4th Original	20 Sheets
5th Original	50 Sheets

In the example shown above, five originals were loaded into the ADF. Each original was programmed for different quantities and automatically printed.

Note: Printing starts from the original which was programmed last.

■ Confirming & Correcting a Program

- 1** Press "CONFIRM/CORRECT" button to select a desired original

AUTO PRI		
3RD ORIGINAL X	15	COPY
CONFIRM/CORRECT		BLACK

CONFIRM
CORRECT ▲

AUTO PRI		
2ND ORIGINAL X	40	COPY
CONFIRM/CORRECT		BLACK

CONFIRM
CORRECT ▼

AUTO PRI		
4TH ORIGINAL X	20	COPY
CONFIRM/CORRECT		BLACK

If the desired original is lower in number than the one displayed, press the upper "CONFIRM/CORRECT" button.

If the desired original is higher in number than the one displayed, press the lower "CONFIRM/CORRECT" button.

- 2** Press "CLEAR" button

C

AUTO PRI		
4TH ORIGINAL X		COPY
CONFIRM/CORRECT		BLACK

When the desired original is displayed, press "CLEAR" button to clear the print quantity.

- 3** Reininput the desired quantity and press the "ENTER" button

2 5

ENTER

AUTO PRI		
4TH ORIGINAL X	25	COPY
CONFIRM/CORRECT		BLACK

If the "START" button is pressed without reinputting the print quantity after clearing the previous one, all the programs set for the displayed original and the rest after it are cancelled and the programmed printing starts from the original previous to the one displayed.

ADVICES WHEN IN TROUBLE

This section describes how to respond to advisory messages displayed on the LCD panel and how to troubleshoot when an operational problem occurs.

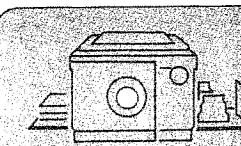
Advisory Messages and Action to Take.....44

REPLACE INK BOTTLE	44
(Ink has run out)	
EMPTY DISPOSAL BOX	45
(The master disposal box has got full)	
REPLACE MASTER ROLL	46
(Master has run out)	
Status Check Messages	48
Error Messages	51
Troubleshooting	55
• The machine does not start even when you press the power switch	55
• The "CLOSE COVER" message remains displayed even if the front cover is closed	55
• There is no image on prints stocking in the paper receiving tray	55
• Some images are missing on prints	55
• The background of an original is picked up on prints	56
• Images are printed excessively faint or blurred	56
• Vertical blank line are found on printed copies	56
• Printing paper sticks to the drum surface	57
• The back side of finished prints is marked with ink smudges	57
• Printing paper slips when it is fed	57
• The drum unit does not go in all the way	57
Cleaning	58

ADVISORY MESSAGES AND ACTION TO TAKE

[REPLACE INK BOTTLE]

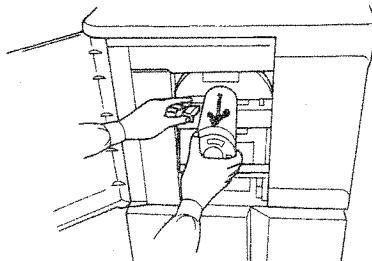
When ink runs out, the LCD panel displays the message shown on the right. Follow the steps below to replace the empty ink bottle with a new one.



**REPLACE
INK BOTTLE**

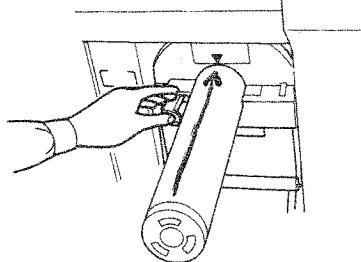
■ REPLACE INK BOTTLE (Ink has run out)

1 Pull the empty ink bottle out of the machine



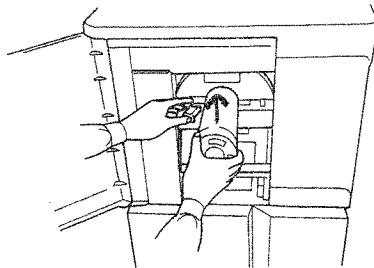
Open the front cover, release the green "ink bottle locking lever" and pull the empty ink bottle out of the drum unit.

2 Match the arrow on a new ink bottle with the counterpart



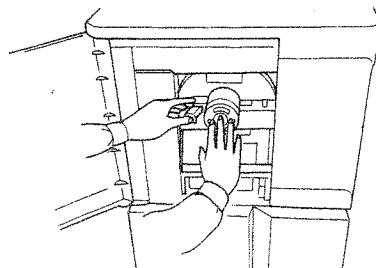
Remove the cap from a new ink bottle. While pushing the "ink bottle locking lever" aside, rotate the ink bottle until its arrow meets the arrow marked on the drum.

3 Insert the new ink bottle



Insert the ink bottle all the way into the drum.

4 Lock the ink bottle in place



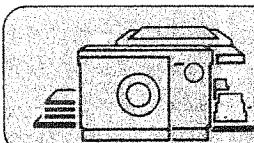
Return the "ink bottle locking lever" to keep the ink bottle in place.
Close the front cover.

- Always be sure that the color of the new ink bottle is the same as that of the old one. Never insert a bottle of a different color ink. To change print color, replace the entire drum unit, rather than the ink bottle alone.
- The master wrapped around the drum has ink on it. Keep your hands and clothing away from it. If your hands come into contact with any ink, wash them immediately and thoroughly with cleanser.

[EMPTY DISPOSAL BOX]

Used masters are fed into the master disposal box, which is located under the Scanner table.

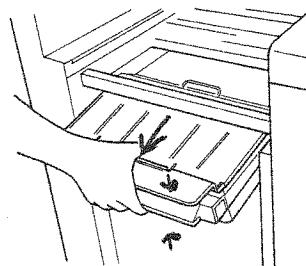
When the master disposal box is full, the messages shown on the right appears on the display. Follow the steps below to remove and empty the full master disposal box.



EMPTY
DISPOSAL BOX

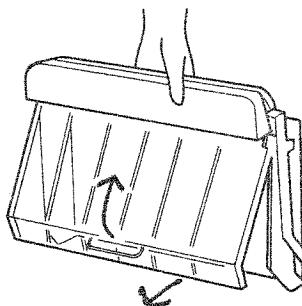
■ EMPTY DISPOSAL BOX (The master disposal box has got full)

1 Pull out the master disposal box



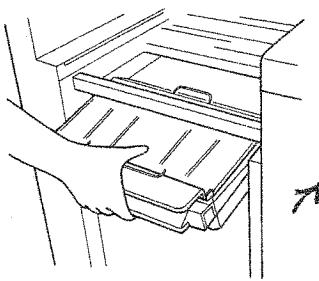
Hold together both upper and lower handles of the master disposal box.

2 Discard used masters



Open the cover by pulling the locking lever and discard used masters, holding the handles.

3 Replace master disposal box

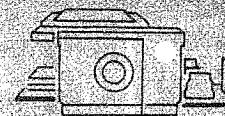


Holding the handles, insert the master disposal box into position as far as it will go.
Press "ALL Reset" button.

