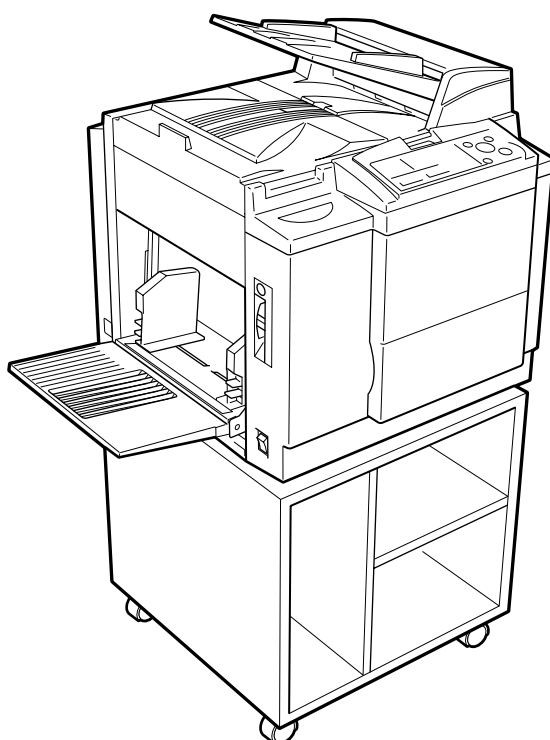


# DP-21S/21L/23S

## Instruction Manual Ver.1



---

Correct operation and periodic maintenance are essential for ensuring safe use of this machine. Thoroughly read this manual before using this machine.

---

**DUPLO CORPORATION**

Store this manual so that it can be retrieved whenever needed.

.....

# Introduction

Thank you for your purchase of the Duprinter DP-21S/21L/23S.

To ensure safe and efficient prolonged use of this machine, read and thoroughly understand this manual before using this machine. After using this manual, be sure to keep it in a place to handy reference.

**PLEASE NOTE**

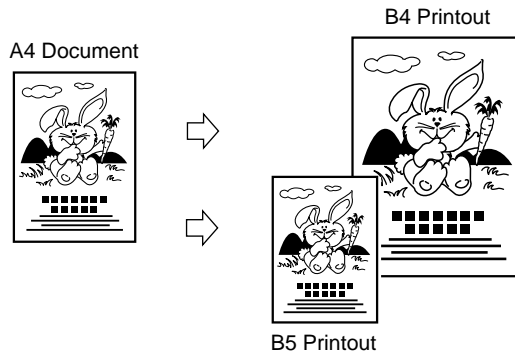
In the interest of upgrading our products, specifications and other data given in this manual are subject to change without notice. If the manual contains anything that you do not understand, contact the manufacturer for clarification.

# Function Quick Reference

The following is a quick reference to the functions of the DP-21S/21L/23S printer.

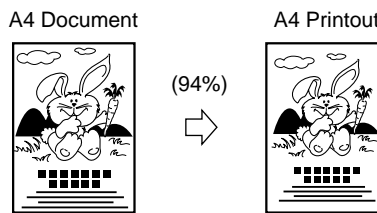
## Enlargement/Reduction ..... (➔ P.36)

This function copies a document on one standard paper size to another larger or smaller standard paper size.



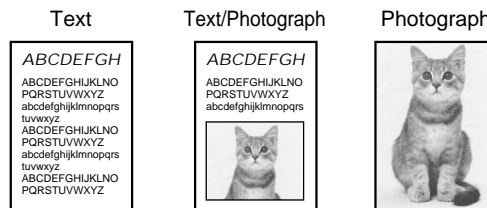
## 94% Reduction ..... (➔ P.37)

This function slightly reduces the size of a document when printing to the same standard paper size as the document.



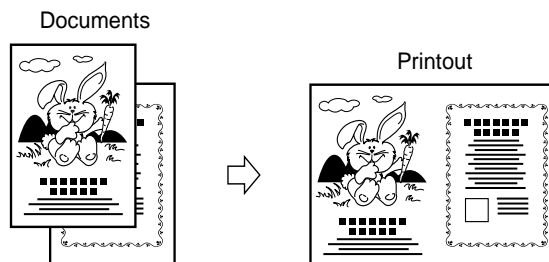
## Text/Photograph/Text and Photograph Mode ..... (➔ P.42)

This function selects the optimum print quality to match the document.



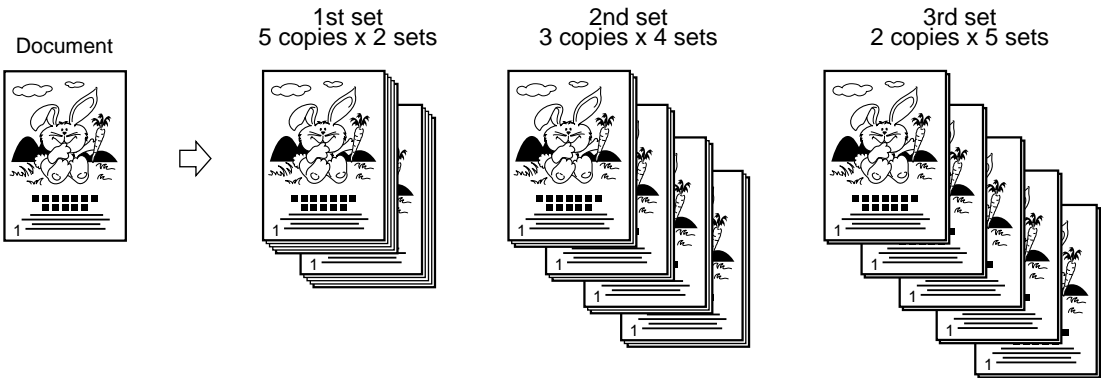
## 2-in-1 Function ..... (➔ P.52)

This function prints two different documents on one page.



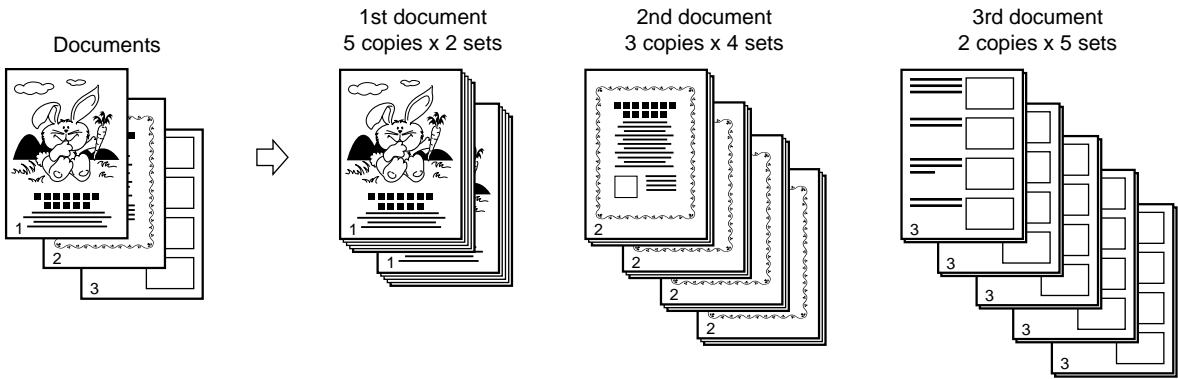
**Sectional Printing** ..... (➔ P.56)

You can print the specified number of sets of copies in each set.



**Changing Print Quantity per Document** ..... (➔ P.60)

This function changes the number of prints made from each document.



# Contents

<b>Introduction</b> .....	1
<b>Function Quick Reference</b> .....	2
<b>Notes on Safety (Please Read and Observe)</b> .....	7
<b>▲ Safety Precautions</b> .....	7
Warning Sticker .....	10
Positioning the Machine .....	11
Maintenance .....	12
Printing and Duplicating Cautions .....	13
Conventions Used in This Manual .....	14

## Chapter 1 Before Using This Machine

<b>System Setup</b> .....	16
<b>Part Names and Their Functions</b> .....	17
Printer Appearance .....	17
Control Panel .....	20
LCD Panel .....	22
<b>Turning Power ON/OFF</b> .....	23
Turning ON Printer Power .....	23
Turning OFF Printer Power .....	24
Standard Mode .....	24
Key Card Counter [Available only with Key Card Counter installed] .....	25
<b>Document/Printing Paper Specification</b> .....	26
Acceptable Documents .....	26
Acceptable Printing Paper .....	26
<b>How Platemaking and Printing is Performed</b> .....	27
Platemaking .....	27
Printing .....	27

## Chapter 2 Printing Using Basic Functions

<b>Basic Printmaking</b> .....	30
<b>Loading and Replacing Paper</b> .....	32
Loading Paper .....	32
Adjusting Paper Feed Pressure .....	33
<b>Loading Documents</b> .....	34
Positioning the Document .....	34
Loading Document .....	35
<b>Enlargement and Reduction</b> .....	36
Enlarging/Reducing from Standard-Size Document to Standard-Size Paper .....	36
94% Reduction .....	37
<b>Selecting Printing Paper Size</b> .....	39
<b>Text/Photograph/Text and Photograph Mode</b> .....	42
<b>Print Output</b> .....	44
Installing Print Tray .....	44
Truing up Printed Pages .....	46

**Chapter 3 Printing With Various Function**

**Saving Settings** ..... 48  
     Saving Settings ..... 48  
     Retrieving Settings ..... 50  
**Printing Two Different Document Pages on One Page** ..... 52  
**Adjusting Plate Darkness** ..... 54  
**Sectional Printing** ..... 56  
     Sectional Printing ..... 56  
     Sectional Printing (changing print quantity per document) ..... 60  
     Dividing Sections with Tape [Available only with Tape Cluster Device] ..... 63

**Chapter 4 Miscellaneous Functions**

**Confidential Safeguard Function** ..... 66  
**Total Counter Display Function** ..... 67  
**Print Speed Adjustment Function** ..... 68  
**Printing Position Adjustment Function** ..... 69  
**On-Line Print Function [Available Only With Interface Kit Installed]** ..... 70

**Chapter 5 Replacing Consumables**

**Replacing the Ink Pack** ..... 72  
**Replacing the Master Roll** ..... 75  
**Replacing the Master Ejection Core** ..... 78  
**Replacing the Drum Unit** ..... 80  
     Removing the Drum Unit ..... 80  
     Installing the Drum Unit ..... 81

**Chapter 6 Troubleshooting**

**Countermeasures to Troubles** ..... 84  
     Power Does Not Turn ON ..... 84  
     Platemaking/Printing is Not Possible ..... 84  
**Error Messages** ..... 85  
**Supplying or Changing Paper While Printing** ..... 89  
     If Paper Runs Out During Printing ..... 89  
     Adding Paper While Printing ..... 89  
     Changing Paper Selection While Printing ..... 91  
**Paper Jams** ..... 93  
     When “PAPER LEFT JAM” is Displayed (Feed Tray) ..... 93  
     When “PAPER RIGHT JAM” is Displayed (Print Tray) ..... 94  
**When “MAST. EJECT ERROR” is Displayed** ..... 97  
**When “MASTER SET MISS” is Displayed** ..... 100



**Contents**

**Chapter 7 Specifications and Maintenance**

**Specifications** ..... 104

**Appendix**


**Index** ..... 108


**Quick Operation Guide** ..... 110

# Notes on Safety (Please Read and Observe)

## ⚠ Safety Precautions

Various symbols and pictures are used in this manual and on the stickers affixed to the machine. These symbols and pictures provide warnings and instructions to prevent danger to you or other personnel, and to prevent damage to office property. The meanings of these symbols and pictures are explained below.

 **WARNING** Indicates a high degree of potential danger. If the warning is ignored, death or serious injury may result.

 **CAUTION** Indicates a medium degree of potential danger. If the caution is ignored, medium injury or damage to property may result.

### [Examples of Pictorial Symbols]



⊘ A circle with a line through it indicates a prohibited action. The particular act prohibited is indicated by a picture inside the circle. (In the example shown here, the prohibited act is disassembly.)



● A black disc indicates an instruction, or sometimes a prohibited action. The instruction itself is indicated by pictorial symbols drawn in white on the disc. (In the example shown here, the instruction is “Remove the plug from the outlet.”)

- These are particularly important safety points and should always be observed.

## ⚠ WARNING



If the machine is used after foreign matter (metal fragments, water, or liquid) has entered the machine, this may result in fire or electric shock.

- Turn the main unit's power switch OFF, and then remove the power plug from the outlet. Contact the sales distributor.



If the machine is used after heat, smoke, strange smell, or other abnormality is detected, this may result in fire or electric shock.

- Turn the main unit's power switch OFF, and then remove the power plug from the outlet. Contact the sales distributor.

Use only the power cord that is provided among the accessories.

Notes on Safety (Please Read and Observe)

 **WARNING**



Do not modify the machine.  
• Doing so may result in fire or electric shock.



Do not remove the rear lid, cabinet, or covers from the machine.  
• The inside of the machine contains high-voltage parts, which may cause electric shock.



Do not remove or insert the power plug with wet hands.  
• Doing so may result in electric shock.



Do not damage, break, or modify the power cord.  
• Do not place heavy objects on, tug, or unnecessarily bend the power cord. Doing so may result in fire or electric shock.



Do not insert or drop metal, flammable material, or other matter through the ventilation holes into the machine interior.  
• Doing so may result in fire or electric shock.



Do not place flower vases, flowerpots, cups, or water containers (including metal containers) on top of the machine.  
• Fire or electric shock may result if liquid spills inside the machine.



Do not use a source voltage other than that specified. Do not connect two or more loads to a single outlet.  
• Doing so may result in fire or electric shock.



Do not place the machine in a humid or dusty area.  
• Doing so may result in fire or electric shock.

 **CAUTION**



Before moving the machine, remove the power plug from the outlet.  
• If the cord is damaged, this may result in fire or electric shock.



Remove the power plug itself, not the cord.  
• Tugging the cord may damage it (expose conductors, or cause disconnections, etc.), resulting in fire or electric shock.



Do not place the machine in an unstable position, such as on an unsteady support or sloping area.  
• If the machine is dropped or falls over, this could result in personal injury.





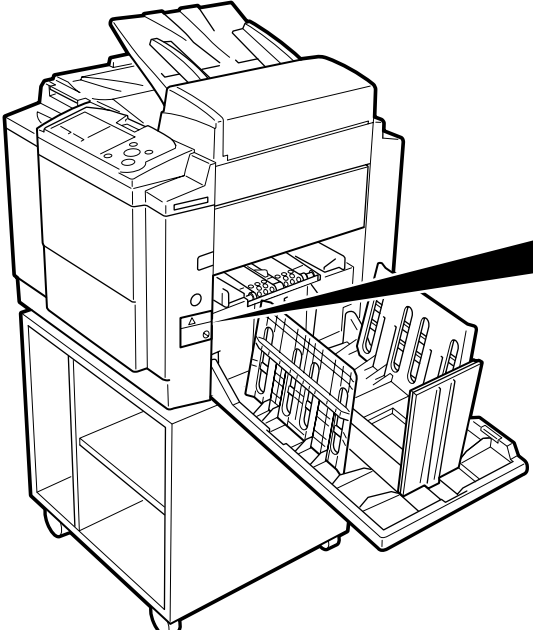
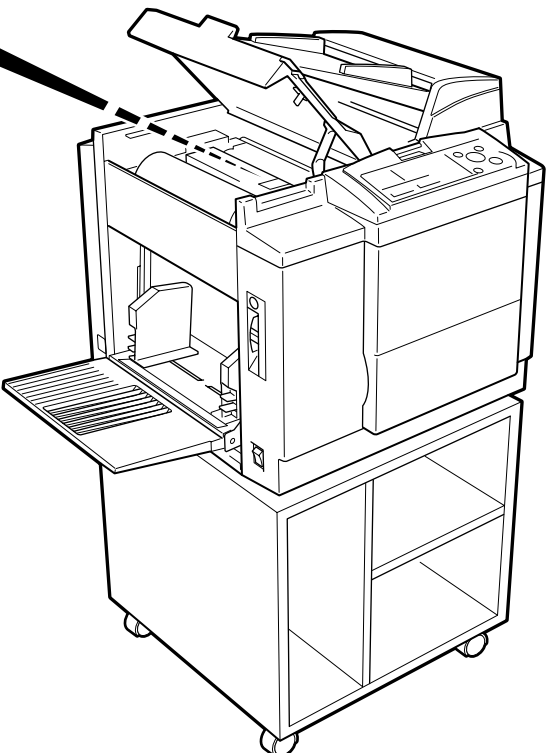
Once the machine is in position, secure in place using the casters.  
• If the machine falls over, this could result in personal injury.

# Warning Sticker



Keep the WARNING stickers clean at all times. If stickers become damaged or come off, replace them with new ones.

①

 **WARNING**  ● Do not remove this cover. The inside of the printer contains movable cutting instruments, contact with which could result in injury. L1-T3060

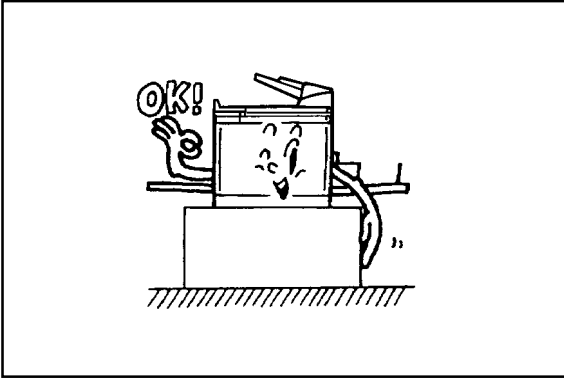


②

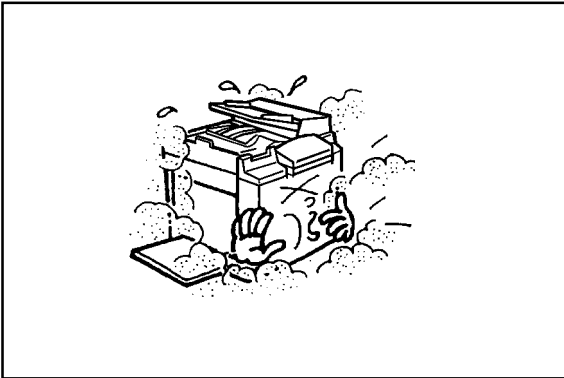
 **WARNING**  
 Do NOT touch the drum or rollers when you operate the jog switch.  
 Do NOT put hands inside machine while it is operating. Hands could get caught up or crushed.   
L5-T3020

No.	Parts No.	Name	Q'ty
①	L1-T3060	Warning Sticker 1	1
②	L5-T3020	Warning Sticker 2	1

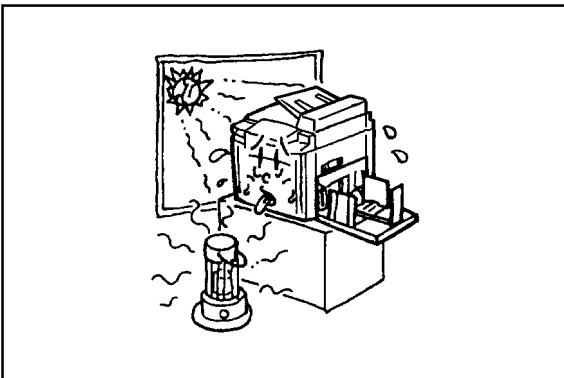
## Positioning the Machine



Installing the machine on a flat, stable surface.



Avoid installing the machine in a dusty area.

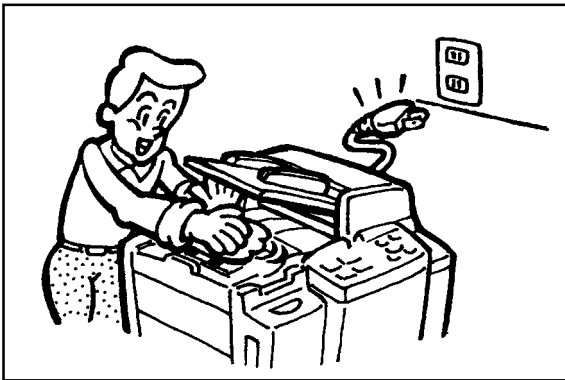


Avoid installing the machine in the direct sunlight or heat, such as near a stove. Ink may deteriorate and may cause bad prints, while the machine may indicate errors due to overheating caused by sunlight. Also avoid hot, cold, or humid areas since paper may absorb moisture, causing paper jams or wrinkles.

## Maintenance



Clean the exterior of the machine as described below. Tightly wring a soft cloth that has been moistened with water or neutral detergent, and wipe dirt from the machine's surface. Never use alcohol or organic solvents. Doing so may discolor or damage the machine exterior.



Dust and clean the machine at least once a week to avoid breakdowns. Before cleaning, turn the power switch OFF, and then remove the power plug from the outlet.



### WARNING

- Before cleaning, remove the power plug from the outlet. Doing so may result in fire or electric shock.
- Prevent water and neutral cleansers from getting inside the machine. If liquids spill inside the machine, contact your agent immediately. Using the machine with water spilled inside may result in fire or electric shock.

## Printing and Duplicating Cautions

---

There are restrictions on what you may print on this printer. Please be aware that there are some printed materials that are illegal even to possess.

### 1. Printed Matter Banned by Law

- Paper money, currency, government bonds and national and local bonds cannot be duplicated, even if they are stamped with the “sample” seal.
- Paper money, currency and bonds, etc. that are valid in a foreign country cannot be duplicated.
- Unused postage stamps and postcards cannot be duplicated without government consent.
- Government-issued papers pertaining to stamps, liquor and sales tax laws cannot be duplicated.

### 2. Printed Matter that Require Caution

- Printed-issued securities (stocks, bills and checks, etc.), passes and tickets require caution in duplicating unless a business is duplicating them for required number for their own business needs.
- Government-issued passports, public- and private-issued driver’s licenses, permits, IDs, passes, food stamps, etc. require caution in duplicating.

### 3. Copyrighted Materials

Books, music, artwork, prints, maps, diagrams, movies, photography, etc. are banned from duplicating outside the limits of private home use and their related non-sale usage.

# Conventions Used in This Manual

Each page of descriptions in this manual of how to operate the DP-21S/21L/23S is set up as follows.

Title (Function)

## Enlargement and Reduction

Description of function and example of printing

The illustration is designed to indicate the result of using the selected function.

### Enlarging/Reducing from Standard-Size Document to Standard-Size Paper

You can enlarge or reduce a standard-size document onto standard-size printing paper.

The following zoom ratios are available when enlarging or reducing a standard-size document onto standard-size printing paper.

#### ■ Enlargements

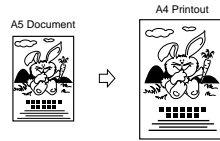
You can enlarge a standard-size document onto standard-size paper using the following zoom ratios:

##### ● European paper sizes

<DP-21S>		<DP-23S>	
A5 → A4 .....	141%	B5 → B4 / A5 → A4 .....	141%
A5 → B5 .....	122%	A4 → B4 / A5 → B5 .....	122%
B5 → A4 .....	115%	B5 → A4 .....	115%

##### ● U.S. paper sizes

<DP-21S>		<DP-23S>	
ST → LTR .....	141%	ST → LTR .....	141%
	129%		129%
	121%		121%
<DP-21L>			
ST → LTR .....	141%		
	129%		
	121%		



#### ■ Reductions

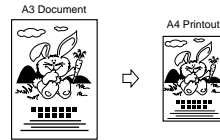
You can reduce a standard-size document onto standard-size paper using the following zoom ratios:

##### ● European paper sizes

<DP-21S>		<DP-23S>	
A4 → B5 .....	86%	A3 → B4 / A4 → B5 .....	86%
B4 → A4 / B5 → A5 .....	81%	B4 → A4 / B5 → A5 .....	81%
A3 → A4 / B4 → B5 .....	70%	A3 → A4 / B4 → B5 .....	70%

##### ● U.S. paper sizes

<DP-21S>		<DP-23S>	
LGL → LTR .....	77%	LGL → LTR .....	77%
	74%	LDG → LGL .....	74%
LDG → LTR .....	64%	LDG → LTR .....	64%
<DP-21L>			
LGL → LTR .....	77%		
LDG → LGL .....	74%		
LDG → LTR .....	64%		



#### IMPORTANT

Set the desired zoom ratio before starting the platemaking process.

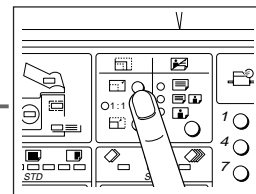
Description of operational steps

Each step is described in detail.

**1** Press (ENLARGEMENT) key or (REDUCTION) key.

Illustrations

The illustrations provide a visual reference to which keys to operate and other related conditions.



## ■ Pictorial Symbols and Other Notations Used in This Manual

**IMPORTANT** : Introduces instructions for correct operation of the machine. If these instructions are ignored, the machine may not be able to operate at optimum performance or may break down.

**Tip** : Introduces information that is useful for operation and maintenance of the machine, or information about the machine's performance, etc.

: Indicates that the description of the operating sequence is continued on the next page.

: Indicates the page number and item containing related information.

In the text of this manual, keys are indicated as follows:

: (PLATE MAKING) key

# Chapter 1

## Before Using This Machine

This chapter contains essential information such as the names of the machine parts, the names and functions of keys, etc., on the control panel, and the sizes of documents and printing papers that you can use. Please be sure to read this chapter carefully before attempting to use the printer.

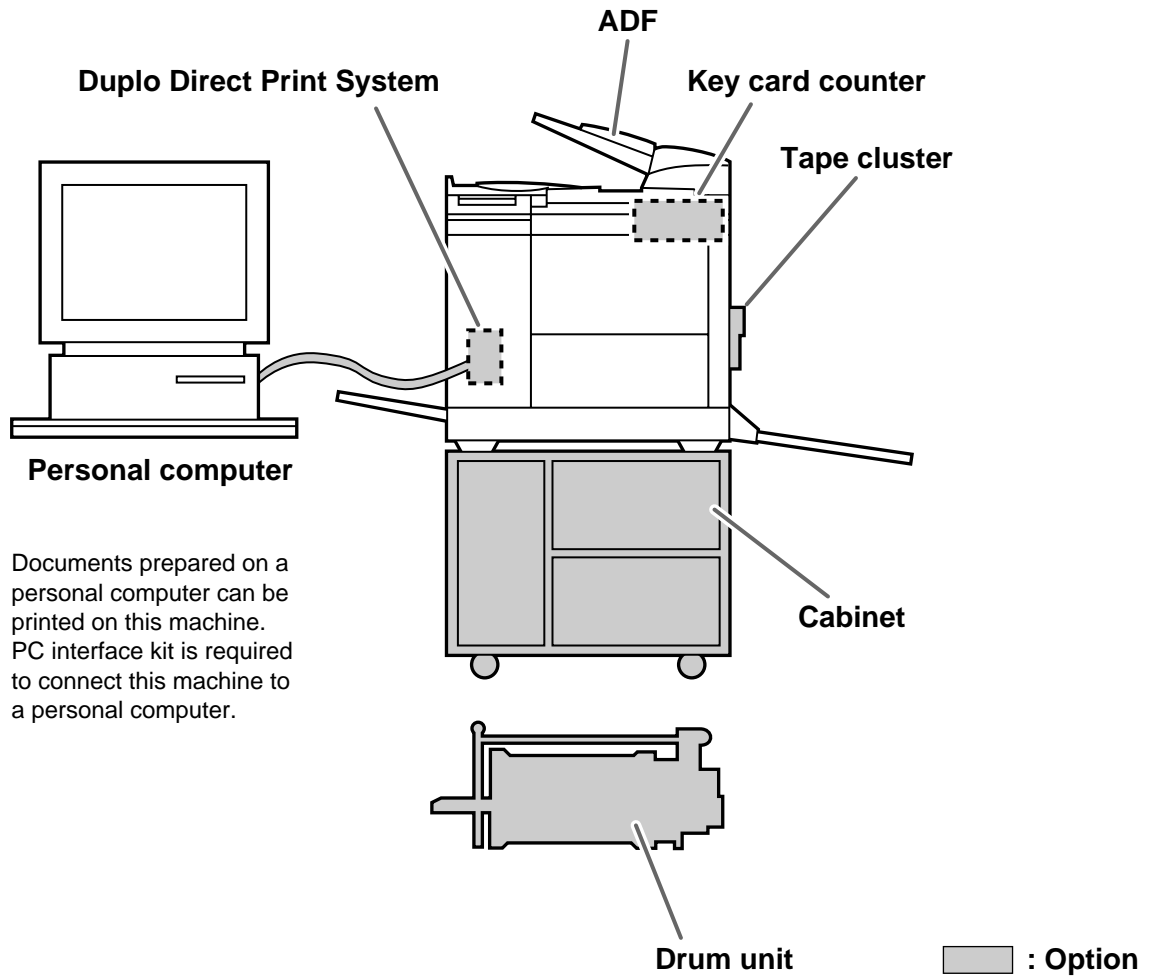
.....

