

RISO CZ Series

User's Guide

180/100

RISO

Please contact following for supplies and service:

Printed in China

RISO

042-36002-409

Riso shall not be responsible for any damage or expense that might result from the use of this manual.
Riso shall not be liable for any direct, incidental, or consequential damages of any nature, or losses or expenses resulting from the use of this product or included manuals.
Riso shall not be responsible for any damage or expense that might result from the use of information contained in this manual.

⚠ Caution:

- Make sure to read the important operational safety information.
- Store this manual close-by, and fully acquaint yourself with the printing machine.

RISO is a registered trademark of RISO KAGAKU CORPORATION in Japan and other countries.

riso iQualitySystem™ is a trademark of RISO KAGAKU CORPORATION.

 is a trademark of RISO KAGAKU CORPORATION.

- **As we are constantly improving our products, the machine may differ in some respects from the illustrations used in this manual.**
- **The information contained in this document is subject to change without notice.**

Copyright © 2008 RISO KAGAKU CORPORATION

Contents

Welcome to the RISO CZ Series Model 5
 About the notations in the explanatory note 5

Before Starting to Use **6**

Safety Guide - Installation 6
 Installation 6
 Power connection 6
Safety Guide - Handling and Operation 7
 Operating environments 7
 Machine Handling 7
 Consumables 8
 Ink Handling 8
Connection with a Computer (Option) 9
Paper Recommendations 10
 Size and Weight Restrictions 10
 Tips for Better Paper Feeding 11
 Storing Environment 11
Originals 12
 Size and Weight Restrictions 12
 Margins 12
 Maximum Printing Areas 13
 Materials Not to Be Printed 13
Getting Acquainted 14
 Function and Name of Each Part 14
Control Panel 16
Basic Process 18

Basic Operations **20**

Preparing to Print 20
 Setting the Original Tray 20
 Setting up the Paper Feed Tray and Loading Paper 20
 Adding or Replacing Paper 22
 Setting up the Paper Receiving Tray 22
Printing from a Paper Document 24
Printing Data You Have Created on a Computer (Optional Kit Required) 26

Functions for Master-Making 28

Selecting the Image Processing Mode [Line/Photo/Duo] 28

Scanning Originals Written with Pencils [Pencil] 29

Enlarging or Reducing Originals by Standard Ratios [Enlargement/Reduction]..... 30

Scanning Originals Having Faint or Dark Contents [Scanning Level Adjustment] 31

Printing Originals Side-by-Side [2-Up Printing]..... 32

Single-Original Printing and Two-Original Printing 32

Restrictions on 2-Up Printing 33

Operational Procedure 34

Automatic Printing [Auto-Process]..... 35

Functions for Printing 36

Producing Proof Copies [Proof] 36

Adjusting the Print Position [Print Position Adjustment] 37

Adjusting the Vertical Position 37

Adjusting the Horizontal Position 37

Changing the Print Speed [Print Speed Adjustment]..... 38

Advanced Features 40

Automatic Sorting into Groups [Program]..... 40

Setting Up for Programed Printing..... 42

Saving Programs 46

Retrieving a Program..... 47

Making Changes to Stored Programs 48

Clearing Programs..... 49

Protecting Confidential Documents [Confidential] 51

Changing the Initial Settings [Custom Setting Mode] 52

Items You Can Change 52

Changing Procedure..... 54

Replacing and Disposing Consumables 56

Replacing the Ink Cartridge 56

Replacing the Master Roll 58

Emptying the Master Disposal Box..... 60

Disposal of Used Consumables 61

Removing and Installing the Print Drum (Cylinder) 62

Contents

Maintenance	64
<hr/>	
Safety Guide - Cleaning	64
Cleaning	64
Thermal Print Head	64
Scanner Glass and White Sheet of the ADF Unit	65
Pressure Roller	66
The Exterior	67
Troubleshooting	68
<hr/>	
Check & Error Display	68
Checking with the Check & Error Display	68
Troubleshooting Tips	77
Appendixes	84
<hr/>	
Optional Accessories	84
Specifications	85
Index	90

About the notations used on This Manual

The specifications of this machine are represented either by the unit of mm or inch. When this machine is installed, the service personnel sets the unit for the machine to either mm or inch. Depending on the specifications, the enlargement / reduction ratio and printing area differ. If you want to change the current settings, consult your dealer.

- For the word with different spelling between US English and UK English, US spelling is basically used on this manual.
Exception: Drum (Cylinder)
- A unit of linear measure is shown in both metric and inch formats as follows.
Ex: 297 mm (11 11/16")
- A unit of weight is shown in both g/m² and lb bond / lb index as follows.
Ex: 50 g/m² to 157 g/m² (14-lb bond to 87-lb index)
- The paper size is shown as follows.
Ex: A4 (Letter) B4 (Legal)

Welcome to the RISO CZ Series Model

Thank you for purchasing this printing machine that produces clear prints with easy key operations. Besides many useful functions as a printer, the machine provides you with various conveniences. This manual contains detailed instructions concerning the operation and maintenance of the machine. In order to optimise the use of the machine, all operators should carefully read and follow the instructions contained in this manual. This manual also contains a troubleshooting guide for easy reference. Read this manual before using the machine. Open this manual when you have any question or any time necessary, and use the manual together with your machine.

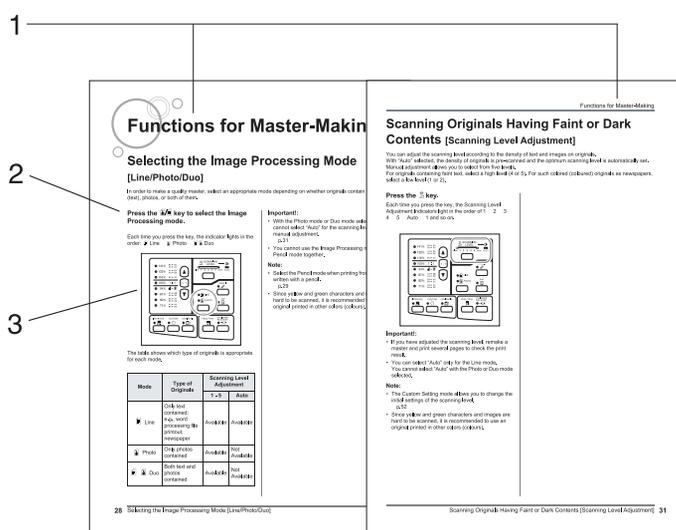
About the notations in the explanatory note

The following caution markings and symbols are used throughout this manual.

- ⚠ WARNING** Failure to follow **WARNING** instructions could result in severe injury or death to the person who handles or services the machine.
- ⚠ CAUTION** Failure to follow **CAUTION** instructions could result in personal injury or physical damage to the machine.
- Important!** Provides information that should be carefully heeded and inhibited operations. Carefully read the Important information and follow its instructions.
- Note** Provides you useful information.
- Tip** Gives you additional hints for more convenience.
-  Shows a reference page.

About the notations for operations and machine functions

This manual describes the machine functions and operations using the following notations.



- 1) Chapter Title**
- 2) Operation procedure**
The machine operations are described in the step-by-step sequence. Operate the machine by following the steps sequentially.
- 3) Illustrated operations**
Shows the location or the control panel related to each step.

About Terminologies used on This Manual

- Master Making:** Operation to scan an original page and to make a master
- Print:** Operation to use a master of an original and to print it on paper
- Default Setting:** The setting values when the machine is turned on

About Information and Illustrations on This Manual

- Keep the following in mind about information and illustrations in this manual.
- Some functions described in this manual are supported only by the CZ180; those are unavailable on the CZ100.
 - For the illustrations of the machine's outlines and control panels, those for the CZ180 have been used.

Before Starting to Use

Safety Guide - Installation

This section describes precautions to be observed when installing the machine. Read this section before installing the machine.

Note:

- Your dealer will help you to determine a proper location for the machine at the time of delivery.

Installation

▲WARNING:

- Place the machine on a flat and stable surface. Injury might occur if the machine falls.
- Install the machine in a well-ventilated area. Failure to do so may result in serious health problems.

▲Caution:

- Keep the machine away from dusty environments. Failure to do so may result in fire.
- Install the machine near the electrical outlet to avoid using an extension cord between the machine and the electrical outlet. If an extension cord is necessary, do not use one longer than 5 meters (15 feet).

Important!:

- Select the installation location where the machine can be placed in horizontal. (Levelness of floor: Up to 10 mm ($\frac{3}{8}$ inches) in both longitudinal and traverse directions)
- Avoid installing the machine in the locations listed below. Failure to observe this precaution may lead to machine failure.
 - Locations with exposure to direct sunlight, such as locations close to windows (Curtain all windows that might expose the machine to direct sunlight.)
 - Locations that are subject to sudden changes in temperature
 - Extremely hot and humid locations or cold and dry locations
 - Heated locations
 - Locations exposed to direct cold air, direct hot air, or direct radiant heat
 - When installing the machine on a stand (such as a desk), use the one which is larger than the machine.
- The right end of machine's Paper Receiving Tray must locate within 15 cm ($5\frac{29}{32}$ "") from the right end of the stand (such as a desk). If the distance exceeds 15 cm ($5\frac{29}{32}$ ""), the Paper Receiving Tray interferes with the stand top and you cannot set up the tray in the correct position.

Power connection

▲WARNING:

- Do not overload the electrical outlet or extension cord, or damage the power cord by placing heavy objects on it or pulling or bending it. This can result in fire or electric shock.
- Do not pull the power cord but hold the plug itself when unplugging it. This can damage the cord and result in fire or electric shock.
- Do not plug or unplug the power cord if your hands are wet. This can result in electric shock.

▲Caution:

- Pull out the power cord plug from the electrical outlet more than once a year and clean the prongs of the plug and their surroundings. Dust that collects in these areas can result in fire.

Important!:

- Check the power cord and plug for poor connections. Plug the power cord securely into a nearby electrical outlet.
- Be sure to turn off the POWER switch when connecting or disconnecting a cable.

Safety Guide - Handling and Operation

This section describes the precautions to be observed and the information the user should be aware of when operating the machine.

Operating environments

Important!:

- Operate the machine under the following appropriate environment conditions.
Temperature range: 15° C to 30° C (59° F to 86° F)
Humidity range: 40% to 70% (noncondensing)

Machine Handling

⚠ WARNING:

- Do not place water containers or metallic objects on the machine. Fire or electric shock may occur if water or metallic objects fall into the machine.
- Do not insert any metallic material or flammable substance into the machine through any opening. This can result in fire or electric shock.
- Do not remove machine covers. Exposing internal parts may result in electric shock.
- Do not disassemble or rebuild the machine by yourself. This can result in fire or electric shock.
- If the machine emits excessive heat, smoke or foul odor, immediately turn off the POWER, unplug the power cord and contact your service representative. Failure to do so can result in fire or electric shock.
- If something has dropped inside the machine, immediately turn off the POWER, unplug the power cord, and contact your service representative. Failure to do so can result in fire or electric shock.
- Never stick your hands or fingers in the openings of the machine during operation.
- Keep loose clothing or long hair away from moving parts to avoid becoming entangled.
- Do not place heavy objects on the machine. The objects might fall and cause injury.
- Contact your service representative when moving the machine.

⚠ Caution:

- Do not open any cover or move the machine during operation.
- Unplug the power cord from the receptacle if you do not use the machine for a long time.
- The machine has precision parts and driving mechanism inside. Do not handle the machine in ways other than those described in this guide.
- Do not apply any shock to the machine.

Before Starting to Use

Consumables

Important!:

- For ink and Master Roll, it is recommended to use the products specified by RISO.
- Store the consumables such as paper, Master Roll and ink properly.
Do not store consumables in the following places:
 - Locations that are subject to direct sunlight or bright locations that are close to windows (if there is no other choice, pull the curtains across the windows.)
 - Locations that are subject to rapid changes in temperature
 - Extremely hot and humid locations or extremely cold and dry locations

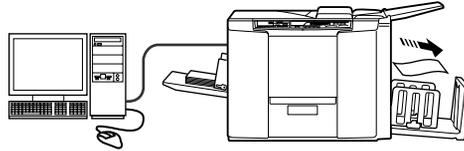
Ink Handling

⚠ Caution:

- If ink gets into your eyes, flush it out immediately with plenty of water.
- If ink comes into contact with your skin, wash it off thoroughly using soap.
- Allow plenty of ventilation during printing.
- If you feel unwell during use, seek medical advice.
- Only use the ink for printing purposes.
- Keep the ink out of the reach of children.

Connection with a Computer (Option)

With an optional interface board (Printer Control Board RISORINC3N) installed, you can directly send data from a connected computer to the machine as an original for printing. Because digital data itself is used for making a master, the finish of prints becomes outstanding.



Important!:

- Before making the connections, turn off both the machine and computer.
- The maximum allowable voltage for parallel connector input and output is 5 V.

Connection Method	Option Needed	Cable	
One-to-one connection with a Windows PC	Printer Control Board RISORINC3N	Parallel printer cable	IEEE 1284 standard conformed
	Printer Control Board RISORINC3N RISORINC-NET	Ethernet cable (cross)	10BASE-T or 100BASE-TX based shielded cable
Network connections	Printer Control Board RISORINC3N RISORINC-NET	Ethernet cable (straight)	10BASE-T or 100BASE-TX based shielded cable

Before Starting to Use

Paper Recommendations

Size and Weight Restrictions

The table shows the specifications of usable print paper.

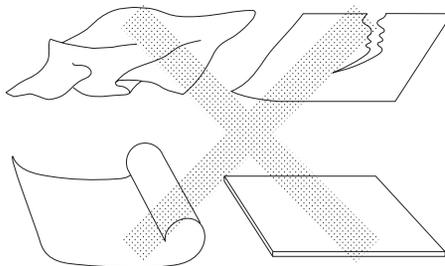
Model	Usable Printing Paper		
	Unit	Size	Weight
CZ180	mm	100 mm × 148 mm to 297 mm × 420 mm	50 g/m ² to 157 g/m ²
	inch	3 15/16" × 5 27/32" to 11 11/16" × 16 17/32"	14-lb bond to 87-lb index
CZ100	mm	100 mm × 148 mm to 257 mm × 364 mm	50 g/m ² to 157 g/m ²
	inch	3 15/16" × 5 27/32" to 8 1/2" × 14"	14-lb bond to 87-lb index

Important!:

- Be sure to load printing paper larger than the images to be created. If printing paper is smaller than the images, the inner rollers may be stained and it may result in smudges on the prints.
- Be sure to confirm the maximum printing area and margins before printing (☞ p.13).
- If an original with almost the same size as the maximum printing area is printed on paper with a length longer than 410 mm (16 1/8"), the images on the area about 360 mm (14 5/32") back from the top edge of the printed paper may be blurred. (☞ p.13) (For CZ180 only)
- Even when using paper whose sizes and weights are supported by the machine, it may not pass through the machine depending on such factors as paper finish, ambient conditions, and storage conditions. Keep this in mind when using the machine. For more information, consult your dealer.

Do not use the following types of paper, as they can cause jams or misfeeds:

- Extremely thin paper (less than 50 g/m² (14-lb bond))
- Extremely thick or heavy paper (greater than 157 g/m² (87-lb index))
- Wrinkled, curled, folded, or torn papers
- Chemically treated paper (such as thermal or carbon paper)
- Paper coated on its face or back surface
- Paper having a sticky section or holes (such as an envelop and label paper)



Note:

- Paper with a horizontal grain direction can cause problems with paper feeding. Use paper with a vertical grain direction.
- Images are not output onto the entire area of usable print paper.

If paper with a size exceeding the limit of specifications is used, the paper feeding and print quality on such paper are not warranted.

Tips for Better Paper Feeding

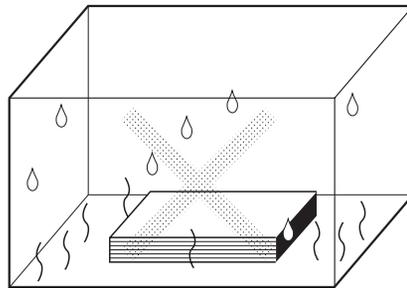
To prevent paper jams and misfeeds, follow the directions below:

- When using standard paper, set the Paper Feed Pressure Adjustment Lever to  and set the Stripper Pressure Adjustment knob to the Standard position (0 ●). Then set the Paper Jump Wing according to the paper size. (p.21)
- When using thin paper, set the Paper Feed Pressure Adjustment Lever to  and set the Stripper Pressure Adjustment knob to the High position (+1▲). (p.21)
- When using thick paper (such as card stock), set the Paper Feed Pressure Adjustment Lever to  but set the Stripper Pressure Adjustment knob to the Low position (-1▼). (p.21)
- Always set the Feed Tray Paper Guide and the Receiving Tray Paper Guide according to the print paper size. (p.20)
- Use flat printing paper that is free of folds. If the use of curled paper is unavoidable, place the printing paper so that the curl faces down.
- Paper may stick to the print drum (cylinder) surface if the top margin is too narrow on the original or if the upper portion of the original uses a large amount of ink. To solve this problem, lower the print position to provide a wider top margin or reverse the top and bottom of the original. Restart master making and printing from the beginning when you rotate the original.

Storing Environment

Store printing paper in a level, dry area. Storing the paper in an excessively humid area can result in paper jams or poor print quality.

After unpacking the printing paper, keep the remaining paper wrapped and store it in a moisture-proof box. It is highly recommended to put silica gel in the paper storage box.



Before Starting to Use

Originals

Size and Weight Restrictions

Usable originals are as follows.

Unit	Size	Weight
mm	90 mm × 140 mm to 310 mm × 435 mm	50 g/m ² to 107 g/m ²
inch	3 ⁹ / ₁₆ " × 5 ¹⁷ / ₃₂ " to 12 ³ / ₁₆ " × 17 ¹ / ₈ "	14-lb bond to 59-lb index

- CZ180 -

- The maximum printing area of the machine set with unit of "mm" is 251 mm × 357 mm. If the original image size is larger than this limit, you need to reduce the original when making a master.
- The maximum printing area of the machine set with unit of "inch" is 8 ¹/₄" × 13 ³/₄". If the original image size is larger than this limit, you need to reduce the original when making a master.
- Up to 10 originals (64 g/m² (17-lb bond), up to 1 mm (³/₆₄") high) can be loaded on the Original Tray at a time.

- CZ100 -

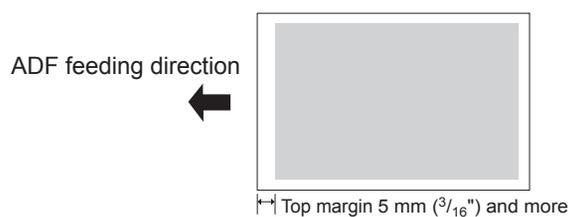
- The maximum printing area of the machine set with unit of "mm" is 210 mm × 290 mm. If the original image size is larger than this limit, you need to reduce the original when making a master.
- The maximum printing area of the machine set with unit of "inch" is 8 ¹/₄" × 10 ³/₄". If the original image size is larger than this limit, you need to reduce the original when making a master.
- Up to 10 originals (64 g/m² (17-lb bond), up to 1 mm (³/₆₄") high) can be loaded on the Original Tray at a time.

Note:

- Use the Carrier Sheet when printing the following originals:
 - Patched or worn originals
 - Wrinkled, curled, folded, or torn originals
 - Transparent originals (such as tracing paper or OHP transparencies)
 - Chemically treated originals (such as thermal or carbon paper)
 - Originals with correction fluid or glue
 - Extremely thin originals (less than 50 g/m² (14-lb bond))
- You cannot use the following originals on this machine.
 - Multi-layered originals, or multiple originals stapled or clipped
 - Extremely thick originals (greater than 107 g/m² (59-lb index))

Margins

No matter which size of originals, a 5 mm margin on the top side is required for originals. In addition, be sure to make some margins around the original. The printing area that is larger than print paper stains the Pressure Roller and smudges the paper.



Maximum Printing Areas

The maximum printing areas are as follows.

The maximum printing area is read and the originals are printed regardless of the original size and the paper size in the printer.

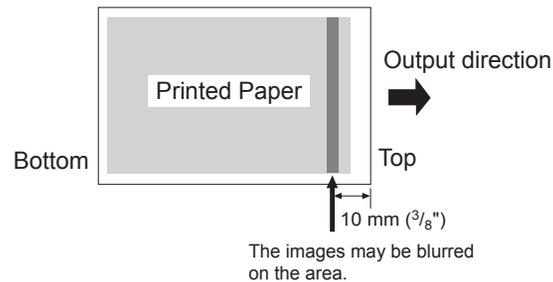
Model	Unit	Maximum Printing Area	Usable Maximum Print Paper Size
CZ180	mm	251 mm x 357 mm	297 mm x 420 mm
	inch	8 1/4" x 13 3/4"	11 11/16" x 16 17/32"
CZ100	mm	210 mm x 290 mm	257 mm x 364 mm
	inch	8 1/4" x 10 3/4"	8 1/2" x 14"

Important!:

- A 5 mm (3/16") margin on the top side cannot be read when a master is made. If any letter is placed in the margin, a master cannot be made.
- If the original area is larger than the print paper, always reduce the original to fit it inside of the margins.

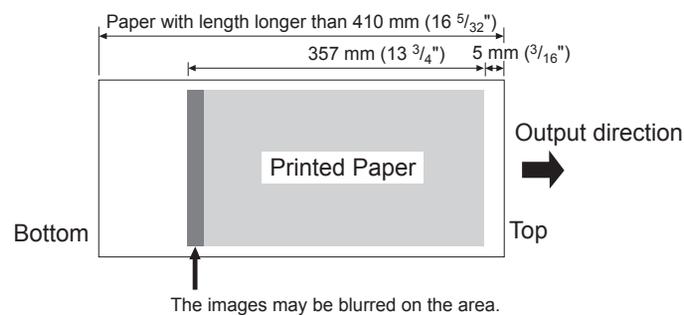
Note:

- If the printing paper sticks to the print drum (cylinder) or if you find a blur in a 10 mm (3/8") position from the top end, use the Print Position Adjustment key to make enough margin at the top end or make more than 10 mm (3/8") margin at the top end of the original and start from making a master again.