ADVISORY MESSAGES AND ACTION TO TAKE

[REPLACE MASTER ROLL]

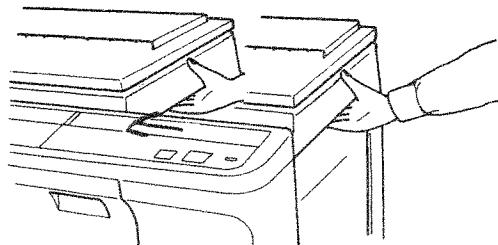
When the master roll runs out, the LCD panel displays the message shown on the right. Follow the steps below to replace the depleted master roll with a new one.



REPLACE
MASTER ROLL

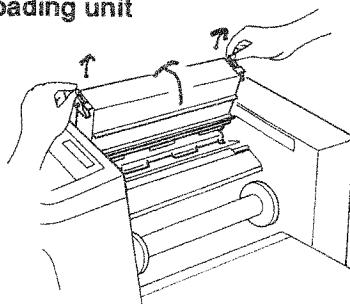
■ REPLACE MASTER ROLL (Master has run out)

1 Move the scanner table



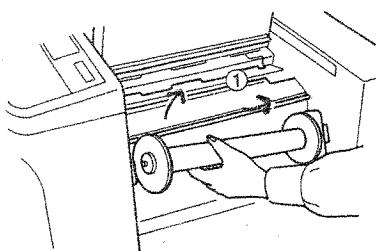
Fold down the original tray if the optional ADF unit is installed. Grasp the "scanner table release" lever to slide the table to the left until it comes to a halt.

2 Open the master loading unit



To open the unit, simultaneously pull down the green "master loading unit release" levers, which are located on either side of the unit.

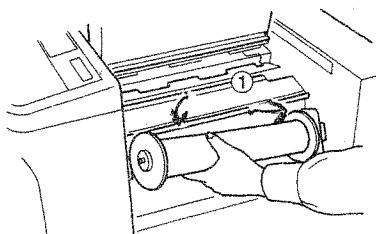
3 Take the depleted master roll out of the machine



Pull and open the master holder and lift up the depleted master roll out of the holder pushing it in the direction of the arrow (1).

Note: The holder of the colored flange has a spring built -in. Gently press the master roll against the holder when inserting or removing a master roll.

4 Insert a new master roll

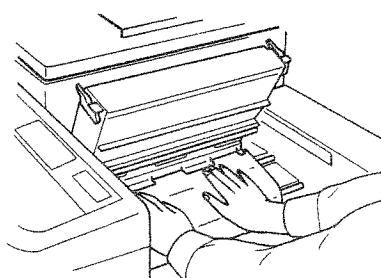


Place a new master roll with the colored flange toward the rear side of the machine, and insert the roll while pushing it in the direction of the arrow (1).

Note:

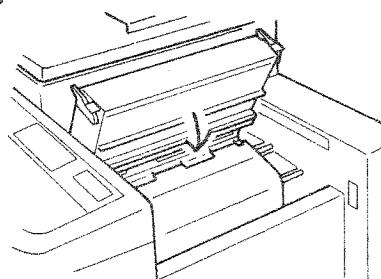
Do not attempt to use the remainder on the replaced master roll since there is not enough to make one master.

5 Insert the lead edge of the master between film tabs



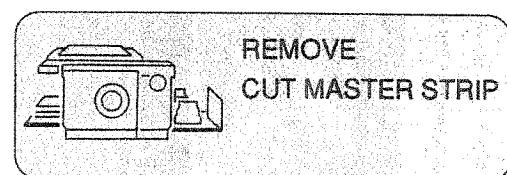
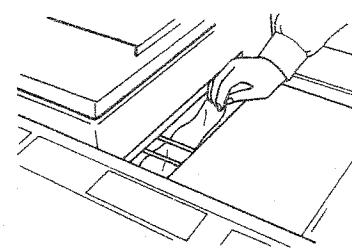
Insert the leading edge of the master between the green plastic film tabs.

6 Close the master loading unit

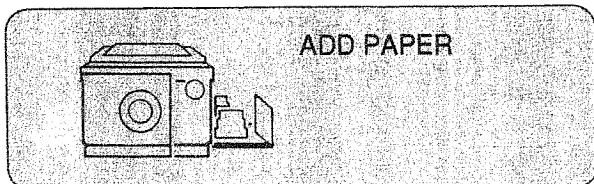


Close the master loading unit and then return the scanner table, and the original tray if the optional ADF unit is installed, to their original positions.

If the message shown on the right is displayed
on the LCD panel

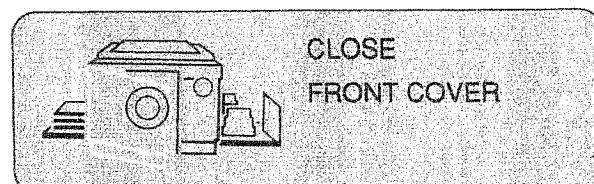


If the leading edge of the master is inserted far beyond the green plastic tabs, the excess portion will be automatically cut off, and the above message will appear on the LCD panel.
Be sure to remove the cut-off strip.

■ Status Check Messages

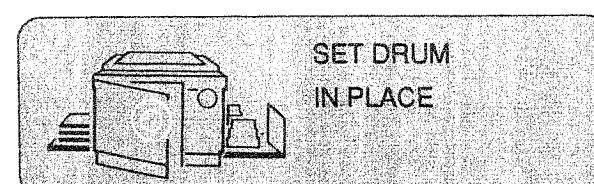
Add printing paper to the paper feed tray.

*Ref. → "Setting up the Paper Feed Tray"
(Pag. 20)*



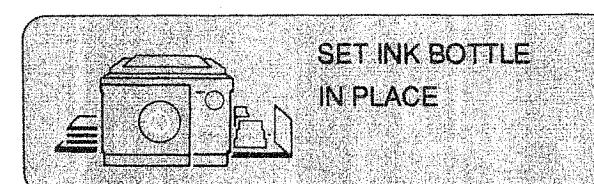
Press the lower right area of the front cover to close it securely.

Ref. → "Product Features" (Pag. 2)



Slide the drum unit all the way into place and then let down the lever. Be sure that the drum unit is securely locked in place.

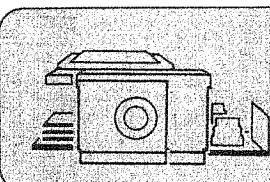
Ref. → "Product Features" (Pag. 2)



If the ink bottle is not installed properly, reinsert it all the way and then hook the locking lever to it to securely lock it in place. If the bottle is depleted, replace it with a new one. Be sure to replace it with a bottle of the same color ink.

Ref. → "REPLACE INK BOTTLE" (Pag. 44)

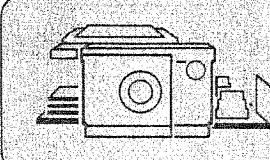
*If an ink bottle is not installed properly, it cannot be locked securely with the "ink bottle locking lever."
Be sure to insert the bottle all the way in place and then lock it.*



SET LEAD EDGE
OF MASTER
UNDER
GREEN FILM.