<b>System Setup</b> .....	16
<b>Part Names and Their Functions</b> .....	17
Printer Appearance .....	17
Control Panel .....	20
LCD Panel .....	22
<b>Turning Power ON/OFF</b> .....	23
Turning ON Printer Power .....	23
Turning OFF Printer Power .....	24
Standard Mode .....	24
Key Card Counter [Available only with Key Card Counter installed] .....	25
<b>Document/Printing Paper Specification</b> .....	26
Acceptable Documents .....	26
Acceptable Printing Paper .....	26
<b>How Platemaking and Printing is Performed</b> .....	27
Platemaking .....	27
Printing .....	27

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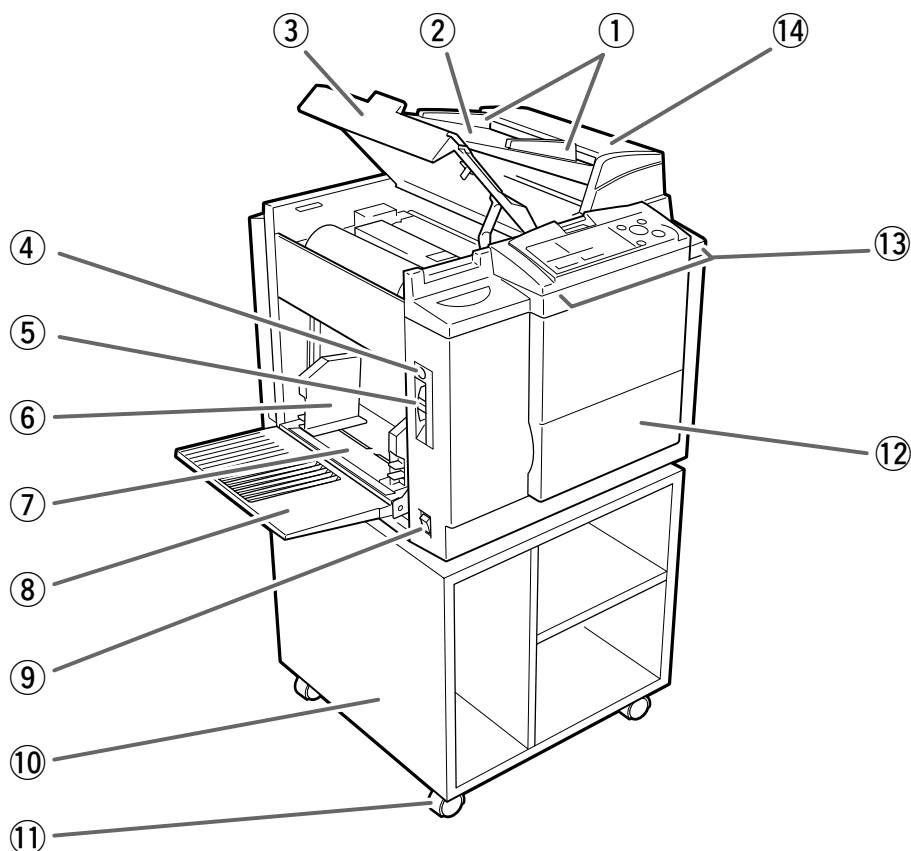
# System Setup

The machine and its optional equipment are set up as follows:



# Part Names and Their Functions

## Printer Appearance



1

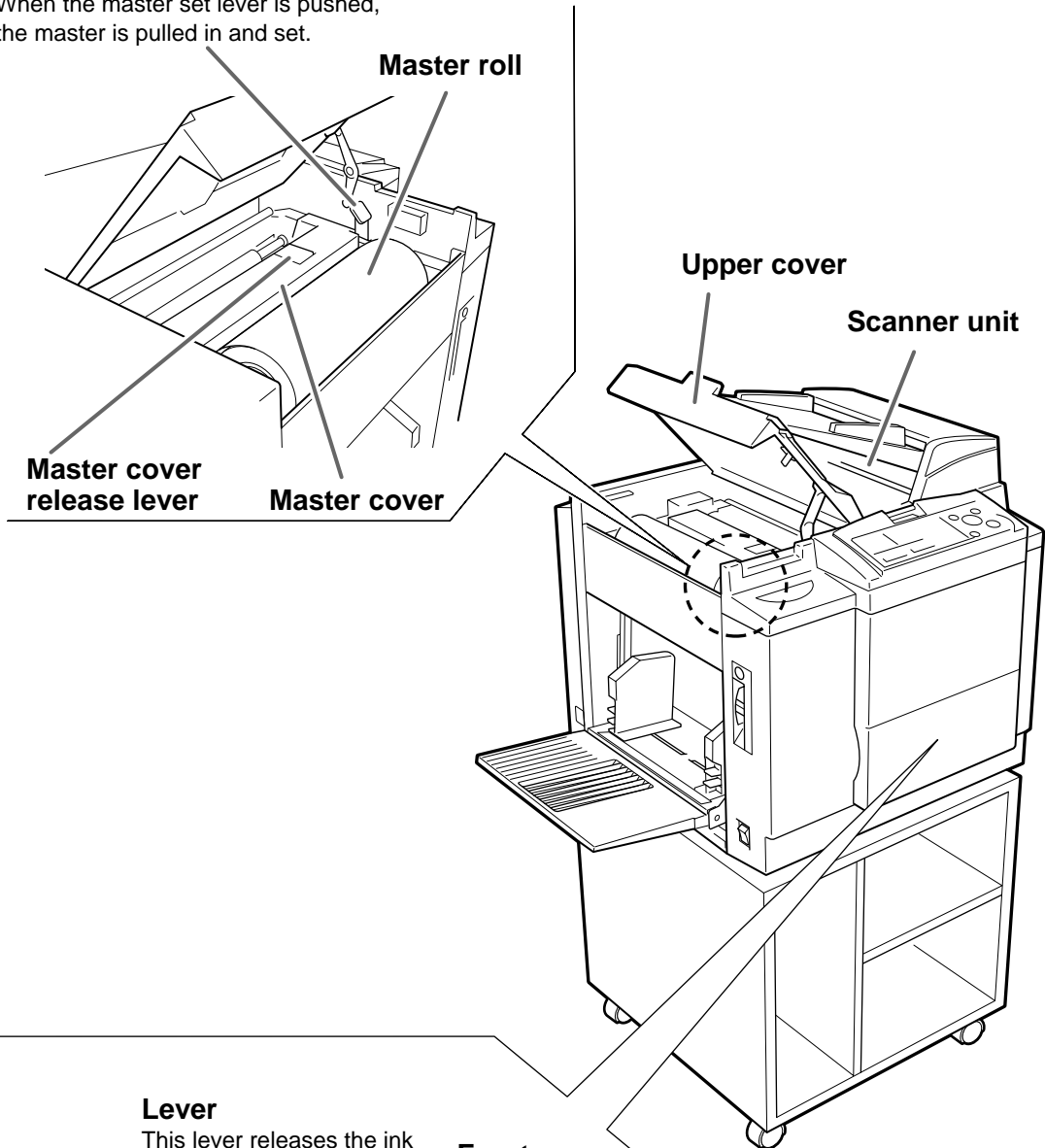
Before Using This Machine

No.	Name	Function	Reference page
①	<b>Document guide</b>	Slide to match the width of the document.	30, 35,
②	<b>ADF</b>	Documents of sheet type can be printed consecutively.	35
③	<b>Upper cover</b>	Open to replace the master roll, etc.	75
④	<b>Feed tray descend switch</b>	Press to lower the feed tray.	89
⑤	<b>Feed pressure adjuster lever</b>	Use to adjust the paper feed pressure.	33
⑥	<b>Side guides</b>	Slide to match the width of the paper.	32
⑦	<b>Feed tray</b>	Load paper in this tray.	32
⑧	<b>Support tray</b>	Pull out when using large paper sizes.	32
⑨	<b>Power switch</b>	Press to switch the power on and off.	23, 24
0⑩	<b>Cabinet (Option)</b>	Place the printer on this stand.	—
1⑪	<b>Castor locks</b>	Lock the printer in position on the floor. Always lock the castor locks when installing the printer.	—
2⑫	<b>Front cover</b>	Open to replace ink pack and drum unit, etc.	72, 80
3⑬	<b>Control panel</b>	Displays operations and statuses, and sets functions.	20
4⑭	<b>Document tray</b>	Place the document.	34

## Part Names and Their Functions

### Master set lever

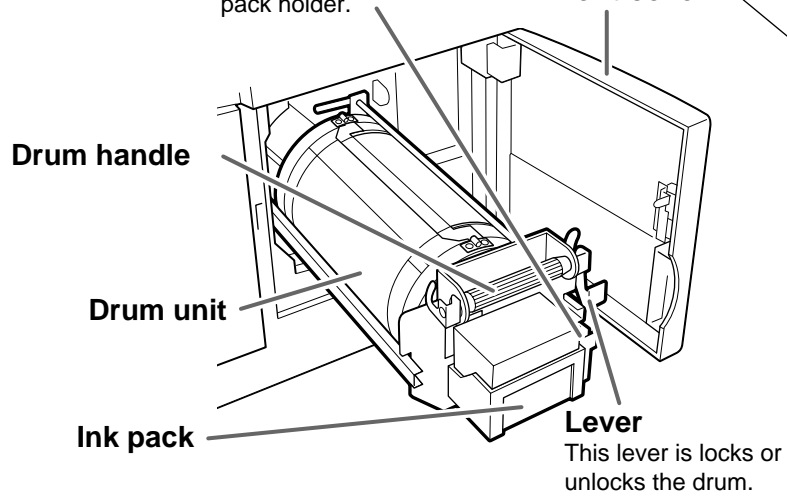
When the master set lever is pushed, the master is pulled in and set.

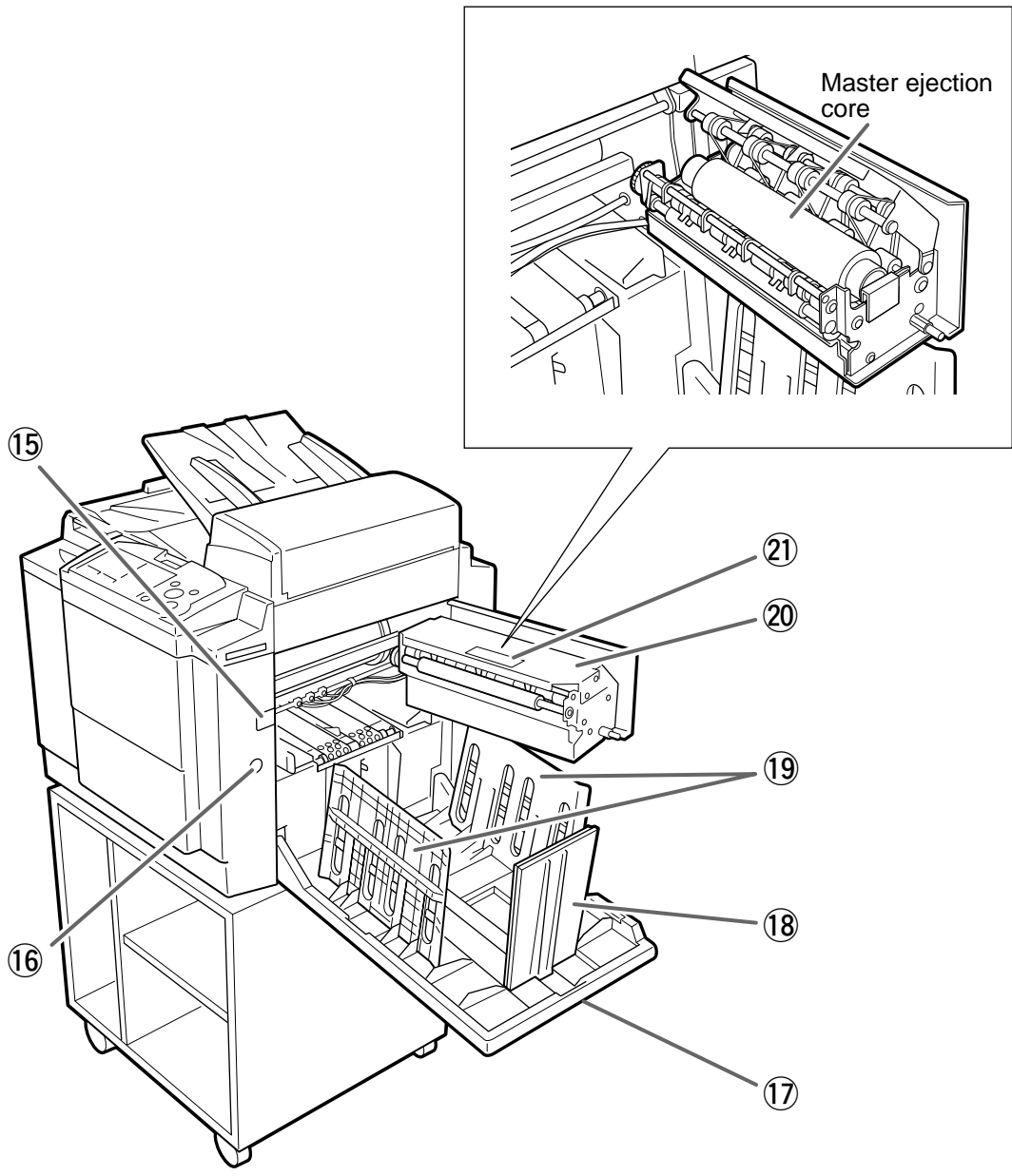


### Lever

This lever releases the ink pack holder.

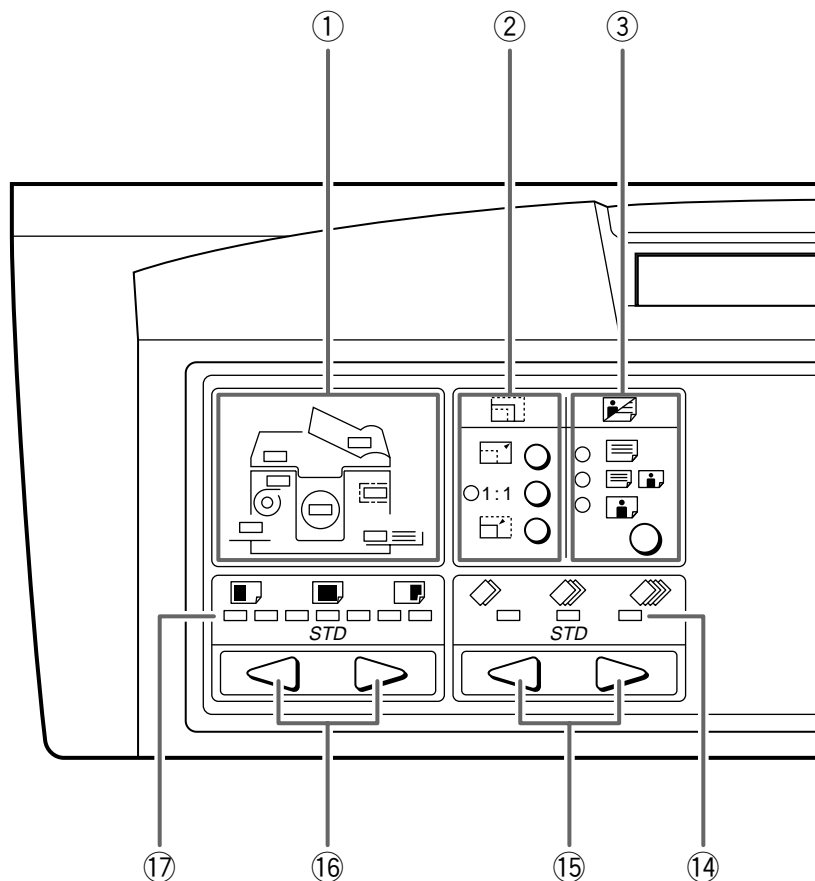
### Front cover



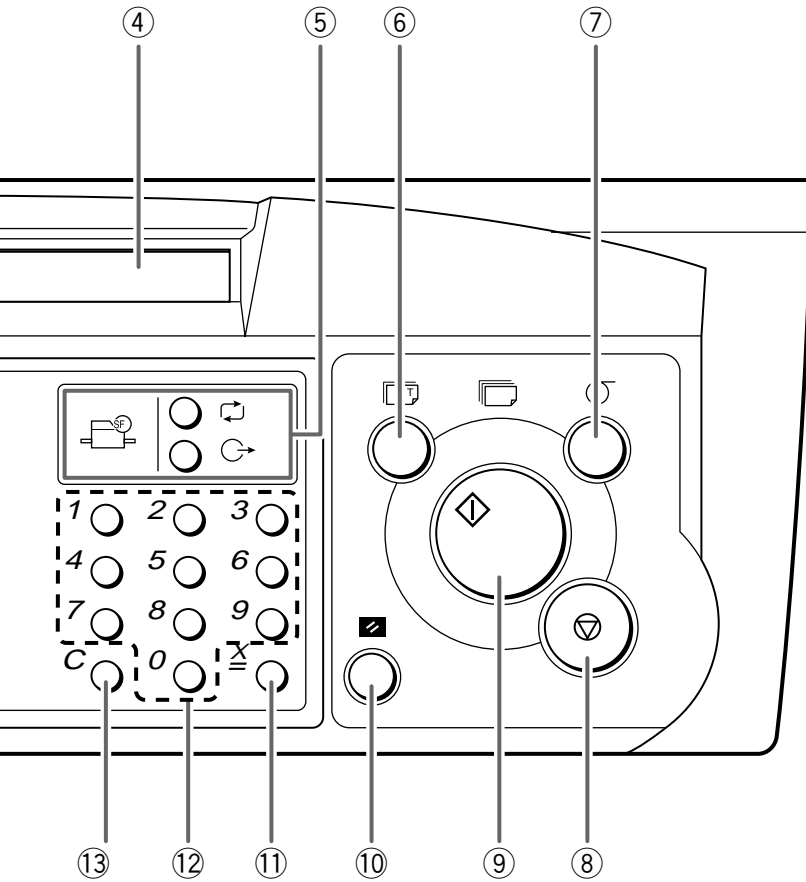



No.	Name	Function	Reference page
⑮	<b>Plate ejection box release lever</b>	Press to open the master ejection box.	—
⑯	<b>JOG switch</b>	Press and hold to rotate the drum for a set time. Use to remove paper jams, etc..	—
⑰	<b>Print tray</b>	Holds the printed paper.	44
⑱	<b>Paper stopper</b>	Slide to match the size of printed paper.	45
⑲	<b>Paper stacker guides</b>	Slide to match the size of printed paper.	44
⑳	<b>Master ejection box</b>	Open to replace the master ejection core, etc..	78
㉑	<b>Plate ejection box lid release lever</b>	Press to open the top of the master ejection core box. Use when replacing the master ejection core, etc..	78

## Control Panel



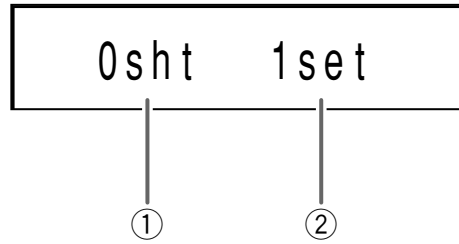
No.	Name	Function	Reference page
①	<b>“OK” monitor</b>	Flashes to display the content of the trouble and lights to indicated the part that caused the trouble in the machine.	85
②	<b>“ENLARGEMENT” key</b>	Press to set the enlargement ratio.	36
	<b>“100%” key</b>	Press to reset the ration to 100%.	37
	<b>“REDUCTION” key</b>	Press to set the reduction ratio.	36
	<b>100% lamp</b>	Lights when the 100% ratio is selected.	37
③	<b>“DOCUMENT MODE SWITCH” key</b>	Press to switch between the text mode, text/photograph mode and photograph mode. Each press of this key moves the position of the lit lamp that indicates the selected document mode.	43
	<b>Document mode indicator lamps</b>	The lamp of the selected mode lights.	43
④	<b>LCD panel</b>	Displays the number of printed paper. Also displays an error message when an error occurs.	22, 85
⑤	<b>“FUNCTION SWITCH” key</b>	Press to toggle between the normal mode and the function select mode.	48
	<b>“SELECT” key</b>	Press to select a function.	48
⑥	<b>“TEST PRINT” key</b>	Press to print only one piece of paper for checking the print darkness or printed position.	—
⑦	<b>“PLATEMAKING” key</b>	Press to start platemaking.	30



No.	Name	Function	Reference page
⑧	“STOP” key	Press to stop printing on the way. If this key is pressed while the machine is stopped, the total number of prints and plates will be displayed on the LCD panel.	67
⑨	“PRINT” key	Starts printing. This will not start platemaking. Platemaking will start automatically after the end of printing if there is a document on the ADF.	31
0①	“ALL CLEAR” key	Returns the control panel settings to the “Standard Mode” settings. Press and hold for at least 0.5 seconds.	—
1①	 key	Press to enter the number of prints and number of sets for sectional prints.	60
2①	Key pad	Use to enter the number of prints.	—
3①	“CLEAR” key	Press to reset the displayed number of prints to “0”. Only the number of prints is cleared.	—
4①	Printing speed indicator lamp	The lamp of the specified printing speed lights.	68
5①	“PRINTING SPEED ADJUSTMENT” keys	Press to adjust the printing speed.	68
6①	“PRINTING POSITION ADJUSTMENT” keys	Press to adjust the printing position.	69
7①	Printing position indicator lamp	The lamp of the specified printing speed lights.	69

## LCD Panel

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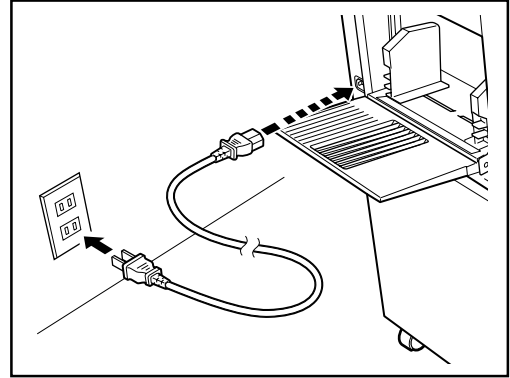
No.	Name	Function	Reference page
①	<b>Print count</b>	Displays the number of prints to be made.	31
②	<b>Sets</b>	Displays the number of sets to be printed.	58

# Turning Power ON/OFF

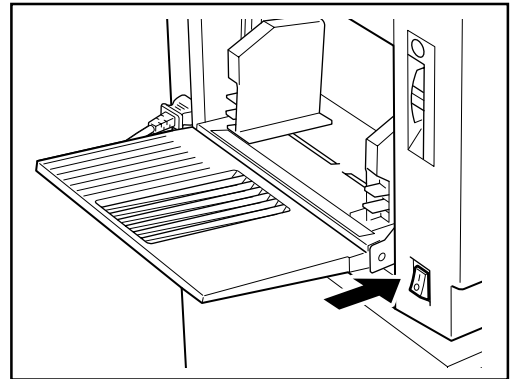
This section describes the operating sequence from turning ON the power switch until the printer is ready to make prints, and how to turn OFF the printer power.

## Turning ON Printer Power

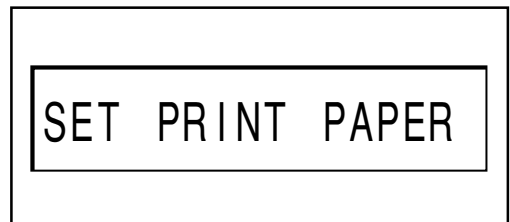
- 1 Connect the power cable to the printer and a wall outlet.



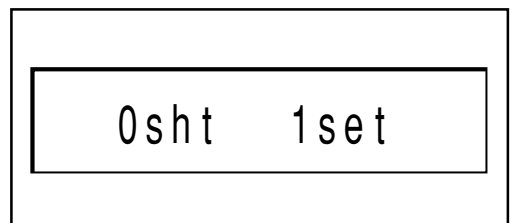
- 2 Switch the power switch to the “|” position. The power turns ON.



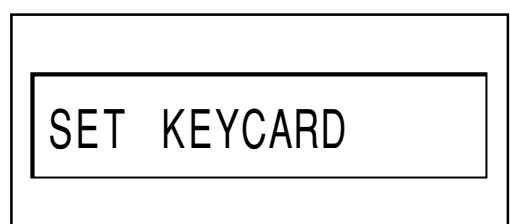
The message “SET PRINT PAPER” is displayed on the LCD panel.  
The printer functions are now set in “Standard Mode” (➔ page 24).



When paper is loaded in the feed tray, the screen shown at right is displayed.



When the screen shown at right is displayed, insert a key card. (➔ See page 25, “Key Card Counter”.)



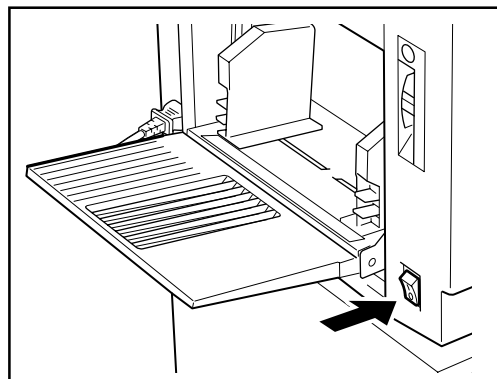
## Turning OFF Printer Power

---

.....

**1** Switch the power switch to the “O” position.


The power turns OFF and the display lamps on the control panel turn OFF.



.....

## Standard Mode

---

When the printer power is first turned ON or  (ALL CLEAR) key is pressed, the functions are reset to standard mode. The standard mode settings are as follows:

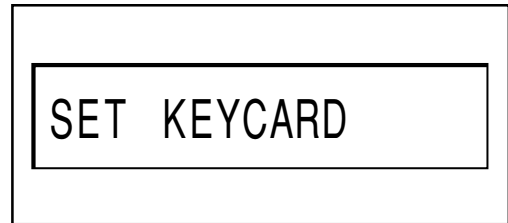
- |                  |                |                  |                        |
|------------------|----------------|------------------|------------------------|
| • Print quantity | : 0            | • Document mode  | : Standard lit         |
| • Print position | : Standard lit | • PLATE SIZE     | : DP-21S/A4, DP-23S/B4 |
| • Print speed    | : Standard lit | • PLATE DARKNESS | : NORMAL               |
| • Zoom           | : 100% lights  | • X94%           | : OFF                  |
| • 2 IN 1         | : OFF          |                  |                        |

## Key Card Counter Available only with Key Card Counter installed

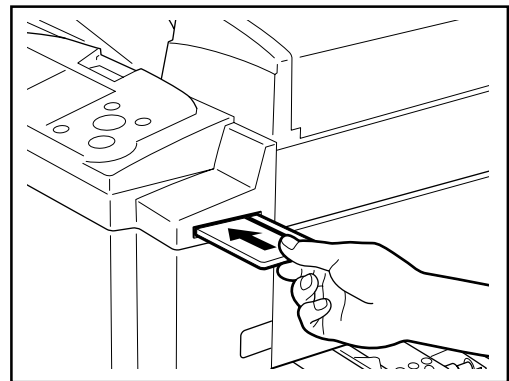
With the key card counter installed, you can control the platemaking and print quantities per person or per department, etc. See the Instruction Manual for the Key Card Counter for details.

### ■ Inserting a key card

When you turn on the power, the icon shown at right is displayed if no key card has been inserted in the key card counter.

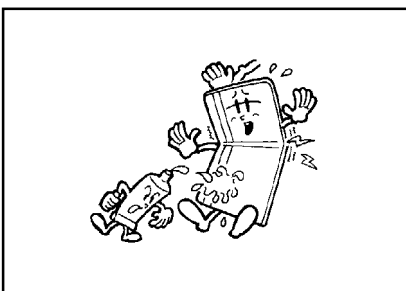


- 1 **Insert a key card in the key card counter.**  
The printer can now be operated as normal.

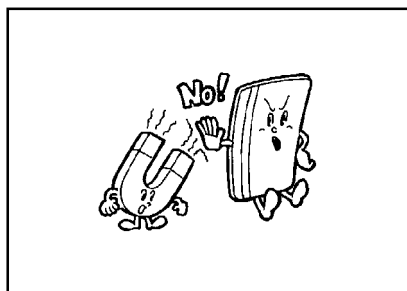


### ■ Handling key cards

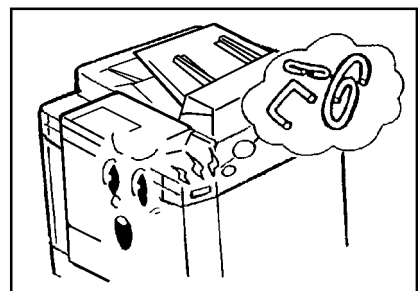
Do not bend or soil a key card.