- CZ180 -

- If an original with almost the same size as the maximum printing area is printed on paper with a length longer than 410 mm (16 5/32"), the latter printing area may be smudged.



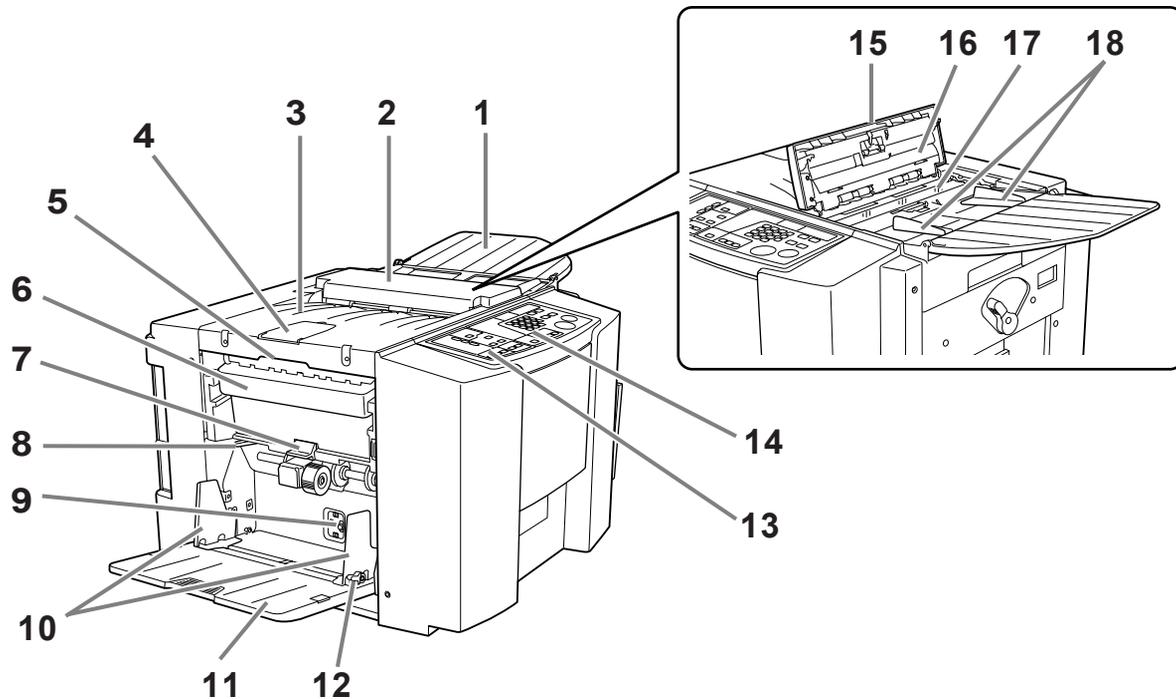
Materials Not to Be Printed

Do not use the machine in any manner which violates the law or infringes on established copyrights, even when making copies for personal use. Consult your local authorities for further details. In general, use discretion and common sense.

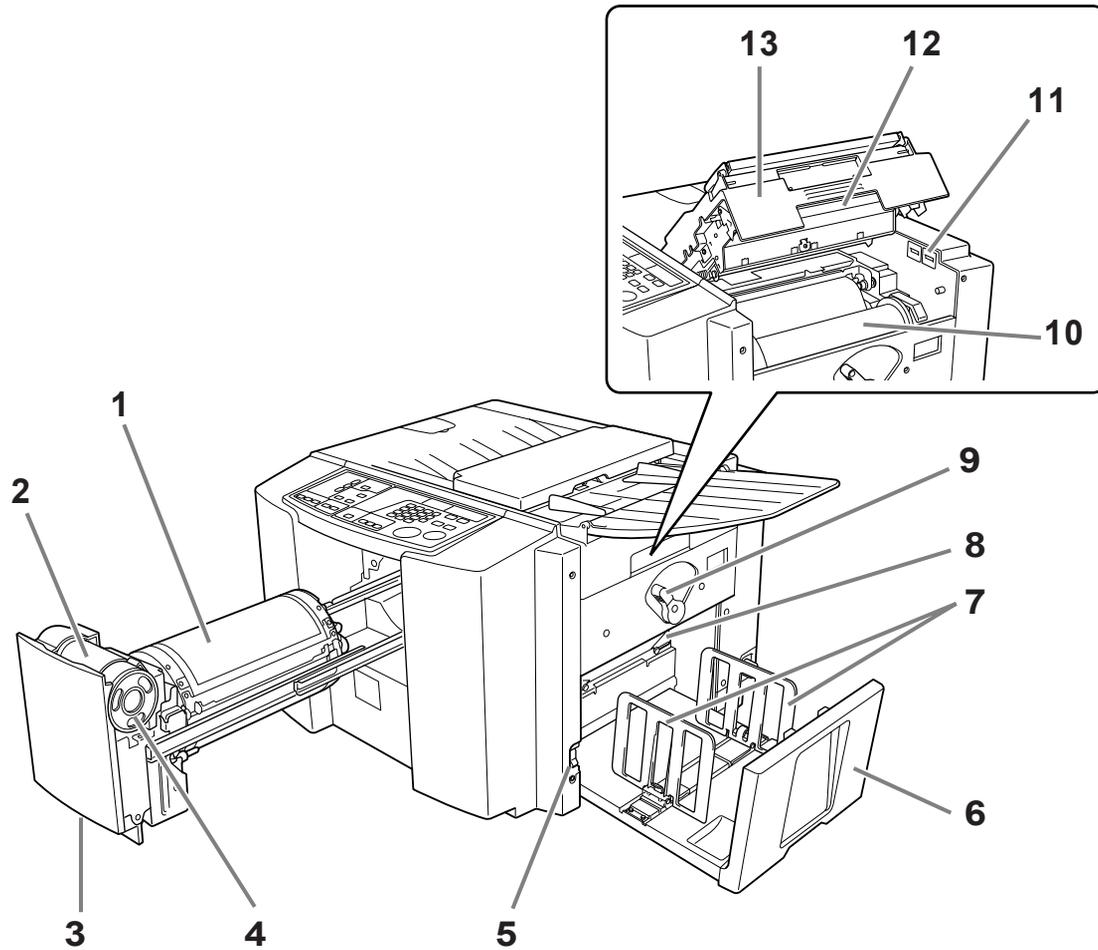
Before Starting to Use

Getting Acquainted

Function and Name of Each Part



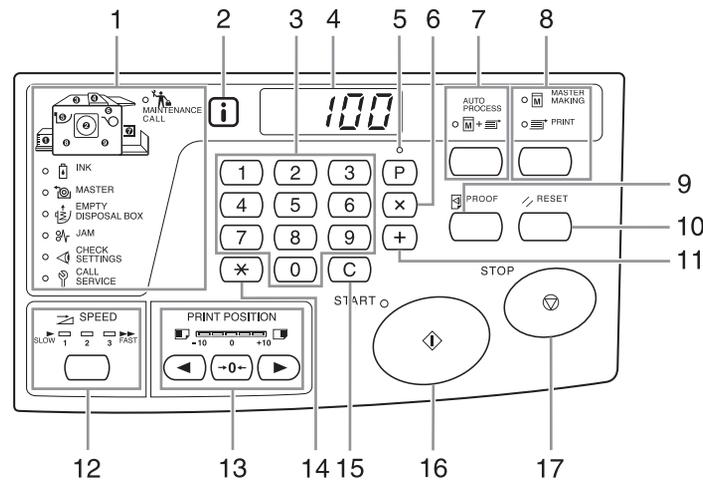
- | | |
|--|---|
| <p>1) Original Tray (☞p.20)
Place an original face down.</p> <p>2) ADF Unit
Automatically feeds the original from the Original Tray to the Scanner.</p> <p>3) Master Disposal Unit (Receiving Originals)
The scanned original is ejected.</p> <p>4) Original Stopper
Stops an original scanned by the ADF unit.</p> <p>5) Master Disposal Unit Release Lever
Grasp the lever to open the Master Disposal Unit when the master jams or others.</p> <p>6) Master Disposal Box (☞p.60)
Holds discarded masters.</p> <p>7) Master Disposal Box Release Lever (☞p.60)
Push down the lever when pulling out the Master Disposal Box when the box is filled with discarded masters.</p> <p>8) Paper Feed Pressure Adjustment Lever (☞p.21)
Adjusts the paper feed pressure according to paper in use.</p> | <p>9) Stripper Pressure Adjustment Knob (☞p.21)
Adjusts the paper stripping pressure according to paper in use.</p> <p>10) Feed Tray Paper Guide (☞p.20)
Holds and guides paper. Slide to fit to the sides of paper.</p> <p>11) Paper Feed Tray (☞p.20)
Load print paper on this tray.</p> <p>12) Feed Tray Paper Guide Lock Lever (☞p.20)
Locks the Feed Tray Paper Guides.</p> <p>13) Sub Control Panel (☞p.17)</p> <p>14) Main Control Panel (☞p.16)</p> <p>15) Original Release Lever
Use the lever to open the ADF Unit if paper jams or originals need to be repositioned.</p> <p>16) White Sheet</p> <p>17) Scanner Glass</p> <p>18) Original Guide
Holds and guides originals on the Original Tray. Slide to fit to the sides of originals.</p> |
|--|---|



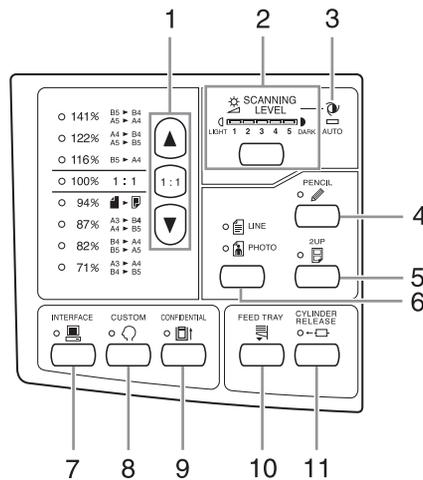
- | | |
|--|--|
| <p>1) Print Drum (Cylinder) (☞p.62)</p> <p>2) Ink Cartridge Holder</p> <p>3) Print Drum (Cylinder) Lever (☞p.56)
Pull out the Print Drum (Cylinder) by holding this lever.</p> <p>4) Ink Cartridge (☞p.56)</p> <p>5) Power Switch (☞p.24)
Turns the machine power ON or OFF.</p> <p>6) Paper Receiving Tray (☞p.22)
The printed copies are output to this tray.</p> <p>7) Receiving Tray Paper Guides (☞p.22)
Aligns printed paper neatly. Slide according to the width of paper before printing.</p> | <p>8) Paper Jump Wing (☞p.23)
Adjust according to the finish and size of paper in order to align printed paper.</p> <p>9) Master Roll Lock Lever (☞p.58)
Locks the Master Roll in position.</p> <p>10) Master Roll (☞p.58)</p> <p>11) Counter
Counts the number of pages (Total Print Counter) and the number of made masters (Master Counter).</p> <p>12) Master Making Unit Handle (☞p.58)
Unlock the handle to open the Master Making Unit.</p> <p>13) Master Making Unit Cover (☞p.58)
Open the cover to mount the Master into position.</p> |
|--|--|

Before Starting to Use

Control Panel



- 1) Check & Error Display (p.68)**
Indicates error locations and status.
- 2) i Indicator (p.68)**
- 3) Print Quantity Keys (0 to 9 Keys)**
Use to enter the number of pages to be printed or to enter other numeric values.
- 4) Print Quantity Display (Error number display)**
Shows the number of printed pages, numeric values entered for various settings, and error numbers.
- 5) P Key/Indicator (p.42)**
Use to set up and retrieve programs.
(programed printing)
When activated, the indicator above the key lights.
- 6) X Key**
Use when setting up for programed printing.
- 7) Auto-Process Key/Indicator (p.35)**
Performs non-stop operation from master-making through printing.
When activated, the indicator above the key lights.
- 8) Master-Making/Print Change over Key/Indicator**
Changes over the machine operation between Master-Making and Print modes. Usually, an appropriate mode is selected automatically according to your operation (such as loading of an original) and the selected mode indicator lights up.
- 9) Proof Key (p.36)**
Use when you want to check print result after adjusting the print position, for example.
This allows you to print sample copies without affecting the value on Print Quantity Display.
- 10) Reset Key**
Returns all settings to the initial settings.
- 11) + Key**
Use when setting up for programed printing or when changing the initial settings.
- 12) Print Speed Adjustment Key/Indicator (p.38)**
Selects the print speed from three levels.
The indicator above the key shows the current speed level.
- 13) Vertical Print Position Adjustment Keys/ Indicator (p.37)**
Adjusts the print position in vertical direction (within 10 mm (3/8")) after making a master.
The indicator above the keys shows the offset amount from the center.
To clear the offset amount, press →0←.
- 14) X Key**
Use to perform programed printing or to display the error number if an error occurred.
- 15) C Key**
Cancels entered numeric values or resets the counter to zero.
- 16) Start Key/Indicator**
Starts master-making or printing process, or executes specified operations.
The key is lighted only when the key is active.
- 17) Stop Key**
Stops operation in progress.



- 1) Reproduction Size Selection Key (p.30)**
 When selecting from among the standard reproduction sizes, press ▲/▼ to switch the selection. The corresponding indicator lights to indicate the current selection. To restore 100%, press 1 : 1.
- 2) Scanning Level Adjustment Key/Indicator (p.31)**
 Selects an original scanning level. The indicator above the key shows the current scanning level.
- 3) Auto Scanning Level Adjustment Indicator (p.31)**
 Lights when you select the automatic scanning level adjustment.
- 4) Pencil Mode Key/Indicator (p.29)**
 Select for an original written using a pencil. Each time you press the key, the function is switched on and off. When activated, the indicator above the key lights.
- 5) 2-UP Key/Indicator (p.34)**
 Allows side-by-side printing with a single paper. Each time you press the key, the function is switched on and off. When activated, the indicator above the key lights.
- 6) Image Processing Selection Key/Indicator (p.28)**
 Each time you press the key, the Image Processing mode is changed. When the Line mode is selected, [LINE] lights. When the Photo mode is selected, [PHOTO] lights. When the Duo (text / photo) mode is selected, both [LINE] and [PHOTO] light.
- 7) Interface Key/Indicator (p.26)**
 Selects the Online or Offline mode when interfaced with a computer (an interface option is required). The Online and Offline modes are switched over each time the key is pressed. The indicator above the key lights when Online mode is selected.
- 8) Custom Key/Indicator (p.54)**
 Use when changing the initial settings. When activated, the indicator above the key lights.
- 9) Confidential Key/Indicator (p.51)**
 Prevents confidential documents from being copied. Each time you press the key, the function is switched on and off. When activated, the indicator above the key lights.
- 10) Feed Tray Descent Key (p.22)**
 Press the key to lower Paper Feed Tray if you replace paper or if you remove Master Disposal Box when it is filled.
- 11) Print Drum (Cylinder) Release Key/Indicator (p.56)**
 Press the key and when the indicator lights, you can pull out the Print Drum (Cylinder) manually. When not lit up, press the key to light up the indicator. And you can pull out the Print Drum (Cylinder).

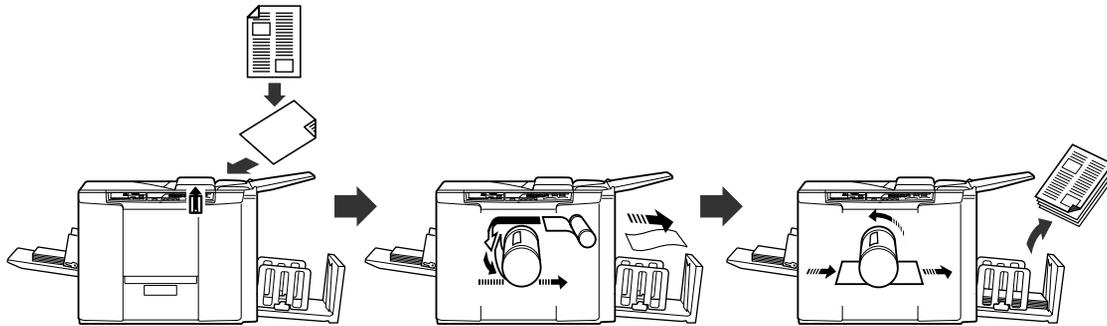
Before Starting to Use

Basic Process

The machine presents the following two basic operational processes:

- Master-making process: to make a master by scanning an original (Master-Making mode)
- Printing process: to actually print the master data on paper (Printing mode)

◆ Process for printing from a paper document

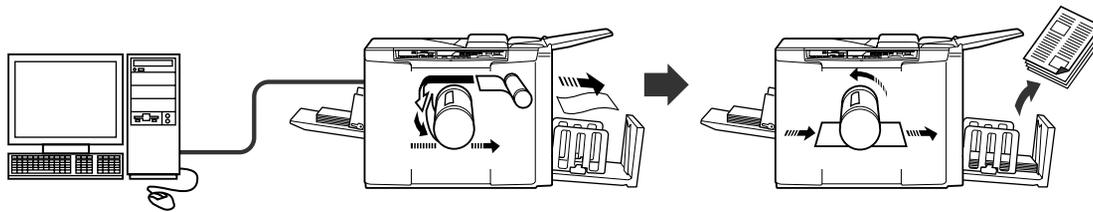


A placed original is scanned by the scanner, and a generated master is rolled around the Print Drum (Cylinder). After a while, sample copy is performed. After checking the print result, enter the number of pages to be printed and start printing.

◆ Process for printing with data generated using a computer

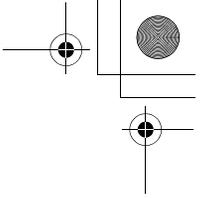
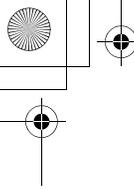
Data sent from a computer is transformed into images, and a generated master is rolled around the Print Drum (Cylinder).

You can send instructions for printing from the computer (through the printer driver).

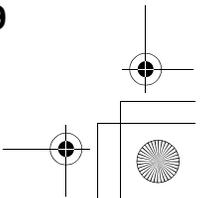
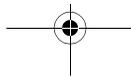
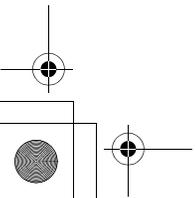
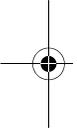


Important!:

- The interface option is required for connection with a computer. [p.9](#)



Before Starting to Use

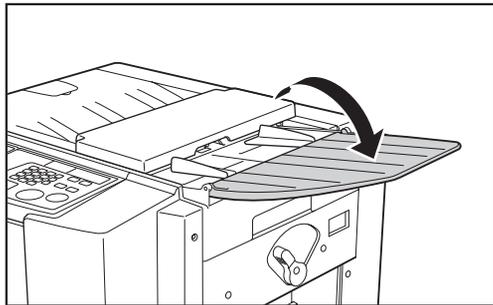


Basic Operations

Preparing to Print

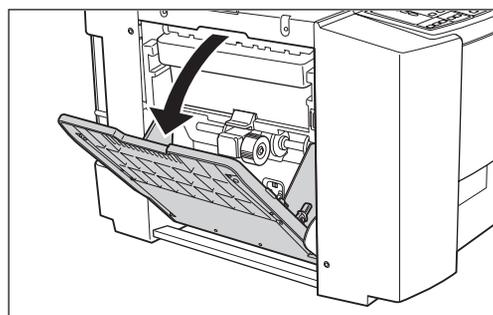
Setting the Original Tray

Open the Original Tray to the outer side.



Setting up the Paper Feed Tray and Loading Paper

1 Open the Paper Feed Tray.



2 Load paper.

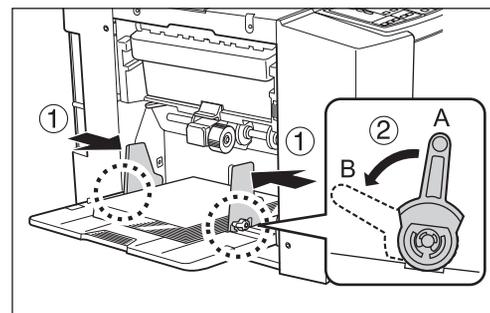
Slide and adjust the Feed Tray Paper Guides according to the sides of paper as follows.

- 1)** Adjust the “right” Feed Tray Paper Guide to the scale of Paper Feed Tray, and lock the guide using Feed Tray Paper Guide Lock Lever.
- 2)** Place paper in the printing orientation.

Note:

- See “Paper Recommendations” (p.10) for appropriate print papers.

3) Fit the “left” Feed Tray Paper Guide to the side of paper, and lock the guide using the lock lever.



A: Unlock

B: Lock

Important!:

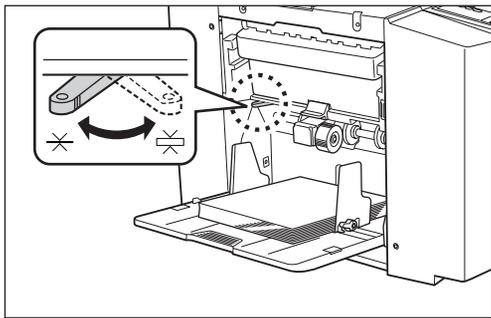
- Do not use paper of inappropriate sizes or mix paper of different sizes.
- Before sliding the Feed Tray Paper Guides, release their lock levers.
- Be sure to fit the Feed Paper Tray Guides to the sides of paper. If not, the paper feeding may fail.
- Paper of B4/Legal size or smaller can pass through the CZ100. Paper larger than B4/Legal cannot be used.