Insert the leading edge of the master between the green plastic film tabs on the machine.

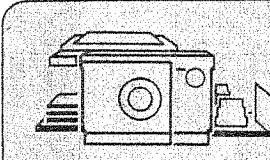
Ref. → “REPLACE MASTER ROLL”
(Pag. 46)



REMOVE
CUT MASTER STRIP

A cut-off piece of the master is left behind in the inner part of the master loading unit (which is illuminated with a red light). Slide the scanner table to the left by grasping the “scanner table release lever” and remove the piece.

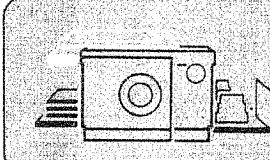
Ref. → “REPLACE MASTER ROLL”
(Pag. 46)



CLOSE MASTER
LOADING UNIT

Close the master loading unit securely. Return the scanner table, and the original tray if the optional ADF unit is installed, to their original positions after closing the unit.

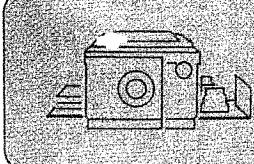
Ref. → “Product Features” (Pag. 2)



SET ORIGINAL
FEED TABLE
IN PLACE

Move the scanner table until it locks securely into its original position. Grasp the “scanner table release lever” to let free the scanner table, if necessary to move the table, and release the lever to lock the table into position.

Ref. → “Product Features” (Pag. 2)

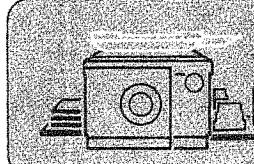
■ Status Check Messages

SET MASTER
DISPOSAL BOX
IN PLACE

The master disposal box is not installed or is not completely in place.

Slide the scanner table to the right and check the installation of the master disposal box. When installing the disposal box, always hold the handles and insert the box all the way.

*Ref. → “EMPTY DISPOSAL BOX”
(Pag. 45)*

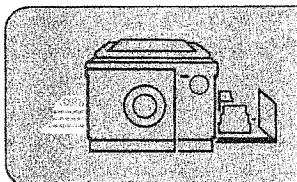


CLOSE
STAGE COVER

Gently close the ADF unit (optionally installed).

Ref. → “Product Features” (Pag. 2)

■ Error Messages



PAPER JAM
CHECK PAPER FEED
AREA

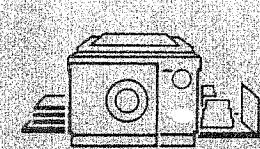
Remove the jammed printing paper in the paper feed section and then press the "ALL RESET" button.

[If this message repeatedly appears]

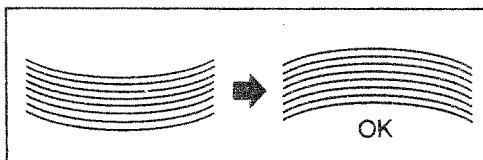
Check if the paper feed pressure adjusting lever is correctly positioned according to paper thickness, and change the printing paper, if paper feed condition isn't improved.

Ref. → "Suitable/Unsuitable Printing Paper" (P. 10)

Ref. → "3. Adjust paper feed pressure" under "Setting up the Paper Feed Tray." (P. 20)



PAPER JAM UNDER
DRUM
PULL OUT DRUM



Open the front cover, pull out the drum unit and then remove the jammed printing paper.

Ref. → "Product Features" (Pag. 2)

[If this message repeatedly appears]

1. Be sure to use printing paper free of folds andcurls.

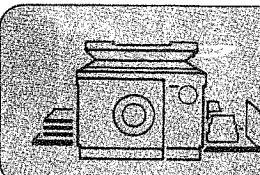
Ifcurls on paper are not avoidable, place the printing paper so that the curl faces down.

Ref. → "Suitable/Unsuitable Printing Paper" (P. 10)

2. Printing paper tends to stick to the drum surface if the top margin is too narrow on the original or if the upper portion of the original uses a large amount of ink.

To solve the problem, lower the printing position to provide a wider top margin. If this does not work, reverse the top and bottom of the original and then restart printing from the beginning.

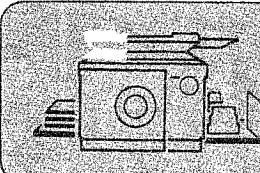
Ref. → "Adjusting the Printing Position" (P. 31)

■ Error Messages

**ORIGINAL MISFEED
IN ADF
OPEN STAGE COVER
/REMOVE ORIGINAL**

An original has jammed in the paper feed section of the ADF unit (optionally installed). Open the ADF unit, remove the jammed original while pushing the "original release lever," and then reset the original. Check to see if another original is left on the stage glass or in the ADF unit.

Ref. → "Product Features" (Pag. 2)



**ORIGINAL JAM
IN ADF
OPEN STAGE COVER
/REMOVE ORIGINAL**

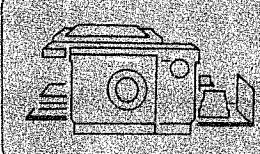
An original has jammed in the paper ejection section of the ADF unit (optionally installed). Remove the jammed original and then reset it.

Ref. → "Product Features" (Pag. 2)

**NO MASTER ON DRUM
SET ORIGINAL IN PLACE AND
PRESS START BUTTON**

Place an original on the stage glass or in the original tray if the optional ADF unit is installed, and then press the "START" button for restarting master making operation.

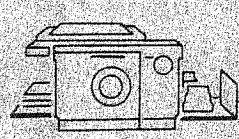
Ref. → "The Operation Panel (25)" (P. 5)



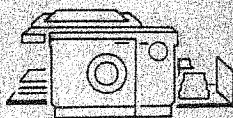
**MASTER MISFEED
RESET MASTER**

The master has not been fed satisfactorily. Open the master loading unit to reset the master.

*Ref. → "REPLACE MASTER ROLL"
(Pag. 46)*



MASTER CLAMP
ERROR
REMOVE
MASTER CUT STRIP



MASTER CLAMP
ERROR
RESET MASTER

TO RETURN TO START
PRESS START BUTTON

PULL OUT THE DRUM
AND CHECK MASTER ON IT

The master has not been properly wrapped around the drum.

A cut-off piece of master is left behind in the inner part of the master loading unit (which is illuminated with a red light). Slide the scanner table to the left by grasping the "scanner table release lever" and remove the piece.

The following message will appear.

Open the master loading unit and reset the master. Close the master loading unit and return the scanner table to its original position.

The following message will appear.

Ref. → "REPLACE MASTER ROLL" (P. 46)

Press the "START" button.

Restart the operation from the beginning.

Ref. → "The Operation Panel (25)" (P. 5)

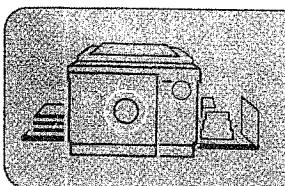
Open the front cover of the machine and pull out the drum unit. Check to be sure that the master is properly wrapped around the drum and then return the drum unit to its original place.