Keep your key card well away from magnetic fields.



Do not insert any objects other than key cards into the key card slot.



# Document/Printing Paper Specification

## Acceptable Documents

- Document thickness : 64g/m<sup>2</sup> to 128g/m<sup>2</sup>
- Document size : A3 to A5 size (A5 in landscape mode: A5R cannot be used.)  
ST to 11x17-in. (ST size in landscape mode: STR cannot be used.)
- Stacking capacity in document tray : 100 sheets (64g/m<sup>2</sup>)

### IMPORTANT

- To make a new plate from a document from which a plate has already been made, remove and then reload the document.
- Always use documents of the same size.
- If you load documents of different lengths, the printer may not operate correctly.

#### **The following types of document cannot be used:**

- Documents with large file-binding holes, tears, or missing parts
- Documents with staples or paper clips attached
- Documents with markedly curling ends/sides, or marked folds
- Carbon-backed documents
- Sticky documents
- Highly transparent documents such as OHP film

## Acceptable Printing Paper

	DP-21S	DP-21L/23S
<b>Paper thickness</b>	53g/m <sup>2</sup> to 210g/m <sup>2</sup>	
<b>Paper stacking capacity</b>	Feed tray : 1300 sheets (64g/m <sup>2</sup> top-grade paper) Print tray : When a cabinet is used: 1300 sheets (64g/m <sup>2</sup> top-grade paper) When the printer is used on a table: 900 sheets (64g/m <sup>2</sup> top-grade paper)	
<b>Paper size</b>	Max. 271mm X 382mm Min. 100mm X 150 mm	Max. 297mm X 382mm Min. 100mm X 150 mm

### IMPORTANT

#### **The following types of paper cannot be used.**

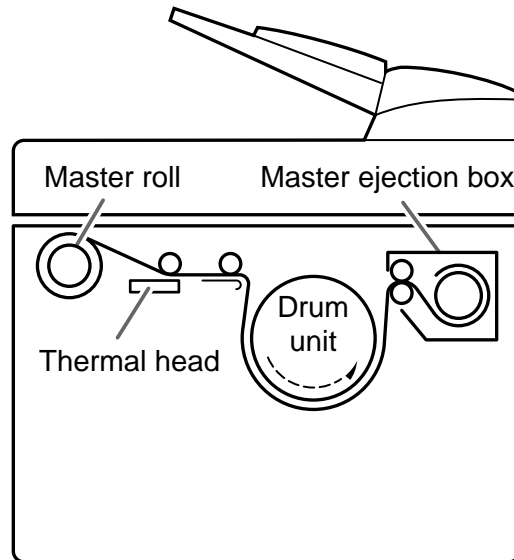
- Paper with large file-binding holes
- Paper with staples or paper clips attached
- Paper with markedly curling ends/sides, or marked folds
- Carbon-backed paper
- Paper with smaller pieces of glued paper

# How Platemaking and Printing is Performed

The machine performs two processes: platemaking and printing.

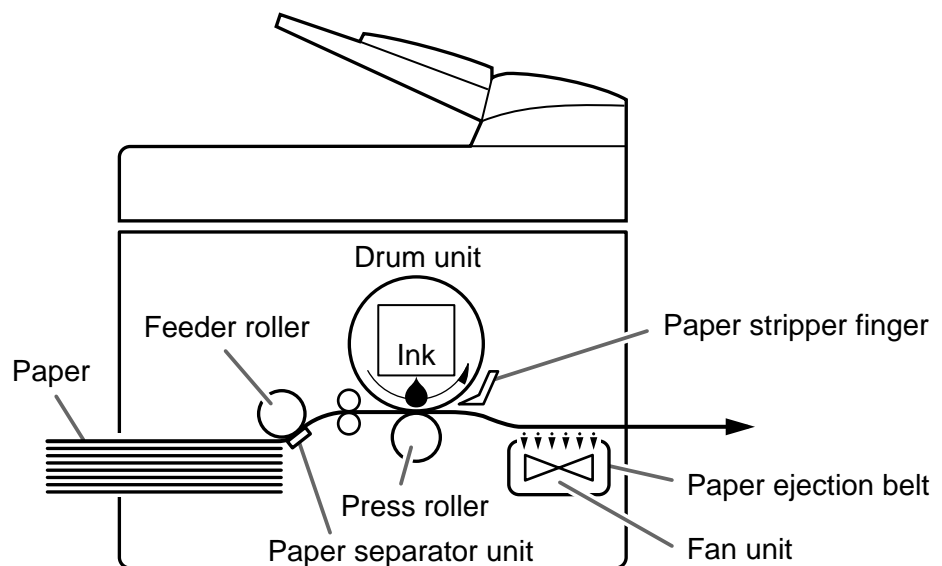
## Platemaking

In the “platemaking” process, the old master on the drum is removed while the thermal head creates the scanned image on the new master and transfers it onto the drum.



## Printing

In the “printing” process, paper separated from the stack by the feeder roller and paper separator unit is pressed against the drum unit by the press roller. There are small holes over only the image area of the master that is attached to the drum, and ink that seeps from these holes is transferred to the paper. The paper is then peeled from the master by the paper stripper finger. The paper is directed onto the paper ejection belt by a fan unit and discharged from the machine.





# Chapter 2

## Printing Using Basic Functions

This chapter describes how to make prints using the basic functions, including how to load the document, set zoom ratio, etc.

.....

<b>Basic Printmaking</b> .....	30
<b>Loading and Replacing Paper</b> .....	32
Loading Paper .....	32
Adjusting Paper Feed Pressure .....	33
<b>Loading Documents</b> .....	34
Positioning the Document .....	34
Loading Document .....	35
<b>Enlargement and Reduction</b> .....	36
Enlarging/Reducing from Standard-Size Document to Standard-Size Paper ....	36
94% Reduction .....	37
<b>Selecting Printing Paper Size</b> .....	39
<b>Text/Photograph/Text and Photograph Mode</b> .....	42
<b>Print Output</b> .....	44
Installing Print Tray .....	44
Truing up Printed Pages .....	46

.....


# Basic Printmaking

This section describes how to make prints using the basic functions.

## 1 Turn ON the power. (➡ See page 23, “Turning Power ON/OFF”)



### Tip

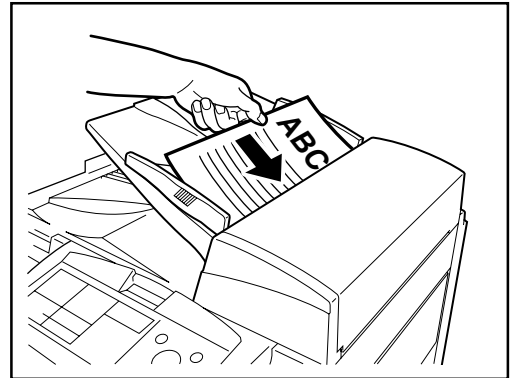
- If the power is already ON, press  (ALL CLEAR) key.

## 2 Load paper. (➡ See page 32, “Loading and Replacing Paper.”)

## 3 Load the document. (➡ See page 34, “Loading Documents”)

Adjust the slide guide to the marks for the size of the document.

Place the document face up in the document tray.



## 4 Select the zoom ratio.

The zoom ratio is set to 100%.

Press  (ENLARGEMENT) key or  (REDUCTION) key to set a desired zoom ratio. (➡ See page 36, “Enlargement and Reduction”.)

## 5 Press (PLATE MAKING) key.

When the plate has been made, one test print is automatically made.




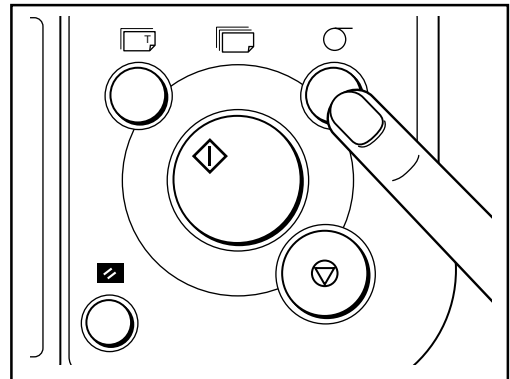
### IMPORTANT

- The test print is for verification purposes only and may be fainter than the final print.



### Tip

- You can enter the number of desired prints before pressing  (PLATE MAKING) key to immediately print the required number of copies.

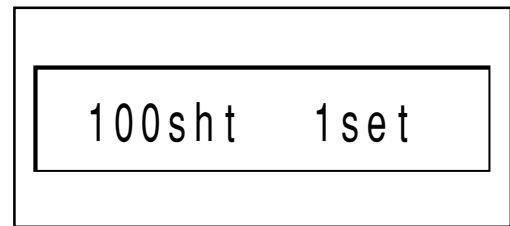
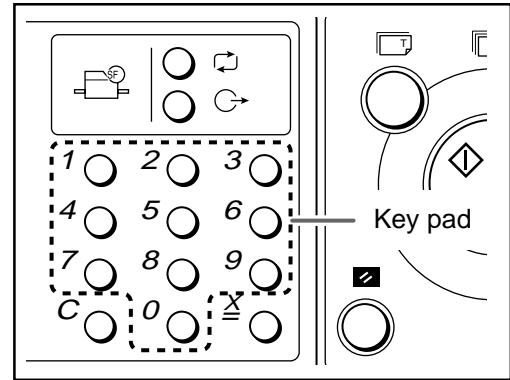


## 6 Use the keypad to specify the number of prints to make.



### Tips

- You can specify up to 9999 prints.
- If you make a mistake entering the number of prints, press **[C]** (CLEAR) key then enter the correct number.



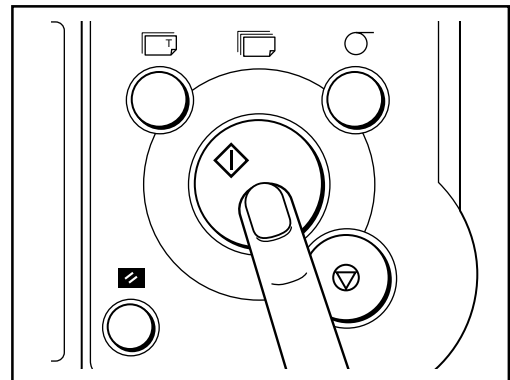
## 7 Press **[PRINT]** key.

The feed tray raises up to the upper limit and printing starts. The count displayed on the LCD panel is decremented by one for each print made. The printed pages are output to the print tray. (➔ See page 44, "Print Output".)



### Tip

- To stop a print run, press **[STOP]** key. To restart the print run, press **[PRINT]** key again.



## 8 Repeat steps 3 to 7 to print multiple documents.



### Tip

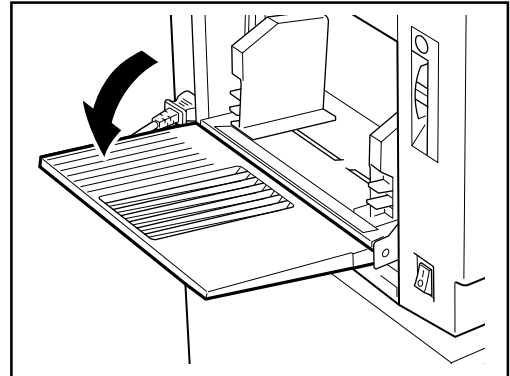
- When two or more documents are loaded in the ADF, platemaking of the following documents and printing will automatically start after the entire printing is completed.

# Loading and Replacing Paper

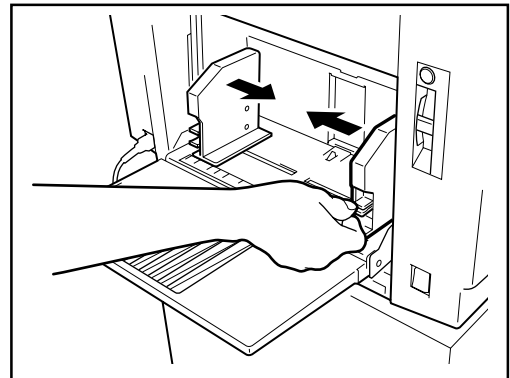
## Loading Paper

This section describes how to load the printer with paper. You can load approximately 1,300 sheets in this printer.

- 1 Open the support tray.



- 2 Hold the lever and adjust the side guides to the paper size.

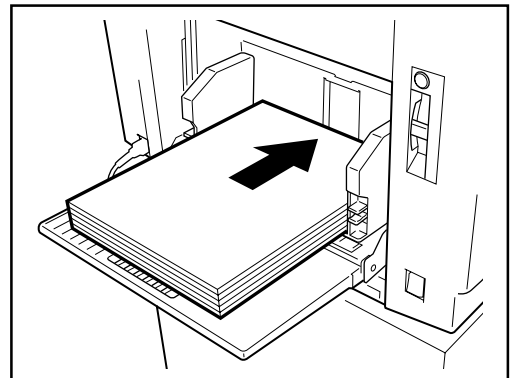


- 3 Load a stack of aligned sheets between the paper guides and press the stack lightly toward the machine.



### IMPORTANT

- You can load the feed tray with approximately 1,300 sheets of 55gsm high-grade paper.



## Adjusting Paper Feed Pressure

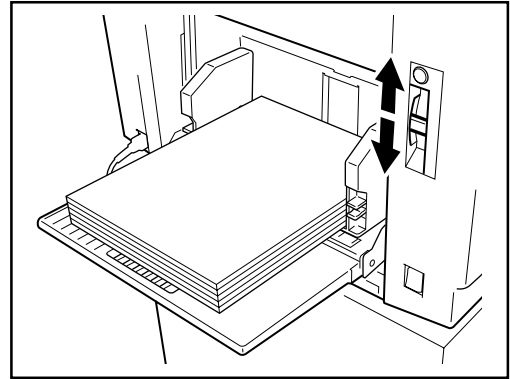
Adjust the paper feed pressure if an feeding error occurs when using thick or thin paper.

■ **When no thick paper is fed**

Adjust the paper feed pressure adjuster lever to “HIGH”.

■ **When two pieces of thin paper are fed**

Adjust the paper feed pressure adjuster lever to “LOW”.



# Loading Documents

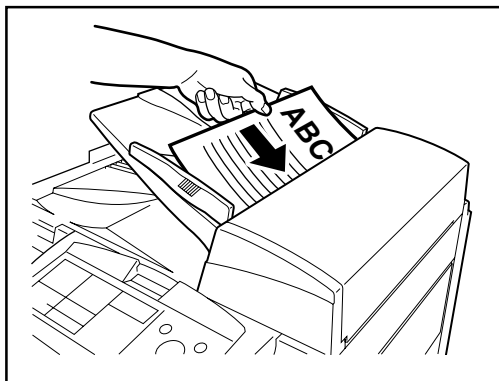
## Positioning the Document

The document can be loaded in the “portrait” or “landscape” position.

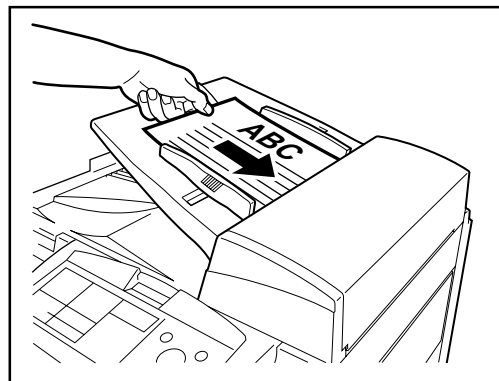


### IMPORTANT

- A4, B5, and A5-size documents can be loaded in the “portrait” or “landscape” position.
- Use the landscape position when enlarging or reducing from standard-size documents to standard-size paper, such as A5 to A4.
- A3 and B4 documents can only be loaded in the landscape position.



Portrait (Vertical) Placement

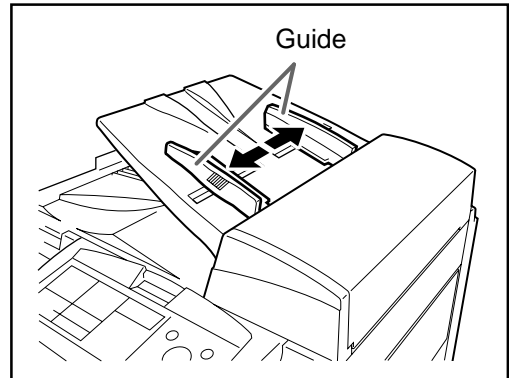


Landscape (Lateral) Placement

## Loading Document

When one or more documents are loaded, platemaking and printing are automatically repeated until the document tray is empty.

- 1 Align the guide with the marks for the size of document to be loaded.



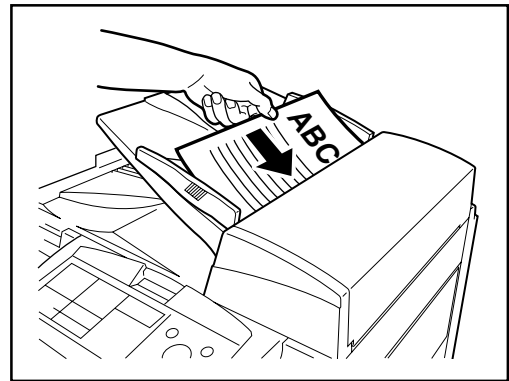
- 2 Place the document face-up in the document tray.

Platemaking starts with the bottom document in the tray.



### IMPORTANT

- Do not attempt to remove or add to the documents in the document tray while platemaking and printing are in progress.



# Enlargement and Reduction

## Enlarging/Reducing from Standard-Size Document to Standard-Size Paper

You can enlarge or reduce a standard-size document onto standard-size printing paper.

The following zoom ratios are available when enlarging or reducing a standard-size document onto standard-size printing paper.

### ■ Enlargements

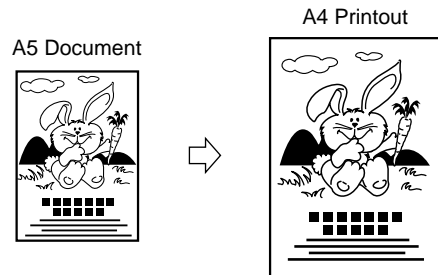
You can enlarge a standard-size document onto standard-size paper using the following zoom ratios:

#### ● European paper sizes

<DP-21S>		<DP-23S>	
A5 → A4 .....	141%	B5 → B4 / A5 → A4 ..	141%
A5 → B5 .....	122%	A4 → B4 / A5 → B5 ..	122%
B5 → A4 .....	115%	B5 → A4 .....	115%

#### ● U.S. paper sizes

<DP-21S>		<DP-23S>	
	141%		141%
ST → LTR .....	129%	ST → LTR .....	129%
	121%		121%
<DP-21L>			
	141%		
ST → LTR .....	129%		
	121%		



### ■ Reductions

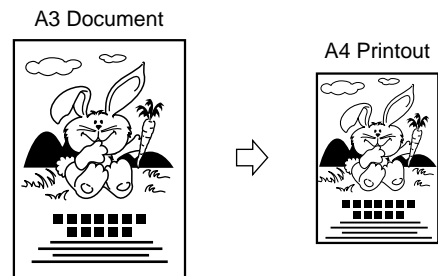
You can reduce a standard-size document onto standard-size paper using the following zoom ratios:

#### ● European paper sizes

<DP-21S>		<DP-23S>	
A4 → B5 .....	86%	A3 → B4 / A4 → B5 .....	86%
B4 → A4 / B5 → A5 .....	81%	B4 → A4 / B5 → A5 .....	81%
A3 → A4 / B4 → B5 .....	70%	A3 → A4 / B4 → B5 .....	70%

#### ● U.S. paper sizes

<DP-21S>		<DP-23S>	
LGL → LTR .....	77%	LGL → LTR .....	77%
	74%	LDG → LGL .....	74%
LDG → LTR .....	64%	LDG → LTR .....	64%
<DP-21L>			
LGL → LTR .....	77%		
LDG → LGL .....	74%		
LDG → LTR .....	64%		

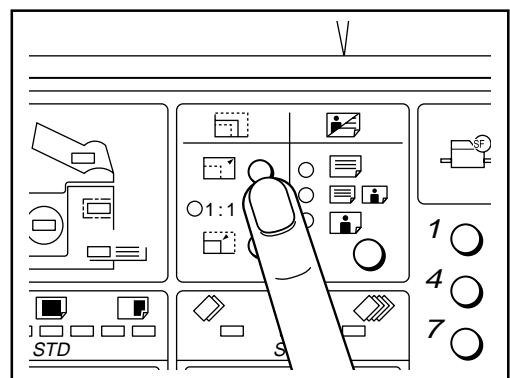


### IMPORTANT

- Set the desired zoom ratio before starting the platemaking process.

1

Press  (ENLARGEMENT) key or  (REDUCTION) key.

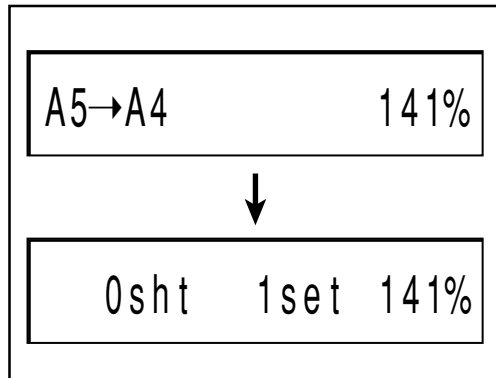


**2** Press (ENLARGEMENT) key or (REDUCTION) key several times to display the desired zoom ratio.

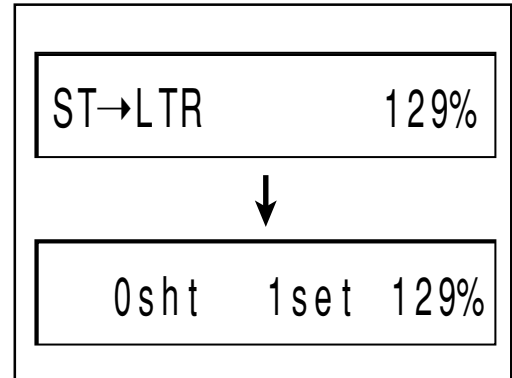
In about 3 seconds, the screen changes to the number display screen and the zoom ratio is selected.

- Each time (ENLARGEMENT) key is pressed, the LCD panel display changes as follows: “115%” → “122%” → “141%” → “115%”...
- Each time (REDUCTION) key is pressed, the LCD panel display changes as follows: “94%” → “86%” → “81%” → “70%” → “94%”...

[European paper sizes]



[U.S. paper sizes]



Tip

To return to “100%”, use one of the following two methods:

- Press (100%) key. The 100% indicator lamp lights.
- Press (ALL CLEAR) key. In this case, all settings are reset to standard mode (➔ page 24).

## 94% Reduction

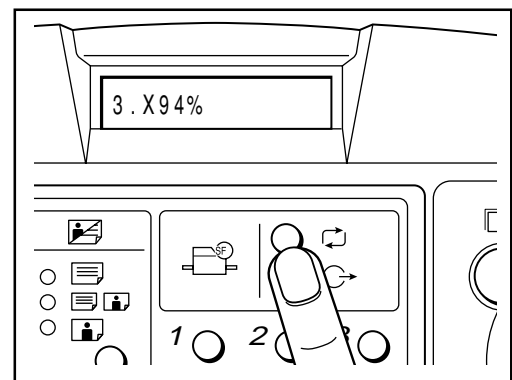
In this mode, the copy is printed at 94% the size of the document. When it is not possible to print the edges of the document image, this mode allows you to make a minor reduction so that the edges of the image are included.



**IMPORTANT**


- Select “94% Reduction” before platemaking.

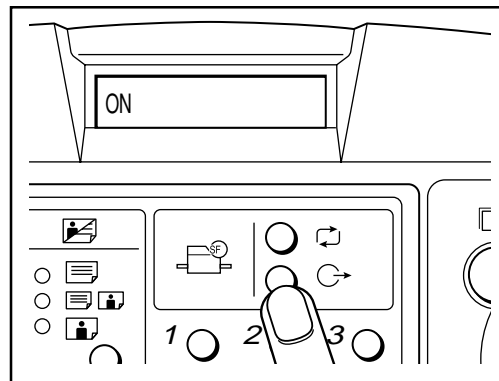
**1** Press (FUNCTION SWITCH) key several times to show the screen at right.



Continue Page ... ➔

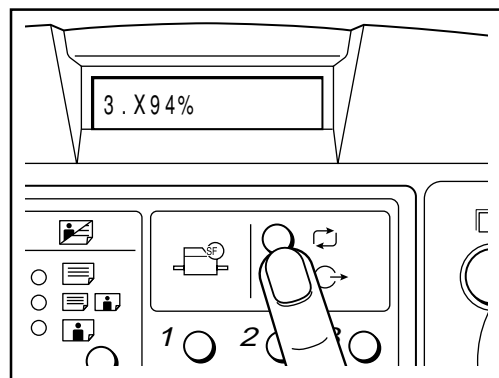
### 2 Press (SELECT) key to display “ON”.

Each time  (SELECT) key is pressed, the display of the LCD panel changes as follows.  
“OFF” → “ON” → “OFF”...



### 3 Press (FUNCTION SWITCH) key.

94% reduction is set.




### 4 Press (FUNCTION SWITCH) key several times.

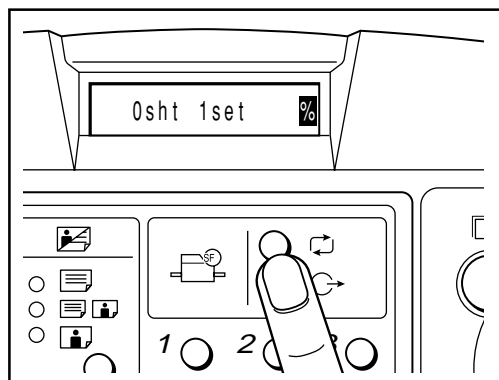
The number display screen returns and “%” blinks.



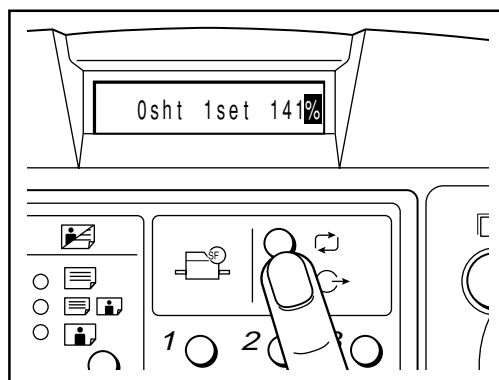
#### Tip

You can cancel 94% reduction using one of the following two methods.

- Set to “OFF” in the same procedure.
- Press  (ALL CLEAR) key. In this case, all settings are reset to standard mode (➔ page 24).




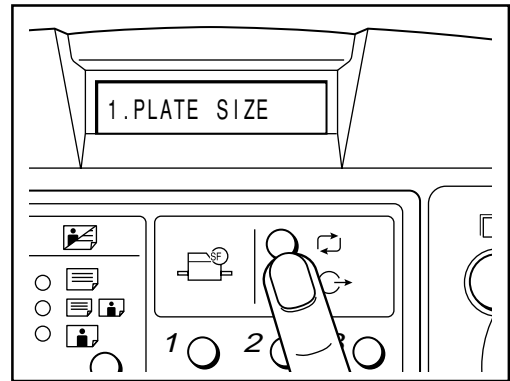
You can select 94% reduction even when you have selected other than “100%”. In this case, the zoom ratio will be the zoom ratio shown on the LCD  $\times 94\%$ .





# Selecting Printing Paper Size

Select a paper size.

- 1** Press  (FUNCTION SWITCH) key.  
The screen at right appears on the LCD panel.



- 2** Press  (SELECT) key several times and display the paper size to be used.  
Each time  (SELECT) key is pressed, the display of the LCD panel changes as follows.

## ◆ European paper sizes

### • FOR DP-21S

“A4” → “B5” → “A5” → “POST” → “A4”...

### • FOR DP-23S

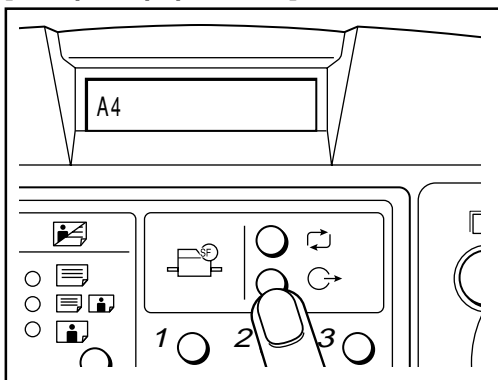
“B4” → “A4” → “B5” → “A5” → “POST” → “B4”...