Note:

- When using custom-sized paper, load the paper so that its center comes to the center of the Paper Feed Tray, and fit the Feed Tray Paper Guides to the sides of paper.

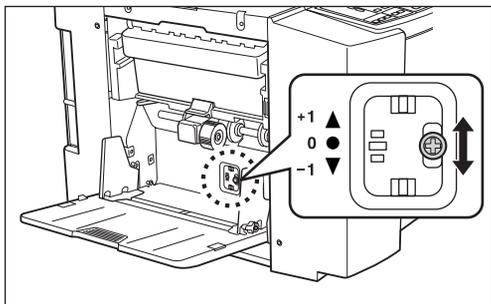
3 Select the paper feed pressure and paper stripping pressure.

Position the Paper Feed Pressure Adjustment Lever and the Paper Stripping Pressure Adjustment Knob according to the finish of the paper.



Paper Feed Pressure Adjustment Lever

- ⊘ : For standard paper
- ⊘⊘ : For thick paper



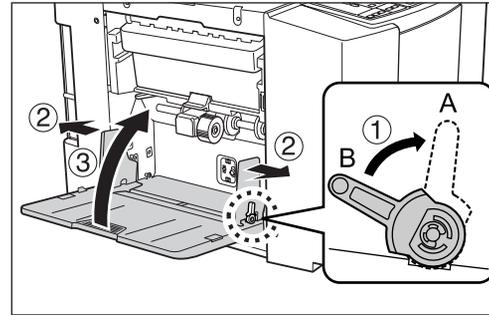
Paper Stripping Pressure Adjustment Knob

- +1▲ :High pressure
- 0● :Standard pressure
- 1▼ :Low pressure

	Paper Feed Pressure	Paper Stripping Pressure
When using coarse or thin paper	⊘	+1▲
When using standard paper	⊘	0●
When using thick paper	⊘⊘	-1▼

Closing the Paper Feed Tray

Before closing the Paper Feed Tray, remove paper first. The Paper Feed Tray will descend automatically. When it stops, unlock the Feed Tray Paper Guide Lock Levers and widen the Feed Tray Paper Guides to the limits. Then close the Paper Feed Tray.



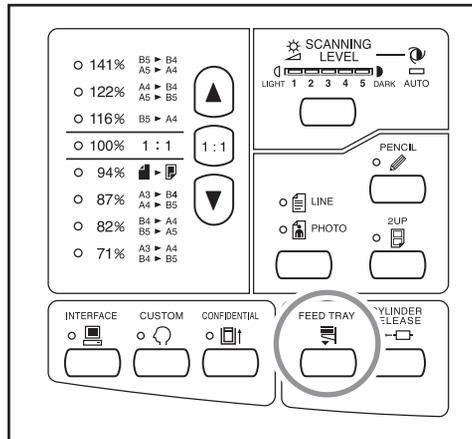
- A: Unlock
- B: Lock

Basic Operations

Adding or Replacing Paper

When you add paper or replace with paper of a different size at the time of printing, press  key on the Control Panel to lower the Paper Feed Tray.

When the tray runs out of paper or you remove all paper, the tray is automatically lowered to the bottom.



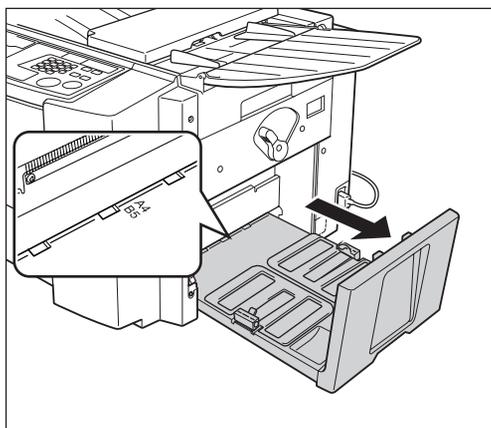
Important!:

- Do not mix paper of different sizes.
- After replacing with paper of a different size, reposition the Receiving Tray Paper Guides and the Paper Receiving Tray according to the size of the replacement paper.
- When you replace with the paper of a different quality, adjust the position of Paper Feed Pressure Adjustment Lever and the Paper Stripping Pressure Adjustment Knob.

Setting up the Paper Receiving Tray

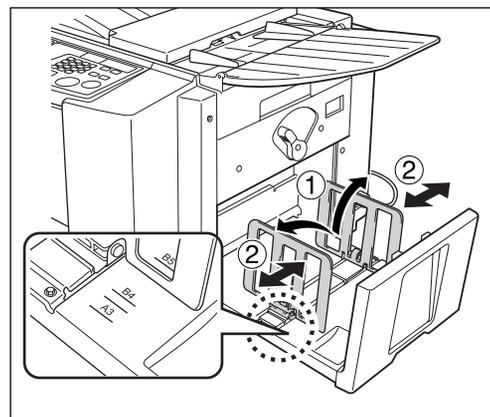
1 Pull out the Paper Receiving Tray according to the print paper length.

Position the Paper Receiving Tray to the scale of paper size.



2 Position the Receiving Tray Paper Guides.

Raise the Receiving Tray Paper Guides, hold their lower parts, and then slide them according to the scale on the Paper Receiving Tray.



Important!:

- For thick paper, position the Receiving Tray Paper Guides a little wider than the actual paper width.
- If you have moved the Feed Tray Paper Guides, reposition the Receiving Tray Paper Guides according to them. If the guides are not correctly positioned, a problem such as a paper jam can occur.

3 Adjust the Paper Jump Wing.

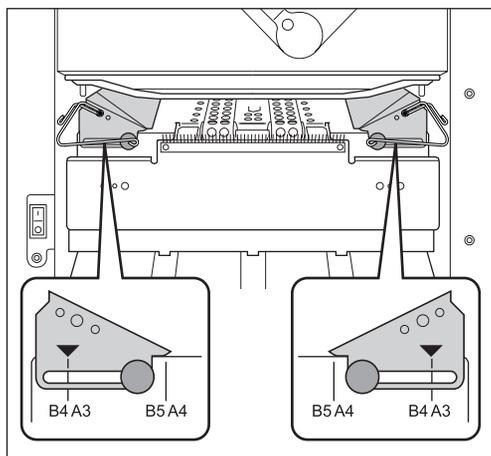
Adjust the Paper Jump Wing according to the size of paper.

Loosen the setscrew of each Paper Jump Wing, and set ∇ to appropriate position. Then, tighten setscrew to fix each Paper Jump Wing.

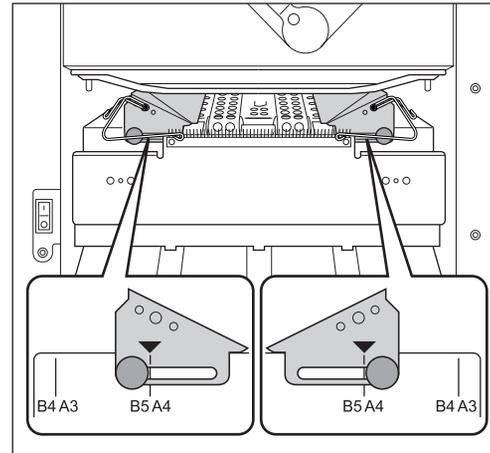
Paper Size	Paper Jump Wing position
B4 and larger* Legal and larger*	B4 A3
Smaller than B4 Smaller than Legal	B5 A4

*Only the CZ180 can use paper of B4 size or larger.

◆ B4(Legal) and larger paper

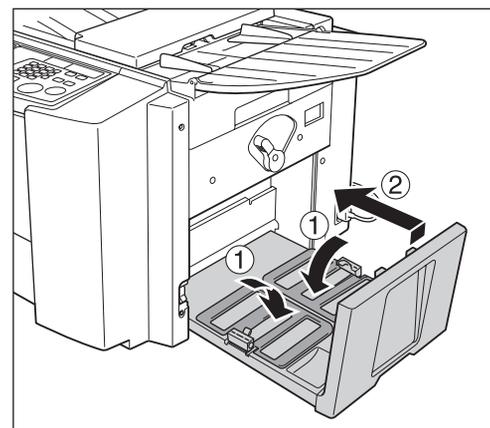


◆ Paper smaller than B4 (Legal)



Closing the Paper Receiving Tray

Fold the Receiving Tray Paper Guides inward, and slightly lift and push back the Paper Receiving Tray to close it.



Important!:

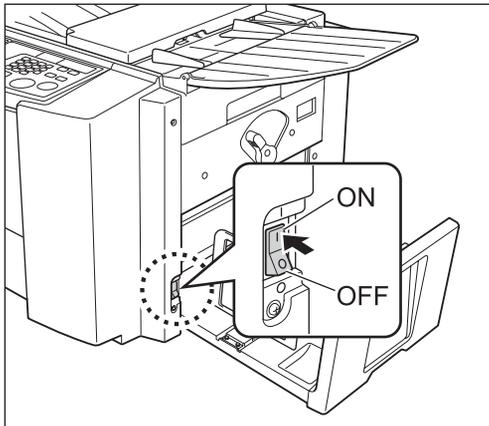
- If the Receiving Tray Paper Guides are outside of B4/ Legal paper position, slide them to the B4/Legal paper position and fold them inward.

Basic Operations

Printing from a Paper Document

1 Turn the power switch to I (ON).

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



2 Check the display.

Check that any Check & Error Display is not lit up or blinking.

☞ p.68

Note:

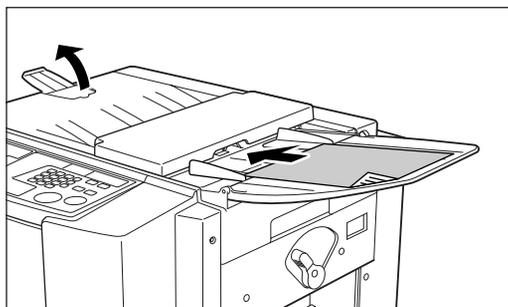
- If the  indicator is lit up, you cannot make a master from the paper document. Press the  key to turn off its indicator.

3 Place an original face down.

Adjust the Original Guide to the width of originals, and place the originals face down.

When multiple originals are placed on the Original Tray, the bottom original is scanned first.

When you place an A3/Ledger original or multiple originals, open the Original Stopper.



Note:

- You can place up to about 10 originals (64 g/m² (17-lb bond)) of originals on the ADF Unit.

- When using the Custom Setting mode, if you select ON for Semi-Auto, the next master-making will be automatically started, and then the machine will print a proof copy and stop when the ADF Unit contains originals.

☞ p.53

4 Make necessary settings.

Make various settings including image processing mode selection.

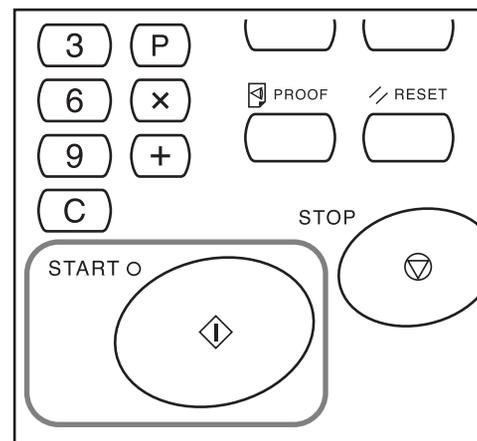
☞ p.28~☞ p.35

5 Press the key.

The original is scanned, and a master is made.

A proof copy is printed.

Check the proof copy; e.g., print position and density.



Note:

- If you turn the "Idling" ON in the Custom Setting mode, the machine perform an Idling Action before making a master.

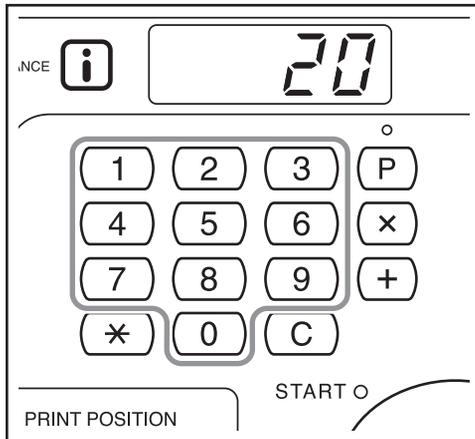
☞ p.53

- If you have adjusted the print position or density, press the  key to print a proof copy again.

☞ p.36~☞ p.38

6 Enter the number of pages to be printed, using the Print Quantity keys.

The specified number is shown on the Print Quantity Display.



Note:

- If you enter an incorrect number, press the C key to cancel it and reenter the number of pages.

7 Press the \blacktriangledown key.

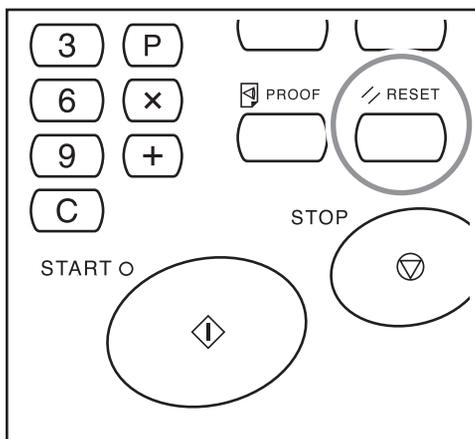
The specified number of pages is printed.

Note:

- You can change the print speed using the Print Speed Adjustment keys.
p.38
- If printing is stopped halfway, check the display.
p.68~p.76

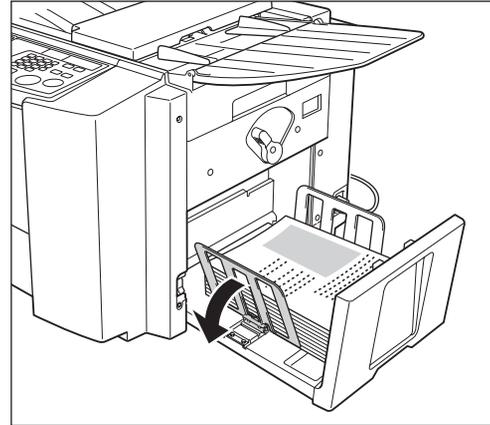
8 Press the \diagup key.

After printing has finished, return the settings to the initial settings.



9 Remove the printed paper.

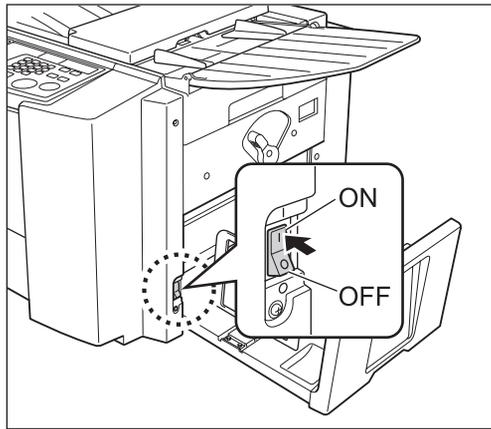
Pull and open the Receiving Tray Paper Guides, and remove the paper.



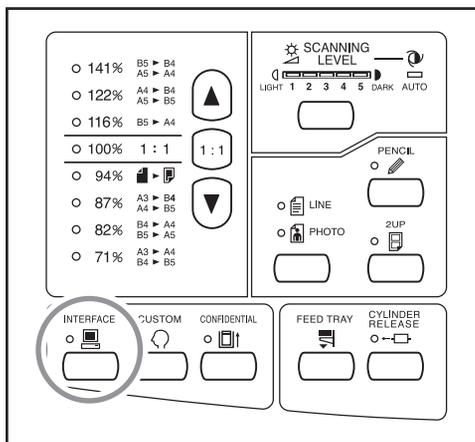
Basic Operations

Printing Data You Have Created on a Computer (Optional Kit Required)

- 1 Turn the power switch to I (ON).**
The power switch is located on the lower right side of the machine.



- 2 Press the [Computer] key to turn on its indicator.**



Important!:

- When you press the [Computer] key while the [Computer] indicator is blinking, the data being received or waiting for output will be deleted.

- 3 Check the paper size.**
To change the paper, replace the paper on the Paper Feed Tray. (p.22)

- 4 Send document data from the computer.**

When the machine is receiving data, the [Computer] indicator blinks.

When data reception is finished, the machine automatically starts printing according to the settings of the printer driver.

Important!:

- You cannot make various settings including image processing mode, by operating the machine. Only the printer driver allows such settings. For details, see the User's Guide of the printer driver.

Note:

- The data are printed by the order of receiving.
- You can also use the printer driver to stop the master-making or printing process at any point. (For details, see the User's Guide of the printer driver.)

Tip:

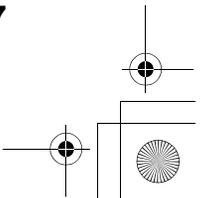
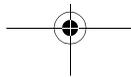
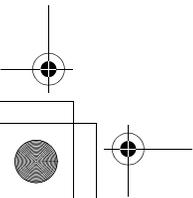
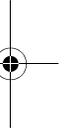
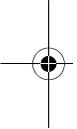
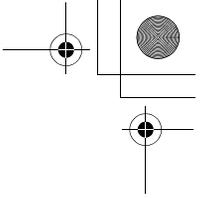
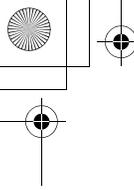
About the [Computer] indicator

The lighting / blinking of the [Computer] indicator informs you of the conditions of this machine and data receiving conditions.

Lightning of Indicator	Description
⚡ [Computer] blinking (fast)	Receiving
⌘ [Computer] blinking (slow)	Waiting for output instruction. (The received data, after being expanded, is waiting for output instruction.) Or the expanded data is in the master-making or printing process.
○ [Computer] lighting	The data from your computer can be received.
● [Computer] going-out	The receiving of data is disabled.

Note:

- When you press the [Computer] key while the [Computer] lamp is blinking, you can delete the data waiting for output or being received.



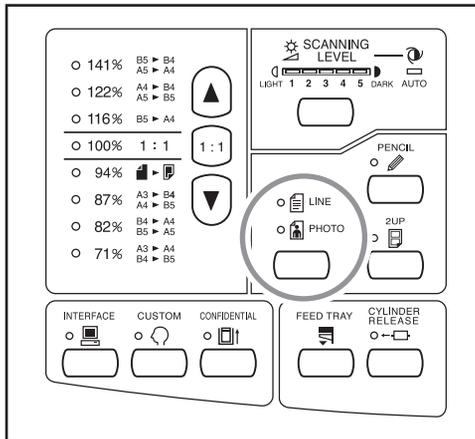
Functions for Master-Making

Selecting the Image Processing Mode [Line/Photo/Duo]

In order to make a quality master, select an appropriate mode depending on whether originals contain only Line (text), photos, or both of them.

Press the  key to select the Image Processing mode.

Each time you press the key, the indicator lights in the order:  Line →  Photo →  Duo



The table shows which type of originals is appropriate for each mode.

Mode	Type of Originals	Scanning Level Adjustment	
		1 - 5	Auto
 Line	Only text contained; e.g., word processing file printout, newspaper	Available	Available
 Photo	Only photos contained	Available	Not Available
 Duo	Both text and photos contained	Available	Not Available

Important!:

- With the Photo mode or Duo mode selected, you cannot select "Auto" for the scanning level. Perform manual adjustment. [p.31](#)
- You cannot use the Image Processing mode and Pencil mode together.

Note:

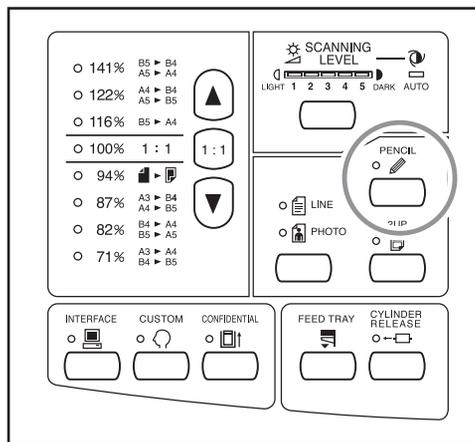
- Select the Pencil mode when printing from an original written with a pencil. [p.29](#)
- Since yellow and green characters and images are hard to be scanned, it is recommended to use an original printed in other colors (colours).

Scanning Originals Written with Pencils

[Pencil]

This function allows clearer printing from such originals containing faint contents such as those written with pencils.

Press the  key to turn on its indicator.



Important!:

- You cannot use the Pencil mode and Image Processing mode at the same time.
- When in the Pencil mode, adjust the scanning level manually. You cannot select "Auto".
p.31

Note:

- To clear the Pencil mode, press the  key again to turn off its indicator or select another type of image processing mode.

Functions for Master-Making

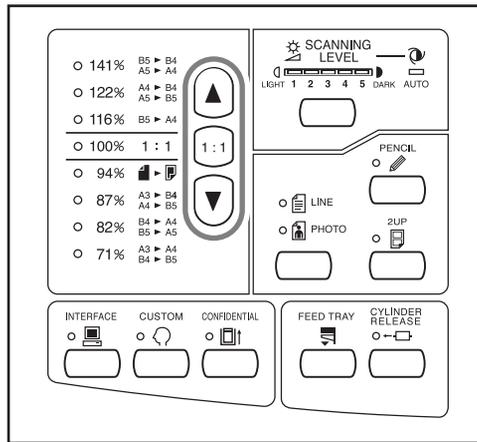
Enlarging or Reducing Originals by Standard Ratios [Enlargement/Reduction]

You can enlarge or reduce originals when making a master. Specify the standard ratio to enlarge or reduce an original.

Press the ▲/▼ key to specify the enlargement / reduction ratio.