Ref. → "Product Feature" (P. 2)

TO RESUME
PRESS START BUTTON

Press the "START" button.

Ref. → "The Operation Panel (25)" (P. 5)

■ Error Messages

USED MASTER NOT
DISCHARGED
PULL OUT DRUM
AND CHECK

The used master is still left on the drum.

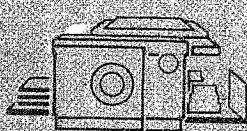
Open the front cover and pull out the drum unit. Remove the remaining master and return the drum unit to its place. Close the front cover and press the "ALL RESET" button. The following message will then appear.

Ref. → "The Operation Panel (28)" (P. 5)

TO RESUME
PRESS START BUTTON

Press the "START" button.

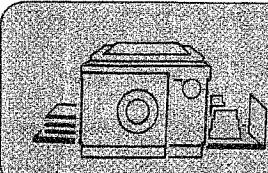
Ref. → "The Operation Panel (25)" (P. 5)



REMOVE
JAMMED MASTER
IN DISPOSAL UNIT

Move the scanner table to the right and remove the master disposal box. Remove jammed masters at the entrance of the master removal unit, replace the master disposal box and then return the scanner table into its original position.

Ref. → "Product Feature" (P. 2)



T#
CALL SERVICE
TEL 0000-00-0000

The machine needs attention by a trained technician.

Dial the displayed number and report the displayed trouble number to the service personnel.

TROUBLESHOOTING

The machine does not start even when you press the power switch.

1. Check the connection of the power cord.
 - Is the plug in the socket ?
 - Is the connection of the power cord to the machine loose ?
Try another wall socket
2. Check the commercial power circuit breaker.

The "CLOSE COVER" message remains displayed even if the front cover is closed.

- There is a metal plate at the lower right part of the front cover. Unless this plate is in direct contact with the magnet at the lower part of the machine , the message will remain displayed. Press the lower right area of the front cover to close it tight.

Ref. → "Product Features" (Pag. 2)

There is no image on prints stacking in the paper receiving tray.

1. Check to see if the original is placed face up. If it is, replace the original face down.
2. Check to see if the master has been installed in reverse. The normal master cannot be created if it is installed upside down.

Ref. → "Basic Printing Procedure" (Pag. 22)

Some images are missing on prints.

1. Check to see if the stage glass is stained with correction fluid or glue. If it is, clean the glass with a soft cloth or tissue paper.
2. Check to see if you have attempted to print with the stage cover (or the ADF unit if it is optionally installed) open.
If the cover (or the ADF unit) is left open, some images may not be reproduced due to exposure to light. Always keep the stage cover (or the ADF unit) closed while an original is being scanned.
3. Check to be sure that selections, which you have made with the "ORIGINAL" type select button, are in agreement with the original.
If your original does not have margins around its edges, be sure to select "NO MARGIN" with the "ORIGINAL" button on the sub-panel.

Ref. → "Selecting Original Types [ORIGINAL TYPE SELECT]" (Pag. 26)

The background of an original is picked up on prints.

If newspaper or color paper is used as an original, its background could sometimes be picked up on prints.

1. Turn the contrast adjusting dial to LIGHTER and then restart operation from master making.

Ref. → "The Operation Panel (2)" (P. 4)

2. If the "FINE ENHANCE" indicator is ON on the sub-panel, press the button to cancel the fine enhancement feature.

Ref. → "The Operation Panel (3)" (P. 4)

Caution! If "READY TO PRINT" is displayed, press the "MASTER MAKING/PRINT" button to display "READY TO MAKE MASTER" and then resume operation.

Images are printed excessively faint or blurred.

1. If you leave the machine unused for long periods of time, ink on the drum surface dries. Dry ink could cause faint or blurred images when printed.

– Press the "TEST PRINT" button several times until a clear printed image is obtained.

Note: Turn on "Auto-idling" switch (located on the sub-panel) to prevent light images caused by periods of non-use.

2. Light originals result in light images as well.

– Turn the contrast adjustment dial to "DARKER" and then restart operation from master making.

If the machine is used under low temperature (below 59°F) or the ink bottles are stored in a very cold place, ink does not flow smoothly to the drum surface causing a light or faded print image.

– Warm up the room or ink bottle before operating the machine

Ref. → "The Operation Panel (1)" (P. 4)

Vertical blank lines are found on printed copies.

1. The thermal print head (device which makes the master) is smudged with master paper powder.

– Open the master loading unit and clean the thermal print head using a soft cloth or tissue paper.

2. The stage glass is stained with white-out correction fluid or dust.

– Open the Stage Cover and clean the Stage Glass using a soft cloth or tissue paper.

3. The transportation belt of the ADF (option) is stained with white-out correction fluid or dust.

– Clean the transportation belt of the ADF (option).

Printing paper sticks to the drum surface.

1. Lower the vertical printing position with the "PRINT POSITION" adjusting button.

Ref. → "The Operation Panel (18)" (P. 5)

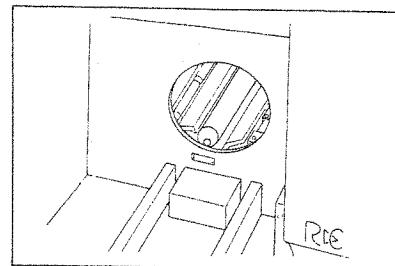
2. Some printing paper has a tendency to stick due to its quality.
– Try a different type of paper.

Ref. → "Suitable/Unsuitable Print Paper" (Pag. 10)

The back side of finished prints is marked with ink smudges.

1. The rubber pressure roller, that keeps printing paper pressed against the drum during printing, is stained with ink.
– Remove the drum unit to clean the roller gently with either a soft cloth or tissue paper.
2. Check to see if the paper size setting is in agreement with the size of printing paper actually being used. If not, change the paper size setting with the "PAPER SIZE" button to make the setting in agreement with the size of printing paper to be used.

Note: If the paper size setting is greater than the size of printing paper actually being used, printing extends beyond the paper and, as a result, the rubber roller (which is mentioned above) is stained with ink.

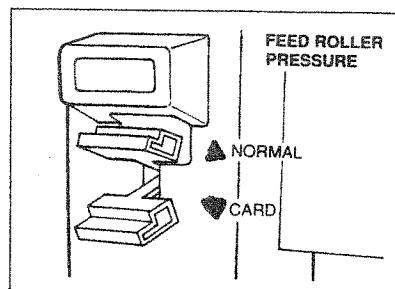


Printing paper slips when it is fed.

Misfeeding of printing paper could cause a paper jam.

- Set the paper feed pressure adjusting lever to "CARD".

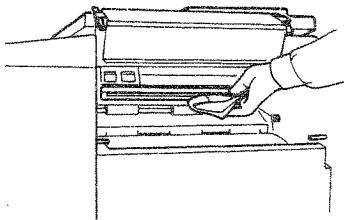
Ref. → "Setting Up the Paper Feed Tray" (Pag. 20)



The drum unit does not go in all the way.

The drum unit does not go in all the way if the handle is let down.

- Slide in the drum with the handle up, and lower the handle after the drum is fully inserted.