## ◆ U.S. paper sizes

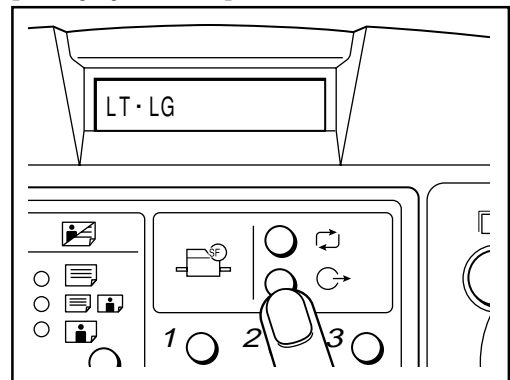
“10X14” → “LT·LG” → “ST” →

“POST” → “10X14”...

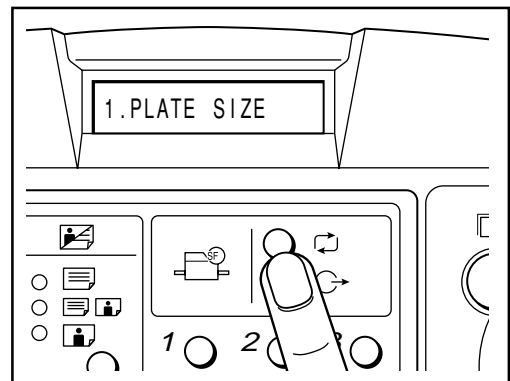
### [European paper sizes]




### [U.S. paper sizes]



- 3** Press  (FUNCTION SWITCH) key.  
The paper size is set.

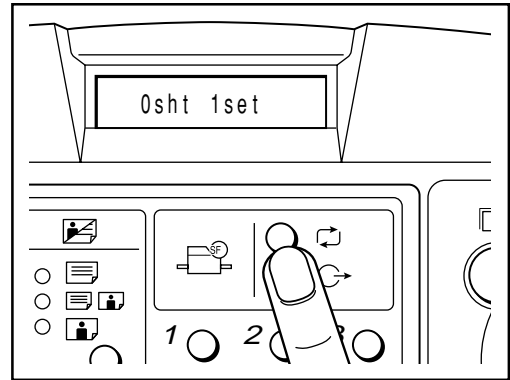


Continue Page ... 

## Selecting Printing Paper Size

- 4** Press  (FUNCTION SWITCH) key several times.

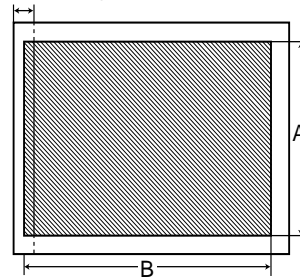
The number display screen returns.



### IMPORTANT

- The following shows the image size that can be scanned for platemaking.

About 8mm cannot be printed.  
This margin is known as the top margin.



#### [European paper sizes]


Paper size	A ( $\pm 1\%$ )	X B ( $\pm 1\%$ )
A4 (R)	204mm	291mm
A4	291mm	204mm
B4	251mm	358mm
A5	142mm	204mm
B5	176mm	251mm

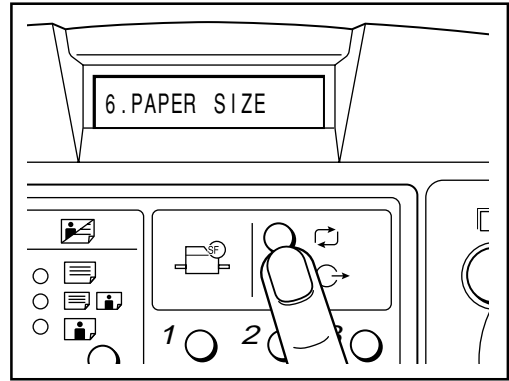
#### [U.S. paper sizes]


Paper size	A ( $\pm 1\%$ )	X B ( $\pm 1\%$ )
LT (R)	210 mm	x 273 mm
LT	273 mm	x 210 mm
LGL	210 mm	x 350 mm
MAX	291 mm	x 414 mm
ST (R)	134 mm	x 210 mm


- When you do not select a paper size and print to a smaller paper, the internal parts of the machine and the print may be soiled.

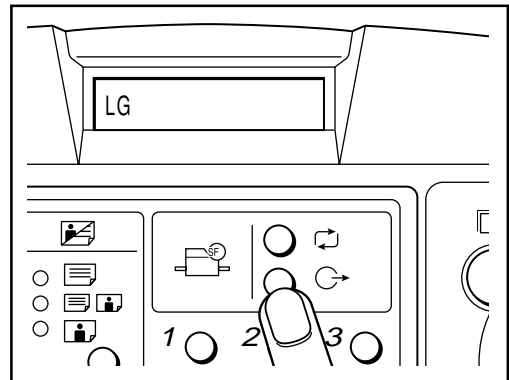
■ When paper of B4 or larger size is used with DP-21L/23S


**1** Press  (FUNCTION SWITCH) key several times to show the screen at right.



**2** Press  (SELECT) key several times to display "LG".

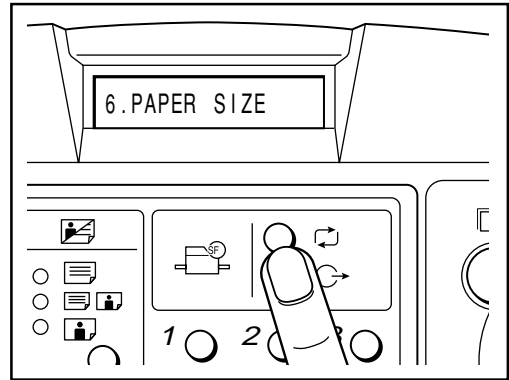
Each time  (SELECT) key is pressed, the display of the LCD panel changes as follows.  
 "NORMAL" → "LG" → "NORMAL" ...




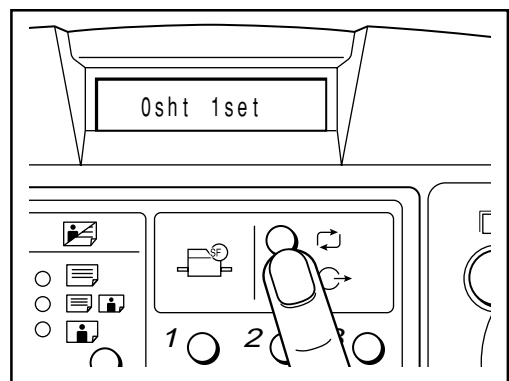
**3** Press  (FUNCTION SWITCH) key.  
 The paper size is set. (The speed is fixed to 1st and the printing speed indicator lamp blinks.)



**Tip**  
 • The printing speed cannot be changed.



**4** Press  (FUNCTION SWITCH) key several times.  
 The number display screen returns.



# Text/Photograph/Text and Photograph Mode

This function includes three modes for enhancing text and photographic documents.

## ■ Text/Photograph/Text and Photograph Mode

In this mode, the print quality is adjusted to match the document.



### Text mode:

Enhances the printing of text documents

Documents suited for text mode:

- Text documents
- Documents that include black and white photos that have already been screen processed.

**Text/Photograph mode:** Enhances the printing of documents with both text and photographs.

Documents suited for text/photograph mode:

- Documents with both text and photographs.

### Photo mode:

Enhances the printing of the subtle gradations of photographs and light images from color documents.

Document suited for photo mode:

- Light-colored color documents
- Color photographs
- Documents with non-screened black and white photographs




### IMPORTANT

- Select "Text/Photograph/Text and Photograph Mode" before starting platemaking.

Proceed with steps 1 to 4 of the sequence described in “Basic Printmaking” (➔ page 30).

**1** Press  (DOCUMENT MODE SWITCH) key to select the desired mode.



Each time  (DOCUMENT MODE SWITCH) key is pressed, the lit document mode indicator lamp changes as follows.

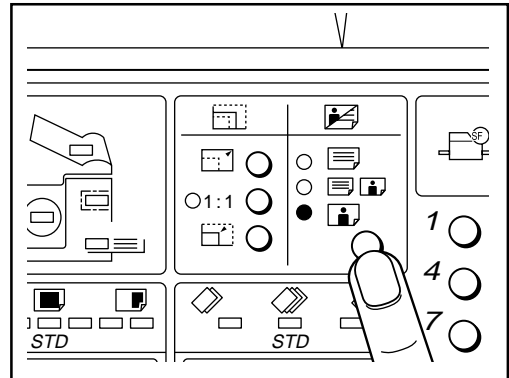
“Text” → “Text/Photograph” → “Photograph” → “Text”...



**Tip**

To return to “Text mode” use one of the following two methods:

- Press  (DOCUMENT MODE SWITCH) key to select “Text”.
- Press  (ALL CLEAR) key. In this case, all settings are reset to standard mode (➔ page 24).



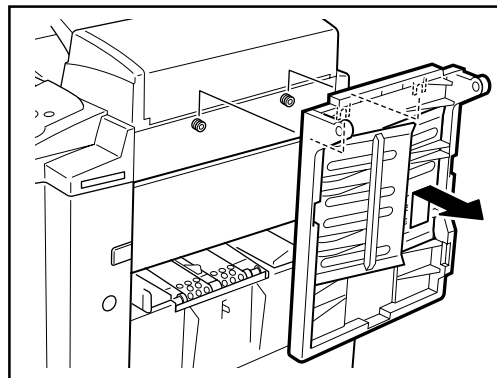
Start platemaking and printing. (➔ See steps 5 to 8 of “Basic Printmaking” page 30.)

# Print Output

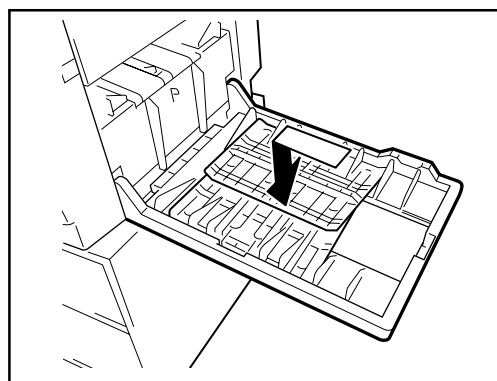
This section describes how to install the print tray and remove printed pages from the print tray.

## Installing Print Tray

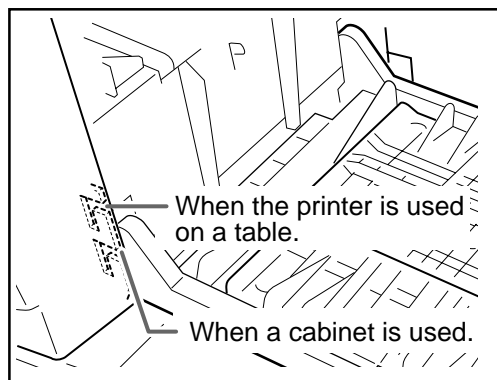
### 1 Remove the print tray.



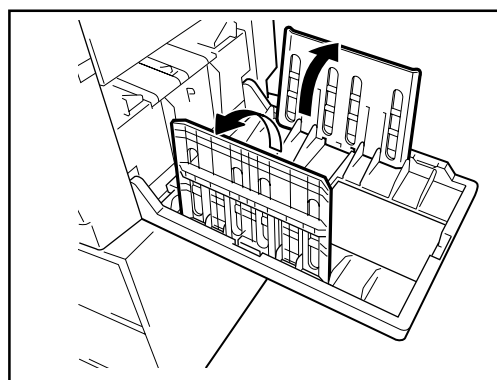
### 2 Install the print tray.



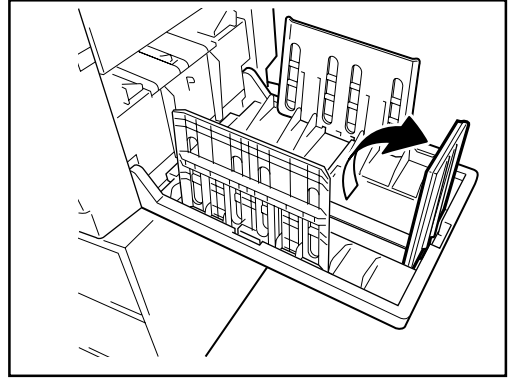
- When you use the printer on a table, install the print tray into the upper fitting.  
(Stacking capacity; 900 sheets, 55 kg, high-grade paper)
- When you use a cabinet (option), install the print tray into the lower fitting.  
(Stacking capacity; 1300 sheets, 55 kg, high-grade paper)



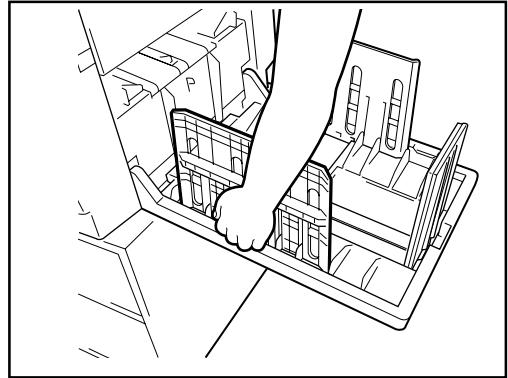
### 3 Open out the paper stacker guides.



4 Open out the paper stopper.



5 Adjust the paper stacker guides and paper stopper to the size of the printing paper.



## Truing up Printed Pages

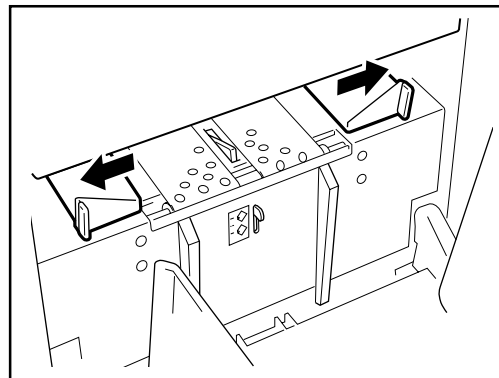
---

Adjust when the edges of the printed pages are not trued up.

### ■ Adjusting jump plate

Adjust the plate according to the paper size.

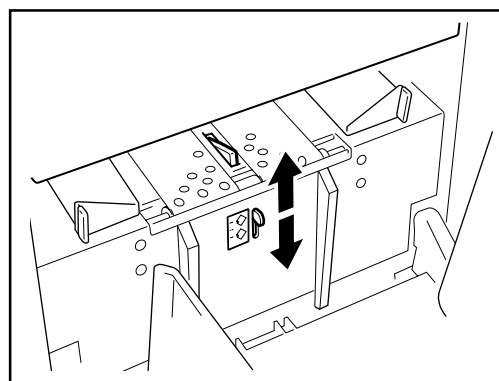
Ex: Expand the guides fully when using paper with B4 or larger size.



### ■ Truing up printed pages

When using thinner paper, turn the lever up.

When using thicker paper, turn the lever down.



# Chapter 3

## Printing With Various Function

This chapter describes how to make prints using the various printer functions.

.....

<b>Saving Settings</b> .....	48
Saving Settings .....	48
Retrieving Settings .....	50
<b>Printing Two Different Document Pages on One Page</b> .....	52
<b>Adjusting Plate Darkness</b> .....	54
<b>Sectional Printing</b> .....	56
Sectional Printing .....	56
Sectional Printing (changing print quantity per document) .....	60
Dividing Sections with Tape [Available only with Tape Cluster Device] .....	63

.....

# Saving Settings

You can save and retrieve nine sets of settings for platemaking and printing. The settings are stored in memory even when the power is turned OFF.




## Tips

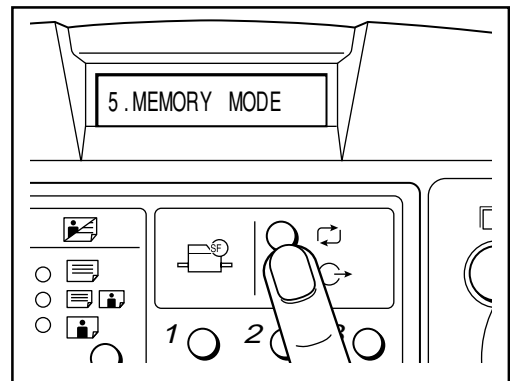
The following settings are saved:


- Number of prints (including sets)
- Paper size
- Platemaking darkness
- Text/Photo
- Zoom ratio
- 94% reduction


## Saving Settings

**1** Confirm that the LCD panel displays the settings you want to store.

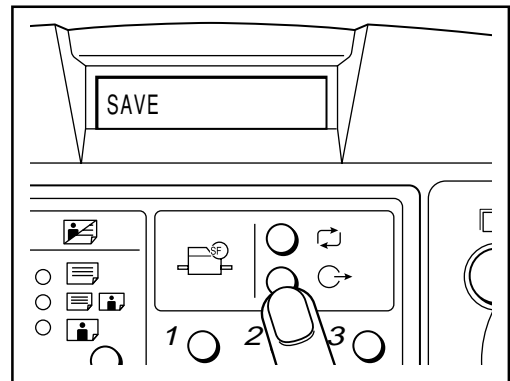
**2** Press  (FUNCTION SWITCH) key several times to show the screen at right.



**3** Press  (SELECT) key several times to display "SAVE".

Each time  (SELECT) key is pressed, the display of the LCD panel changes as follows.

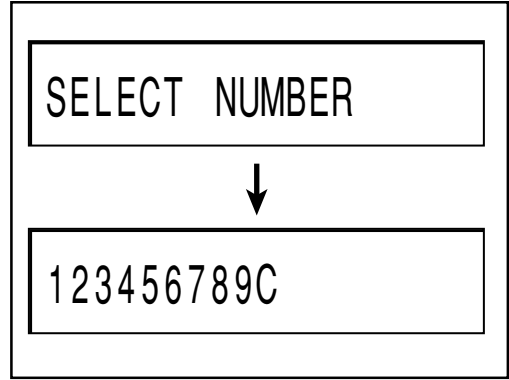
"RETRIEVE" → "SAVE" → "CANCEL" → "RETRIEVE"...



4

Press  (FUNCTION SWITCH) key.

The message “SELECT NUMBER” is displayed on the LCD panel and in about 2 seconds, the screen changes to the display to accept a memory number you specify.



5

Use the keypad to specify the number you want to store.

The settings are stored and the screen in step 3 returns.




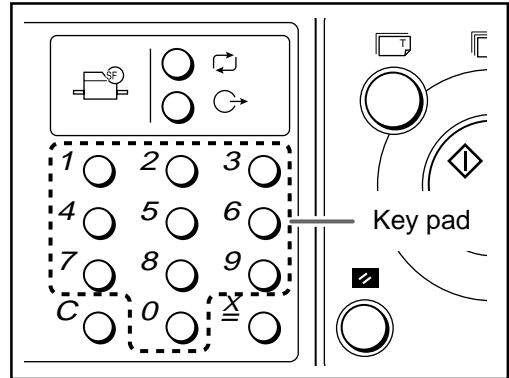
**IMPORTANT**

- Any previous settings stored in the memory channel will be deleted when you save new settings.



**Tips**

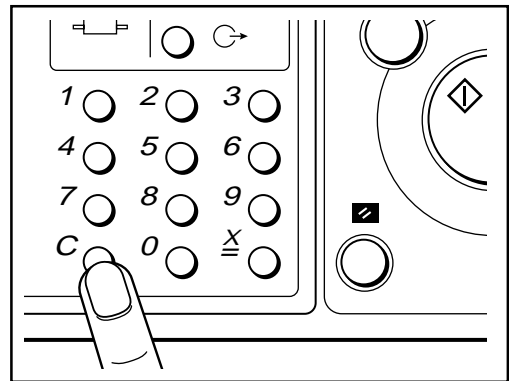
- Press  (CLEAR) key to cancel. The screen in step 3 returns.
- The numbers already stored are displayed flashing.



6

Press  (CLEAR) key.

The number display screen returns.

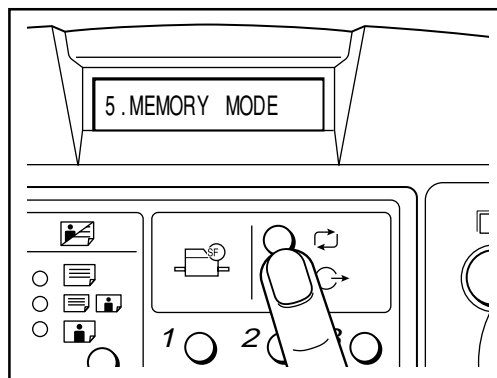



3


Printing With Various Functions

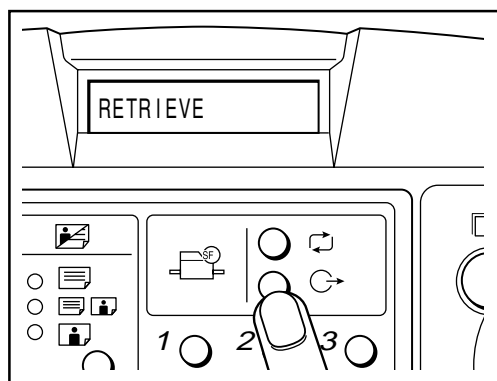
## Retrieving Settings


- 1** Press  (FUNCTION SWITCH) key several times to show the screen at right.

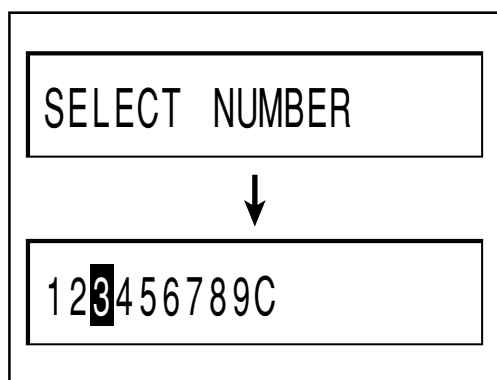


- 2** Press  (SELECT) key several times to display "RETRIEVE".

Each time  (SELECT) key is pressed, the display of the LCD panel changes as follows.  
 "RETRIEVE" → "SAVE" → "CANCEL" → "RETRIEVE"...



- 3** Press  (FUNCTION SWITCH) key.  
 The message "SELECT NUMBER" is displayed on the LCD panel and in about 2 seconds, the screen changes to the display to accept a memory number you specify.




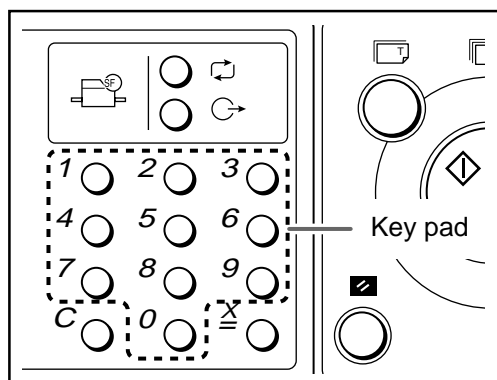
- 4** Use the keypad to specify the number you want to recall.

The settings are recalled and the screen in step 2 returns.



**Tips**

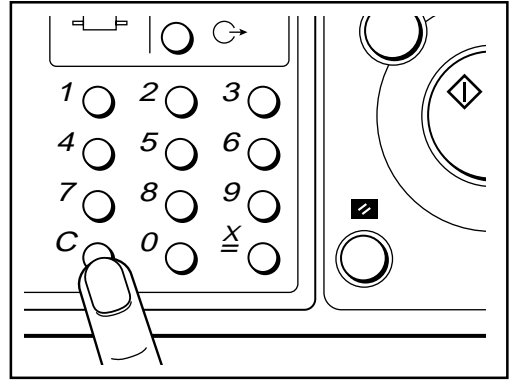
- Press  (CLEAR) key to cancel. The screen in step 2 returns.
- You can recall only the numbers flashing.



5

**Press  (CLEAR) key.**

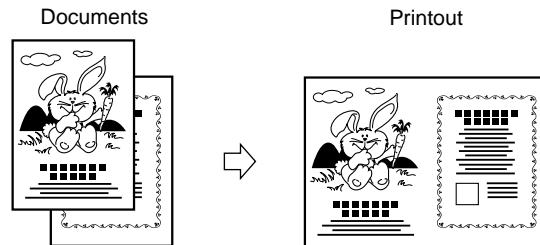
The number display screen returns.



# Printing Two Different Document Pages on One Page

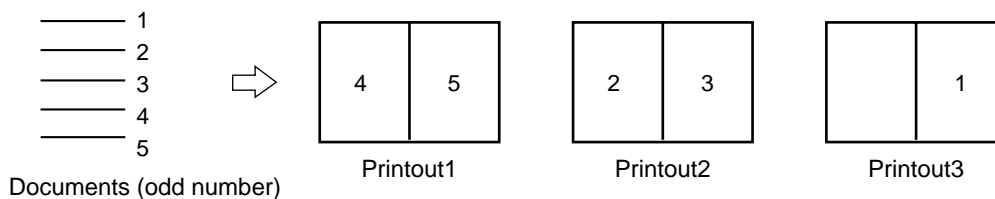
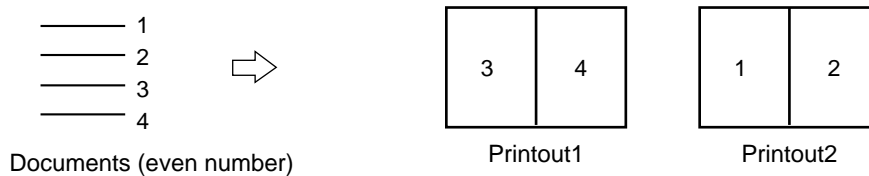
## ■ 2 IN 1 Function

This mode prints two different document pages on one page.



Two-in-one (2-IN-1) Function allows you to print two small documents on one page and also easily print for creating booklets that will be saddle stitched.

When you use 2-IN-1 Function, the layout is as follows:



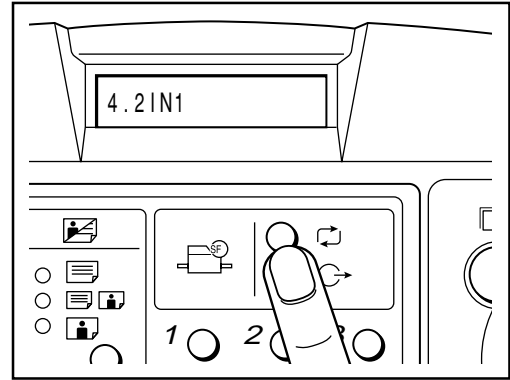
### IMPORTANT


- If you are printing the documents at 100%, select a printing paper that is the size of the two documents.
- When you enlarge or reduce two documents size by side, select a zoom ratio so that the documents fit exactly on one page.
- Select “2-IN-1 Function” before starting platemaking.
- Correct layout may not be obtainable with other than standard size papers.


Note the following when using 2-IN-1 Function:

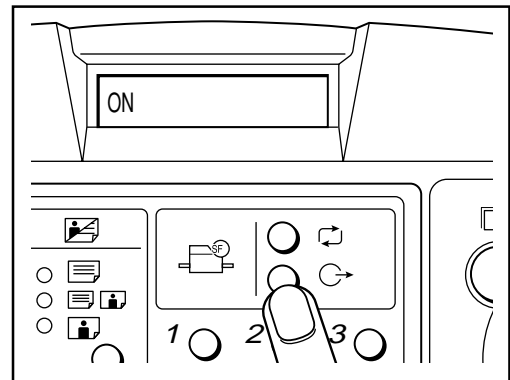
- You must load the document in the ADF in portrait orientation.
- You must select a paper size and zoom ratio that will accommodate two documents.


- 1 Press  (FUNCTION SWITCH) key several times to show the screen at right.

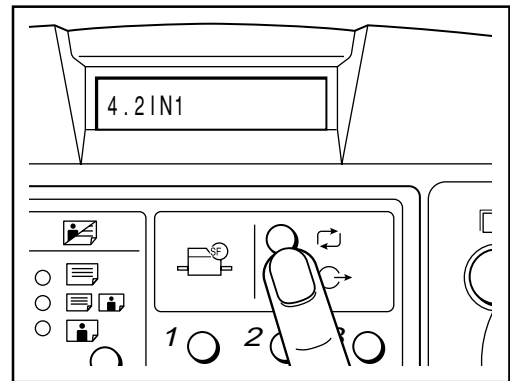


- 2 Press  (SELECT) key several times to display "ON".

Each time  (SELECT) key is pressed, the display of the LCD panel changes as follows.  
"OFF" → "ON" → "OFF"...