Each time you press the key, the indicator of the selected ratio lights.

To restore 100%, press the 1 : 1 key.



Note:

- An original must have the 5 mm (3/16") or larger margin at its top end when it is placed on the Original Tray. Top margin is not added even if you have assigned the 94% Reduction.

Tip:

Enlargement / reduction ratio may differ according to your machine's specification (Set with unit of "mm" or "inch").

Unit with "mm"

○ 141%	B5 ▶ B4 A5 ▶ A4
○ 122%	A4 ▶ B4 A5 ▶ B5
○ 116%	B5 ▶ A4
<hr/>	
○ 100%	1 : 1
○ 94%	
○ 87%	A3 ▶ B4 A4 ▶ B5
○ 82%	B4 ▶ A4 B5 ▶ A5
○ 71%	A3 ▶ A4 B4 ▶ B5

Unit with "inch"

○ 154%	
○ 129%	5 1/2 x 8 1/2 ▶ 8 1/2 x 11
○ 121%	
<hr/>	
○ 100%	1 : 1
○ 94%	BORDER INCREASE
○ 78%	8 1/2 x 14 ▶ 8 1/2 x 11
○ 65%	11 x 17 ▶ 8 1/2 x 11 8 1/2 x 11 ▶ 5 1/2 x 8 1/2
○ 61%	8 1/2 x 14 ▶ 5 1/2 x 8 1/2

Scanning Originals Having Faint or Dark Contents [Scanning Level Adjustment]

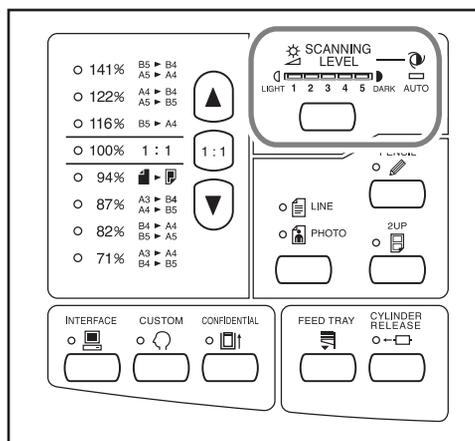
You can adjust the scanning level according to the density of text and images on originals.

With "Auto" selected, the density of originals is pre-scanned and the optimum scanning level is automatically set. Manual adjustment allows you to select from five levels.

For originals containing faint text, select a high level (4 or 5). For such colored (coloured) originals as newspapers, select a low level (1 or 2).

Press the  key.

Each time you press the key, the Scanning Level Adjustment Indicators light in the order of 1 → 2 → 3 → 4 → 5 → Auto → 1 and so on.



Important!:

- If you have adjusted the scanning level, remake a master and print several pages to check the print result.
- You can select "Auto" only for the Line mode. You cannot select "Auto" with the Photo or Duo mode selected.

Note:

- The Custom Setting mode allows you to change the initial settings of the scanning level.
p.52
- Since yellow and green characters and images are hard to be scanned, it is recommended to use an original printed in other colors (colours).

Functions for Master-Making

Printing Originals Side-by-Side [2-Up Printing]

The same or different originals can be printed side by side.

This is called 2-Up Printing.

2-Up Printing is divided between “Single-original printing” and “Two-original printing”.

Important!:

- CZ180 -

- The paper size that can be used for this function is B4 or A4 (Legal or Letter) only.
- Set the paper size to be used in Custom Setting mode (No.12) in advance. [p.53](#)
- When the paper size other than B4 or A4 (Legal or Letter) is used, appropriate 2-Up Printing cannot be performed.

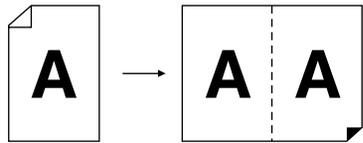
- CZ100 -

- The paper size that can be used for this function is A4 (Letter) only.
- When the paper size other than A4 (Letter) is used, appropriate 2-Up Printing cannot be performed.

Single-Original Printing and Two-Original Printing

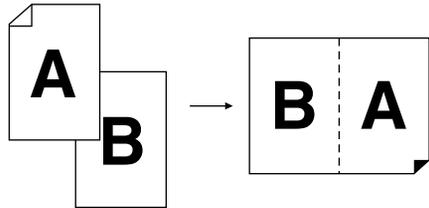
Single-Original Printing

This prints from the same original and outputs onto a single sheet of paper side by side.



Two-Original Printing

This prints from two different originals and outputs onto a single sheet of paper side by side. The center of printed copies will be free from the shade of originals.



Important!:

- When placing two originals one after the one, place the second original on the Original Tray during the “2-Up Printing Interval Time”. You can set the “2-Up Printing Interval Time” from 15 to 30 seconds in the Custom Setting mode. (The factory default is 15 seconds.) [p.52](#)

Note:

- When two originals are placed on the Original Tray, the bottom original is scanned first and automatically positioned side-by-side.

Restrictions on 2-Up Printing

2-Up printing restricts the sizes of paper to be used, paper orientations, and the enlargement / reduction ratios.

Enlargement / reduction ratio

The table shows enlargement / reduction ratios suitable for 2-Up printing.

Unit of mm

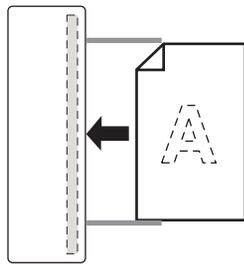
		Original			
		A4	B5	A5	B6
Print Paper	B4	87%	100%	122%	141%
	A4	71%	82%	100%	116%

Unit of inch

		Original	
		Letter	Statement
Print Paper	Legal	78%	100%
	Letter	65%	129%

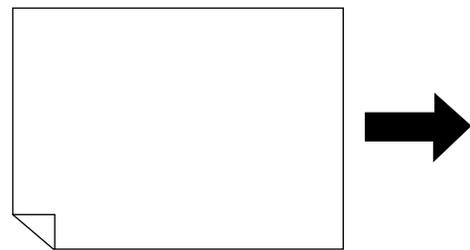
Orientation of originals

Always place originals in the orientation below.



Orientation of print paper

Always place print paper in the orientation below.



Note:

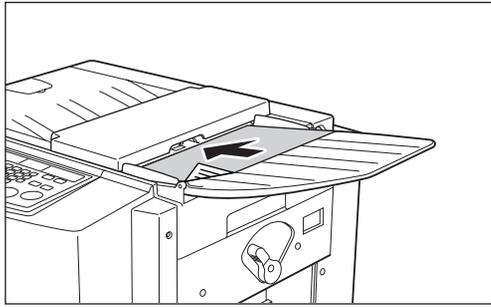
- Originals must have sufficient margins. Insufficient margins result in inappropriate page layout.
p.13
- The 5 mm ($\frac{3}{16}$ ") top margin is kept regardless of the enlargement/reduction ratio.
- For two-original printing, you can separately select the following functions for each original.
Image Processing Mode / Pencil / Enlargement/Reduction / Scanning Level Adjustment

Functions for Master-Making

Operational Procedure

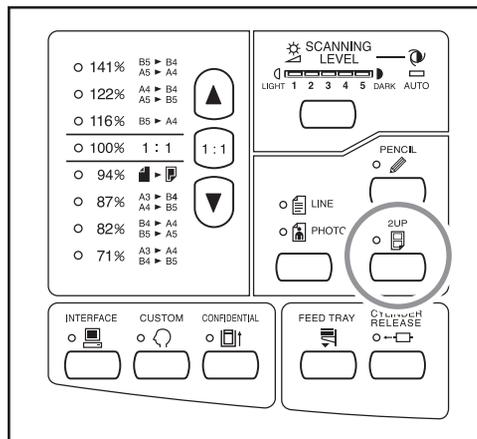
1 Place an original.

Place piled originals on the Original Tray. If you want to print different types and size of originals, place one original at a time.



The bottom original is scanned first.

2 Press the key to turn on its indicator.



Note:

- To clear the mode, press the  key again to turn off its indicator.

3 Make necessary settings.

Select the Image Processing, Reduction Ratios and other functions as necessary.
p.28~p.33

4 Start the master-making process.

◆ Single-original printing

Press the  key to start the first scan. Place the original again within the interval time. The second scan is automatically started.

Note:

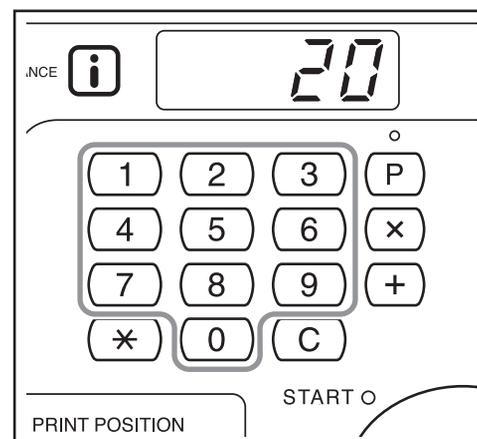
- If the 2-Up printing interval time is not set in the Custom Setting mode, you cannot use the single-original printing.

◆ Two-original printing

Place two piled originals on the Original Tray. Press the  key to sequentially execute 2-Up printing using the two originals. If you want to make different settings for each original, place only the first original and then press the  key. Within the interval time, change the settings, and then place the second original. Scan of the second original is automatically started.

5 Enter the number of pages to be printed, using the Print Quantity keys.

Check the quality of proof copy. Enter the number of pages for actual printing. The specified number is shown on the Print Quantity Display.



6 Press the key.

2-Up printed copies are output.

Note:

- If an original exists on the ADF Unit and if Auto-Process is ON for two-original printing, the 2-Up printing is sequentially executed.

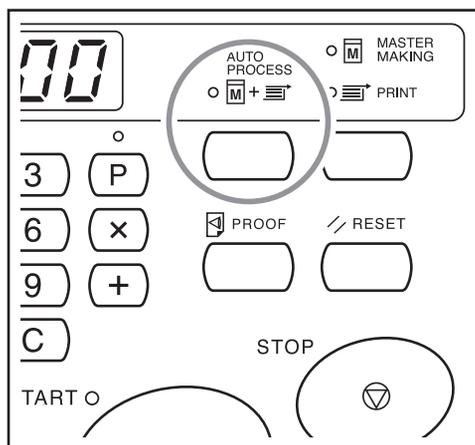
Automatic Printing [Auto-Process]

Master-making and printing can be performed automatically in sequence.

When "Auto-Process" is selected, simply enter number of copies to print, then press the \diamond key.

Press the $\square + \equiv$ key to turn on its indicator.

With the \square indicator tuned on, press the $\square + \equiv$ key.



Note:

- When printing is completed, Print Quantity will restore the number originally entered.
- To cancel the Auto-Process, press the $\square + \equiv$ key again to turn off its indicator.
- If you place multiple originals in the ADF unit, pressing the \diamond key causes the placed originals to be automatically printed for the specified number of pages.
- If you select Auto-Process when the \equiv indicator is turn on, the Auto-Process will be activated from the next master after the content of the master currently loaded on the Print Drum (Cylinder) is printed.
- Using the Custom Setting mode, you can make a setting that "Auto-Process" is always set to "ON" when you reset or start the machine.

☞ p.52

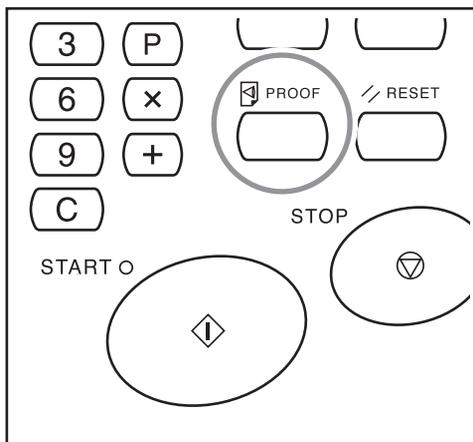
Functions for Printing

Producing Proof Copies [Proof]

After adjusting the print position and density, you can produce proof copies to check the print quality.

Press the  key.

Proof copy does not affect the number shown on the Print Quantity Display.



Note:

- By holding down the  key, you can continuously perform proof copy.

Adjusting the Print Position [Print Position Adjustment]

You can adjust the print position in the vertical direction using the Print Position Adjustment keys. Also, you can adjust it in the horizontal direction by sliding the Feed Tray Paper Guides.

Adjustment range

Vertical direction: ± 10 mm ($\pm 3/8$ ")

Horizontal direction: ± 10 mm ($\pm 3/8$ ") (for B4/Legal paper) to about ± 20 mm ($25/32$ ") (for paper smaller than B4/Legal)

*When using paper larger than B4/Legal, you cannot adjust the horizontal position.

Important!:

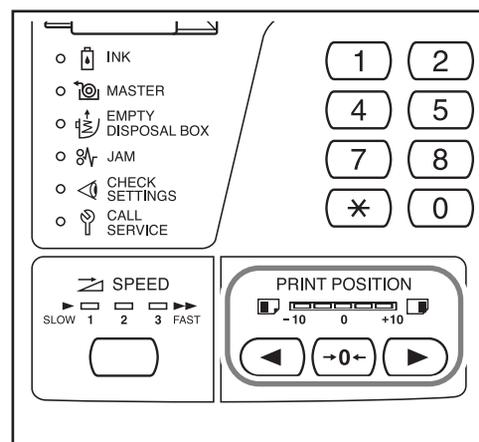
- After adjusting the print position, perform proof copies to check the new print position.
p.36

Adjusting the Vertical Position

Press the ◀/▶ key to adjust the vertical position.

Key	Adjustment methods
◀	Each press shifts the print position downward in steps of about 0.5 mm ($1/64$ ").
▶	Each press shifts the print position upward in steps of about 0.5 mm ($1/64$ ").
→0←	Returns the print paper to the original position.

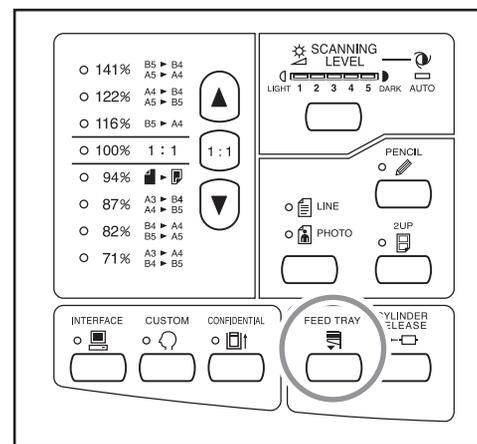
You can check the current print position in vertical direction by the Vertical Print Position Indicator.



- ◻ : Shifts the print position downward.
- ◻ : Shifts the print position upward.

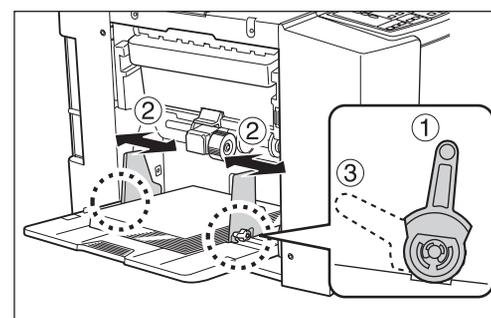
Adjusting the Horizontal Position

1 Press the ⏴ key to lower the Paper Feed Tray.



2 Adjust the horizontal position by sliding the Feed Tray Paper Guides.

- 1) Unlock the Feed Tray Paper Guide Lock Levers.
- 2) Adjust the horizontal position by sliding the Feed Tray Paper Guides.
- 3) Lock the Feed Tray Paper Guide Lock Levers.



Important!:

- If you have adjusted the horizontal position, also adjust the Receiving Tray Paper Guides.

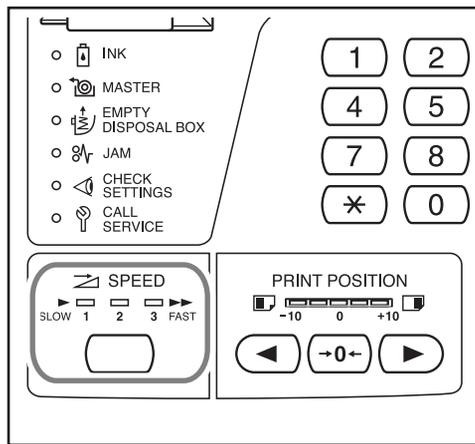
Functions for Printing

Changing the Print Speed [Print Speed Adjustment]

You can select the print speed from three levels; 60 pages per minute to 130 pages per minute. You can change the print speed even when printing.

Press the  key to adjust the print speed.

Each time you press the key, the print speed is changed in the order of 1 → 2 → 3 → 1 → and so on.

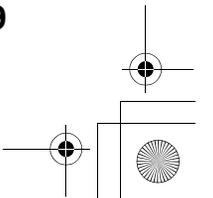
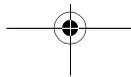
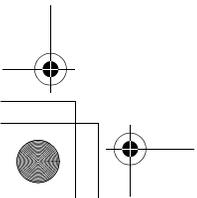
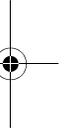
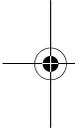
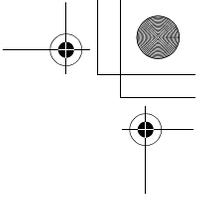
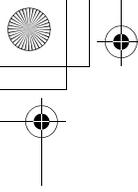


The table shows the relationship between the indicator segment position and print speed.

Segment Position	1	2	3
Print Speed (Number of pages per minute)	Approx. 60	Approx. 90	Approx. 130

Note:

- The Custom Setting mode allows you to change the initial setting for the print speed.
p.52



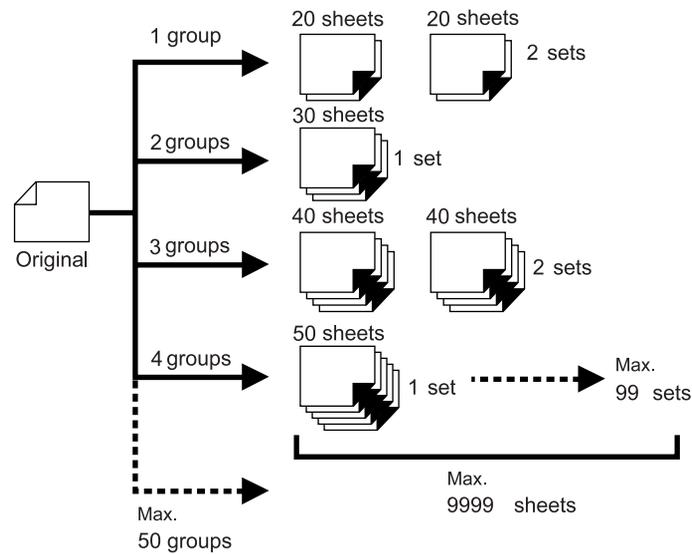
Advanced Features

Automatic Sorting into Groups [Program]

“Program” features printing into multiple groups of sets from a single original document (Program A) and reproducing a pre-assigned number of sheets from multiple original documents (Program B).

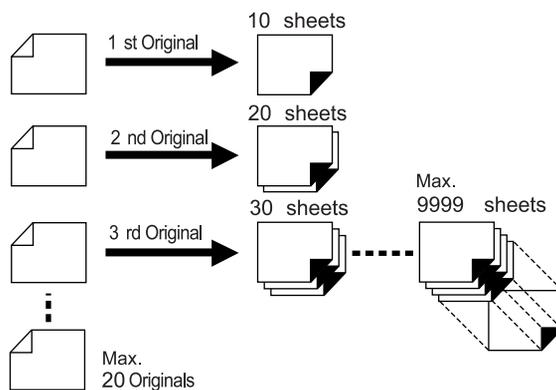
◆ Program A (Single Page Mode)

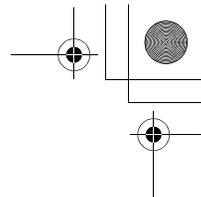
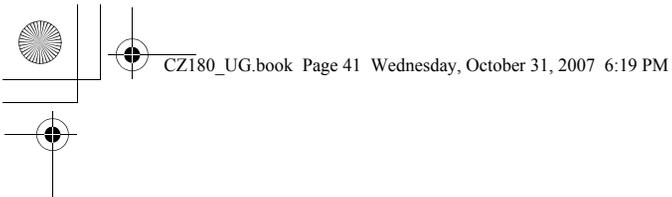
From a single original document, printing is performed to create multiple groups of sets.
 A maximum of 50 groups can be created, each having up to 99 sets. Each group can be up to 9999 pages.
 The machine can be configured to specify how many pages (sheets) per set, then how many sets are to be created for each group.



◆ Program B (Multi-Page Mode)

From a single original, up to 9999 pages can be made.
 A maximum of 20 originals can be used and each original can reproduce a pre-assigned number of sheets.





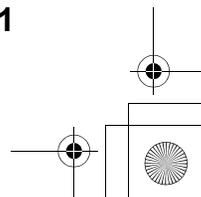
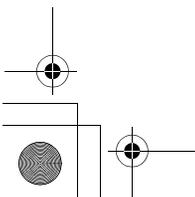
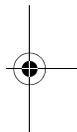
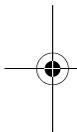
◆ **How to Program Print**

There are two ways to print in sets using "Program" printing feature.

- Program, then print (without saving the settings)
- Retrieve a saved program, then print (when program is registered)

Note:

- The Job Separator (optional) is useful for Programed Printing. The Job Separator releases a piece of tape after each set and group, thereby automatically separating sets or groups. It eliminates the need to manually remove a stack of sheets or insert a marker between sets.