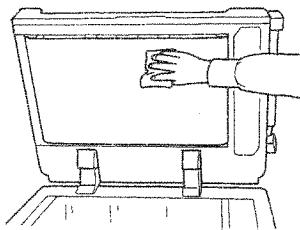
— Thermal Print Head —

Clean the thermal print head every time you replace a master roll.

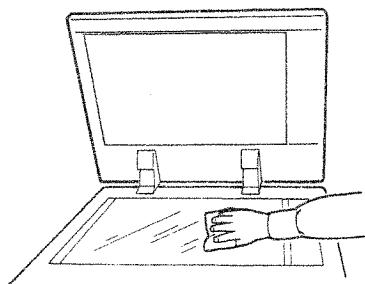
The thermal print head is located inside the master loading unit.

Wipe it gently a few times with either a soft cloth or tissue paper dampened with a little alcohol.

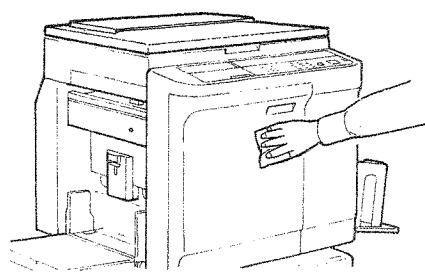
Caution! Do not touch the thermal print head with a hard object or subject it to shock.

— ADF Unit (optional) —

Raise the (optional) ADF unit and wipe the transfer belt a few times with a soft cloth.

— Stage Glass —

Wipe the glass a few times with a soft cloth if it is stained.

— Machine Exterior —

Clean the plastic exterior with "RISO Cleaner."

Caution! Never use rubbing alcohol or a solvent for cleaning.

OPTIONS

The following options are available for RC 6300 to enhance
the usefulness and potentiality of the machine.

Option's Line-up	60
Digitizer 5800	62
Editing Features & Rules	62
Basic Editing Board Operating Procedure	64
Editing for Two-Color Printing with Drum Change	67
ADF 5800	70
ADF – Original	70
ADF – Operation	71
Color Drums	72
Changing Colors	72

OPTION'S LINE-UP

A variety of options are offered to enhance the capabilities of the RISOGRAF RC6300. Take advantage of these options and expanded capabilities of the RISOGRAF RC6300.

• **Digitizer 5800**

The digitizer 5800 allows you to divide an original into areas and to edit it area by area to help create a personalized, attractive print. Features you can specify include framing, negative/positive reversal and script outlining.

Note: For an example operation of the digitizer, refer to "Digitizer 5800 – Editing Features & Rules."

• **ADF 5800 (Automatic Document Feeder)**

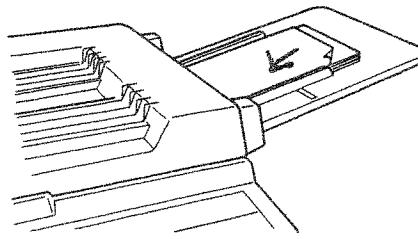
The ADF feature works best with the following originals. Other originals could cause paper jams or could be torn.

- Standard sizes: Statement (5.5" x 8.5"), Letter (8.5" x 11"), Legal (8.5" x 14") and Ledger (11" x 17")
- Thickness ranging from 13 lbs. to 34 lbs.
- Paper of low transparency

[Originals Unsuitable for ADF Unit]

The following originals are unsuitable for the ADF. Place them directly on the stage glass.

- Irregular-size originals
- Multi-sheeted originals. Stapled or clipped originals
- Wrinkled, curled or creased originals
- Glued or punched originals
- Originals with torn or rough edges
- Carbon-backed originals
- Highly transparent originals (such as OHP transparencies and tracing paper)



• **Color Drums [with a dedicated case]**

<Six Colors: black, blue, red, green, brown & yellow>

There are six color drums to choose from. By replacing a complete drum unit with another, you can achieve multi-color prints.

Note:

For how to exchange drum units for multi-color printing, refer to "Color Drums - Changing Colors."

By combining color drums with the digitizer, both effective editing and multi-color printing can be obtained.

- **Job Separator**

This equipment sorts prints while printing is in progress and can make your working hours more productive.

- **Key/Card Counter**

With a single touch, this counter can display the number of prints you have printed and of master sheets you have consumed during a preset period of time. The counter therefore can play an effective role in cost control. With the counter, you can also keep track of the number of prints and master sheets used by each department.

<Optional Cards>

Type	No.	Quantity
Card kit A	31-99	69
Card kit B	100-199	
Card kit C	200-299	
Card kit D	300-399	100
Card kit E	400-499	

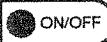
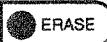
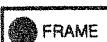
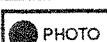
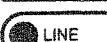
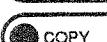
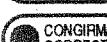
- **RC Sorter**

Note: Ledger-size paper can't be stored in RC Sorter.

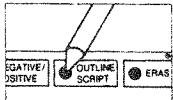
■ Editing Features & Rules

With editing features, you can create attractive, easy-to-read prints. You can divide an original into up to four areas and specify different editing features area by area.

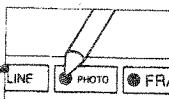
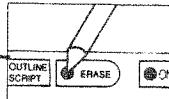
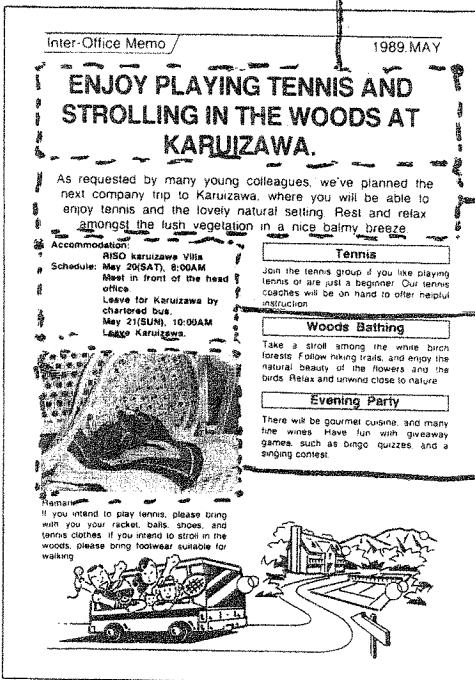
Edit Modes

-  ON/OFF Turns the edit board ON/OFF.
-  ERASE Erases a specified area.
-  OUTLINE SCRIPT Outlines characters in a specified area.
-  NEGATIVE/POSITIVE Reverses black and white (negative/positive) in a specified area.
-  FRAME Screens a specified area.
-  PHOTO Designates a specified area for the photo mode.
-  LINE Designates a specified area for the line mode.
-  COPY Copies only a specified area.
-  CONFIRM/CORRECT Verifies/corrects an area designation and/or mode selection.
-  CANCEL Cancels a selected area and resets the CONFIRM/CORRECT status.

Editing example (1) - Editing area by area



▼ Original



Inter-Office Memo

1989.MAY

ENJOY PLAYING TENNIS AND STROLLING IN THE WOODS AT KARUIZAWA.