- 3 Press  (FUNCTION SWITCH) key. 2 IN 1 Function is set.




- 4 Press  (FUNCTION SWITCH) key several times.

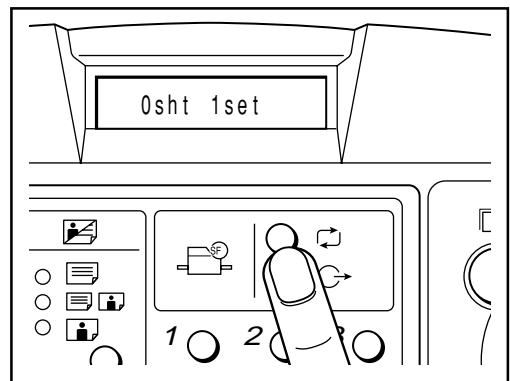
The number display screen returns.



**Tip**

You can cancel 2 IN 1 Function using one of the following two methods.

- Set to "OFF" in the same procedure.
- Press  (ALL CLEAR) key. In this case, all settings are reset to standard mode (➔ page 24).



# Adjusting Plate Darkness

The plate darkness (the level at which black and white are differentiated) can be adjusted in 3 steps. Make the plate more “dark” if the document is light, or “light” if the document is dark.

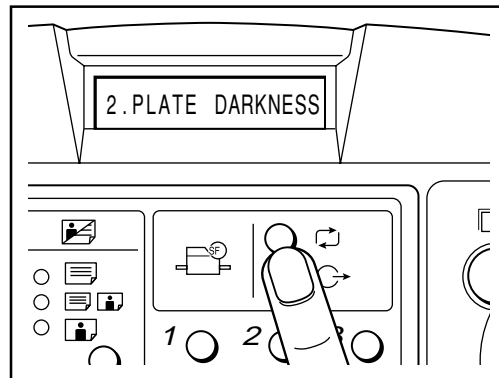


## IMPORTANT

- Set the “Plate Darkness” before making the plate.
- If you adjust the plate darkness, you must repeat the platemaking process before making prints.

1

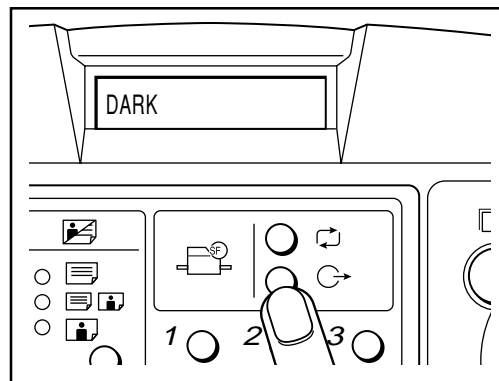
Press (FUNCTION SWITCH) key several times to show the screen at right.



2

Press (SELECT) key several times to display the desired plate darkness.

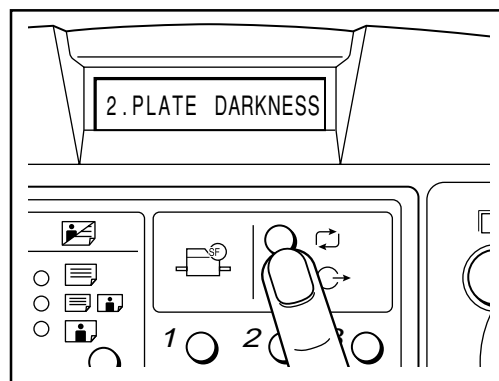
Each time (SELECT) key is pressed, the display of the LCD panel changes as follows.  
“NORMAL” → “DARK” → “LIGHT” → “NORMAL”...



3

Press (FUNCTION SWITCH) key.

The plate darkness is selected.



4


Press  (FUNCTION SWITCH) key several times.

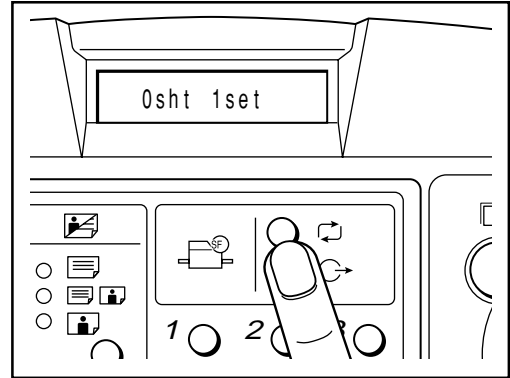
The number display screen returns.



#### Tip

There are two ways to return the darkness to "NORMAL" as follows.

- Set the darkness to "NORMAL" in the same procedure.
- Press  (ALL CLEAR) key. In this case, all settings are reset to standard mode (➔ page 24).

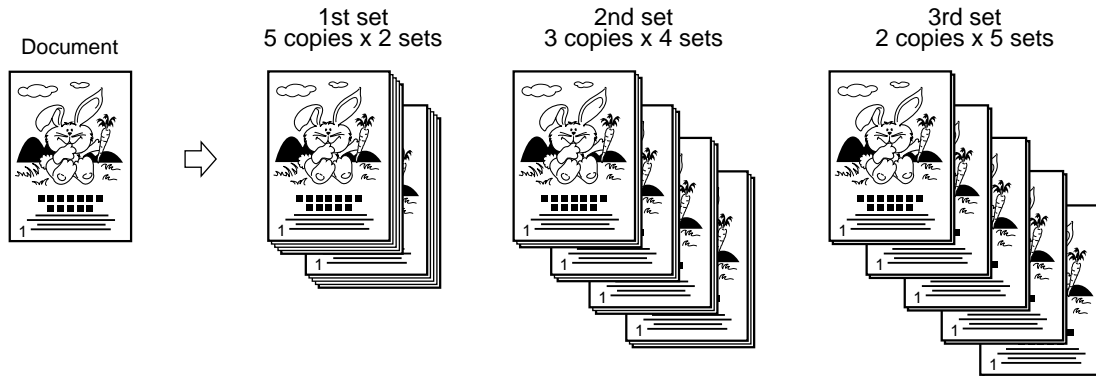


# Sectional Printing

You can print the specified number of sets of prints in each set.

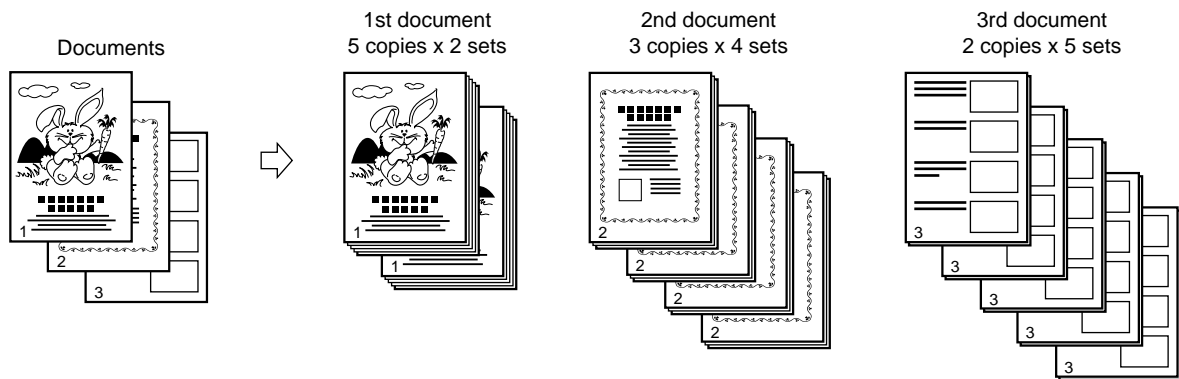
## ■ Sectional Printing (➡ page 56)

The machine stops after each set of prints.



## ■ Changing Print Quantity per Document (➡ page 60)

This function changes the number of prints made from each document.



## Sectional Printing

In this mode, each set comprises the specified number of prints and the machine prints the specified number of sets, stopping after each set.

You can enter up to 15 groups of the specified number of prints x number of sets.

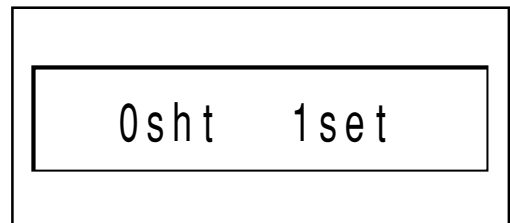
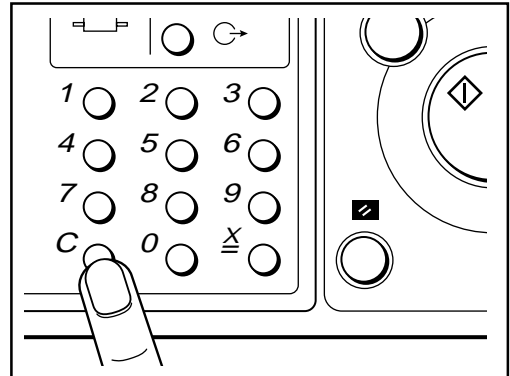


### IMPORTANT

- Select "Sectional Printing" after platemaking.

Proceed with steps 1 to 5 of the sequence described in “Basic Printmaking” (➔ page 30).

- 1** Press **C** (CLEAR) key to clear the number display.



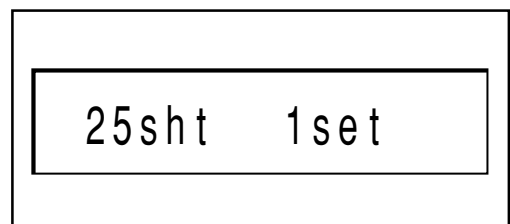
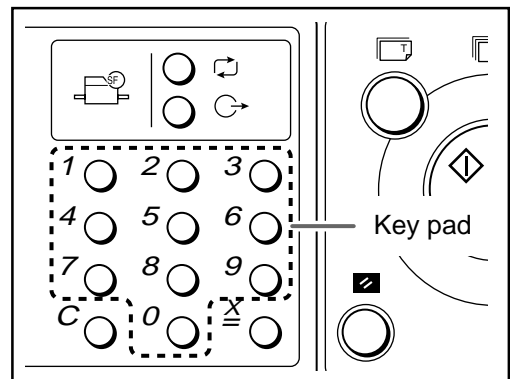
- 2** Using the keypad, enter the number of prints.

Example: 25



**Tip**

- If you make a mistake, start over again by press **C** (CLEAR) key and start from the beginning. When you press **C** (CLEAR) key, both the number of prints and the number of sets are cancelled.

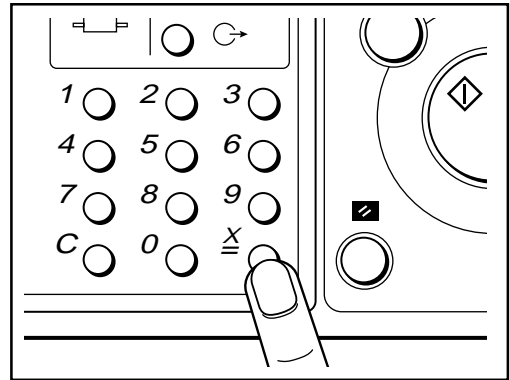


Continue Page ... ➔

3

Press  $\frac{x}{=}$  key.

The number of prints is set.



25sht 0set

4

Use the keypad to enter the number of sets.

Example: 3 sets



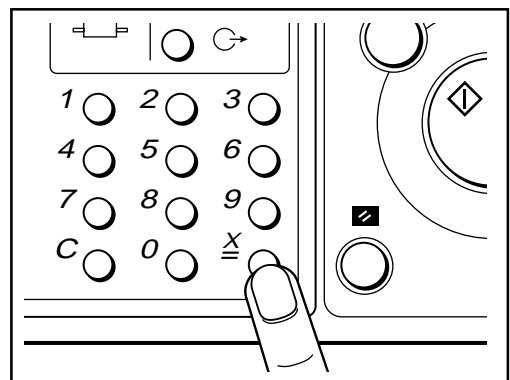
Tip

- If you make a mistake, start over again by press  $\frac{C}{=}$  (CLEAR) key and start from the beginning. When you press  $\frac{C}{=}$  (CLEAR) key, both the number of prints and the number of sets are cancelled.

25sht 3set

5

Press  $\frac{x}{=}$  key.



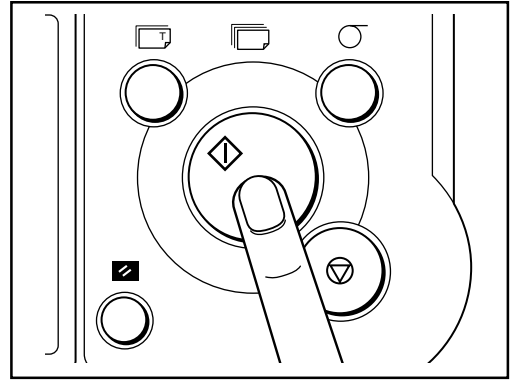
6

Repeat steps 2 to 5.

7

Press  (PRINT) key.

The print runs starts from the last-entered set, and stops after the first set of printouts.



8

Collate by inserting a piece of paper that acts as a marker or by removing the whole set from the machine.

9

Press  (PRINT) key.




The print run starts.

10

Repeat steps 8 and 9 until all entered sets have been printed.



#### IMPORTANT

-  (PLATE MAKING) key will not work until all the sets have been printed.
- Press  (STOP) key then  (CLEAR) key to abort the print run.



#### Tip

- When two or more documents are loaded in the ADF, platemaking of the following documents and printing will automatically start after the entire printing is completed.

## Sectional Printing (changing print quantity per document)

You can change the number of prints made from each document. You can separate the number of prints for up to 15 documents.

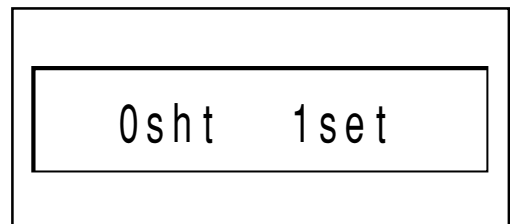
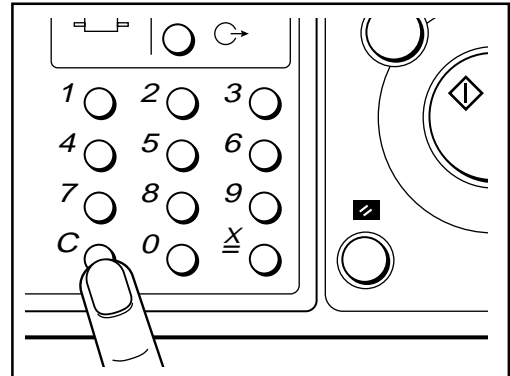


### IMPORTANT

- Select “Sectional Printing” before starting platemaking.

1

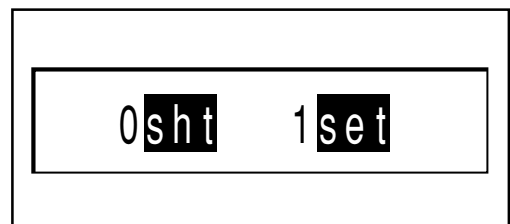
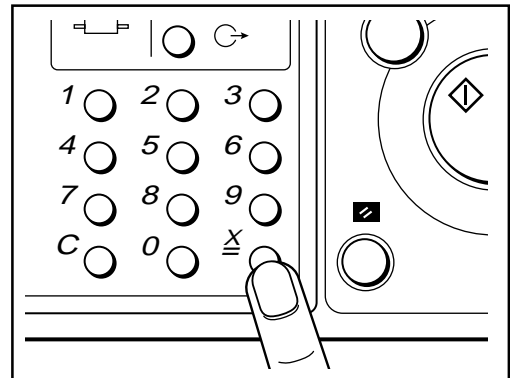
Press **C** (CLEAR) key to clear the number display.



2

Press **≡** key.

“sht” and “set” begin to flash and the number setting by document mode returns.



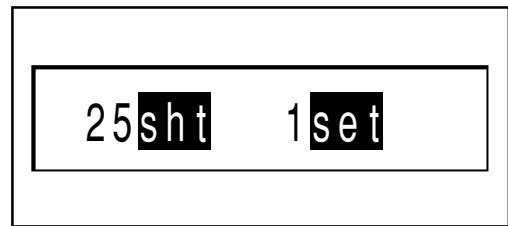
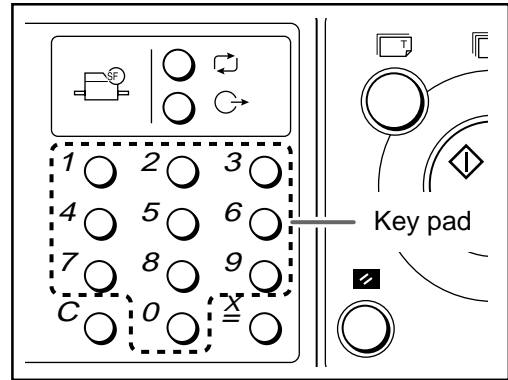
### 3 Use the keypad to enter the number of prints.

Example: 25



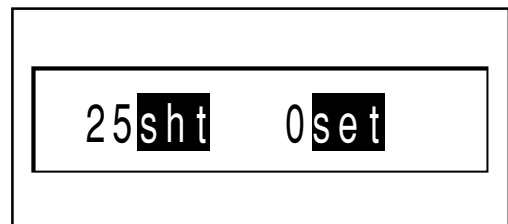
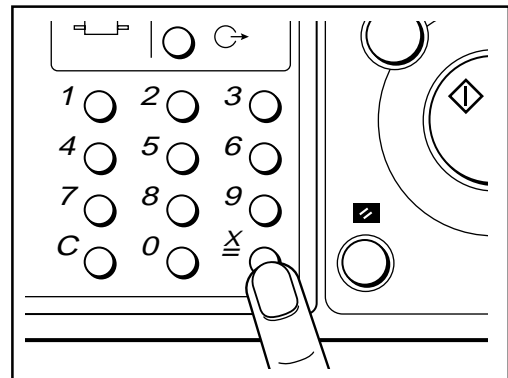
#### Tip

- If you make a mistake, start over again by press **C** (CLEAR) key and start from the beginning. When you press **C** (CLEAR) key, both the number of prints and the number of sets are cancelled.



### 4 Press **≡** key.

The number of prints is set.



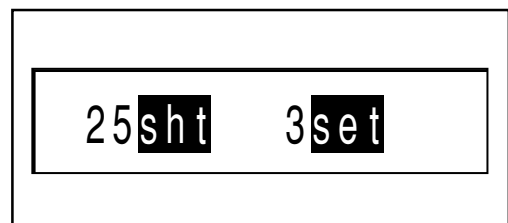
### 5 Use the keypad to enter the number of sets.

Example: 3 sets



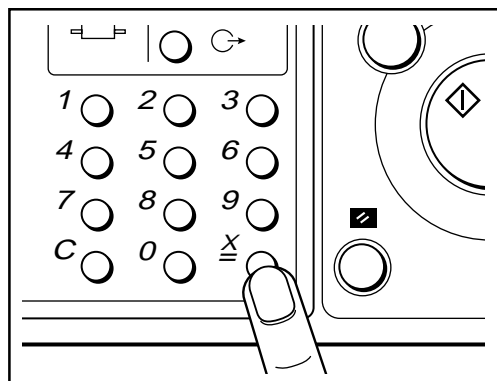
#### Tip

- If you make a mistake, start over again by press **C** (CLEAR) key and start from the beginning. When you press **C** (CLEAR) key, both the number of prints and the number of sets are cancelled.




Continue Page ...

**6** Press  key.




**7** Repeat steps 2 to 6.

**8** Proceed with steps 2 and 4 of the sequence described in “Basic Printmaking” (➔ page 30).

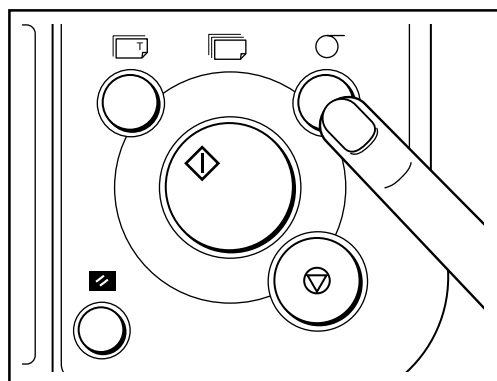
 **IMPORTANT**

- When loading document, load the document for the first-entered number of prints and sets uppermost and the document for the last-entered number of prints and sets at the bottom.


**9** Press  (**PLATE MAKING**) key. Platemarking starts.

 **IMPORTANT**

- Plate making and printing starts from the last-entered print and set quantities.



**10** After the first document is printed, platemarking of the next document and printing will automatically start.

 **Tip**

- Using the optional tape cluster you can successively perform the platemarking and collating of prints of multiple documents.

## Dividing Sections with Tape Available only with Tape Cluster Device

Only the specified number of sets is printed with the specified number of prints taken as one set. Paper tape is inserted when printing of each set is completed.  
You can enter up to 15 groups of number of prints x number of sets.



### IMPORTANT

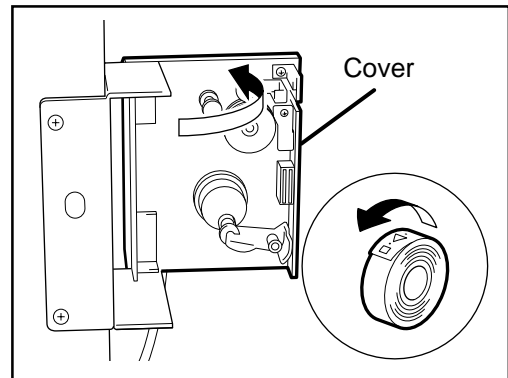
- The optional tape cluster is required for dividing sections with tape.
- You can select "Sectional Printing" after platemaking.
- When the optional tape cluster is installed, you cannot stop printing after each section.



### Tip

- The length of the paper tape separating groups is longer than the paper tape separating sets.

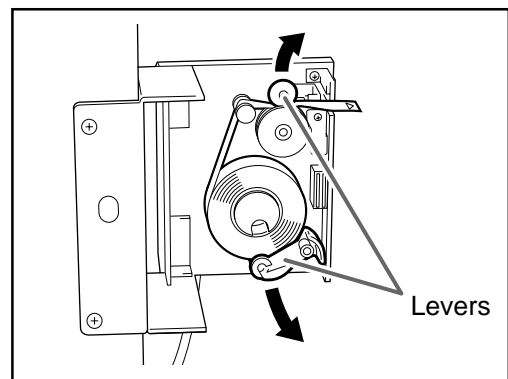
**1** Open the tape cluster cover.



**2** Remove the tape core.

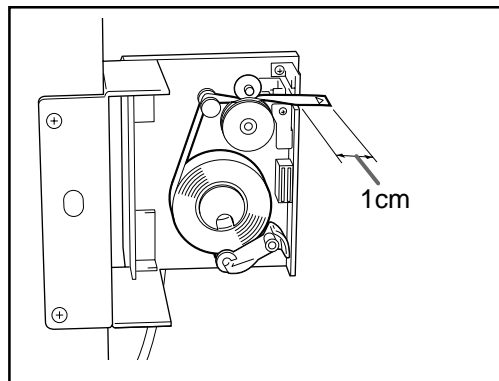
**3** Insert the tape while checking for the direction of the tape roll.

**4** Insert the tape while lifting the two levers up.



Continue Page ...

5 Leave end of tape approximately 1 cm out.



6 Close the cover.



**Tip**

- The paper tapes are inserted so that the length of the paper tape separating sets is longer than the paper tape separating groups.

# Chapter 4

## Miscellaneous Functions

This chapter describes miscellaneous functions such as the confidential safeguard function, and the print speed and print position adjustments.

.....

<b>Confidential Safeguard Function</b> .....	66
<b>Total Counter Display Function</b> .....	67
<b>Print Speed Adjustment Function</b> .....	68
<b>Printing Position Adjustment Function</b> .....	69
<b>On-Line Print Function [Available Only With Interface Kit Installed]</b> .....	70

.....

# Confidential Safeguard Function

The confidential safeguard function, which prevents printing unless platemaking has been completed, is a simple means of prohibiting others from printing sensitive documents.



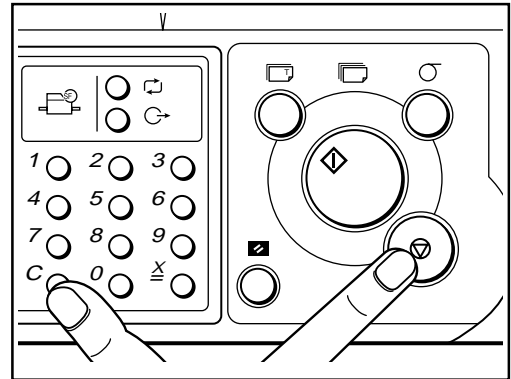
## IMPORTANT

- When the Confidential Safeguard function is ON, printing cannot be performed with (PRINT) or (TEST PRINT) keys. Other operations can be performed as normal.
- Turning the power OFF does not turn the Confidential Safeguard function OFF.
- Once platemaking is carried out, the Confidential Safeguard function is cleared.
- Platemaking still functions even if the Confidential Safeguard function in ON.

1

Press (STOP) key while also pressing (CLEAR) key.

The machine beeps and the Confidential Safeguard function is activated.



2

Press (PRINT) key or (TEST PRINT) key to check that no print is made.



## Tips

- The message “PLS PLATE MAKING” is displayed on the LCD panel and the machine will not print when you press (PRINT) or (TEST PRINT) key while the Confidential Safeguard function is ON.
- To cancel the Confidential Safeguard function, press (PLATE MAKING) key to start platemaking.

PLS PLATE MAKING

# Total Counter Display Function

This function displays the total numbers of prints and plates on the LCD panel.

## 1 Check that the machine is not printing.

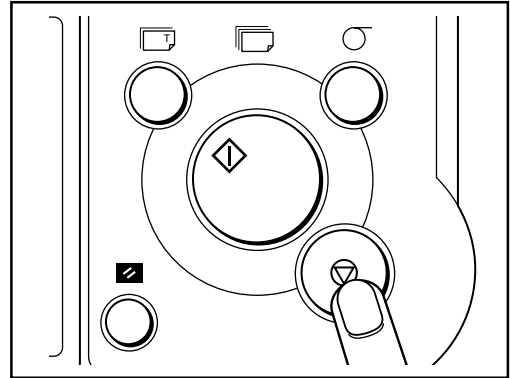


### IMPORTANT

- If the machine is printing, press (STOP) key to stop the print run.

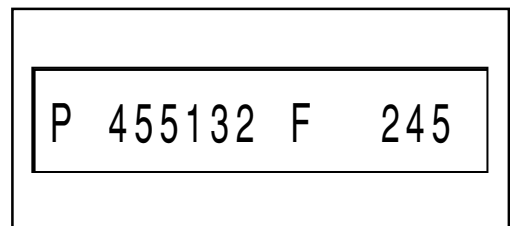
## 2 Press (STOP) key.

The total print and plate counts are displayed while you press and hold (STOP) key.



The number of prints is displayed on the left side and the number of plates on the right side of the LCD panel.

Example: In this example, the total number of prints is 455132, and the total number of plates is 245.



# Print Speed Adjustment Function

The printing speed can be selected from among 60 pages per minute, 80 pages per minute and 120 pages per minute. The default setting when the power is turned ON is about 80 pages per minute.



## Tips

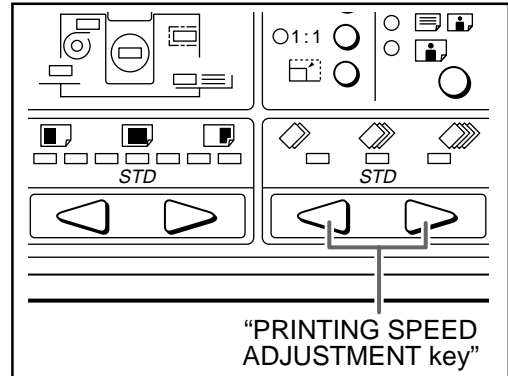
- Paper jams may become more frequent and the paper stacking deteriorate at high and low speeds with certain types of paper and with certain images. Satisfactory performance of printing can be obtained by adjusting the printing speed.
- The prints may be slightly lighter at high printing speeds and slightly darker at slow printing speeds.
- You can adjust the printing speed while the machine is printing.

1

## Press ◀ or ▶ keys to adjust the speed.

Press ◀ key to decelerate printing. The printing speed indicator lamp moves to the left.

Press ▶ key to accelerate printing. The printing speed indicator lamp moves to the right.



## Tip

To return to the default setting (about 80 pages per minute), use one of the following two methods:

- Press ◀ or ▶ key repeatedly until the center speed lamp is lit.
- Press [ALL CLEAR] key. In this case, all settings are reset to standard mode (➔ page 24). Do not press [ALL CLEAR] key while the machine is printing.