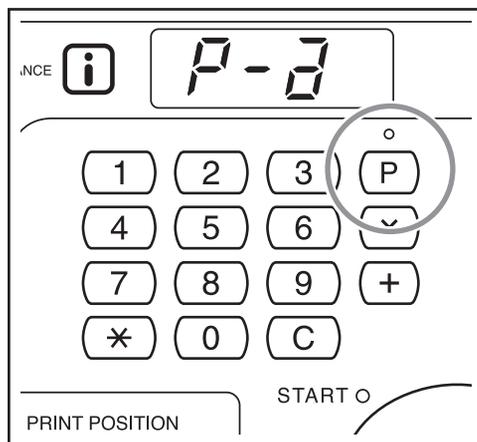
Advanced Features

Setting Up for Programed Printing

◆ From a single original document, print into multiple groups of sets (Program A)

1 Press the P key to turn on its indicator.

[P-a] appears on the Print Quantity Display.

**Note:**

- Mode switches between [Program A], [Program B] and [Cancel Program] by pressing the P key.

2 Press the + key.

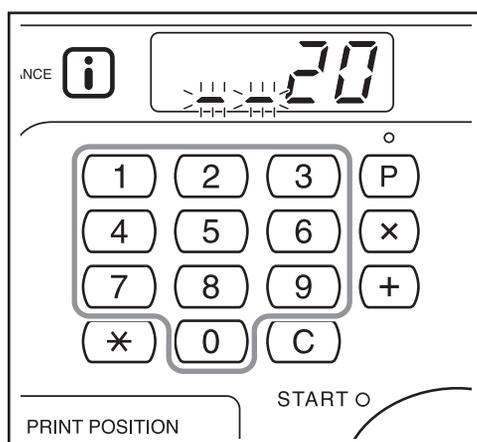
The print quantity entry mode is started.

Note:

- Press X key to return to the previous step.

3 Enter the number of pages to be printed, using the Print Quantity keys.

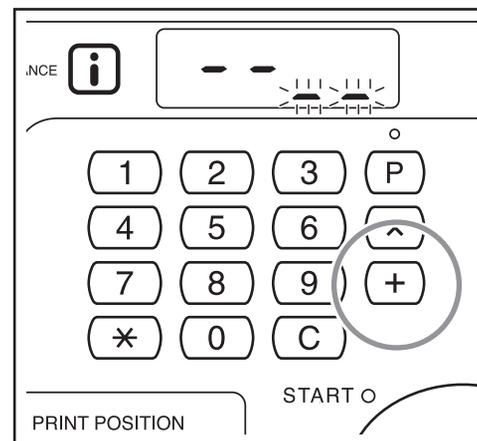
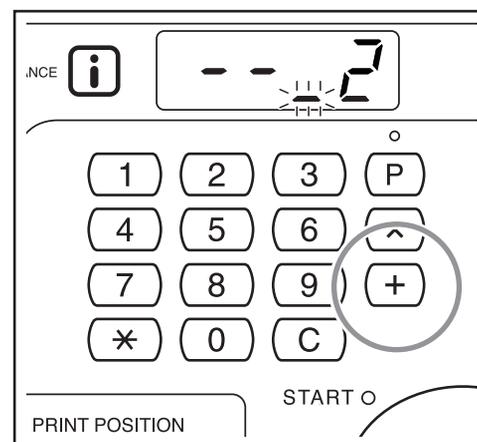
Enter the number of pages for the first group.

**Note:**

- If you enter an incorrect number, press the C key to clear the number, then enter the correct number.

4 Press the + key.

The number of set entry mode is started.

**5 Enter the number of set using the Print Quantity keys.**

To set the next group, go to step 6.

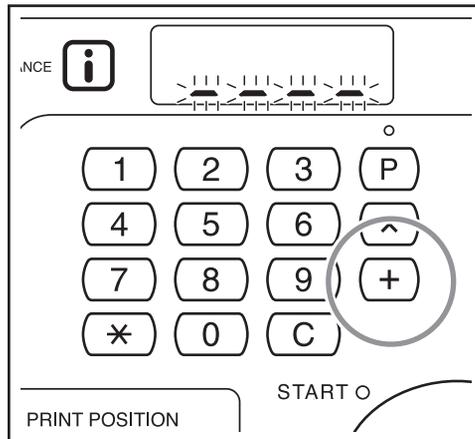
To finish the setting and start printing, go to step 7.

Note:

- If you enter an incorrect number, press the C key to clear the number, and then enter the correct number.
- If you do not enter a number, 1 (a single set) is selected.

6 Press the + key.

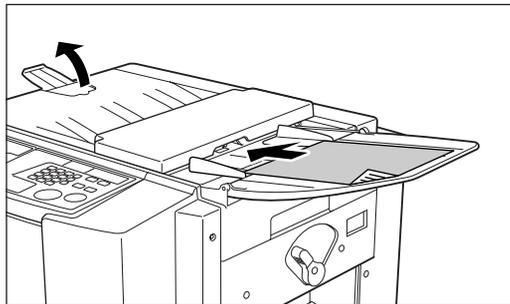
The print quantity entry mode for the second group is started.



Repeat steps 3 through 6 to specify the number of pages and sets for each group.

7 Place an original.

Adjust the Original Guide to the width of originals, and place the originals face down.

**Note:**

- If you place multiple originals in the ADF unit and select ON for Auto-Process, the programmed routine is repeated for each original.

8 Make necessary settings.

Make various settings as necessary. You can set the following functions:

- Image Processing Mode
- Pencil
- Scanning Level Adjustment
- Enlargement/Reduction
- Auto-Process

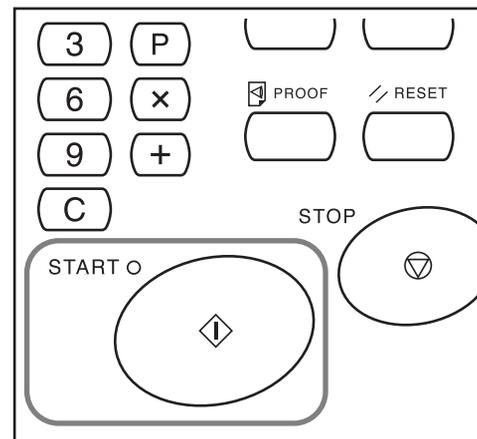
Important!:

- To save the current program settings, see "Saving Programs" (p.46) for further information. Once printing is finished, the settings cannot be saved.

9 Press the ⬇ key.

A proof copy is printed.

Check the print result, and if necessary adjust the print position and other items.

**10 Press the ⬇ key again.**

Printing is started with the first programmed group.

Important!:

- When printing is finished for all groups, the program content is cleared. However, it is not cleared if "Auto-Process" has been set to ON.

Note:

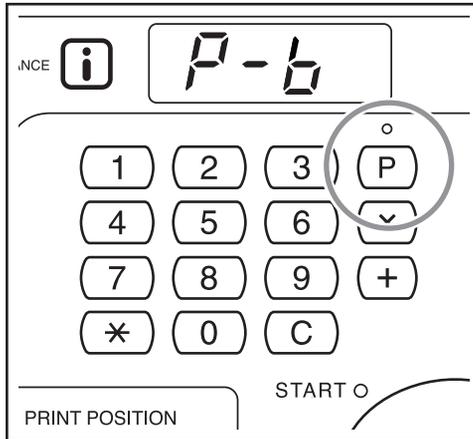
- Printing is stopped each time a routine for one set is finished. If you do not use the Job Separator (option), remove printed pages from the Paper Receiving Tray or put separation paper.
- To interrupt printing, press the ⏏ key. Press the ⬇ key to resume printing.

Advanced Features

◆ From multiple original documents, reproduce a pre-assigned number of sheets (Program B)

1 Press the P key twice to turn on its indicator.

[P-b] is shown on the Print Quantity Display.

**Note:**

- The mode switches between [Program A], [Program B] and [Cancel Program] each time you press the P key.

2 Press the + key.

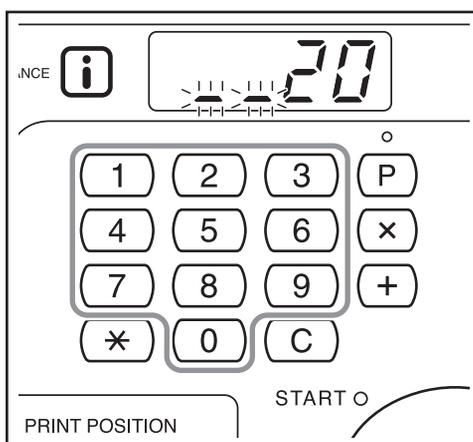
The print quantity entry mode is started.

Note:

- Press the X key to return to the previous step.

3 Enter the number of pages to be printed, using the Print Quantity keys.

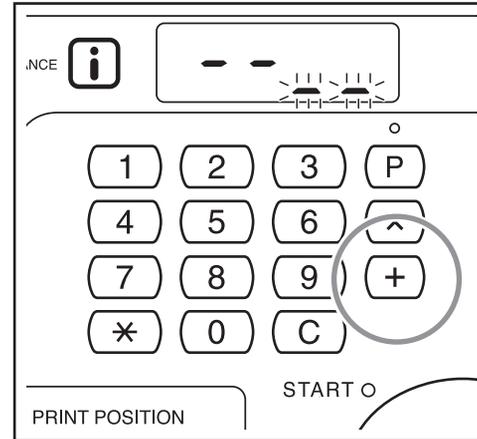
Enter the number of pages for the first original.

**Note:**

- If you enter an incorrect number, press the C key to clear it. Then enter the correct number.

4 Press the + key.

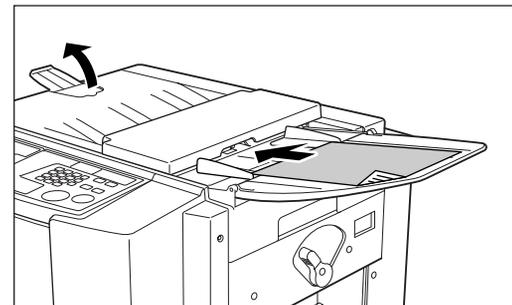
The print quantity entry mode for the next original is started.

**5 Enter the number of pages for each original using the Print Quantity keys.**

Repeat steps 2 through 3 to specify the number of pages for each original.

6 Place originals.

Adjust the Original Guide to the width of originals, and place the originals face down.

**Note:**

- If you select ON for Auto-Process, all originals are printed out for the specified number of pages automatically.

7 Make necessary settings.

Make various settings as necessary.
You can set the following functions:

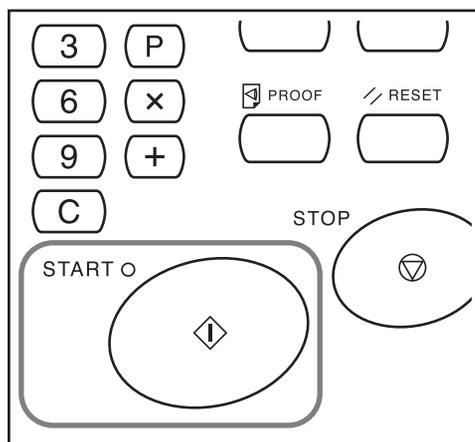
- Image Processing Mode
- Pencil
- Scanning Level Adjustment
- Enlargement/Reduction
- Auto-Process

Important!:

- To save the current program settings, see “Saving Programs” (p.46) for further information. Once printing is finished, the settings cannot be saved.

8 Press the key.

A proof copy is printed.
Check the print result, and if necessary adjust the print position and other items.



9 Press the key again.

Printing is started with the first programmed original.

Note:

- Printing is stopped each time a routine for one original is finished. If you do not use the Job Separator (option), remove printed copies from the Paper Receiving Tray or put separation paper.
- To interrupt printing, press the  key. Press the  key to resume printing.

Advanced Features

Saving Programs

If you have stored the frequently-used program settings in memory, you can retrieve them for later printing. A total of 6 settings (Program A (Single Page) or Program B (Multi-Page Mode)) can be stored.

1 Set the program.

Enter the required program settings from the Control Panel.

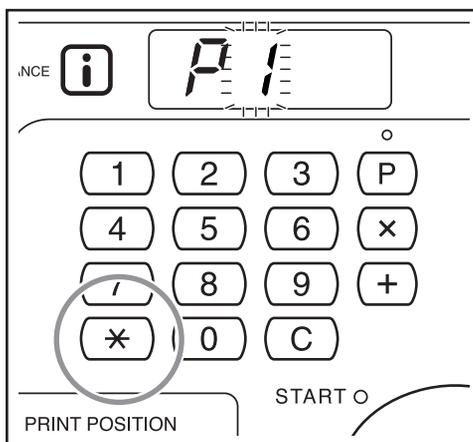
For details on the setting operations, refer to the following steps.

Program A: steps 1 (p.42) through 8 (p.43)

Program B: steps 1 (p.44) through 7 (p.45)

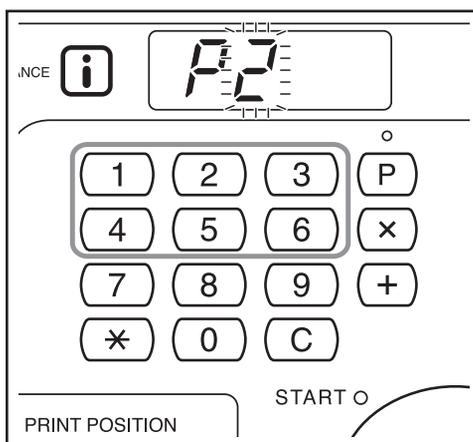
2 Press the * key.

Store program settings.



3 Enter the program number using the Print Quantity keys.

Select a program number from 1 to 6.



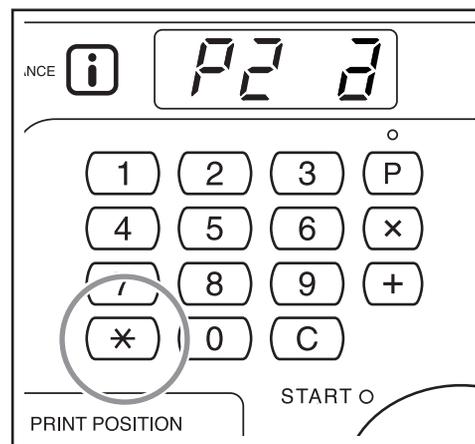
Important!:

- When a program number that has already been stored is selected, [a] or [b] is displayed on the right-most digit.

- Since selecting a number that has already been stored overwrites the previous settings, please confirm the settings on the display before saving on the same number.

4 Press the * key.

Program setting is stored and [Program A] or [Program B] is displayed.



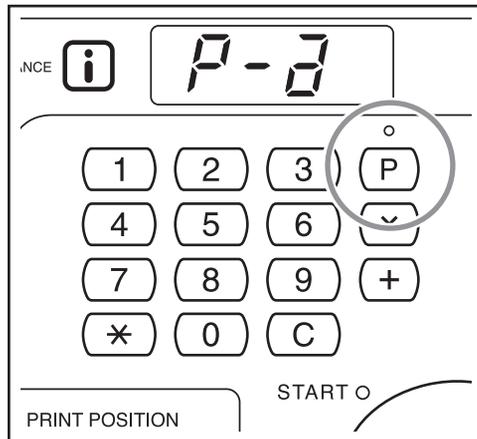
Note:

- After storing a program, pressing the P key to finish saving the program. By pressing the key, you can print with a stored program.

Retrieving a Program

Stored programs can be retrieved for printing.

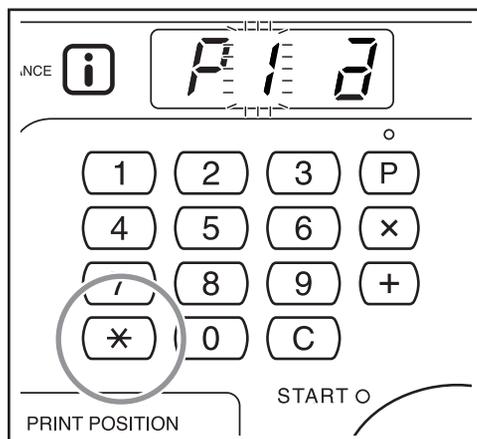
- 1 Press the **P** key to turn on its indicator.



Note:

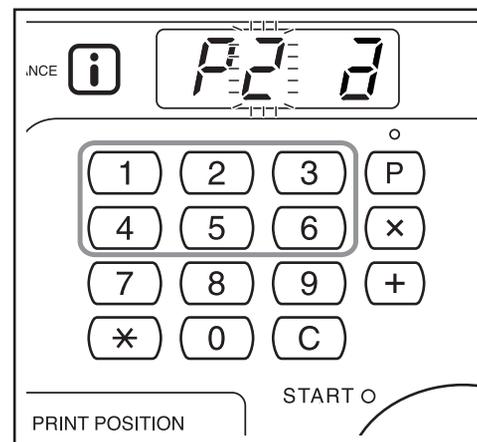
- To cancel the program mode, press the **P** key twice.

- 2 Press the ***** key.



- 3 Enter program number using the **Print Quantity** keys.

The registered program is retrieved.



Note:

- Press the **◇** key to start printing with the retrieved program.
- You cannot enter an unregistered program number.

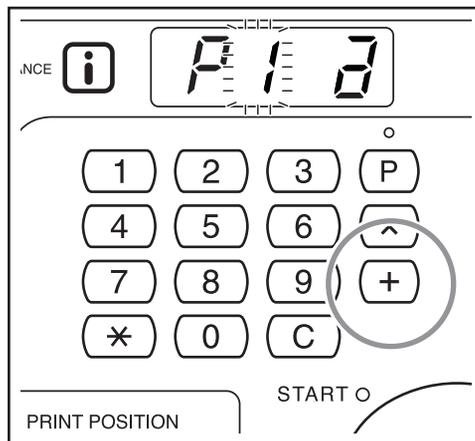
Advanced Features

Making Changes to Stored Programs

Modifying its settings.

1 Retrieve a program to modify.

Follow steps 1 through 3 in “Retrieving a Program” (p.47)



2 Press the + key.

Displays the stored number of pages or sets. Press the + key repeatedly until the value to modify appears.

3 Press the C key and the Print Quantity keys to change the number of pages or sets.

4 Press the * key.

Program setting is modified.

5 Store a program.

Changed program settings are stored.

To overwrite the retrieved program, press the * key again.

To store on the new program number, enter and display the program number using the Print Quantity keys and press the * key.

Important!:

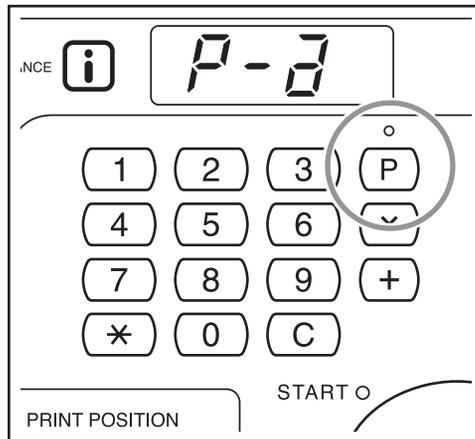
- If you select an already stored program number, the existing settings are overwritten by your new settings.

Note:

- See “Saving Programs” (p.46) for details on how to store a program.

Clearing Programs

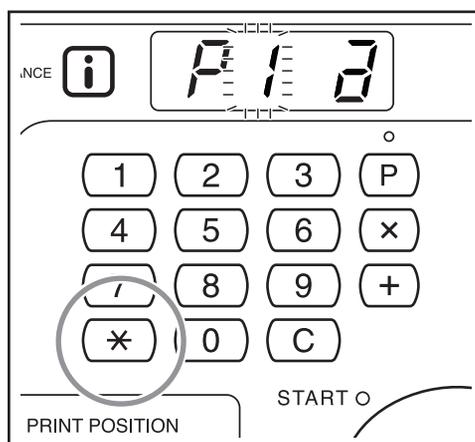
- 1** Press the **P** key to turn on its indicator.



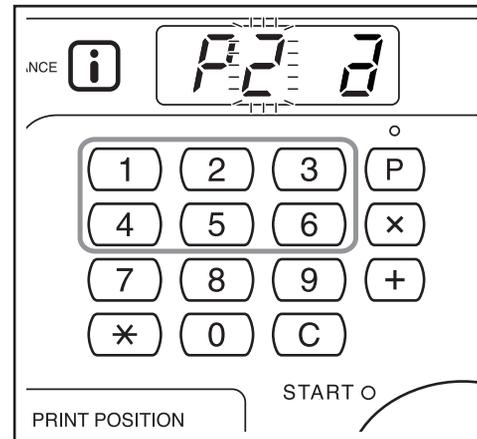
Note:

- To cancel the program mode, press the **P** key twice.

- 2** Press the ***** key.



- 3** Enter the program number to clear using the Print Quantity keys.

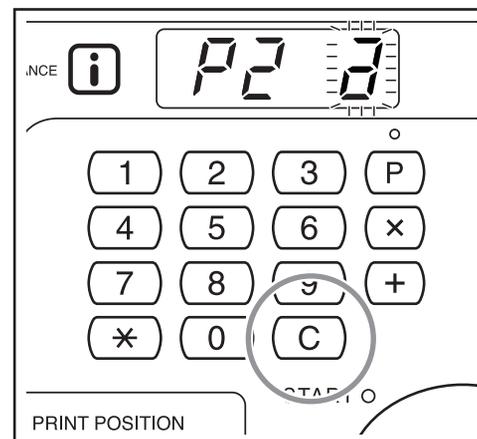


Note:

- You cannot enter an unregistered program number. Select a stored program number.

- 4** Press the **C** key.

Program type blinks on the display.