Accommodation

RISO Karuizawa Villa
Schedule: May 20(SAT), 8:00AM
Meet in front of the head office.
Leave for Karuizawa by chartered bus:
May 21(SUN), 10:00AM
Leave Karuizawa.

Tennis

Join the tennis group if you like playing tennis or are just a beginner. Our tennis coaches will be on hand to offer helpful instruction.

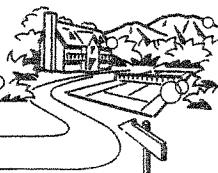
Wood Bathing

Take a stroll among the white birch forests. Follow hiking trails, and enjoy the natural beauty of the flowers and the birds. Relax and unwind close to nature.

Evening Party

There will be gourmet cuisine, and many fine wines. Have fun with giveaway games, such as bingo, quizzes, and a singing contest.

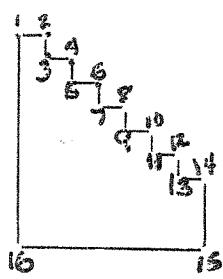
Remark:
If you intend to play tennis, please bring with you your racket, balls, shoes, and tennis clothes. If you intend to stroll in the woods, please bring footwear suitable for walking.



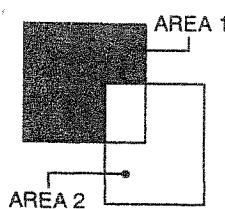
▲ A print sample with four different edit modes

- Notes on specifying the edit area -

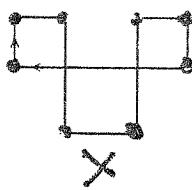
<1>



<2>



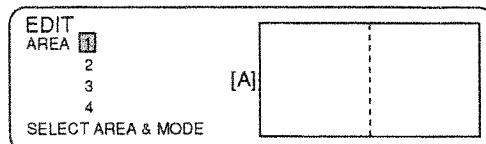
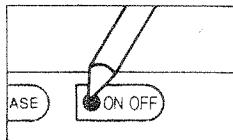
<3>



<1> An area can be designated with a maximum of 16 points in the rectangular format.

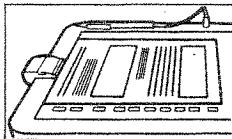
<2> In an overlapped section created by two areas, priority is given to the designation of a greater area number.

<3> No sides of a designated area may intersect or overlap each other.

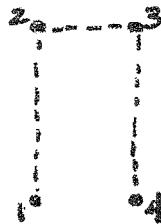
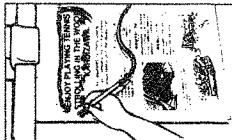
DIGITIZER 5800**■ Basic Editing Board Operating Procedure****1 Turn on the editing board.**

Touch [ON/OFF] on the panel board of the editing board with the stylus. The display shown above will appear on the LCD panel of the machine.

Note: To operate the editing board, always use the stylus provided on the editing board. To select a mode, touch the black dot located beside each mode name with the stylus. To designate an area, lightly touch each corner point of the area to be designated with the stylus.

2 Place an original on the editing board.

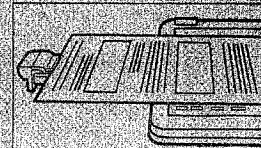
Place an original face up on the editing board. Catch the top edge of the original with the original scroll clip on the editing board.

3 Designate areas.

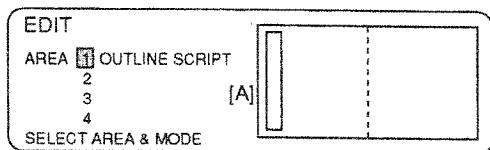
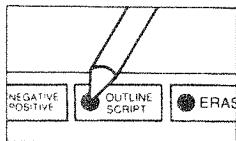
With the stylus, touch one by one the four or more corner points that define an area you wish to edit. The LCD panel will display the frame of the area.

Note:

If the lower part (the right portion) of the original overhangs the editing board and is not available for area designation, slide the original scroll clip to the left to position that part on the editing board.



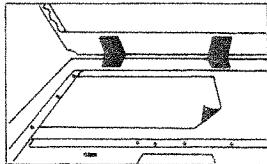
4 Select a mode



With the stylus, touch the black dot of a mode you wish to select. The selected mode will be displayed on the LCD panel.

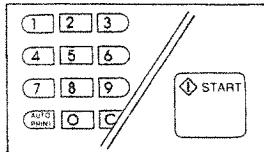
Upon completion of mode selection for an area, the editing board will automatically ready itself for designation of the next area. You can continuously designate a maximum of four areas. Editing example (1) shows selection of "OUTLINE SCRIPT" for area 1, "ERASE" for area 2, "NEGATIVE/POSITIVE" for area 3 and "PHOTO" for area 4.

5 Shift the original for printing operation



Release the original from the original scroll clip and place it face down on the stage glass.

6 Print



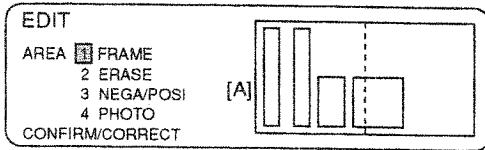
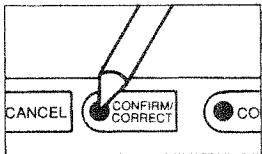
Enter the print quantity and then press the "START" button. As one print sample is produced, check the quality of its finish and press the "START" button again, if the quality is as desired, to start printing.

Note:

If you select "DOT PHOTO", "SHARPEN IMAGE" or "FINE ENHANCE" feature on the sub-panel of the machine, it is applied to the related areas of the edited original as described below:

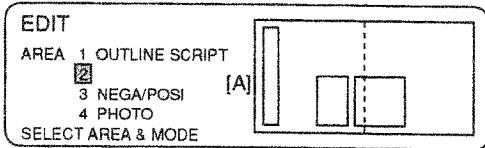
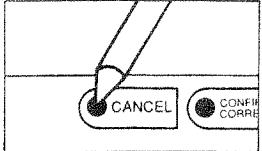
- "SHARPEN IMAGE" feature is applied to: Line-copy-processed areas (areas not designated by PHOTO)
- "DOT PHOTO" feature is applied to: Photo-processed areas (areas not designated by LINE)
- "FINE ENHANCE" feature applies to: all areas

- Confirmation and Correction of Modes -



Touching "CONFIRM/CORRECT" with the stylus sets area 1 to the confirm/correct status. Touching "CONFIRM/CORRECT" for the second time will set the next area to that status. In this manner, you can confirm all four areas. To change a selected mode, set a relevant area to the confirm/correct status and then select a new mode by touching the key of a new one.

- Change of Area Designation -



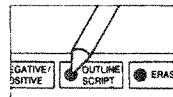
Touch "CONFIRM/CORRECT" with the stylus to access the "CONFIRM/CORRECT" status. Set a relevant area to that status by repeated touches of "CONFIRM/CORRECT" key and touch "CANCEL." This action will erase the selected area frame and cancels both the area designation and its mode selection. Designate a new area and then select a new mode, if necessary.