# Printing Position Adjustment Function

After platemaking has finished, you can fine-tune the position of the image (in the horizontal direction) within  $\pm 10\text{mm}$ .



## Tip

- You can adjust the printing position while the machine is printing.

1

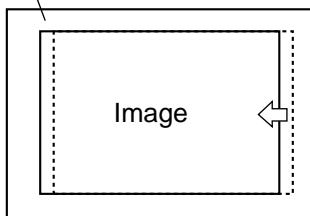
Press or “PRINTING POSITION ADJUSTMENT” keys to adjust the printing position.

Pressing and holding or (PRINTING POSITION ADJUSTMENT) keys continuously adjusts the printing position.

The printing position indicator lamps change for each approximately 3mm change in the printing position.

- To move the printing position to the left, press key. The printing position indicator lamp moves to the left.

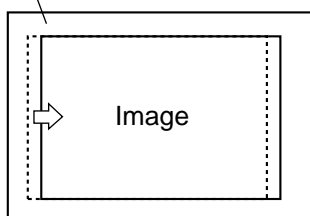
Paper



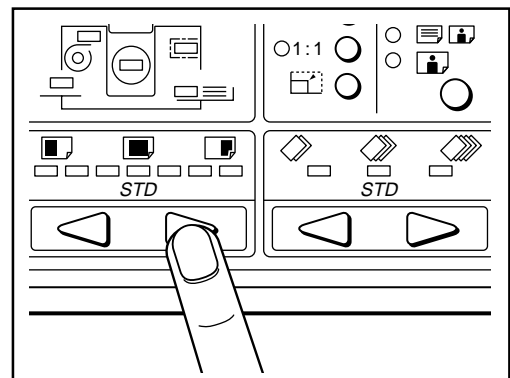
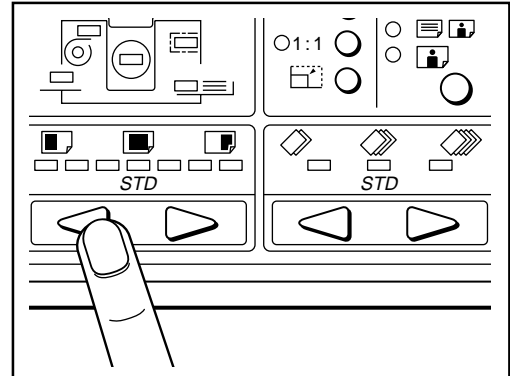
Direction of paper movement

- To move the printing position to the right, press key. The printing position indicator lamp moves to the right.

Paper



Direction of paper movement



## Tip

To return to the default settings, use one of the following two methods:

- Press or key repeatedly until the center printing position indicator lamp is lit.
- Press (ALL CLEAR) key. In this case, all settings are reset to standard mode (➔ page 24). Do not press (ALL CLEAR) key while the machine is printing.

# On-Line Print Function Available Only With Interface Kit Installed

This function allows you to make prints of documents directly from on-line data from personal computers.



## IMPORTANT

- PC interface kit is required to connect this machine to a personal computer.
- Please contact your service person on information regarding installation and settings.

1

Check that the top menu is displayed.

2

Set the size of the printing paper. (➔ See page 39, “Selecting Printing Paper Size”.)

3

Use the print command of the computer applications according to the manual.

Platemaking and printing start automatically.



## Tip

When platemaking ends and printing starts, you can again use the keys on the control panel.

# Chapter 5

## Replacing Consumables

This chapter describes how to supply paper, ink pack, and other consumables.

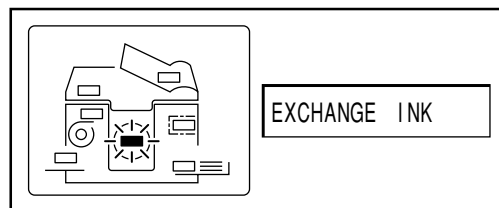
.....

<b>Replacing the Ink Pack</b> .....	72
<b>Replacing the Master Roll</b> .....	75
<b>Replacing the Master Ejection Core</b> .....	78
<b>Replacing the Drum Unit</b> .....	80
Removing the Drum Unit .....	80
Installing the Drum Unit .....	81

.....

# Replacing the Ink Pack

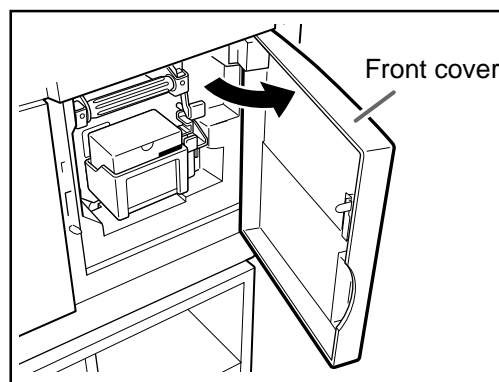
The message “EXCHANGE INK” is displayed on the LCD panel when the remaining ink is low. Replace the ink pack using the following procedure.



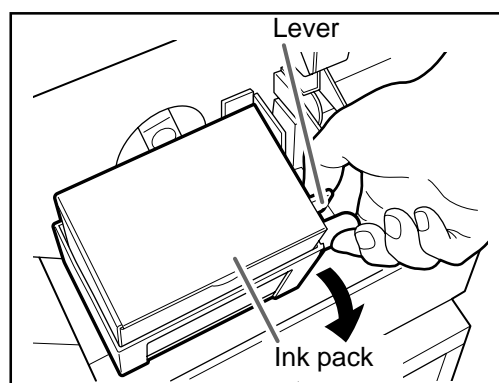
## IMPORTANT

- Only use ink packs designed for this machine.

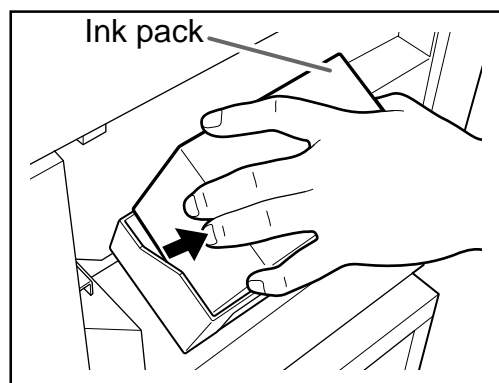
- 1 Open the front cover.



- 2 Grasp the lever and pull it toward you.

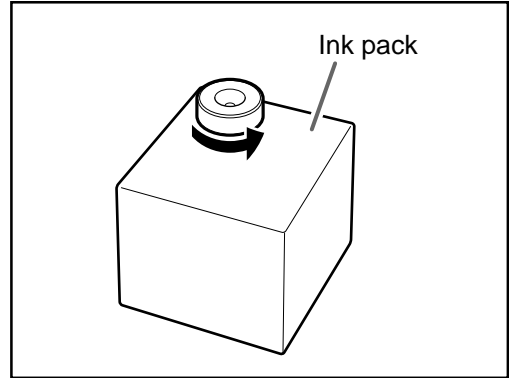


- 3 Lift out the empty ink pack.

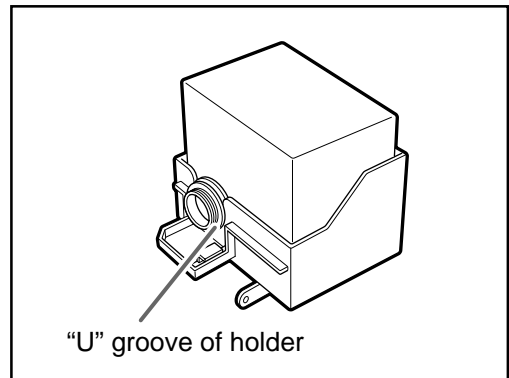
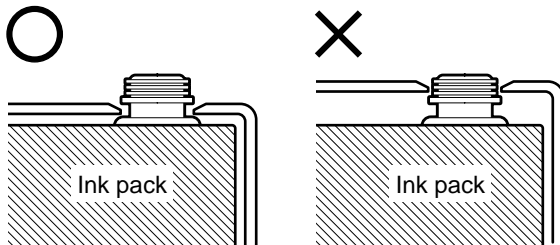


**4** Remove the cap from a new ink pack.

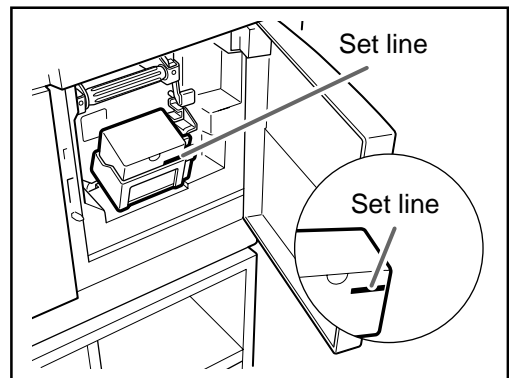
**IMPORTANT**  
 • Do not leave an ink pack uncapped for longer than necessary.



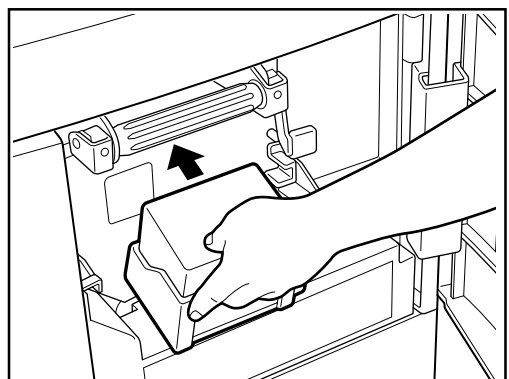
**5** Insert the ink pack so that the groove on the lip fits onto the "U" groove of the holder.



**6** Push the ink pack in to the set line on the ink pack.

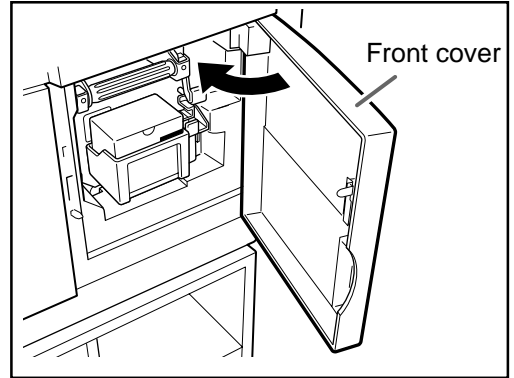


**7** Press the back of the holder in with the palm of your hand.



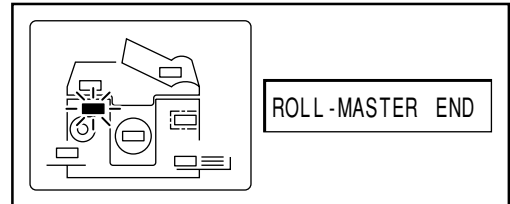
Continue Page ...

8 Close the front cover.



# Replacing the Master Roll

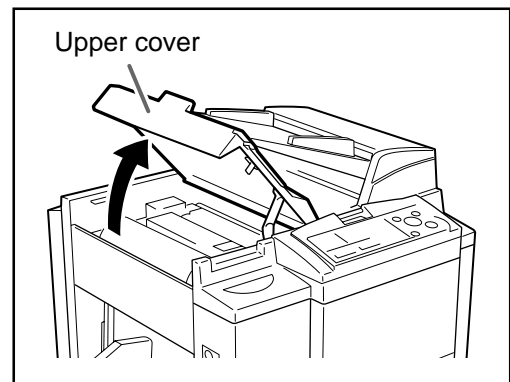
The message “ROLL-MASTER END” is displayed on the LCD panel when the master roll is used up. Replace the master roll using the following procedure.



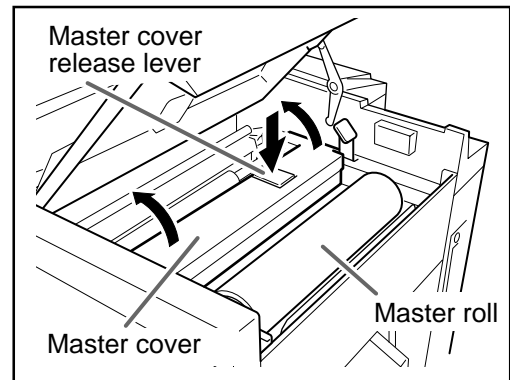
**IMPORTANT**  
• Only use a master roll designed for use in this machine.

**1** Open the upper cover.

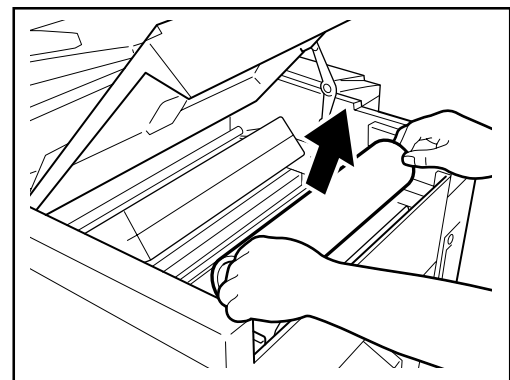
**IMPORTANT**  
• Do not touch the heat generator of thermal head. Doing so may cause damages, leading to a malfunction of plate making.



**2** Press the master cover release lever.  
The master cover will open up.



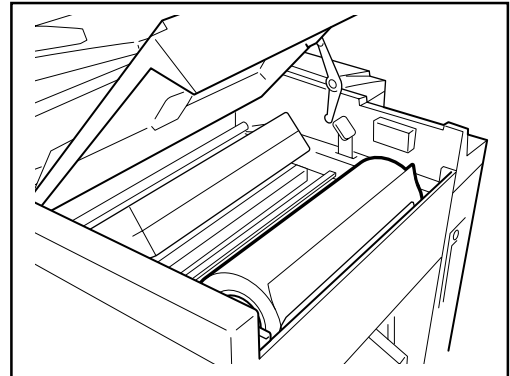
**3** Lift out the master roll.



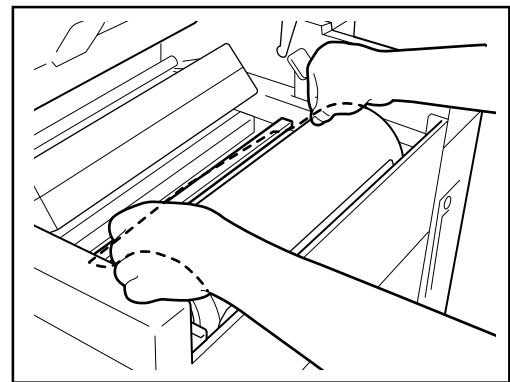
Continue Page ...

**4** Take out a new master roll from the bag.

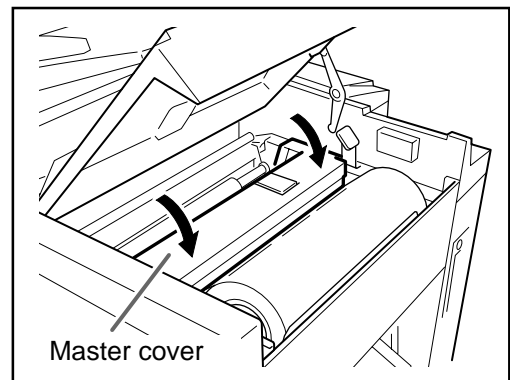
**5** Set the master roll in the direction as shown in the illustration at right.



**6** Pull out the master, and insert the master aligned with the loading line under the guide panel until it contacts the roller.



**7** Close the master cover.

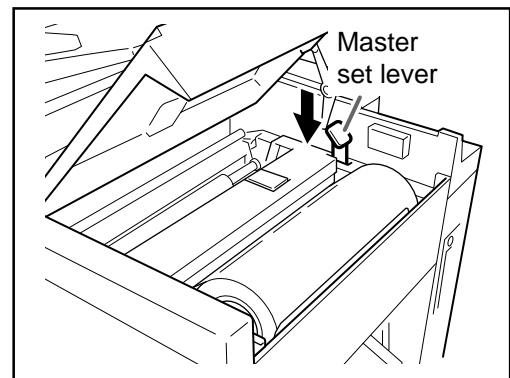


**8** Push the master set lever.  
The master is pulled in.



**IMPORTANT**

- If the master is not pulled in open the master cover, and gently press in as far as possible to set again.

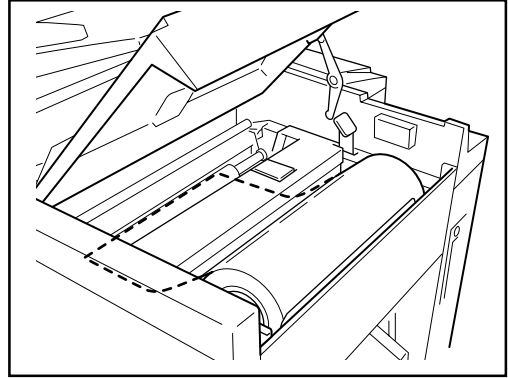


- 9** Make sure that the leading edge of the master is protruding from the inner side of the master cover.



**IMPORTANT**

- If the master cannot be set correctly, its leading edge will not be visible. Open the master cover, and set again.

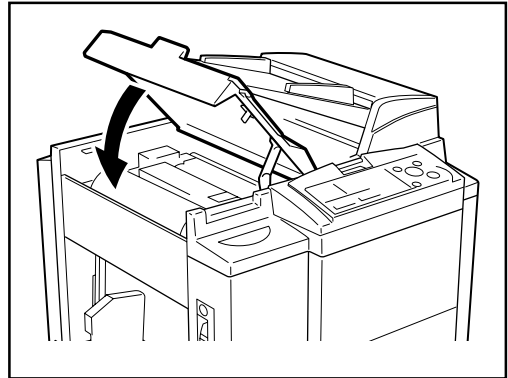


- 10** Gently close the upper cover.



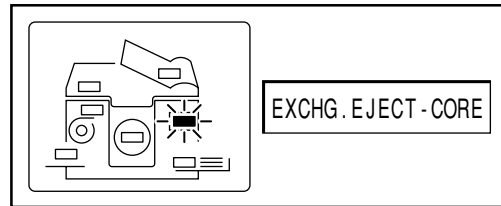
**WARNING**

- Do not remove the cover affixed with Warning Label 1.
- Personnel may be injured by the movable cutter inside the machine.



# Replacing the Master Ejection Core

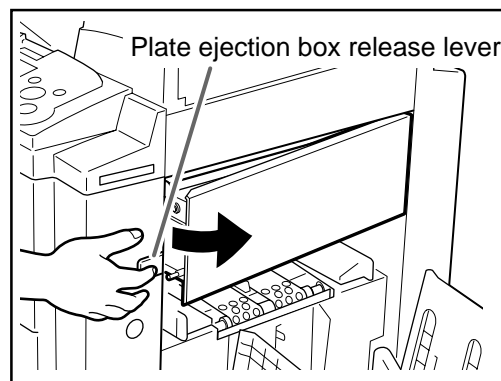
The message “EXCHG. EJECT-CORE” is displayed on the LCD panel when the master ejection core is full. Remove the master ejection core using the following procedure:



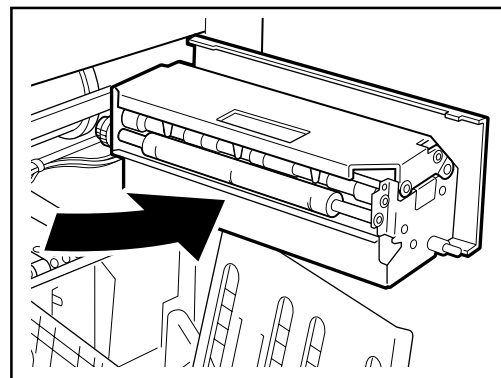
## IMPORTANT

- Use only a master ejection core designed for use in this machine.

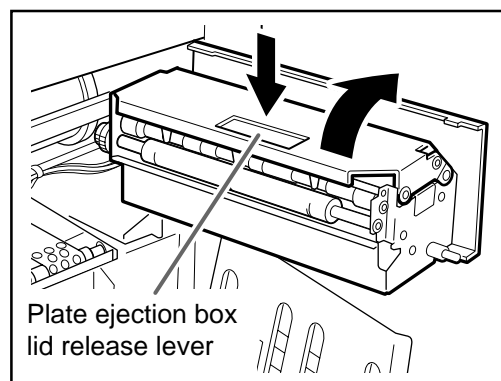
- 1 Press the plate ejection box release lever to open the master ejection box.



- 2 Open the master ejection box until it stops.



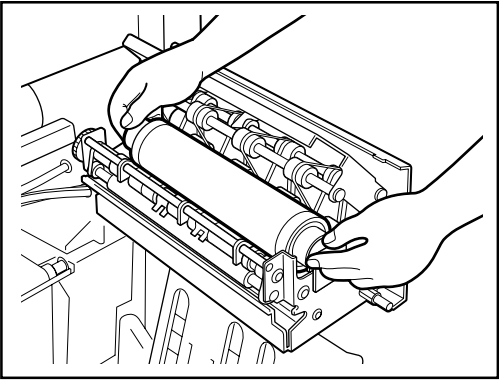
- 3 Open the cover while pressing and holding the plate ejection box lid release lever.



**4** Holding the edges of the master ejection core, pull out the core and discard it.

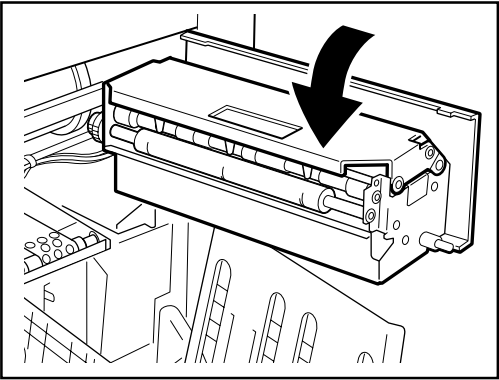
**IMPORTANT**

- Ink adheres to the master ejection core. Take care to prevent ink from getting onto your clothing.

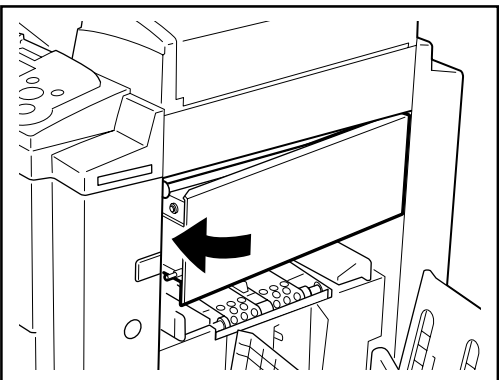


**5** Insert a new master ejection core.

**6** Gently close the master ejection box cover, pressing it until it locks.



**7** Close the master ejection box, pressing it until it locks.



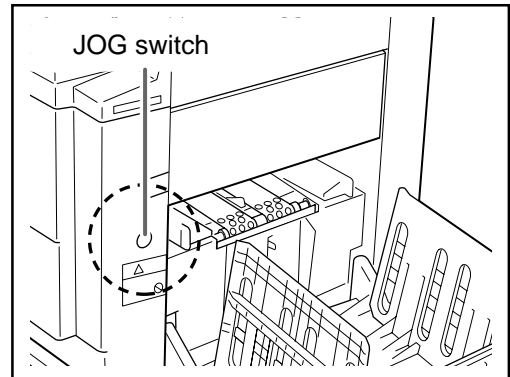
# Replacing the Drum Unit

## Removing the Drum Unit

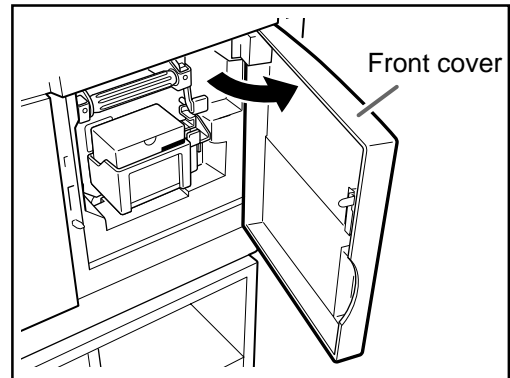
- 1 Press and hold the JOG switch until the drum comes to a stop with a beep.

**! WARNING**

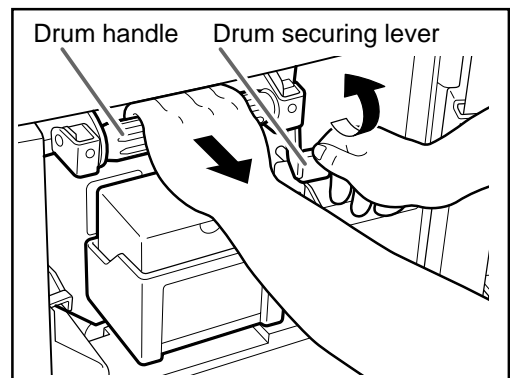
- Do not touch the drum or rollers when you operate the JOG switch.
- Do not put your hands or fingers inside the machine while it is operating. Your hands may be pulled in or nipped.



- 2 Open the front cover toward you.



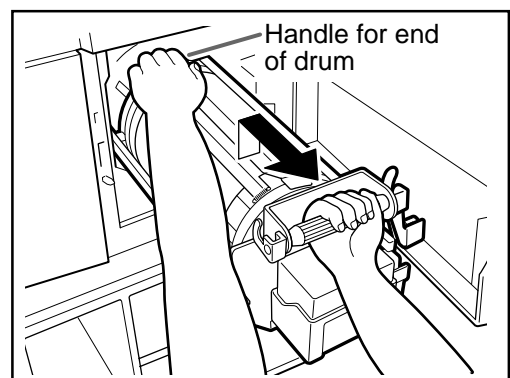
- 3 Lift the drum securing lever toward you and, holding it there, then pull out the drum handle straight toward you until it stops.



- 4 Hold the handle on the far end of the drum, and lift the front end of the drum slightly to pull the drum toward you.

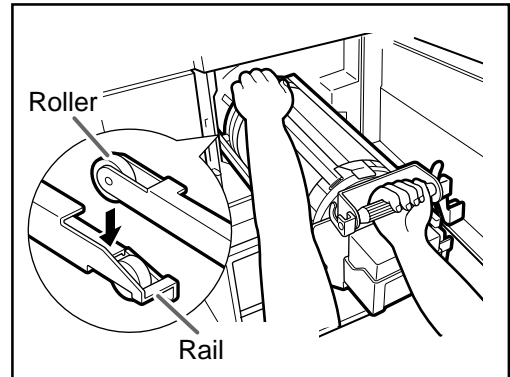
**! IMPORTANT**

- Do not touch the drum surface. Ink may transfer to your clothes.
- Hold the drum level and place it on a flat, solid surface.

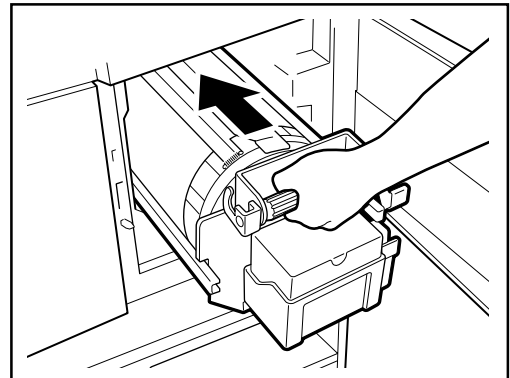


## Installing the Drum Unit

- 1 Hold the drum level and place the drum guide roller onto the rail in the machine.

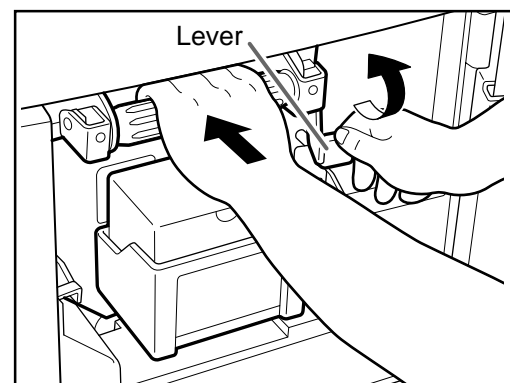


- 2 Release the handle at the far end of the drum and press the drum in about 10cm while lifting up the front end slightly.



- 3 Hold the drum level and press it in gently until it comes to a stop.

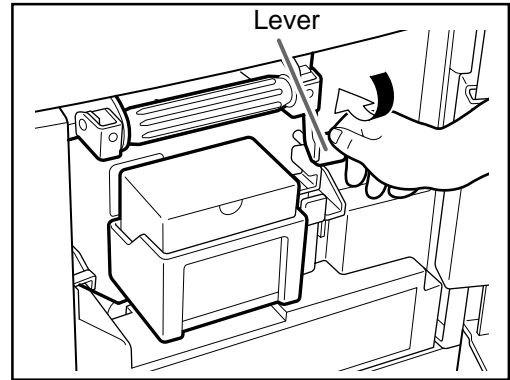
- 4 Lift the drum securing lever toward you while pressing the drum in.