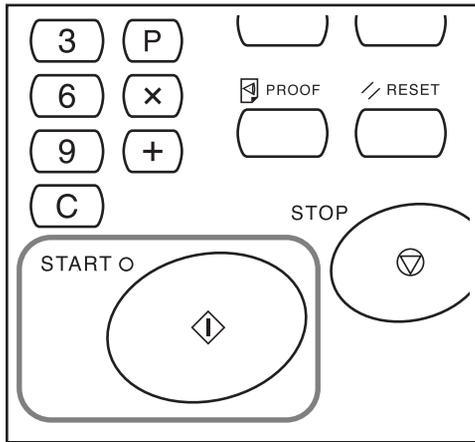
Important!:

- Press the **⏏** key to cancel clearing of program.

Advanced Features

5 Press the key.

Selected program settings are cleared.



Press P key to cancel program mode.

Protecting Confidential Documents

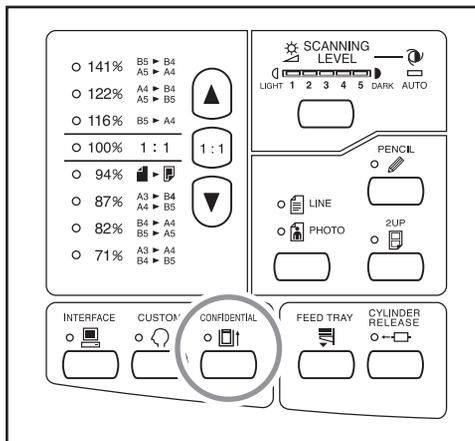
[Confidential]

After printing is completed, the master remains on the Print Drum (Cylinder) and is ready for printing another set of copies. To protect confidential documents from unauthorized duplication, use the Confidential feature to discard the master after printing.

1 Confirm that printing has ended.

Printing should be completely finished.

2 Press the key to turn on its indicator.

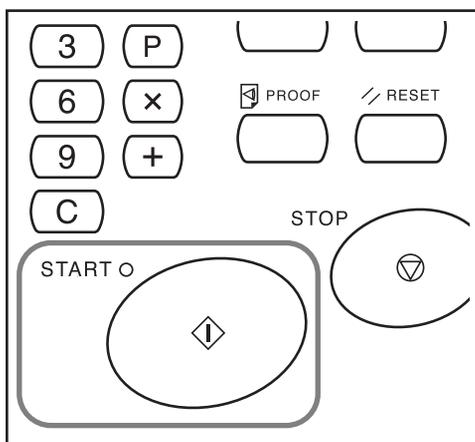


Note:

- To clear the mode, press the  key to turn off its indicator.

3 Press the key.

The current master is discarded and replaced with a blank one.



Note:

- After the discard and replacement, the Confidential mode is cleared.

Advanced Features

Changing the Initial Settings [Custom Setting Mode]

You can change the initial settings that are restored when the power is turned on or when the \swarrow key is pressed. The customised settings are effective until they are changed again.

The changeable items and their descriptions are as follows:

—: Initial settings (factory default)

Items You Can Change

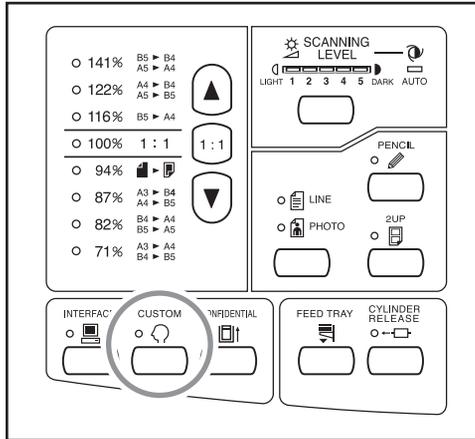
Item No.	Changeable Items	Parameter Selection					
		0	1	2	3	4	5
01	Print Speed Change the initial setting for the print speed.	1	<u>2</u>	3			
02	Auto-Process Change the initial setting for the Auto-Process.	<u>OFF</u>	ON				
03	Scanning Level Change the initial setting for the scanning level.	1	2	3	4	5	<u>Auto</u>
04	2-Up Printing Interval Time Change the initial setting for 2-Up printing interval time.	None	<u>15</u> seconds	30 seconds			
05	Auto Clear Time Select the waiting period required to make the machine automatically clear settings.	<u>No</u>	Approx. 3 min	Approx. 5 min			
06	Minimum Print Quantity Specify the minimum number of pages to be printed from one master. If a number lower than the specified minimum number is entered, the master-making process is not executed. You can lock and prevent this setting from being changed. For more information, consult your dealer.	<u>0 page</u>	10 pages	20 pages	30 pages	40 pages	50 pages
07	Beep Sound Customise the beep sound ON/OFF setting during key operation or during error occurrence. <ul style="list-style-type: none"> • Level 2 The beep sounds at all preset occasions such as when a key is operated and when an event occurs or ends. • Level 1 The beep sounds only when an error occurs, when item setting has completed, when a pull-out operation is enabled, or during the 2-Up printing interval time. • Level 0 No beep sounds at any occasion. 	<u>Level 2</u>	Level 1	Level 0			

Item No.	Changeable Items	Parameter Selection					
		0	1	2	3	4	5
08	<p>Semi-Auto With "ON" selected, if an original exists in the Original Tray after printing, the next master-making process is executed followed by proof copy, and then machine operation is stopped.</p> <p>Important!:</p> <ul style="list-style-type: none"> If the Auto-Process is "ON", you cannot set the Semi-Auto to "ON". 	<u>OFF</u>	ON				
09	<p>Job Separation Select "ON" when using a Job Separator (option).</p>	<u>OFF</u>	ON				
10	<p>Idling Sets up for idling. Idling action prevents the machine from printing the first several pages with faint ink after the Print Drum (Cylinder) has been exchanged or the machine has not been used for an extended period of time. Idling action before the master-making process assures consistent print quality from the start. Turn the "Idling" ON to use the idling action of the machine.</p> <p>Important!:</p> <ul style="list-style-type: none"> When you turn the "Idling" ON and when the first master-making has finished, the "Idling" is turned OFF automatically. 	<u>OFF</u>	ON				
11	<p>Paper Ejection Adjustment Change the initial setting for air blow setting. If printing paper sticks to the print drum (cylinder) frequently, select a higher level setting.</p>	OFF	<u>Low</u>	Medium	High		
12	<p>2-Up Printing Paper Size (For CZ180 only) Set the printing paper size.</p>	A4/ Letter	<u>B4/</u> <u>Legal</u>				
30	<p>Total Quantity Display The total number of pages printed with the machine is displayed. This number is alternately displayed on the two screens, consisting of an underbar + 3-digit number and 4-digit number. Example: If 1,234,567 pages: _123 → 4567 → _123 → 4567</p>	<p>Follow steps 1 through 3 of the "Changing Procedure". ☞ p.54 The total number of printed copies is shown on the Total Quantity Display.</p>					
31	<p>Master Quantity Display The total number of masters generated with the machine is displayed. This number is alternately displayed on the two screens, consisting of an underbar + 3-digit number and 4-digit number. Example: If 1,234,567 masters: _123 → 4567 → _123 → 4567</p>	<p>Follow steps 1 through 3 of the "Changing Procedure". ☞ p.54 The total number of generated masters is shown on the Total Quantity Display.</p>					
99	<p>Initial Setting Restoration Reset all Custom Setting mode settings to the initial settings (factory default).</p>	<p>Follow steps 1 and 2 of the "Changing Procedure". ☞ p.54</p>					

Advanced Features

Changing Procedure

1 Press the  key to turn on its indicator.



Important!:

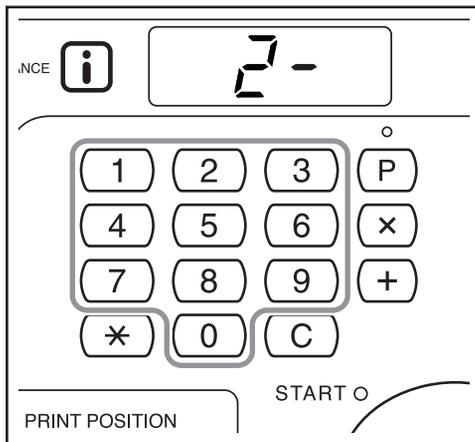
- If the RISORINC-NET (Option) is installed, you cannot enter the Custom Setting mode within one minute after turning the power on.

Note:

- To exit the Custom Setting mode, turn off the indicator by pressing the  key again.

2 Enter an item number to be changed, using the Print Quantity keys.

The Print Quantity Display shows the current parameter setting for the selected item number.

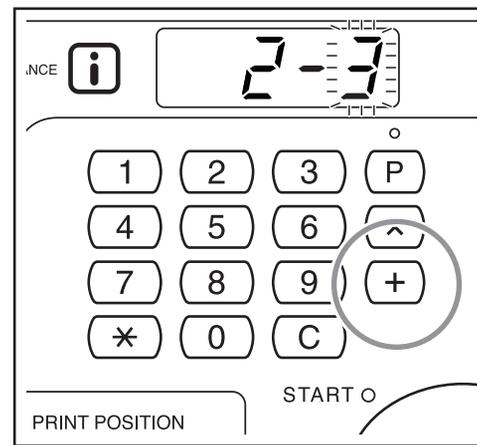


Note:

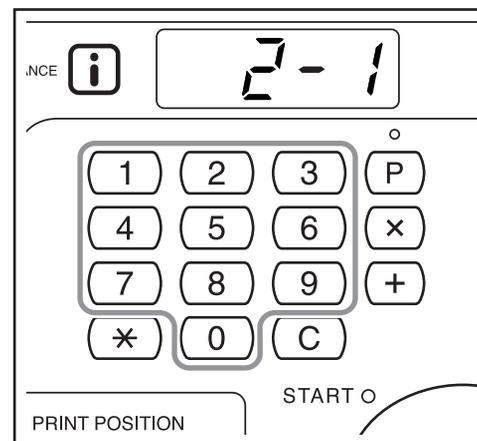
- To restore the initial settings for the Custom Setting mode, enter "99" and press the + key, and then press the  key.

3 Press the + key.

Pressing this key allows you to select a parameter number. The currently set parameter number blinks.



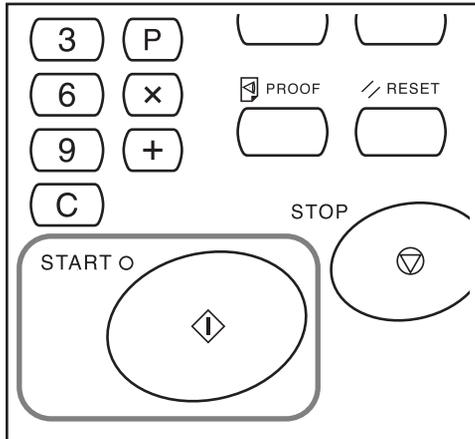
4 Enter a parameter number using the Print Quantity keys.



If you want to change multiple parameters, press the + key and repeat steps 2 through 4 for them.

5 Press the  key to complete the settings.

The changed contents are programmed and the normal mode is restored.



Replacing and Disposing Consumables

Replacing the Ink Cartridge

When the Ink Cartridge becomes empty, the Replace Ink Cartridge Indicator lights. Replace with a new Ink Cartridge.

⚠ Caution:

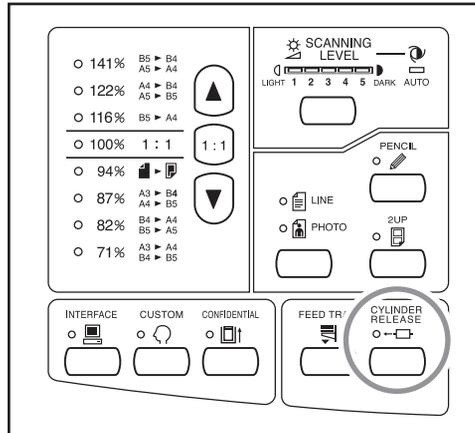
- Because ink may have adhered to the outlet surface of the Print Drum (Cylinder), be careful not to get your hands and clothes dirty.
Rinse your hand using a detergent immediately if stained with ink.

Important!:

- For the Ink Cartridge, it is recommended to use the products specified by RISO.
- Before replacing the Ink Cartridge, turn the machine on.
- Make sure to use the Ink Cartridge of the same color (colour) ink. If you want to change the ink color (colour), replace the Print Drum (Cylinder) itself.

1 Press the key.

Make sure that the Print Drum (Cylinder) Release indicator is tuned on.

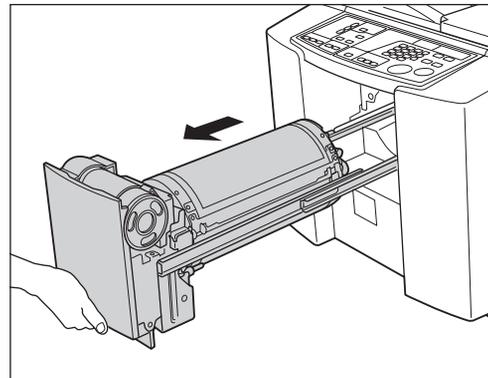


Important!:

- If you forcibly pull out the Print Drum (Cylinder) when its release indicator is turned off, the Print Drum (Cylinder) may be damaged.

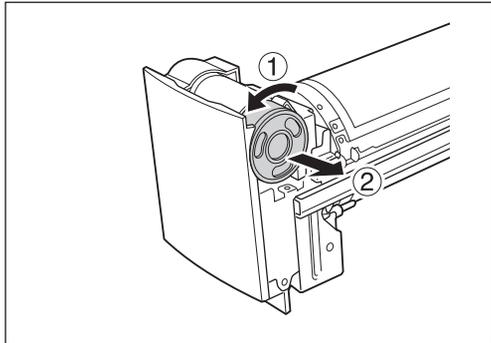
2 Pull out the Print Drum (Cylinder).

Grasp the Print Drum (Cylinder) Handle and pull out the Print Drum (Cylinder) until it stops.



3 Pull the empty Ink Cartridge out of the holder.

Turn the Ink Cartridge counterclockwise, and then pull it out.

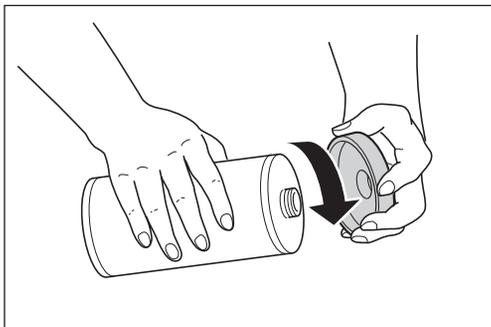


Note:

- Dispose the depleted Ink Cartridge according to the disposal rule of your local community. p.61

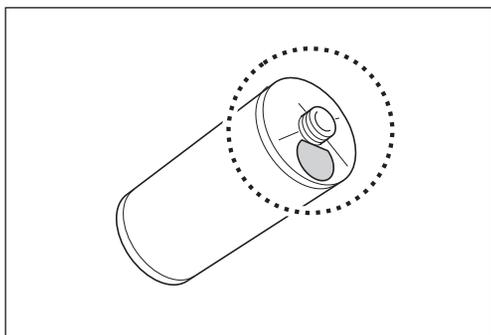
4 Remove the cap from a new Ink Cartridge.

Turn the cap of the Ink Cartridge to remove the cap.



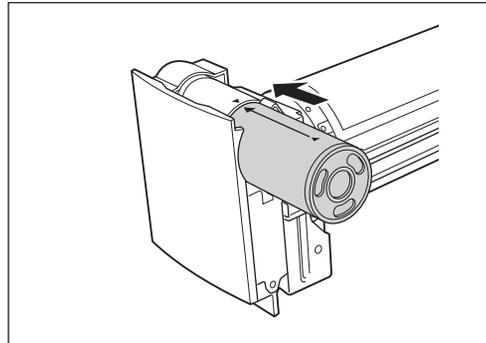
Important!:

- Do not touch or give impact to the outlet surface of the new Ink Cartridge.
Do not remove the label attached to the outlet surface of the Ink Cartridge.



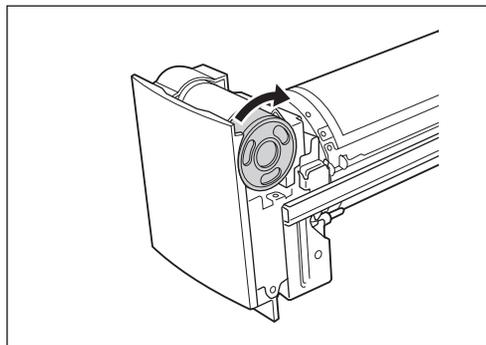
5 Insert the new Ink Cartridge.

Align the arrow of Ink Cartridge with the ▼ mark on the holder, and push the Ink Cartridge until it stops.



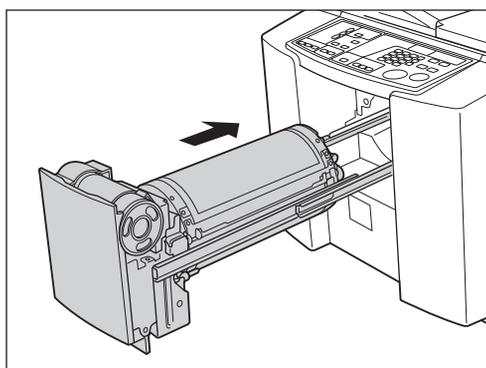
6 Lock the Ink Cartridge.

Turn the Ink Cartridge clockwise (🔒) to lock it.



7 Return the Print Drum (Cylinder) to the original position.

Insert the Print Drum (Cylinder) until it stops.



Replacing and Disposing Consumables

Replacing the Master Roll

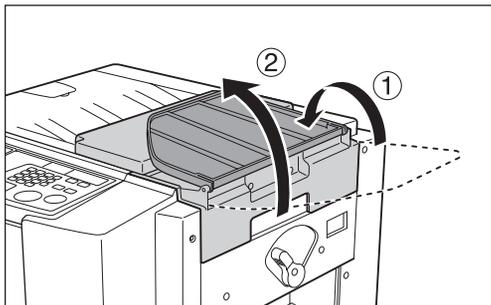
When the entire Master Roll is consumed, the Replace Master Roll Indicator lights. Replace with a new Master Roll.

Important!:

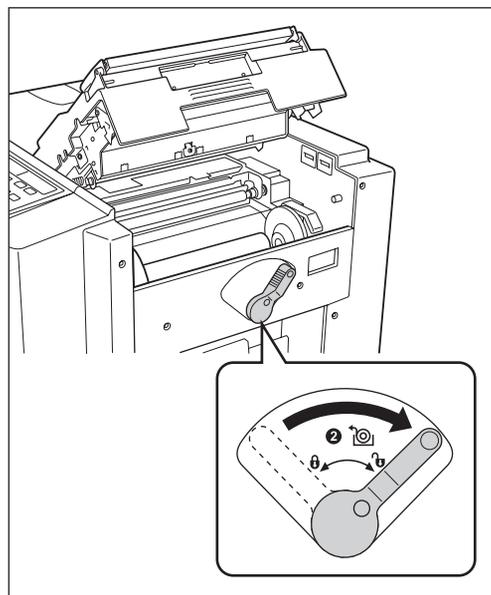
- For the Master Roll, it is recommended to use the products specified by RISO.
- Before replacing the Master Roll, turn the machine on.

1 Open the Master Making Unit Cover.

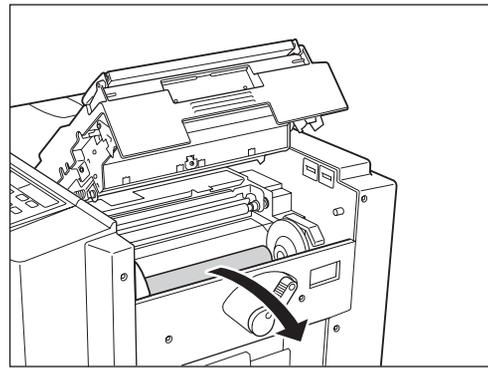
Turn over the Original Tray, and lift and open the Master Making Unit Cover by holding the Master Making Unit Cover Handle.



2 Turn the Master Roll Lock Lever clockwise to unlock the Master Roll.



3 Remove the depleted Master Roll.

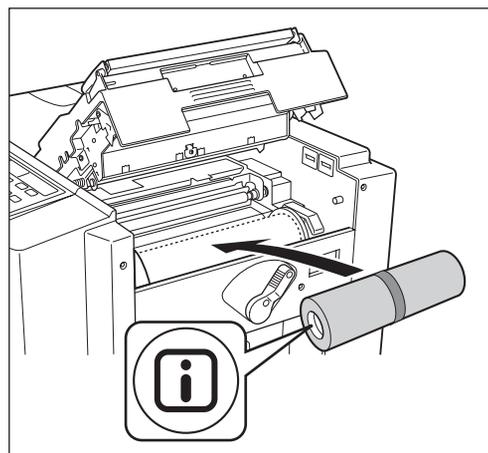


Note:

- Dispose the depleted Master Roll according to the disposal rule of your local community.
 p.61

4 Install a new Master Roll.

Remove the shrink-wrap (transparent film) from the new Master Roll, and place the roll so that the **i** mark on the master core comes to the left.

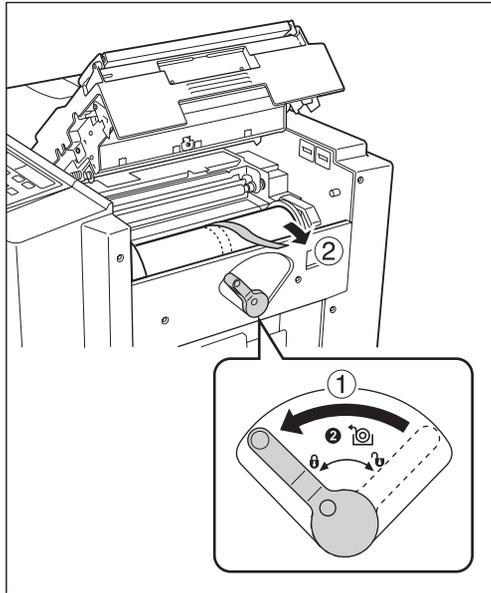


Important!:

- Do not remove the wrapper yet.