DIGITIZER 5800

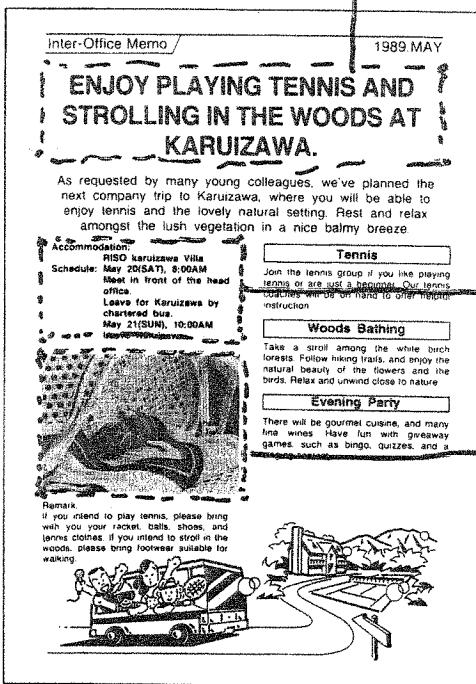
■ Editing For Two-color Printing with Drum Change

You can produce visually effective multi-color prints by combining editing features with drum replacement.

Editing example (2) - Printing designated areas in a different color



▼ Original



Inter-Office Memo

1989.MAY

As requested by many young colleagues, we've planned the next company trip to Karuizawa, where you will be able to enjoy tennis and the lovely natural setting. Rest and relax amongst the lush vegetation in a nice balmy breeze.

Accommodation:

RISO Karuizawa Villa

Schedule: May 20(SAT), 8:00AM
Meet in front of the head office.
Leave for Karuizawa by chartered bus.
May 21(SUN), 10:00AM
Leave Karuizawa.

Tennis

Join the tennis group if you like playing tennis or are just a beginner. Our tennis coaches will be on hand to offer helpful instruction.

Woods Bathing

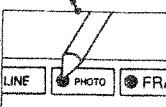
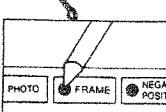
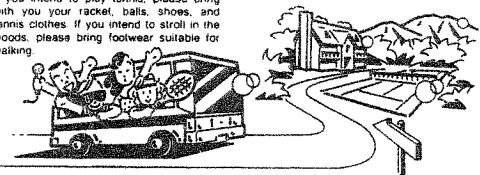
Take a stroll among the white birch forests. Follow hiking trails, and enjoy the natural beauty of the flowers and the birds. Relax and unwind close to nature.

Evening Party

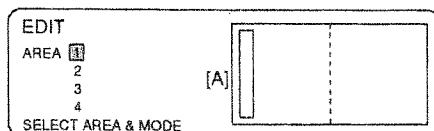
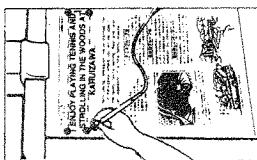
There will be gourmet cuisine and many fine wines. Have fun with giveaway games, such as bingo, quizzes, and a singing contest!

Remark:

If you intend to play tennis, please bring with you your racket, balls, shoes, and tennis clothes. If you intend to stroll in the woods, please bring footwear suitable for walking.

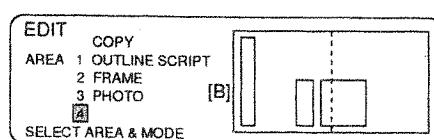
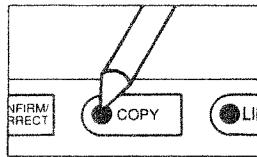


▲ A print sample with four different edit modes

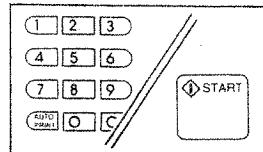
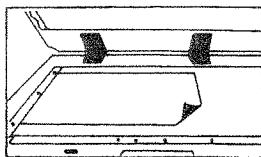
DIGITIZER 5800**■ Editing For Two-color Printing with Drum Change****1 Designate areas**

With the stylus, touch the four or more corner points one by one to define an area you wish to edit. The frame of the designated area will be displayed on the LCD panel. Touch the black dots of the respective modes you wish to apply in the respective areas.

Editing example (2) shows selection of "OUTLINE SCRIPT" for area 1, "FRAME" for area 2 and "PHOTO" for area 3.

2 Copy only designated areas

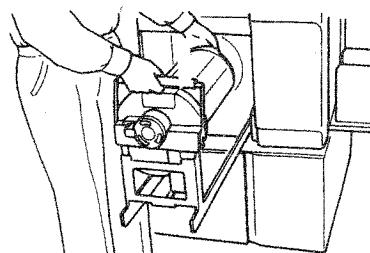
Touch "COPY" with the stylus to access the "COPY" mode. By this operation, those areas which you have designated in step 1 are exclusively selected to be printed.

3 Print

Release the original from the original scroll clip and place it face down on the stage glass. Enter the print quantity and then press the "START" button.

As one print sample is produced, check the quality of its finish and press the "START" button again if the quality is as desired, to start printing.

You have now completed printing areas specified for the first color. Next, designate the areas for the second color.

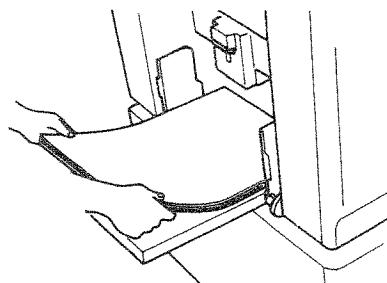
4 Exchange drum units

Exchange the drum unit of the first color with that of the second color.

With the power ON, remove the first color drum and replace it with the second one.

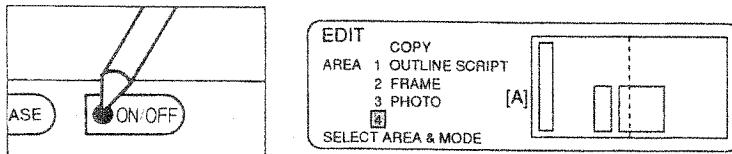
*Ref. → "Color Drums - Changing Colors"
(P. 69)*

5 Place the printed paper in the paper feed tray



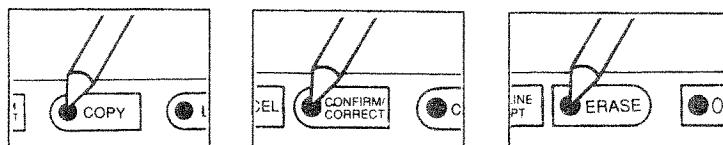
Place the sheets that have been printed in the first color face up in the paper feed tray for printing in the second color.

6 Turn on the editing board again



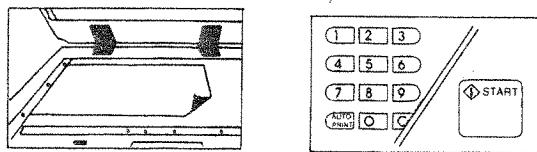
Touch [ON/OFF] on the panel board of the editing board with the stylus.
The editing data that have been used for the first color are held in memory on the editing board, and displayed on the LCD panel.