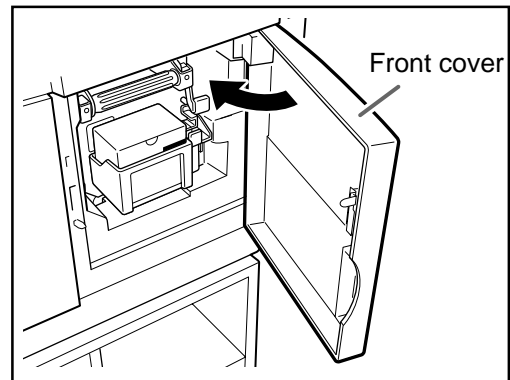
Continue Page ...

## Replacing the Drum Unit

5 Lower the lever.



6 Close the front cover.



# Chapter 6

## Troubleshooting

This chapter describes how to remove paper jams and what to do when error messages are displayed.

.....

<b>Countermeasures to Troubles</b> .....	84
Power Does Not Turn ON .....	84
Platemaking/Printing is Not Possible .....	84
<b>Error Messages</b> .....	85
<b>Supplying or Changing Paper While Printing</b> .....	89
If Paper Runs Out During Printing .....	89
Adding Paper While Printing .....	89
Changing Paper Selection While Printing .....	91
<b>Paper Jams</b> .....	93
When "PAPER LEFT JAM" is Displayed (Feed Tray) .....	93
When "PAPER RIGHT JAM" is Displayed (Print Tray) .....	94
<b>When "MAST.EJECT ERROR" is Displayed</b> .....	97
<b>When "MASTER SET MISS" is Displayed</b> .....	100

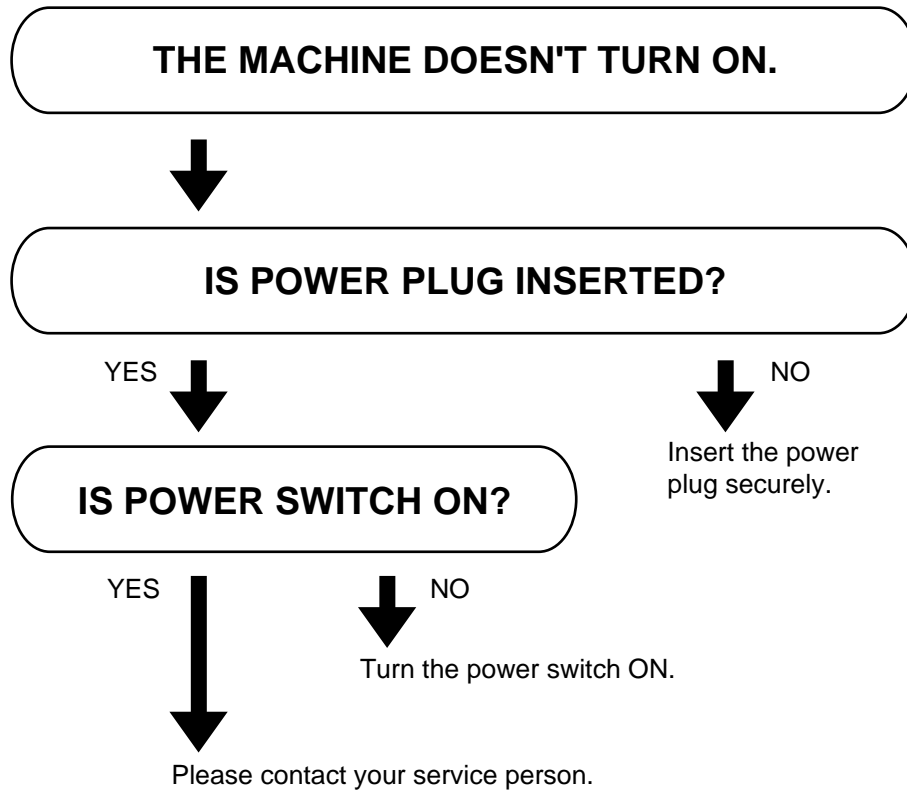
.....

# Countermeasures to Troubles

## Power Does Not Turn ON

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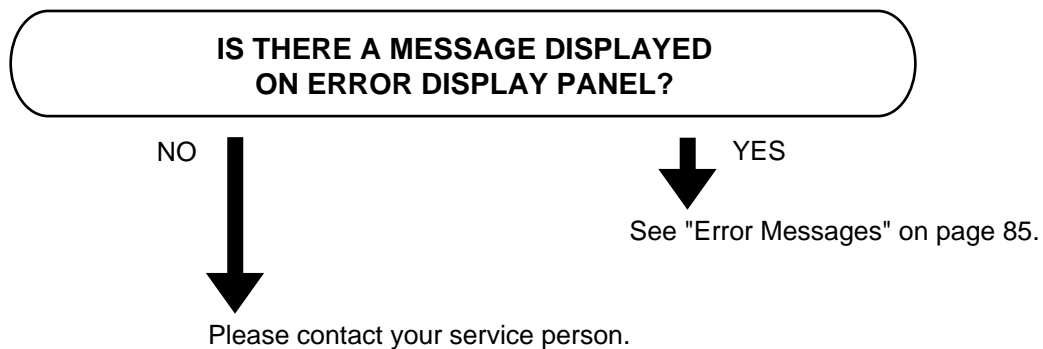
If the power does not turn ON, check the following.



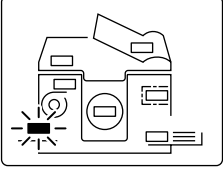
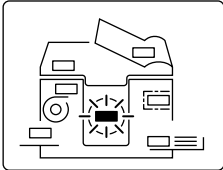
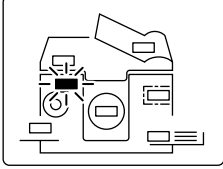
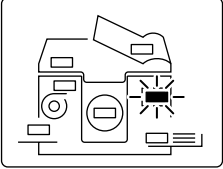
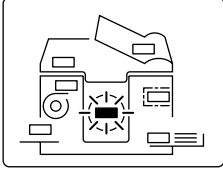
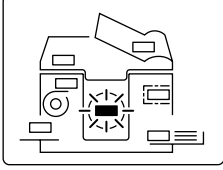
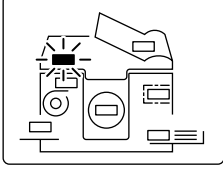
## Platemaking/Printing is Not Possible

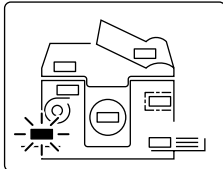
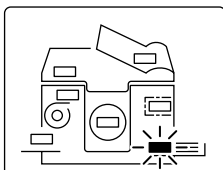
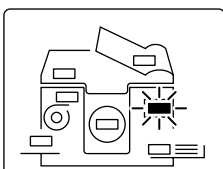
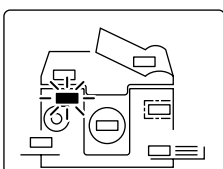
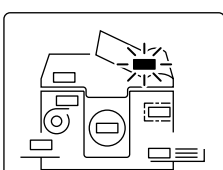
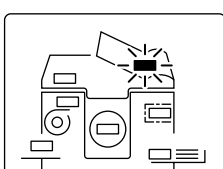
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
If platemaking/printing is not possible, check the following.



# Error Messages

Message	Countermeasure
 <div data-bbox="422 477 651 528" style="border: 1px solid black; padding: 2px; display: inline-block;">SET PRINT PAPER</div>	<p>There is no paper in the feed tray. Load the feed tray with printing paper.</p>
 <div data-bbox="422 723 651 775" style="border: 1px solid black; padding: 2px; display: inline-block;">EXCHANGE INK</div>	<p>There is no ink. Replace the old ink pack with a new one. (➡ For details, see page 72, “Replacing the Ink Pack”.)</p>
 <div data-bbox="422 976 651 1028" style="border: 1px solid black; padding: 2px; display: inline-block;">ROLL-MASTER END</div>	<p>There is no master. Replace the master roll with a new one. (➡ For details, see page 75, “Replacing the Master Roll”.)</p>
 <div data-bbox="422 1223 651 1274" style="border: 1px solid black; padding: 2px; display: inline-block;">EXCHG. EJECT-CORE</div>	<p>The master ejection core is full. Replace the core with a new one. (➡ For details, see page 78, “Replacing the Master Ejection Core”.)</p>
 <div data-bbox="422 1469 651 1520" style="border: 1px solid black; padding: 2px; display: inline-block;">DRUM NOT SET</div>	<p>There is no drum. Install a drum in the machine. (➡ For details, see page 80, “Replacing the Drum Unit”.)</p>
 <div data-bbox="422 1722 651 1774" style="border: 1px solid black; padding: 2px; display: inline-block;">FRONT COVER OPEN</div>	<p>The front cover is open. Close the front cover.</p>
 <div data-bbox="422 1968 651 2020" style="border: 1px solid black; padding: 2px; display: inline-block;">DOC. TRAY OPEN</div>	<p>The upper cover is open. Close the upper cover.</p>

Message	Countermeasure
 <div data-bbox="422 470 646 526" style="border: 1px solid black; padding: 2px; display: inline-block;">PAPER LEFT JAM</div>	<p>A paper jam has occurred in the feed tray. Remove the jammed paper. (➡ For details, see page 93, “When ‘PAPER LEFT JAM’ is displayed (Feed Tray)”.)</p>
 <div data-bbox="422 716 646 772" style="border: 1px solid black; padding: 2px; display: inline-block;">PAPER RIGHT JAM</div>	<p>A paper jam has occurred on the print tray side. Inspect the print tray side and remove the jammed paper. (➡ For details, see page 94, “When ‘PAPER RIGHT JAM’ is displayed (Print Tray)”.)</p>
 <div data-bbox="422 963 646 1019" style="border: 1px solid black; padding: 2px; display: inline-block;">MAST.EJECT ERROR</div>	<p>There is an old master on the drum. Remove all the masters from the drum. (➡ For details, see page 97, “When ‘MAST.EJECT ERROR’ is Displayed”.)</p>
 <div data-bbox="422 1209 646 1265" style="border: 1px solid black; padding: 2px; display: inline-block;">MASTER SET MISS</div>	<p>There is an error during master setting. Open the top cover and remove the master that is left in the plate feeder. (➡ For details, see page 100, “When ‘MASTER SET MISS’ is Displayed”.)</p>
 <div data-bbox="422 1456 646 1512" style="border: 1px solid black; padding: 2px; display: inline-block;">SCANNER OPEN</div>	<p>The ADF cover is open. Close the ADF cover.</p>
 <div data-bbox="422 1702 646 1758" style="border: 1px solid black; padding: 2px; display: inline-block;">DOCUMENT JAM</div>	<p>The document is jammed on the ADF. Remove the jammed document in accordance with the ADF instruction manual.</p>
<div data-bbox="183 1937 646 2049" style="border: 1px solid black; padding: 10px; display: inline-block; text-align: center;">SET KEYCARD</div>	<p>Insert the key card into the key card counter. For details, see the Key Card Counter Instruction Manual.</p>

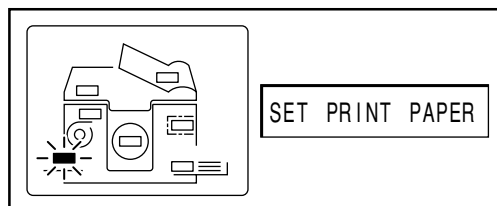
Message	Countermeasure
<div style="border: 1px solid black; padding: 5px; text-align: center;">PLS PLATE MAKING</div>	<p>Cannot print. This message is displayed just after the master setting error or plate ejection error occurs. It is also displayed if you  (PRINT) key or  (TEST PRINT) key without making a plate while the confidential safeguard function is activated. Make a plate first.</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;">- - PRINTING - -</div>	<p>Printing is not complete. Either press  (PRINT) key to resume printing or press  (CLEAR) key to clear the counter.</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;">- - SCANNING - -</div>	<p>A plate is being made. Wait until it is completed.</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;">ON-LINE ERROR</div>	<p>An error occurs on-line. Turn the power OFF once and check the connector for connection, then make a plate on-line. If the same display appears, turn the power OFF and contact servicepersons.</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;">NO DOCUMENT</div>	<p>There is no document. Set a document.</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;">PLEASE WAIT</div>	<p>The printer is not ready. Wait a while with the power turned ON.If this message does not disappear after several minutes, turn the power OFF and contact servicepersons.</p>
<div style="border: 1px solid black; padding: 5px; text-align: center;">RESET MAST.ROLL</div>	<p>The master is not set correctly. Set the master again.</p>

<b>Message</b>	<b>Countermeasure</b>
<div data-bbox="188 450 647 551" style="border: 1px solid black; padding: 10px; text-align: center;"><b>SERVICE CALL</b></div> <p data-bbox="197 562 635 613">This message blinks alternately with the message "Exxx".</p>	<p data-bbox="716 394 1390 488">Turn the power OFF once and turn the power ON again in several seconds. If the same display appears, make a memo of the message "Exxx" and contact servicepersons.</p>


# Supplying or Changing Paper While Printing

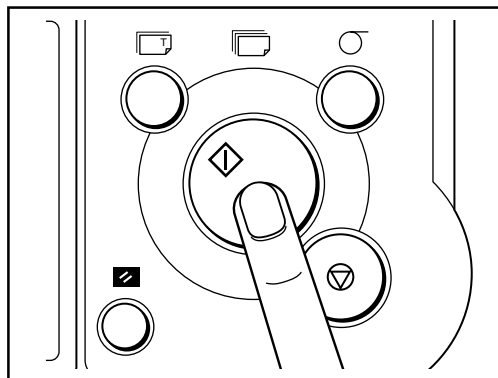
## If Paper Runs Out During Printing

- 1 If paper runs out during printing, printing stops and the feed tray is lowered automatically.



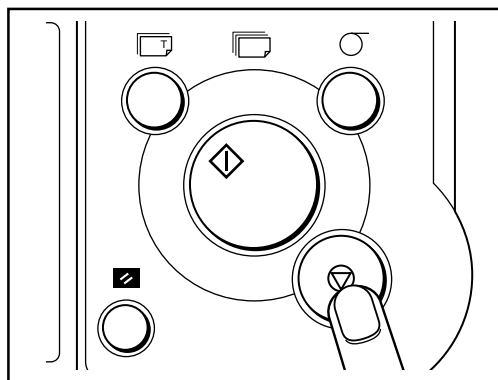
- 2 Load paper (➔ See page 32, “Loading and Replacing Paper”).

- 3 Press  (PRINT) key.  
Printing resumes.

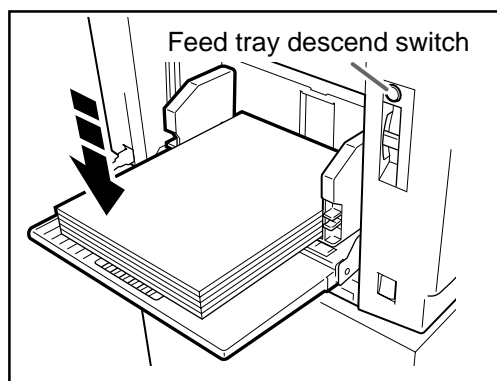


## Adding Paper While Printing

- 1 Press  (STOP) key.  
Printing stops.



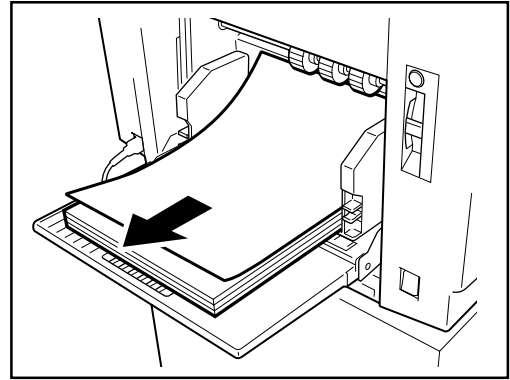
- 2 Press the feed tray descend switch continuously.  
Release the switch when the feed tray reaches the proper height.  
The feed tray will stop.





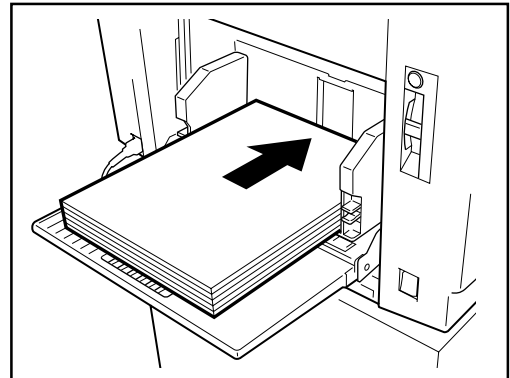
### IMPORTANT

- If the sheet is still in the feed roller ring, pull it out and align it with the stack.



3

Align the stack to be added and place it on top of the existing stack. Press the stack lightly toward the machine.



4

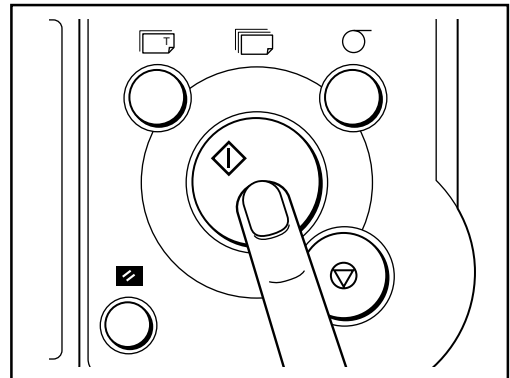
Press  (PRINT) key.

The feed tray will rise automatically and printing will resume.




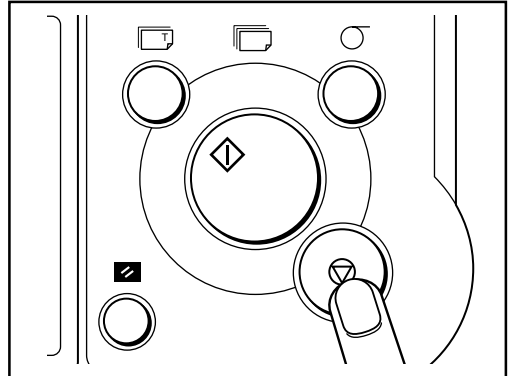
### Tip

- When you press  (STOP) key, printing stops.

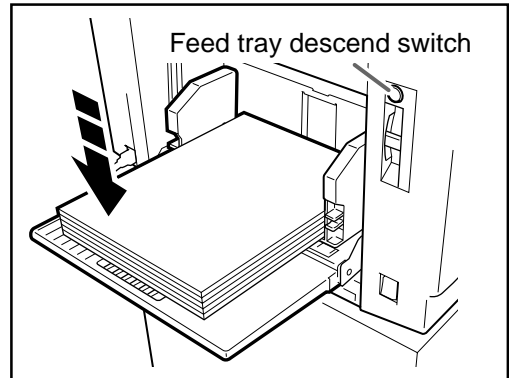


## Changing Paper Selection While Printing

- 1 Press  (STOP) key.  
Printing stops.

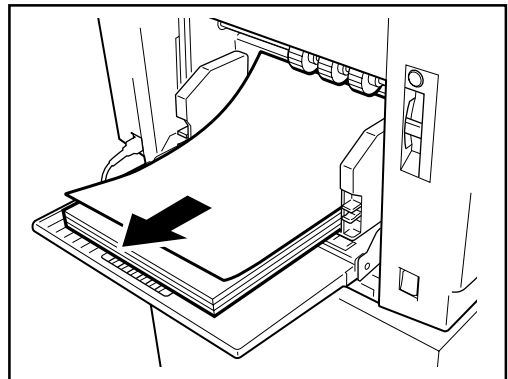


- 2 Press the feed tray descend switch continuously.  
Release the switch when the paper tray is at the proper height.  
The feed tray will stop.

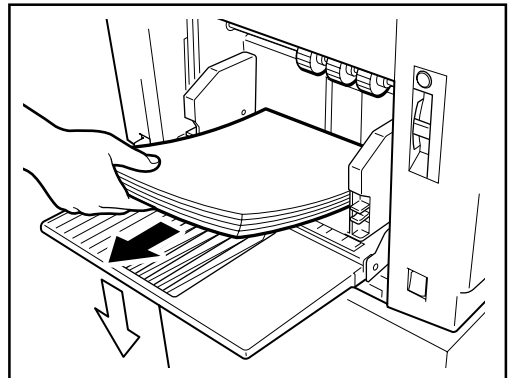



### IMPORTANT

- If the sheet is still in the feed roller ring, pull it out and align it with the stack.




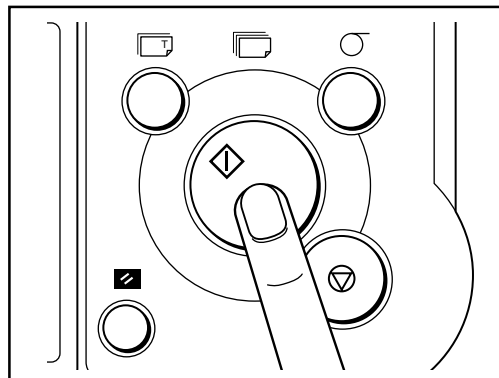
- 3 Remove paper from the feed tray.  
The feed tray will automatically descend.



Continue Page ... 

4 When the feed tray comes to a stop, reset the paper size.

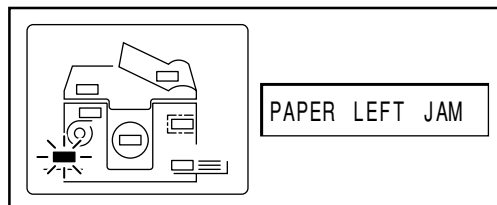
5 Press  (PRINT) key.  
The feed tray will rise automatically and printing will resume.



# Paper Jams

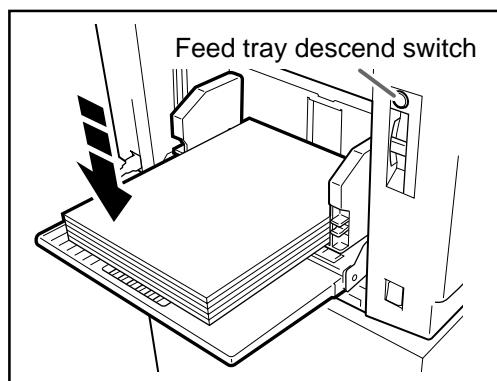
## When “PAPER LEFT JAM” is Displayed (Feed Tray)

When a paper jam occurs in the feed tray, the message “PAPER LEFT JAM” is displayed on the LCD. Follow the procedure below to remove the jammed paper.

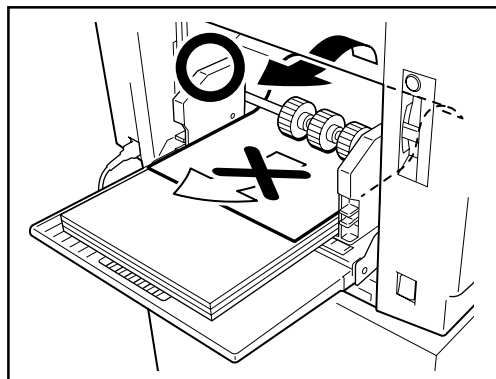


### 1 Switch to lower the feed tray slightly.

The feed tray is lowered for the time that the switch is pressed.



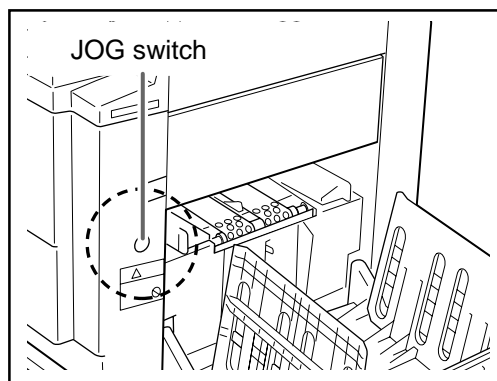
### 2 Pull out the jammed paper as shown in the diagram.



### 3 Press the JOG switch until the drum comes to a stop with a beep.

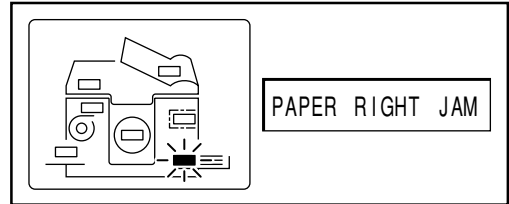
#### ⚠ WARNING

- Do not touch the drum or rollers when you operate the jog switch.
- Do not put hands inside machine while it is operating. Hands could get caught up or crushed.

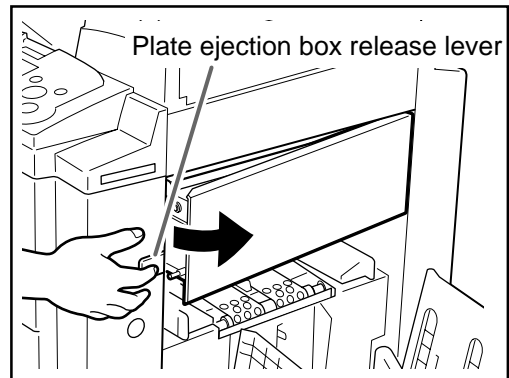


## When “PAPER RIGHT JAM” is Displayed (Print Tray)

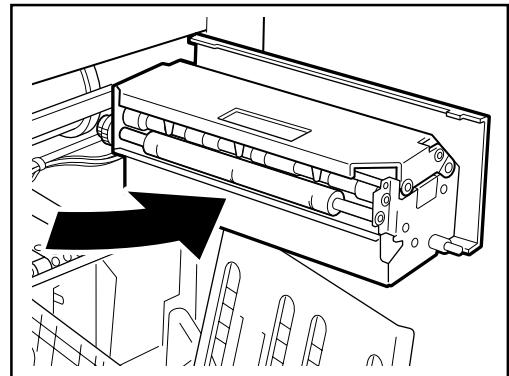
When a paper jams in the print tray, “PAPER RIGHT JAM” is displayed on the LCD panel. Follow the procedure below to remove the jammed paper.



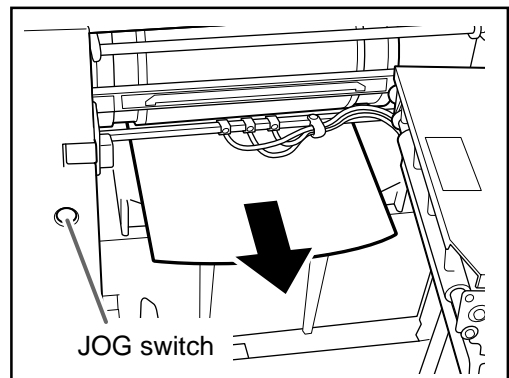
- 1** Press the plate ejection box release lever to open the master ejection box.



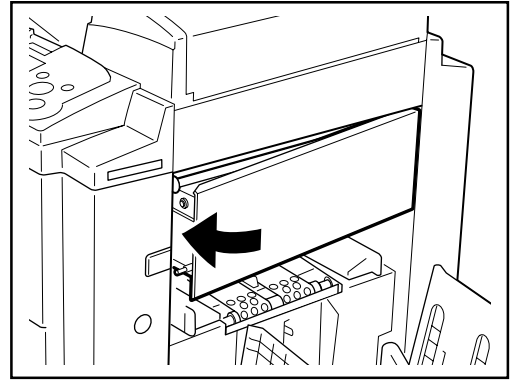
- 2** Open the master ejection box until it stops.



- 3** Remove the jammed paper.  
Press the JOG switch to eject the partially printed paper.



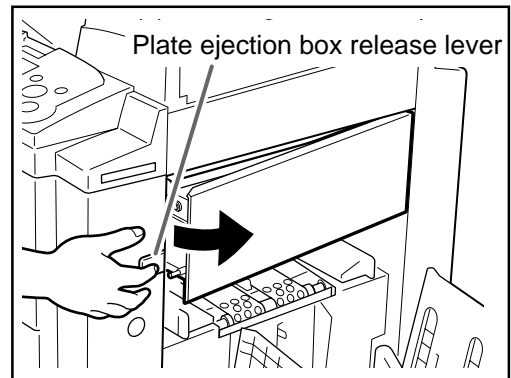
- 4** Close the master ejection box, pressing it until it locks.