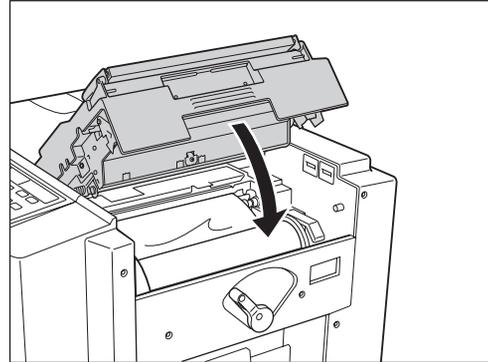
5 Turn the Master Roll Lock Lever counterclockwise to lock the Master Roll.

After locking the Master Roll, remove the wrapper.



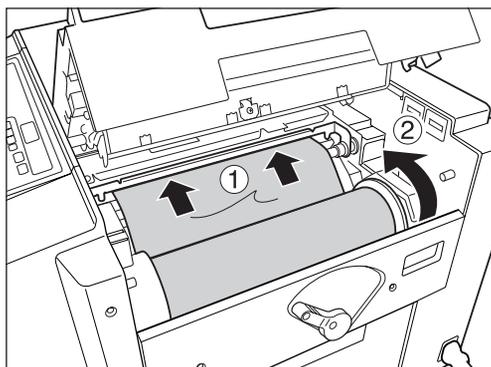
7 Close the Master Making Unit Cover.

After closing the Master Making Unit Cover, place the Original Tray into position.



6 Insert the leading edge of the Master Roll into its entrance under the Master Guide Flap.

Insert the leading edge under the Master Guide Flap until it stops (①).
If the master is loose, turn the flange at the right inward to rewind (②).



Replacing and Disposing Consumables

Emptying the Master Disposal Box

The used master is disposed in the Master Disposal Box.

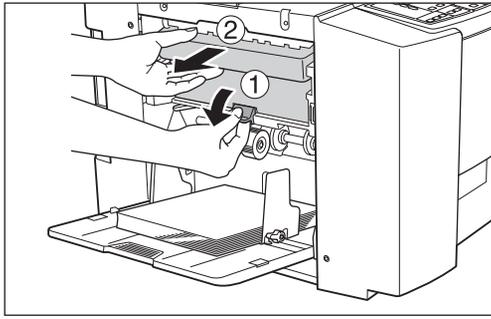
When the Master Disposal Box is filled with ejected masters, the Empty Disposal Box Indicator lights. Remove the ejected masters from the Master Disposal Box and discard them.

1 Pull out the Master Disposal Box.

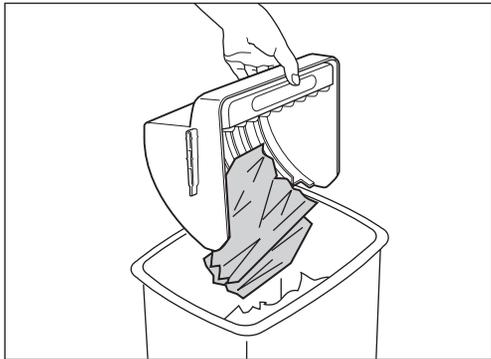
Hold down the Master Disposal Box Release Lever and pull out the box.

Important!:

- Make sure that the Paper Feed Tray is lowered to the bottom and pull out the Master Disposal Box. If not, press the  key on the Control Panel to lower the Paper Feed Tray to the bottom.

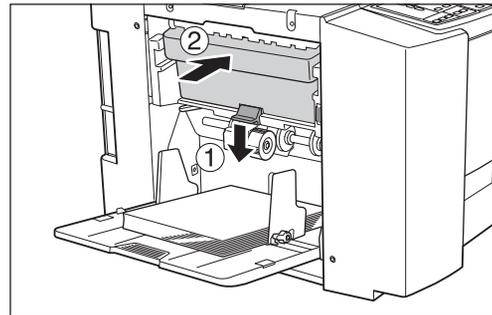


2 Discard the ejected masters.



3 Place the Master Disposal Box into position.

Hold down the Master Disposal Box Release Lever, and insert the Master Disposal Box until it stops.



Important!:

- Once you pull out the Master Disposal Box, make sure to empty it before placing it into position.

Note:

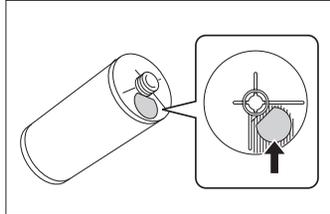
- Dispose the ejected masters according to the disposal rule of your local community.  p.61

Disposal of Used Consumables

Dispose the depleted Ink Cartridges, Master Rolls and ejected masters according to the regulations in your local community. If required, separate the specific components using the following procedures to dispose them properly.

Ink Cartridge

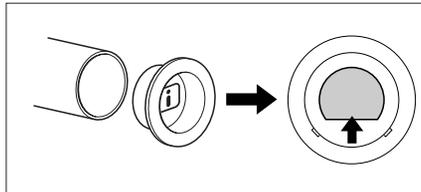
Remove the label (metal included) at the arrow from the outlet surface of the Ink Cartridge, and then dispose them separately. Because ink may have adhered to the outlet surface of the Ink Cartridge, be careful not to get your clothes dirty.



Part Name	Material
Ink Cartridge	Plastic (polypropylene or polyethylene)
Label	Plastic (metal included)
Ink	Petroleum carbon hybrid, water, and pigment

Master Core

A metallic component has been attached to the bottom of the end section having the  mark stamped. Remove the plastic cap from the Master Core, and peel off the metallic component from the rear surface of the cap.



Part Name	Material
Master core	Paper
Master	Plastic and Japanese paper
Plastic cap	Plastic (polypropylene)
Label	Plastic (metal included)

Ejected Master

Part Name	Material
Master material	Plastic and Japanese paper
Ink material	Petroleum carbon hybrid, water, and pigment

Note:

- As it is a chemical compound made of carbon and hydrogen, it is changed into carbon gas and water when combusted completely.

Replacing and Disposing Consumables

Removing and Installing the Print Drum (Cylinder)

When replacing with a color drum (cylinder) or dealing with paper jams, remove the Print Drum (Cylinder), take a necessary procedure, and then install the drum (cylinder).

⚠ Caution:

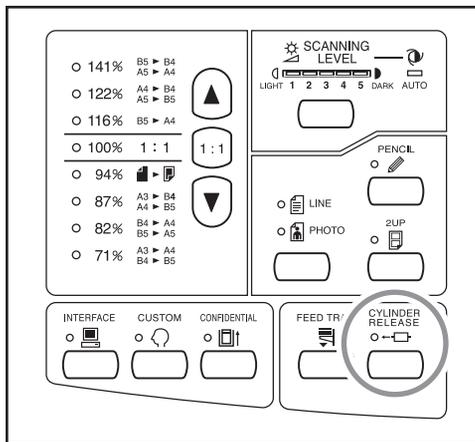
- Make sure to place and keep the removed Print Drum (Cylinder) horizontal. If vertically placed, the floor may be contaminated with ink.

Important!:

- For the Print Drum (Cylinder), use the products specified by RISO.
- Before removing and installing the Print Drum (Cylinder), turn the machine on.
- Make sure to place the replaced Print Drum (Cylinder) in the drum (cylinder) case and keep it horizontal.

1 Press the key.

Make sure that the Print Drum (Cylinder) Pullout indicator is tuned on.

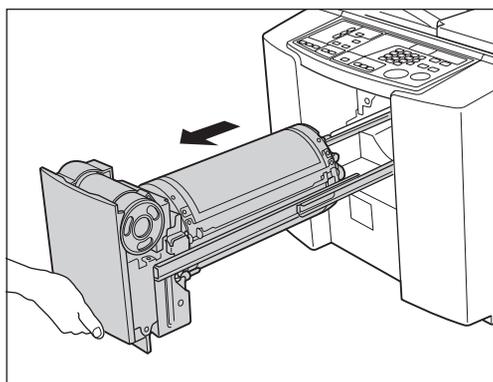


Important!:

- If you forcibly pull out the Print Drum (Cylinder) when its release indicator is tuned off, the Print Drum (Cylinder) may be damaged.

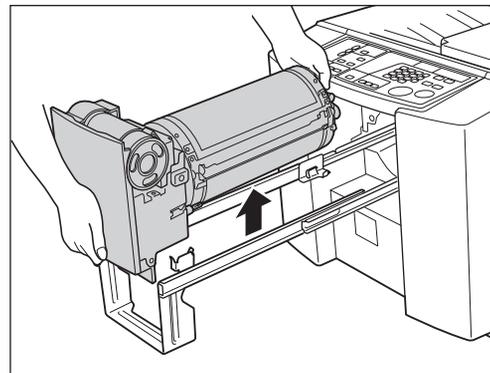
2 Pull out the Print Drum (Cylinder).

Grasp the Print Drum (Cylinder) Handle and pull out the Print Drum (Cylinder) until it stops.



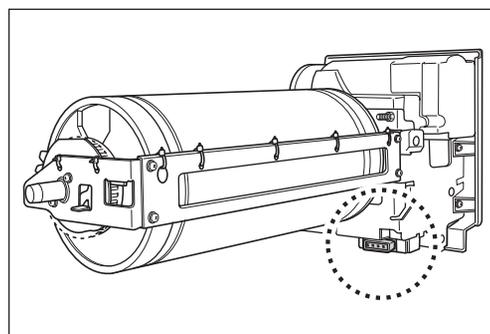
3 Remove the Print Drum (Cylinder).

Lift the Print Drum (Cylinder) with both hands to remove it from the guide.



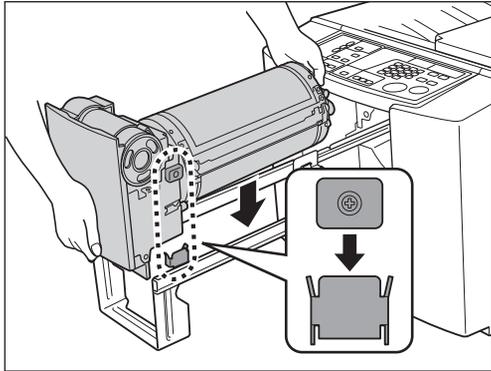
⚠ Caution:

- Do not touch the connector on the Print Drum (Cylinder). Neglecting this may result in malfunction of the Print Drum (Cylinder) because of static electricity or other factors.



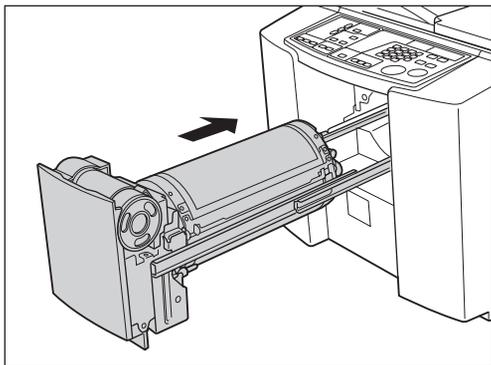
4 Install the Print Drum (Cylinder).

Align the protrusion of Print Drum (Cylinder) with the socket on the guide and position the Print Drum (Cylinder) horizontal relative to the guide.



5 Return the Print Drum (Cylinder) to the original position.

Insert the Print Drum (Cylinder) until it stops.



Maintenance

Safety Guide - Cleaning

This section describes the precautions to be observed when cleaning the machine. Read this section before cleaning the machine.

⚠ WARNING:

- Before cleaning any part of the machine, turn off the power.
- Do not remove any fixed covers.
- Contact your service representative immediately if you suspect any dangerous situation or have questions or problems with the machine.
- Contact your service representative before moving the machine.
- Do not allow unauthorized persons to make adjustments or repairs.

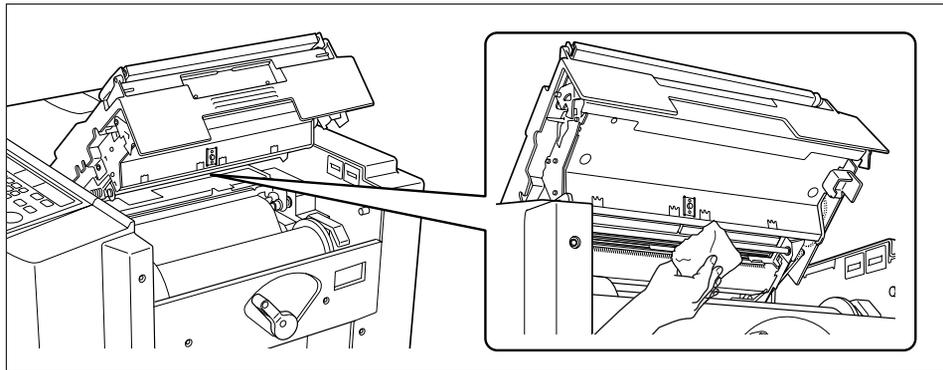
⚠ Caution:

- The machine has precision moving parts inside. Do not handle the machine in any other way than described in this guide.
- Be careful of the edge of metal parts, otherwise it may cause an injury.
- Do not make any modifications to the machine or remove any parts.
- Neither RISO nor its dealer is responsible for maintenance service performed by non-RISO-authorized personnel.

Cleaning

Thermal Print Head

Clean the Thermal Print Head each time you replace the Master Roll. Open the Master Making Unit Cover, and then gently wipe the Thermal Print Head (green film section) in the back of the unit several times with a soft cloth or tissue.



⚠ Caution:

- Since the Thermal Print Head may be heated, do not touch it directly with your fingers.

Important!:

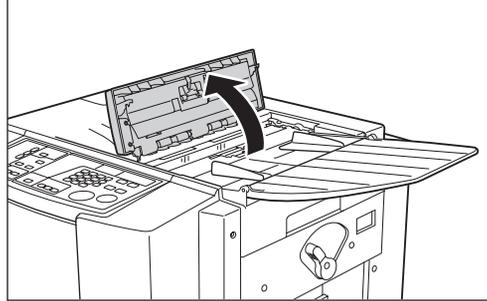
- Since the Thermal Print Head is a very delicate part, avoid shocks or scratches with a hard object.
- Since the Thermal Print Head is susceptible to (damage by) static electricity, please be sure to remove the static electricity charged in the body before cleaning.

Note:

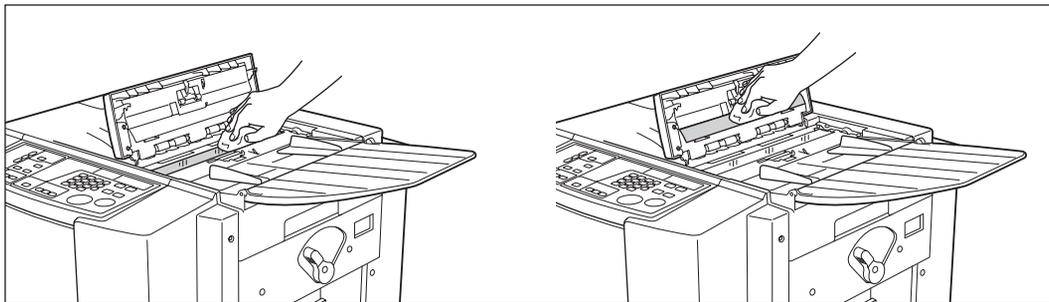
- For more effective cleaning, dampen a soft cloth or tissue with a small amount of alcohol before wiping the Thermal Print Head.

Scanner Glass and White Sheet of the ADF Unit

Grasp the Original Release Lever and open the ADF Cover.



Gently wipe and clean the Scanner Glass and the White Sheet with a soft cloth or tissue.



Important!:

- Since the Scanner Glass is very delicate, avoid shocks or scratches with a hard object.

Note:

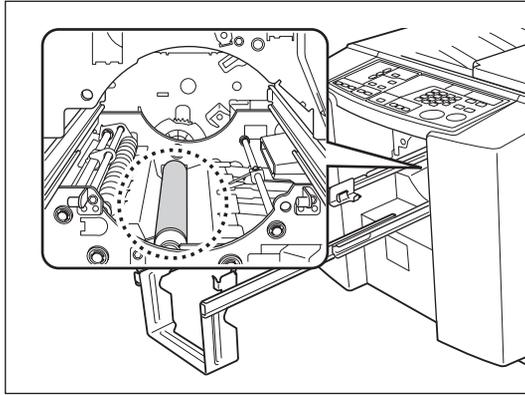
- For more effective cleaning, dampen a soft cloth or tissue with a small amount of alcohol before wiping the Scanner Glass and White Sheet.

Maintenance

Pressure Roller

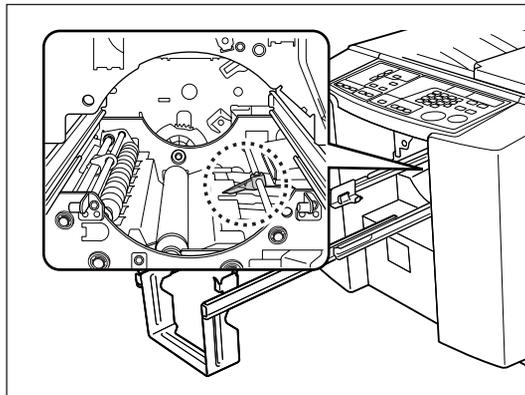
If the Pressure Roller, which presses print paper against the Print Drum (Cylinder), is stained, smudged strips may appear on the back of copies.

If this happens, gently wipe the Pressure Roller with a soft cloth or tissue.



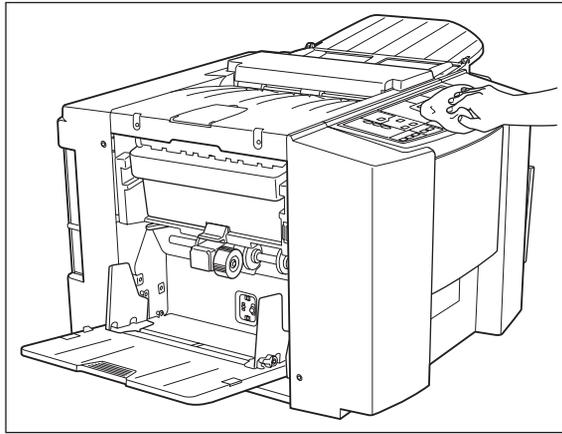
⚠ Caution:

- Before cleaning the Pressure Roller, turn the machine off.
- When putting your hand into the unit, do not touch the paper separation hook. The sharp tip of the hook can hurt your hand.
- Because ink may have adhered to the surface around the Print Drum (Cylinder), be careful that your hands and clothes do not get dirty. Rinse your hand immediately with a detergent if they become stained with ink.



The Exterior

In order to protect the machine from dust, wipe the machine exterior periodically with a soft cloth. If using cleanser, consult your dealer.



Important!:

- Because the machine exterior is plastic, never use alcohol or a solvent when cleaning.

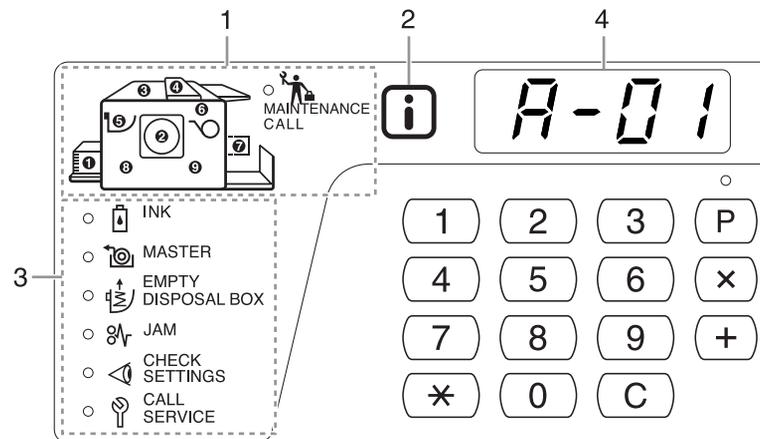
Troubleshooting

Check & Error Display

When an error occurs on the machine or when consumables or other sections are not yet ready, the Check & Error Display shows error locations and numbers indicating error types. For some errors, error numbers are shown on the Error Number Display (Print Quantity Display).

Checking with the Check & Error Display

Besides indicators that show error types, numbers that show error locations light. Check the display and take an appropriate procedure according to the methods described on the subsequent pages.



1) Error Location Indicator

Numbers corresponding to error locations light.

2) Indicator

This machine controls its printing functions by collecting the "matching information" from the consumables being loaded on the machine.

When the indicator lights up: The matching information has been collected and the printing functions are controlled normally.

When the indicator goes out: The matching information has not been collected. The matching information needs to be entered. [p.75](#)

3) Error Type Indicator

-  **(MAINTENANCE CALL) Indicator**
Lights when the time for periodic inspection comes.
-  **(INK) Indicator**
Blinks when the remaining ink quantity is small, and lights when the entire ink is consumed.
-  **(MASTER) Indicator**
Blinks when the remaining master quantity is small, and lights when the entire master is consumed.

-  **(EMPTY DISPOSAL BOX) Indicator**
Lights when the Master Disposal Box is filled with discarded masters.
-  **(JAM) Indicator**
Lights when original or paper jams occur inside the machine or ADF Unit.
-  **(CHECK SETTINGS) Indicator**
Lights when the Print Drum (Cylinder), paper, or other items have not been set up yet.
-  **(CALL SERVICE) Indicator**
Lights when such an error occurs that needs advice or support from service personnel.