7 Changes mode settings in the previously designated areas



Touch "COPY" again to cancel the "COPY" mode.
Touch "CONFIRM/CORRECT" and then "ERASE".
The mode for area 1 has now been changed to "ERASE". Repeat this procedure to change the modes for areas 1 through 3 to "ERASE."

8 Print



Release the original from the original scroll clip and place it face down on the stage glass.
Enter the print quantity and then press the "START" button.

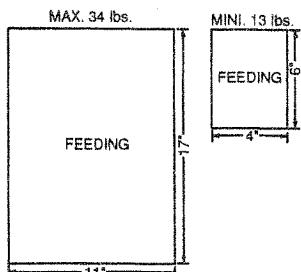
As one print sample is produced, check the quality and registration of its finish and press the "START" button again, if they are as desired, to start printing.

Now all but the areas that were designated for the first color are printed in the second color providing two-colored printouts.

70 / ADF - 5800

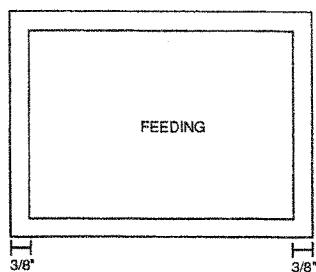
■ ADF - Originals

- Original Size and Weight -



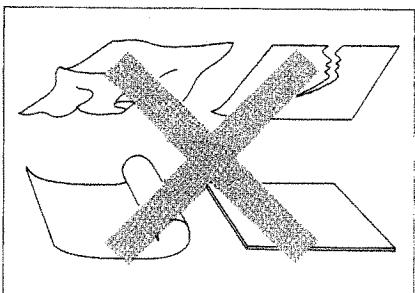
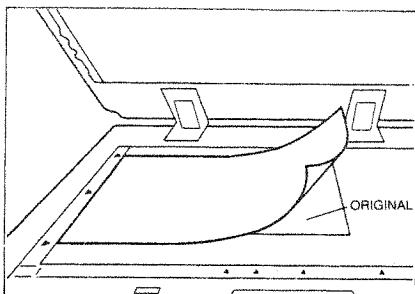
Make sure the paper being used for originals in the ADF ranges from size 4" X 6" to 11" X 17" and weights from 13 lbs. to 34 lbs.

- Maximum Image Area -



Make sure there is a margin of 3/8" or more at the top and bottom edges of originals.

- Unsuitable originals -



The following originals are unsuitable for the ADF.
So place them on the stage glass if you want to use them.

- Multi-sheeted or bound originals
- Originals with many wrinkles, curls, or folds
- Patched or punched originals
- Stapled or paper-clipped originals
- Carbon or chemically treated originals
- Transparent originals
(transparent films, tracing paper, etc.)
- Originals with torn or rough edges
- Irregular size originals

Note: Make sure ink, white-out or glue is completely dry on originals before use.

■ ADF - Operation

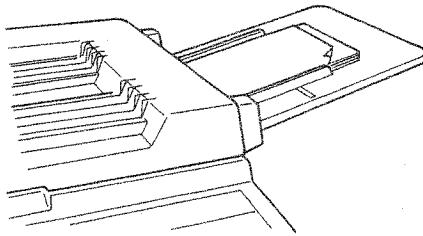
- 1 Press the "AUTO PRINT" button



AUTO PRI
READY TO PRINT
DENSITY MODE 11 X 17 BLACK

The LCD panel will display "AUTO PRI".

- 2 Place originals in the original tray of the ADF unit



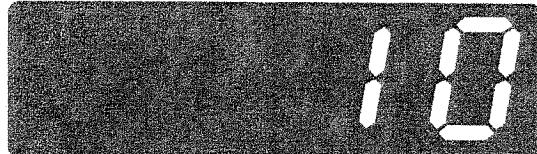
With the ADF unit closed, place the originals face down in the original tray and then adjust the original paper guides to the width of the originals in the tray. You can place a maximum of 50 originals at a time.

Note: Remove staples or paper clips from originals if they are attached.
Fan the separated originals and pile them up neatly.

- All originals must be the same paper size and quality.

- 3 Enter the print quantity

1 0



- 4 Press the "START" button



The process of master making through printing takes place automatically to produce as many prints as the number entered.

In addition to the preset print quantity, one extra copy will always be printed for each original. This extra, which is printed in the beginning, is a test print and not counted.

Note:

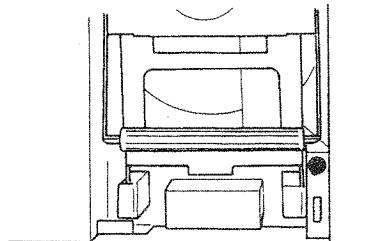
Pressing the "AUTO PRINT" button, while "AUTO PRI" is displayed on the LCD panel, will cancel the ADF feature.

COLOR DRUMS

■ Changing Colors

To change print colors, replace the color drum unit in the machine with another one. A drum unit in the form of a cartridge makes replacement easy. There are six ink colors to choose from, black, blue, red, green, brown and yellow.

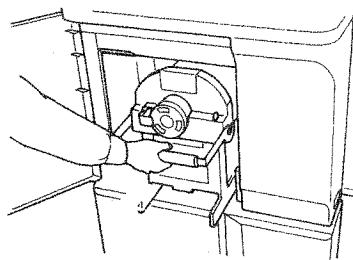
1 Be sure that the "Drum Home Position" button/indicator is ON



Open the front cover and be sure that the "Drum Home Position" button/indicator is ON to the right of the drum unit.

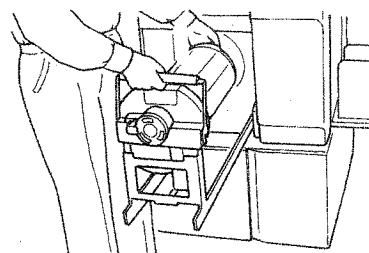
If it is not ON, press the "Drum Home Position" button. The drum will begin rotating and stop at the preset home position, and the indicator will light.

2 Slide out the drum unit



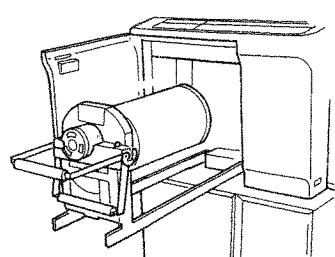
Raise the handle and slide out the drum unit.

3 Remove the drum unit



Lift the assembly with both hands to remove it from the machine.

4 Install a drum of another color of your choice



With the handle in its raised position, push your-selected drum unit in all the way horizontally, and then lower the handle. Be sure the assembly is in place and close the front cover.

Note: As the black drum unit is replaced by that of a different color, the LCD panel display switches from "BLACK" to "COLOR."

- Replace drum assemblies while the machine is turned ON.
- Be sure to store a removed drum unit in its case. Always store drum units in a horizontal position. Never stand them upright.

RISOGRAPH
RC
6300

Please contact the following for supplies and service:

 RISO, INC.

300 Rosewood Drive, Suite 210, Danvers, Massachusetts 01923
PHONE: (508)777-7377 FAX: (508)777-2517