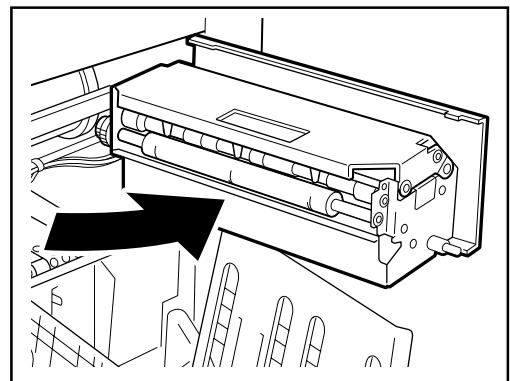
## ■ Paper Adhering to Drum

If paper has adhered to the drum, follow the procedure below to remove it.

- 1** Press the plate ejection box release lever to open the master ejection box.



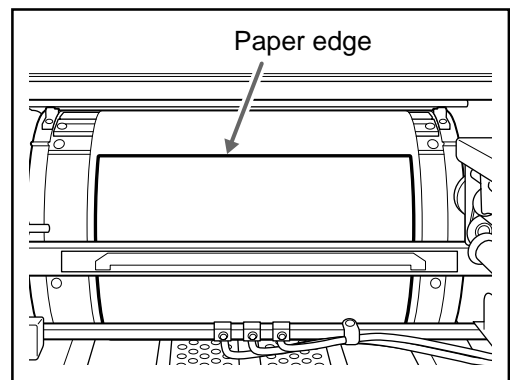
- 2** Open the master ejection box until it stops.



- 3** Press the JOG switch to find the edge of the paper, then stop the drum at the position shown in the diagram.

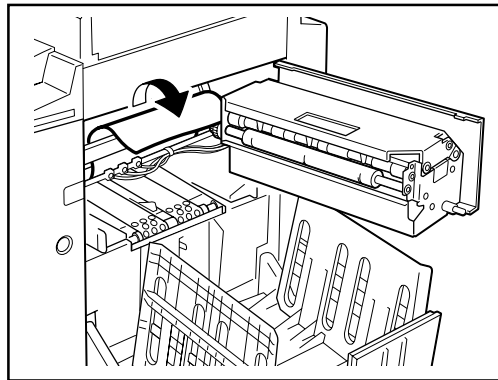
**⚠ WARNING**

- Do not touch the drum or rollers when you operate the JOG switch.
- Do not put your hands inside the machine while it is operating. Your hands may be pulled in or nipped.



Continue Page ...

**4** Peel off the edge of the paper from the drum.

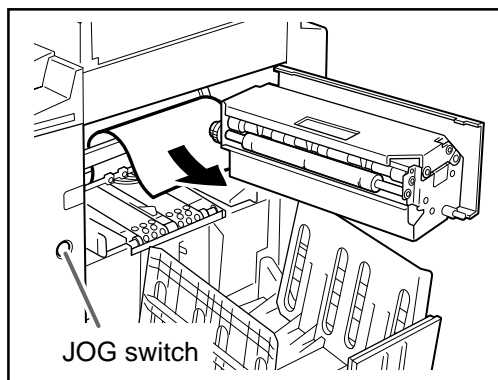


**5** Pull the paper toward the ejection side while pressing the JOG switch to peel the paper off.

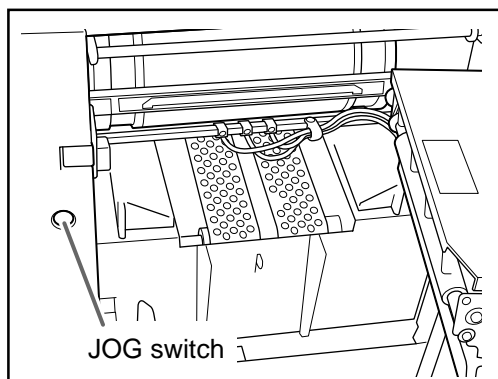


**IMPORTANT**

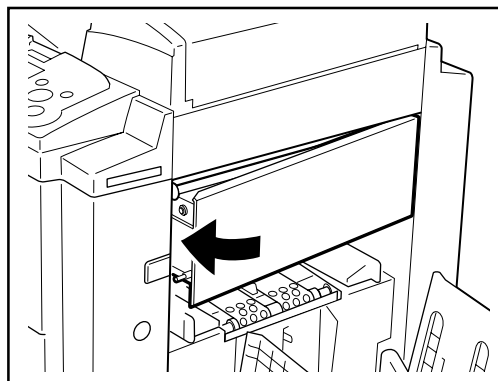
- Make sure that the peeled paper does not stick to your clothing.



**6** Hold the JOG switch down until the drum comes to a stop with a beep.



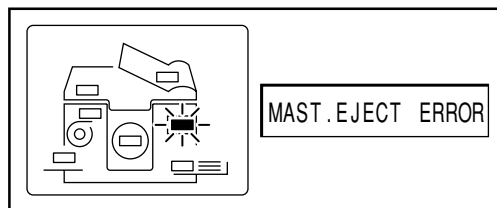
**7** Close the master ejection box, pressing it until it locks.



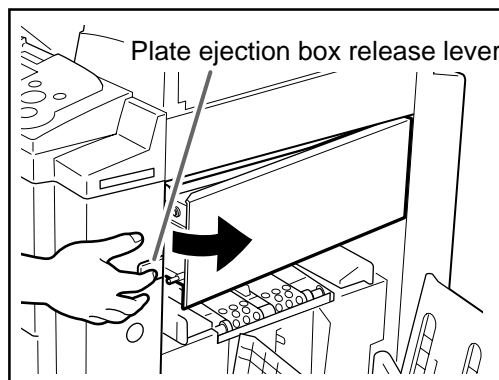
**8** Make another plate.

# When “MAST.EJECT ERROR” is Displayed

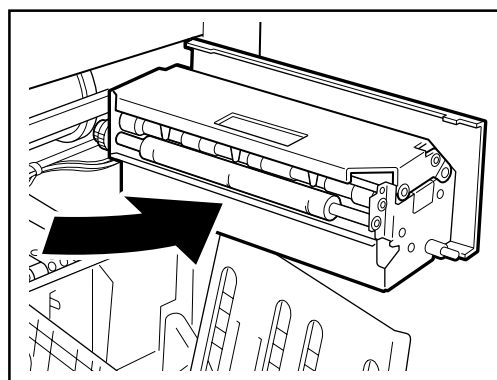
When an old master remains on the drum, “MAST.EJECT ERROR” is displayed on the LCD panel. Remove it by following the procedure below.



- 1 Press the plate ejection box release lever to open the master ejection box.



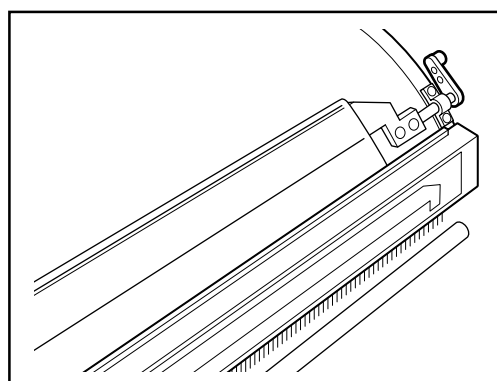
- 2 Open the master ejection box until it stops.



- 3 Press the JOG switch to find the edge of the paper, then stop the drum at the position shown in the diagram.

**! WARNING**

- Do not touch the drum or rollers when you operate the JOG switch.
- Do not put your hands inside the machine while it is operating. Your hands may be pulled in or nipped.

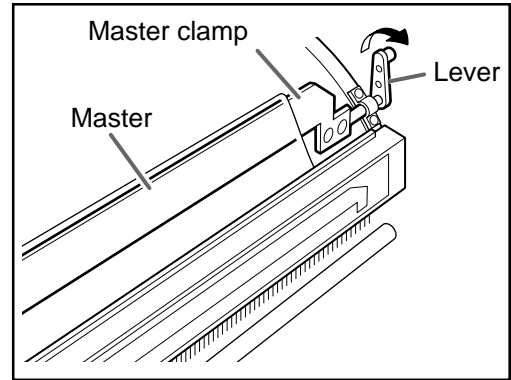


Continue Page ...

## When "MAST.EJECT ERROR" is Displayed

### 4 Lift the lever toward you.

The master clamp opens and the edge of the master will be released from the clamp. If the master is stuck, release it manually.



### 5 Return the lever.

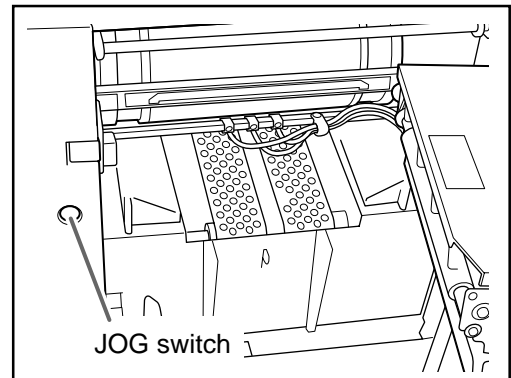
### 6 Pull the front end of the master toward you and press the JOG switch intermittently.

Hold the switch down until the master peels off.



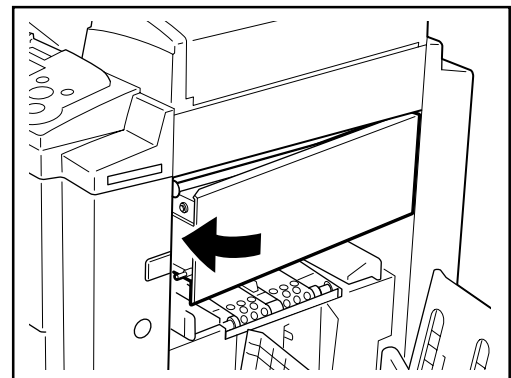
#### IMPORTANT

- Discard the old master, making sure that it does not touch your clothing.

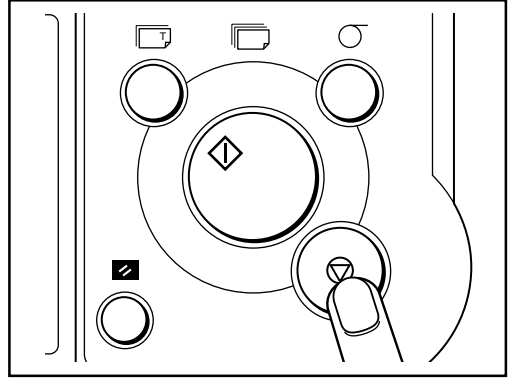


### 7 Hold the JOG switch down until the drum comes to a stop with a beep.

### 8 Close the master ejection box, pressing it until it locks.



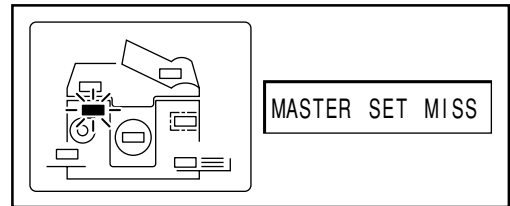
- 9 Press  (STOP) key.  
The message is deleted.



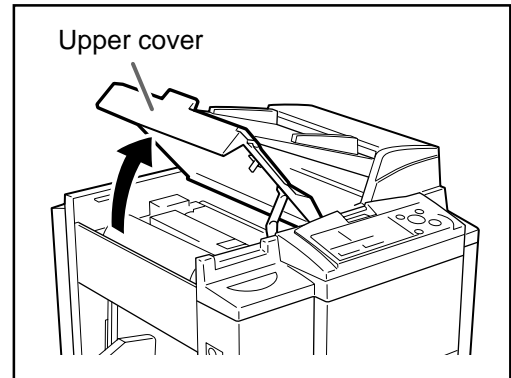
- 10 Make another plate.

# When “MASTER SET MISS” is Displayed

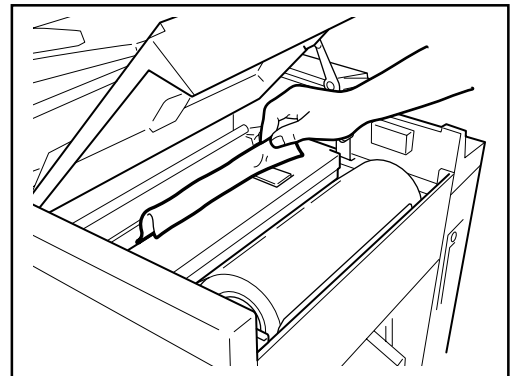
The message “MASTER SET MISS” is displayed on the LCD panel. Remove the master and remake the plate by following the procedure below.



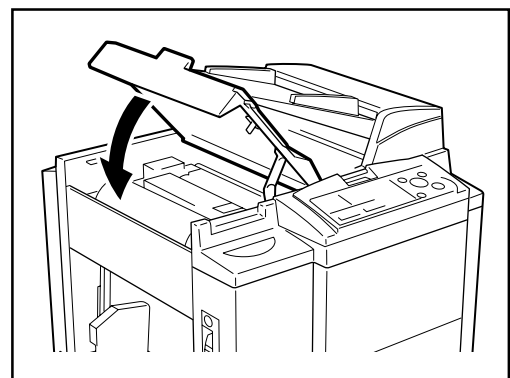
.....  
**1** Open the upper cover.



.....  
**2** Remove the master left in the master feeder.



.....  
**3** Gently close the upper cover.




4 Check that the error message is deleted.

5 Make a new plate and start printing.



**IMPORTANT**

- The message “PLS PLATE MAKING” is displayed on the LCD panel when  (PRINT) key is pressed without platemaking being carried out.



# *Chapter 7*

## **Specifications and Maintenance**

This chapter lists the machine specifications and describes maintenance, etc.

.....  
**Specifications**..... 104  
.....

# Specifications

Product name/model No.	Duprinter DP-21S	Duprinter DP-21L	Duprinter DP-23S
<b>Model</b>	Table top		
<b>Platemaking method</b>	Thermal digital platemaking		
<b>Platemaking time</b>	30 seconds (A4, same size)		
<b>Resolution</b>	300 dpi (Main scanning direction) x 600 dpi (Sub scanning direction)		
<b>Scanning method</b>	ADF/movable document		
<b>Printing method</b>	Stencil printing		
<b>Document type</b>	Sheet		
<b>Document size</b>	297 x 432mm max. 100 x 148mm min.		
<b>Printing area</b>	204 x 300mm max.	210 x 355mm max.	248 x 355mm max.
<b>Feeding capacity</b>	1300 sheets (64gsm, 55kg, high-grade paper)		
<b>Stacking capacity</b>	1300 sheets (64gsm, 55kg, high-grade paper)		
<b>Stacking capacity</b>	When a cabinet is used : 1300 sheets (64gsm, 55kg, high-grade paper) When the printer is used on a table : 900 sheets (64gsm, 55kg, high-grade paper)		
<b>Paper size</b>	271 x 382mm max. 100 x 150mm min.	297 x 432mm max. 100 x 150mm min.	
<b>Paper thickness</b>	53gsm to 210gsm (45kg to 180kg)		
<b>Printing speed</b>	120 pages per minute (60 to 120 pages per minute, 3 step adjustment)		
<b>Print enlargement/reduction</b> European size	Same size (100%) Fixed zoom ratios: 70, 81, 86, 115, 122, and 141% Print with border: 94%		
U.S. size	Same size (100%) Fixed zoom ratios: 64, 74, 77, 121, 129, and 141% Print with border: 94%		
<b>Printing position adjustment</b>	Vertical: $\pm 15$ mm Horizontal: $\pm 10$ mm (Paper with the size of 297mm x 420mm or more: $\pm 5$ mm)		
<b>Image modes</b>	Text mode/Photograph mode/Text and photograph mode		
<b>Darkness adjustment</b>	Plate darkness: 3 steps		
<b>Ink supply method</b>	Complete automatic control (600cc)		
<b>Color printing</b>	Drum unit exchange method		
<b>Master feeder</b>	Roll master automatic feed		
<b>Plate ejection</b>	Complete automatic ejection plate rolling method		
<b>LCD panel</b>	Light and compact type LCD		
<b>Miscellaneous standard</b>	OK monitor Confidential Safeguard Function Entry of different number of prints or sets Special functions		
<b>Options</b>	Drum unit Key card counter (built-in type) Tape cluster PC interface kit	2 IN 1 Function Memory Function Cabinet	

Product name/model No.	Duprinter DP-21S	Duprinter DP-21L	Duprinter DP-23S
<b>Power source</b> <b>120 VAC model</b>	120VAC 60 Hz, 4 A		
<b>230 VAC model</b>	230VAC 50 Hz, 2 A		
<b>Size</b>	In use: 1270mm (W) x 673mm (D) x 680mm (H) In storage: 680mm (W) x 673mm (D) x 680mm (H)		
<b>Weight</b>	Machine 68kg		
<b>Operating temperature</b>	10°C to 30°C		
<b>PC interface kit</b>	The printer driver must be installed in the PC. • Windows95/98 compatibility • Macintosh compatibility (SYSTEM 7 or later, MAC OS 7.5 or later) I/F board in main unit		

**Note** Specifications subject to change without prior notice.



# Appendix

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This section contains an index and quick reference diagrams for basic operations.

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<b>Index</b> .....	108
<b>Quick Operation Guide</b> .....	110

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# Index

## A

Acceptable Documents .....	26
Acceptable Printing Paper .....	26
Adding Paper While Printing .....	89
Adjusting Plate Darkness .....	54
ALL CLEAR key .....	21

## B

Basic Printmaking .....	30
-------------------------	----

## C

Cabinet .....	16, 17
castor locks .....	17
Changing Paper Selection While Printing .....	91
Changing Print Quantity per Document .....	60
CLEAR key .....	21
control panel .....	20
Conventions Used in This Manual .....	14

## D

Dividing Sections with Tape .....	63
Document guide .....	17, 30, 35
Document tray .....	17, 34
Document/Printing Paper Specification .....	26
drum handle .....	18
drum unit .....	16, 18, 27, 80
Duplo Direct Print System .....	16

## E

Enlargement and Reduction .....	36
Enlargements .....	36
Error Messages .....	85

## F

fan unit .....	27
feeder roller .....	27
feed tray .....	17
Feed tray descend switch .....	17, 89
Feed pressure adjuster lever .....	17, 33
front cover .....	17, 72, 80

## H

How Platemaking and Printing is Performed .....	27
-------------------------------------------------	----

## I

If Paper Runs Out During Printing .....	89
ink pack .....	18, 72
Installing the Drum Unit .....	81
Installing Print Tray .....	44

## J

JOG switch .....	19, 80, 93, 94, 96, 98
------------------	------------------------

## K

Key Card .....	25
Key Card counter .....	16, 25
Key pad .....	21

## L

Lateral Placement .....	34
LCD panel .....	20, 22
Loading and Replacing Paper .....	32
Loading Documents .....	34

## M

Maintenance .....	12
master .....	78, 100
master clamp .....	98
master cover .....	18, 75
master ejection box .....	19, 27, 78, 94, 97
Master Ejection Core .....	19, 79
master roll .....	18, 27, 75

## N

number of prints .....	31, 67
------------------------	--------

## O

On-Line Print Function .....	70
------------------------------	----

## P

Paper Adhering to Drum .....	95
Paper ejection belt .....	27
Paper Jams .....	93
Paper separator unit .....	27
Paper Size .....	26, 39
Paper Stopper .....	19, 45
Paper stripper finger .....	27
Part Names and Their Functions .....	17
personal computer .....	16, 70
PLATE MAKING key .....	20
Platemaking .....	27
Platemaking/Printing is Not Possible .....	84
Positioning the Document .....	34
Positioning the Machine .....	11
Power Does Not Turn ON .....	84
power switch .....	17, 23, 24
press roller .....	27
Print count .....	31
PRINT key .....	21
Print Output .....	44

Print Speed Adjustment Function .....	68
print tray .....	19, 44
Printer Appearance .....	17
Printing .....	27
Printing and Duplicating Cautions .....	13
Printing Position Adjustment Function .....	69
PRINTING POSITION ADJUSTMENT keys .....	21, 69
Printing position indicator lamp .....	21, 69
PRINTING SPEED ADJUSTMENT keys .....	21, 68
Printing speed indicator lamp .....	21, 68

**Q**

Quick Operation Guide .....	110
-----------------------------	-----

**R**

Reductions .....	36
Removing the Drum Unit .....	80
Replacing the Drum Unit .....	80
Replacing the Ink Pack .....	72
Replacing the Master Ejection Core .....	78
Replacing the Master Roll .....	75

**S**

Saving Settings .....	48
Sectional Printing .....	56
Sectional Printing(changing print quantity per document) ..	60
Selecting Printing Paper Size .....	39
set .....	22, 58
Side guides .....	17, 32
speed lamp .....	68
Standard Mode .....	24
STOP key .....	21, 67
Support tray .....	17, 32
Supplying or Changing Paper While Printing .....	89
System Setup .....	16

**T**

TEST PRINT key .....	20, 66
Text/Photograph/Text and Photograph Mode .....	42
Thermal head .....	27
Total Counter Display Function .....	67
total number of plates .....	67
Truing up Printed Pages .....	46
Turning OFF Printer Power .....	24
Turning ON Printer Power .....	23
Turning Power ON/OFF .....	23

**U**

“U” groove of holder .....	73
----------------------------	----

**V**

Vertical Placement .....	34
--------------------------	----


**W**

Warning Sticker .....	10
When “MASTER SET MISS” is Displayed .....	100
When “MAST. EJECT ERROR” is Displayed .....	97
When “PAPER LEFT JAM” is displayed (Print Tray) .....	93
When “PAPER RIGHT JAM” is displayed (Print Tray) .....	94

**Z**

zoom ratio .....	30, 36
------------------	--------

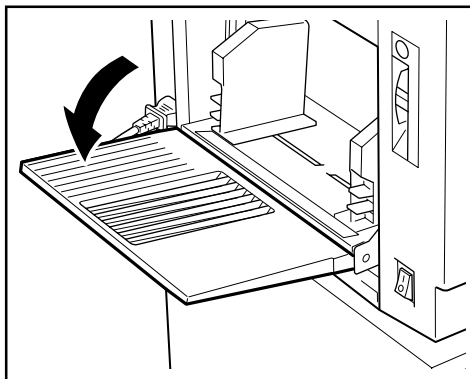
**Other**

 key .....	21, 58, 60
94% Reduction .....	37

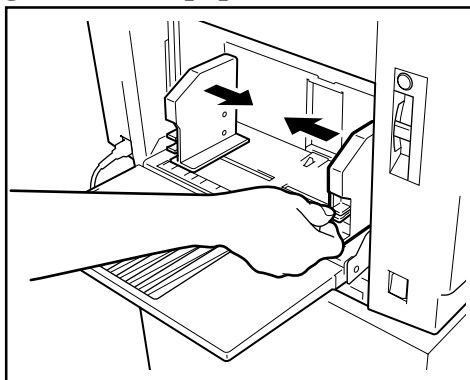
# Quick Operation Guide

## ●Platemaking.

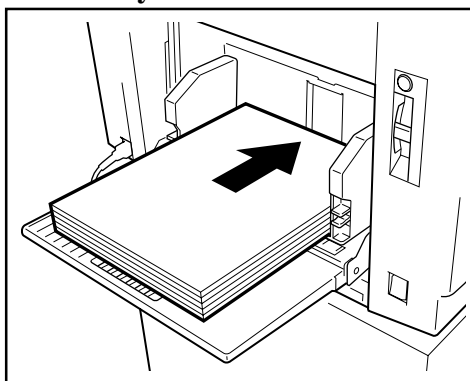
1 Open the supplemental paper tray.



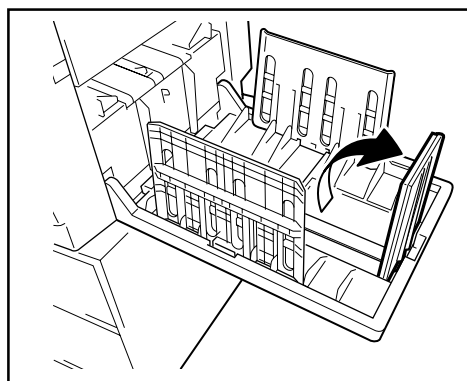
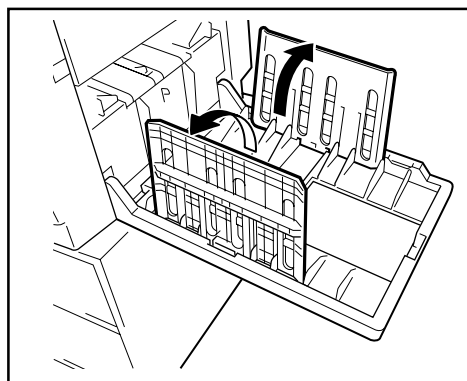
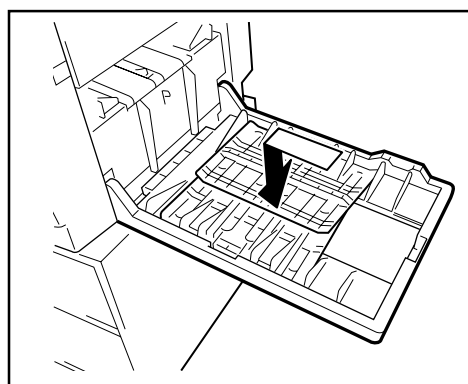
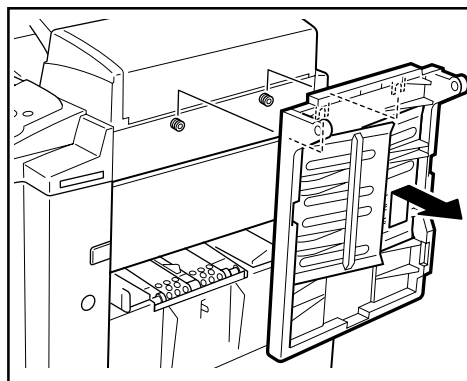
2 Hold the lever and adjust the side guides to the paper size.



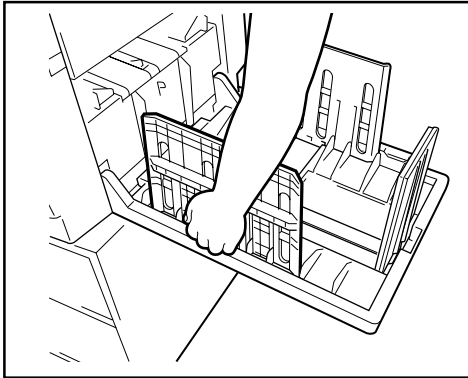
3 Place a stack of aligned sheets in the feeder tray.



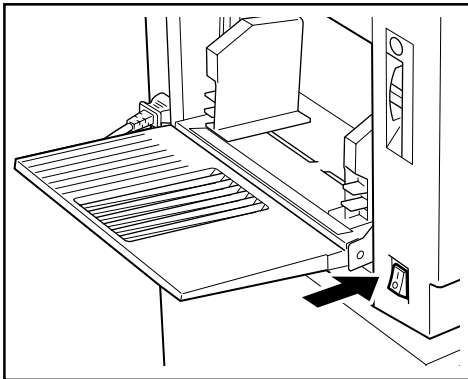
4 Install the print tray.



- 5** Raise the paper stacker guides and paper stopper, and adjust them to the size of the printing paper.



- 6** Turning the power ON.



## ●Platemaking.

- 1** Set the document in place.

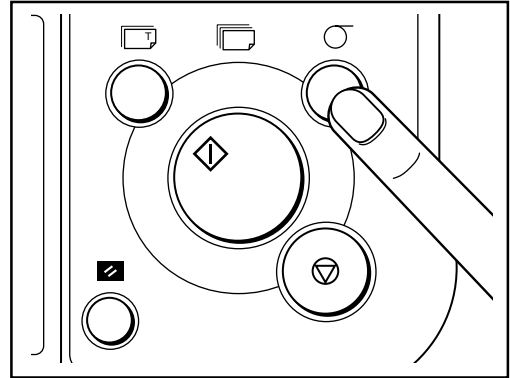


- 2** Select the paper size.

- 3** Make the required settings on the control panel.

Enlargement and Reduction, Plate Darkness, Document mode, 94% Reduction, 2 IN 1 Function


- 4** Press  (PLATE MAKING) key.



- 5** Check the finished plate. Adjust the printing position, printing speed and other settings as required.



**Tip**


- To make another test print, press  (TEST PRINT) key.


## ●Print

- 1** Enter the number of prints on the key pad.



**Tip**

- To change the number of prints, press  (CLEAR) key, and enter the desired number of prints.

- 2** Press  (PRINT) key.



**Tip**

- To stop the machine midway during operation, press  (STOP) key.