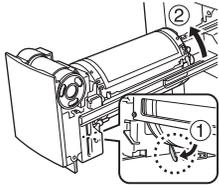
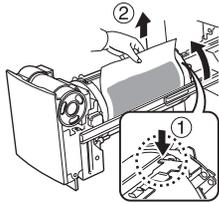
4) Error Number Display

Error numbers appear and blink on the Print Quantity Display.

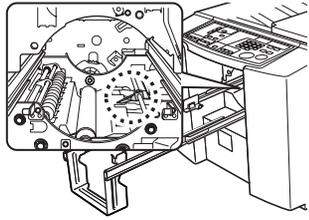
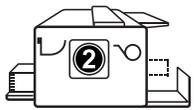
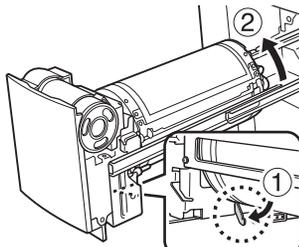
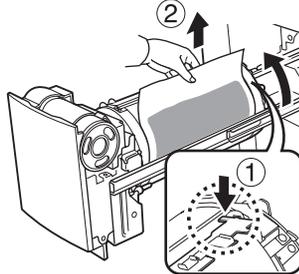
Error contents are shown with alphabetical characters (single digit) and numeric characters (two digits).

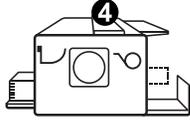
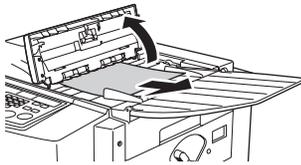
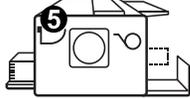
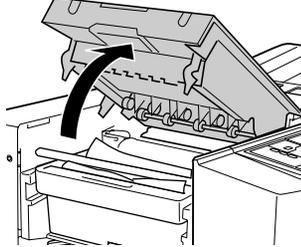
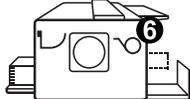
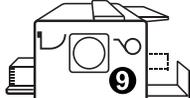
When the (JAM) Indicator blinks

Check error locations and error numbers (on the Error Number Display) and take the following procedures:

Location No.	Error No.	Cause	Action
	A-02	A master has not been correctly wrapped around the Print Drum (Cylinder).	<ol style="list-style-type: none"> 1) Pull out the Print Drum (Cylinder).  p.62 * If no master is wrapped around the Print Drum (Cylinder), proceed to Step 6). If wrapped, proceed to Step 2). 2) Press the Print Drum (Cylinder) Release Lever (①), hold the edge of the Print Drum (Cylinder), and turn the Drum (Cylinder) until the clamp plate (metallic plate locking the master) comes to the top (②).  <ol style="list-style-type: none"> 3) Press the Clamp Plate Release Lever (①) to unlock the clamp plate, hold the edge of the master, and then separate the Master while turning the Print Drum (Cylinder) (②).  <ol style="list-style-type: none"> 4) Rotate the Print Drum (Cylinder) until it is locked by the Print Drum (Cylinder) Release Lever. 5) Set the Print Drum (Cylinder) into the machine. 6) Open the Master Making Unit Cover and set the master again. 7) Close the Master Making Unit Cover. 8) Perform the master-making operation again. <p>⚠ Caution:</p> <ul style="list-style-type: none"> • The Print Drum (Cylinder) consists of a lot of metallic parts. Do not touch those parts more than necessary. Your hand may be cut. • When rotating the Print Drum (Cylinder) during maintenance, hold the outer edge of the Print Drum (Cylinder). Your hands may become dirty with ink if you press the master wrapped around the Print Drum (Cylinder). • The clamp plate is open when you are pressing the Clamp Plate Release Lever. When you release the lever, the clamp plate closes. Take extreme care not to be pinched, otherwise, your hand may be injured. • When you remove the master from the Print Drum (Cylinder), the ink is spread on the master. Take care not to allow the master to come in contact with other parts or objects.
	A-04	Master ejection has been failed.	<ol style="list-style-type: none"> 1) Pull out the Print Drum (Cylinder) and remove the master from the drum (cylinder) by hand.  p.62 2) Set the Print Drum (Cylinder) again. 3) Press the  key.

Troubleshooting

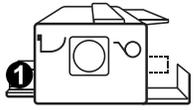
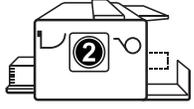
Location No.	Error No.	Cause	Action
	A-08	A paper jam has occurred around the Print Drum (Cylinder).	<ol style="list-style-type: none"> 1) Pull out the Print Drum (Cylinder). <small>☞ p.62</small> 2) If you find jammed paper, remove it. <p>⚠ Caution:</p> <ul style="list-style-type: none"> • When putting your hand into the machine to remove paper, do not touch the paper separation hook. The sharp tip of the hook may hurt your hand. 
	A-16	Unnecessary master remains on the Print Drum (Cylinder).	<ol style="list-style-type: none"> 1) Pull out the Print Drum (Cylinder). <small>☞ p.62</small> 2) Press the Print Drum (Cylinder) Release Lever (①), hold the edge of the Print Drum (Cylinder), and turn the Drum (Cylinder) until the clamp plate (metallic plate locking the master) comes to the top (②).  <ol style="list-style-type: none"> 3) Press the Clamp Plate Release Lever (①) to unlock the clamp plate, hold the edge of the master, and then separate the Master while turning the Print Drum (Cylinder) (②).  <ol style="list-style-type: none"> 4) Rotate the Print Drum (Cylinder) until it is locked by the Print Drum (Cylinder) Release Lever. 5) Set the Print Drum (Cylinder) into the machine. 6) Open the Master Making Unit Cover and set the master again. 7) Close the Master Making Unit Cover. 8) Perform the master-making operation again.

Location No.	Error No.	Cause	Action
	A-10	An original jam has occurred in the ADF Unit.	Remove the original jammed in the ADF Unit. <ul style="list-style-type: none"> Grasp the Original Release Lever and open the ADF Cover to remove the jammed original. 
	A-05	A master jam has occurred in the master disposal section.	Remove the Master Disposal Box and remove the jammed master. <p>☞ p.60</p> If you cannot remove the jammed master although you have removed the Master Disposal Box, open the Master Disposal Unit and remove the master.  <p>Important!:</p> <ul style="list-style-type: none"> Once you pull out the Master Disposal Box, make sure to empty it before placing it into position.
	A-01	A master has not been correctly set.	Open the Master Making Unit Cover, remove the master roll, and set the master correctly. If the master is loose, turn the right flange inward to correct it, and close the Master Making Unit Cover. <p>☞ p.58</p>
	A-17	A master has not been correctly cut.	<ol style="list-style-type: none"> Remove the master roll and close the Master Making Unit Cover. Set the master again. <p>☞ p.58</p>
	A-07	A paper jam has occurred on the Paper Feed Tray section.	<ol style="list-style-type: none"> Press the  key to lower the Paper Feed Tray, and remove the jammed paper. Set paper again. If the error indications do not disappear, press the  key.
	A-09	A paper jam has occurred on the Paper Receiving Tray section.	Remove the paper jammed on the Paper Receiving Tray section. <p>If you have changed the horizontal paper position, also adjust the position of Receiving Tray Paper Guides.</p> <p>If the error indications do not disappear, press the  key.</p>

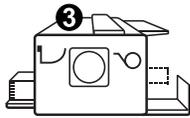
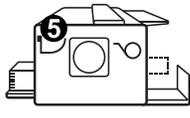
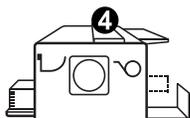
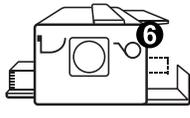
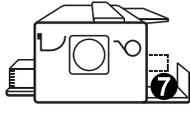
Troubleshooting

When the (CHECK SETTINGS) Indicator blinks

Check error locations and error numbers (on the Error Number Display) and take the following procedures.
If an error number is not shown, press the  key.

Location No.	Error No.	Cause	Action
	c-04	The tray has run out of paper.	Place paper on the Paper Feed Tray.
	d-01	The Print Drum (Cylinder) has not been set or has not been correctly inserted.	Set the Print Drum (Cylinder) correctly. ☞ p.62
	d-02	An inappropriate Print Drum (Cylinder) has been set.	Set an appropriate Print Drum (Cylinder). ☞ p.62 Important!: <ul style="list-style-type: none"> Use a Print Drum (Cylinder) specific to the machine. Set other drums (cylinders) can result in malfunction or any other troubles.
	d-03	The Ink Cartridge has not been set or it has not been correctly set.	Set an Ink Cartridge correctly. ☞ p.56
	d-04	An inappropriate Ink Cartridge has been set.	Set an Ink Cartridge specific to the machine. ☞ p.56 Important!: <ul style="list-style-type: none"> Use an Ink Cartridge specific to the machine. Using other Ink Cartridges can result in malfunction or any other troubles.
		The label on the Ink Cartridge outlet surface has come off or surface is with dirt.	The label on the Ink Cartridge outlet surface contains information needed for printing. If the machine cannot read the information, it does not operate. Set an Ink Cartridge that is specific to the machine and that is with label attachment and free from dirt.
	F-01	A master has not been wrapped around the Print Drum (Cylinder).	Place an original and start with the master-making process. If you leave the machine without a master wrapped around the Print Drum (Cylinder), malfunction may occur. Press the  key, then press the  key. Or perform master-making operation to wrap a master around the drum (cylinder).

Troubleshooting

Location No.	Error No.	Cause	Action
 	d-07	The Master Disposal Box has not been set or it has not been correctly set.	Set the Master Disposal Box correctly. ☞ p.60
		The Master Disposal Unit has not been correctly closed.	
	d-23	The ADF Unit is opened or it has not been correctly closed.	Check the ADF Unit and close correctly.
	A-34	A master roll has not been correctly set.	Open the Master Making Unit Cover, remove the master roll, and set the master correctly. If the master is loose, turn the right flange inward to correct it, and close the Master Making Unit Cover. ☞ p.58
	d-05	A master roll has not been set or it has been incorrectly set.	Set a master roll correctly and close the Master Making Unit Cover. ☞ p.58 If a rewound master has been wrinkled or has worn off, cut the edge of the master straight and then set the master again.
	d-08	The Master Making Unit Cover has not been correctly closed.	Close the Master Making Unit Cover correctly. ☞ p.58
	d-17	An inappropriate master roll has been set.	Set a master roll specific to the machine.
		The label at the opposite side of  mark of the master core has been peeled off or contaminated.	The label attached to the opposite side of  mark of the master core has the information needed for printing. The machine does not start printing if it cannot read the label information. Make sure that the master roll is specific to the machine and that the label of master roll is not peeled off or contaminated.
	b-22	Power to the Job Separator (option) is off.	Turn on the power to the Job Separator.
	b-23	The Job Separator (option) has run out of tape.	Set new tape to the Job Separator.
	b-24	The tape jam has occurred in the Job Separator (option).	Check the Job Separator (option) and remove the jammed tape.

Troubleshooting

Location No.	Error No.	Cause	Action
No indicator lights.	b-31	The machine has not been correctly connected to the network.	<ul style="list-style-type: none"> Press the  key and check that the cable of the machine has been correctly connected to the hub, for example. If the cable connection is appropriate, check the communication status of the sever and/or network. Check with the manager of the server or network.
	b-33	An IP address has not been set for the machine.	Press the  key and set the IP address for the machine from the computer.  p.52
	F-05	An attempt is being made to print a smaller number of pages than the minimum print quantity.	Select a larger number of pages than the minimum print quantity.  p.52

When the (MASTER) Indicator lights

Because the entire master roll has been consumed, set a new master roll.

 p.58

Note:

- The indicator blinks when the remaining master quantity is small (10% or less).

When the (EMPTY DISPOSAL BOX) Indicator lights

Because the Master Disposal Box is full, remove the box and discard the ejected masters.

 p.60

When the (INK) Indicator lights

Because the Ink Cartridge becomes empty, replace with a new Ink Cartridge.

 p.56

Note:

- The indicator blinks when the remaining ink quantity is small (10% or less).

When the (CALL SERVICE) Indicator lights

Check error numbers shown on the Error Number Display and contact your dealer.

When the (MAINTENANCE CALL) Indicator lights

Contact your dealer and take a periodic inspection.

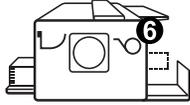
When the indicator is off and “H” is shown on the Print Quantity Display.

In order to assure optimum printing, the machine acquires information from the consumables.

If acquired matching information is not proper, “H” is shown on the Print Quantity Display. Enter an appropriate parameter.

Entering an inappropriate parameter does not affect usual operations but may result in bad print quality.

The table shows the “H” numbers to be shown on the Print Quantity Display and the selectable parameters.

Location No.	H No.	Description	Parameter
	H1	Ink color (colour) setting Select the same color (colour) as the currently used for Print Drum (Cylinder).	1: black 2: color (colour)
	H4	Master-making density setting Set the reference density for the master-making process.	1 (light) - 10 (dark)

Note:

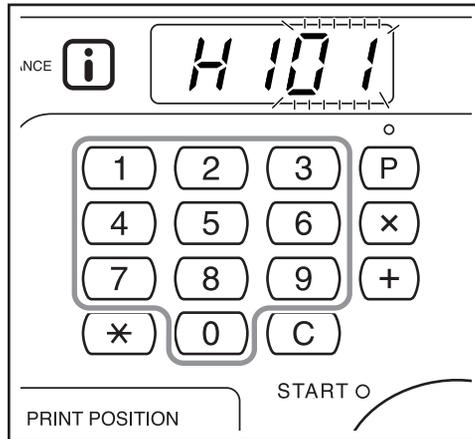
- When you set the power switch OFF and set the switch ON again, entered H No's information disappears and thus you need to enter H No's again.
- If you are not sure the best setting for master-making density, we may suggest you start from 1 (default setting) and adjust if necessary based on the result of print.

Troubleshooting

Use the following procedure to enter necessary information.

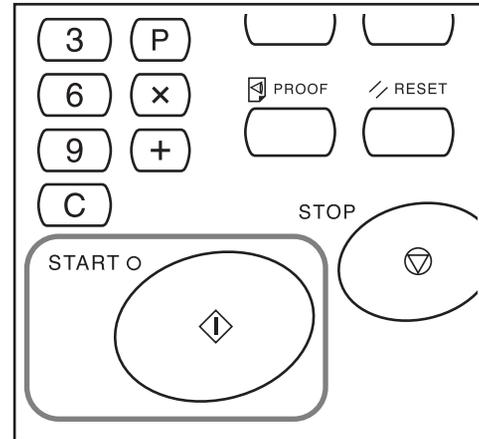
1 Enter a parameter using the Print Quantity keys.

The parameters that can be entered differ among the consumables.



2 Press the \blacklozenge key to complete the settings.

If the next H No. appears, repeat Steps 1 and 2.



Note:

- When necessary entry is completed, the Print Quantity Display restores to its normal status and is available for usual operations.

When the i indicator is off and Error Type indicator lights

When an Error Type indicator lights, please refer to the following pages.

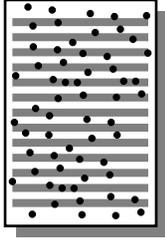
Error Type	Error No.	Reference page
\blacktriangleleft (CHECK SETTINGS)	d-04	p.72
	d-17	p.73
	If an Error No. "d-xx" other than above is displayed, please refer to the reference pages.	p.72~p.73
M (MASTER)	-	p.58
I (INK)	-	p.56

Troubleshooting Tips

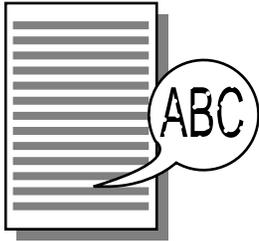
If any problems occur during printing, check the following points and take appropriate procedures before calling your authorized service representative.

Problem	Cause	Action
The machine does not start when the power switch is pressed.	Power has been disconnected.	<ul style="list-style-type: none"> Check if the power cord has been firmly connected to an electric outlet. Check if the commercial power circuit breaker is on.
The Paper Feed Tray cannot be closed.	The Feed Tray Paper Guides have not been widen up to the limit.	Turn the power on and lower the Paper Feed Tray to the bottom. Turn the Feed Tray Paper Guide Lock Lever to the vertical position, widen up the Feed Tray Paper Guides to the limit, and close the Paper Feed Tray. ☞ p.21
	The power was turned off before the Paper Feed Tray lowered to the bottom.	
The Print Drum (Cylinder) cannot be placed into position.	The Print Drum (Cylinder) was stopped at an inappropriate position after rotation.	After manually rotating the drum (cylinder), rotate it until it is locked by the Print Drum (Cylinder) Release Lever.
	The Print Drum (Cylinder) has not been correctly set to the guide.	Set the drum (cylinder) to the guide correctly. ☞ p.62
An error indication does not disappear even though consumables (ink, master roll) are set.	The consumables (ink, master roll) have not been correctly set.	After inserting the Ink Cartridge, turn it clockwise() to lock.Or set the Ink Cartridge again. ☞ p.56
		Set a master roll so that the  comes to the left. ☞ p.58
	The Ink Cartridge does not contain ink information.	Do not remove the label attached on the Ink Cartridge outlet section. If you did so, set a new Ink Cartridge. ☞ p.56
	The master roll does not contain master information.	Do not remove the plastic cap from the master core. ☞ p.58
There is no image on copies.	The original is placed face up.	Place the original face down.

Troubleshooting

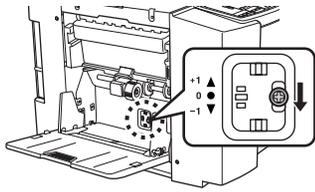
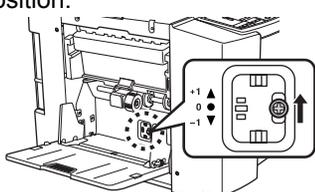
Problem	Cause	Action
<p>Portion on copies is missing.</p> 	<p>The Scanner Glass of the ADF Unit is not clean.</p> <p>A foreign object may exist on the master.</p>	<p>Wipe the Scanner Glass with a soft cloth, for example. ☞ p.65</p> <p>Pull out the Print Drum (Cylinder) and check if any object exists on the master. If a foreign object exists between the master and the drum (cylinder), remove the master. Then set the drum (cylinder) and perform the master-making operation again. ☞ p.62</p>
<p>Vertical blank lines are found on printed copies.</p> 	<p>The Thermal Print Head and the Scanner Glass have been smudged.</p>	<p>Wipe the Thermal Print Head and the Scanner Glass with a soft cloth or others. ☞ p.64</p>
<p>The unwanted background of an original is picked up on copies.</p> 	<p>If newspaper or colored (coloured) paper is used as an Original, the background is picked up on copies.</p>	<p>Set the scanning level to "Auto" or lower the level, and then perform the master-making operation again. ☞ p.31</p>
<p>Dirt is found on printed copies.</p>	<p>The Scanner Glass of the ADF Unit is not clean.</p>	<p>Wipe the Scanner Glass with a soft cloth or others. ☞ p.65</p>
<p>Characters and images in the area approximately 10 mm ($\frac{3}{8}$") from the top of copies are stained with ink.</p>	<p>-</p>	<p>Lower the print position to provide a wider top margin or reverse the top and bottom of the original. ☞ p.13</p>
<p>The trailing edge of printed copies are stained with ink.</p>	<p>The size of original is almost equal to the maximum printing area size.</p>	<p>Reduce the size of original and make a Master again, or use the print paper with a length less than 410 mm ($16 \frac{5}{32}$"). ☞ p.13</p>

Troubleshooting

Problem	Cause	Action
<p>The edges of printed copies are smudged with ink.</p>	<p>A size of paper longer than 410 mm (16 5/32") was placed on the Paper Feed Tray at the time of master-making process. (For CZ180 only)</p>	<p>If the size of original is almost equal to the maximum print area size and if the paper larger than 410 mm (16 5/32") is used, the images on the area about 360 mm (14 3/16") back from the top edge of the printed paper may be blurred. Reduce the size of original and perform the master-making operation again.</p>
	<p>When printing thick paper such as cards, corners of the paper contacted and damaged the master.</p>	<p>Make another master and print with the new master. Or pull out the Print Drum (Cylinder) and attach cellophane tape to the damaged section on the master. However, if attached with cellophane tape, a master may not be properly sent to the Master Disposal Box.</p>
<p>The back of printed copies is smudged with ink.</p> 	<p>The Pressure Roller has been stained with ink.</p>	<p>Remove the Print Drum (Cylinder), and wipe the Pressure Roller with a soft cloth or others. ☞ p.66 If the print position is outside the print paper, this may cause the Pressure Roller to be stained with ink. Be careful when changing the size of print paper or shifting the print position. ☞ p.37</p>
<p>Printed images are faint. Printed texts are blurred.</p> 	<p>The machine was not used for an extended period of time, and printing was just restarted.</p>	<p>If the machine is not used for an extended period of time, ink on the surface of the Print Drum (Cylinder) may dry. This results in faint or blurred printing just after printing is started. Press the  key to make several copies, and then start printing for actual use. Or use the Idling function. ☞ p.53</p>
	<p>Faint originals result in faint images.</p>	<p>Increase the Scanning Level and perform the master-making operation again. ☞ p.31 For originals written with a pencil, select the Pencil mode. ☞ p.29</p>
	<p>The machine is installed or the Ink Cartridge is stored at low temperatures (below 15° C (59° F)).</p>	<p>Use the machine after keeping it at room temperature for a while.</p>

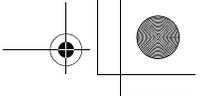
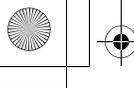
Troubleshooting

Problem	Cause	Action
The left and right print positions have been shifted.	The left and right print positions have not been adjusted for the center.	Lower the Paper Feed Tray, adjust the position, and then perform proof copy to check the position. ☞ p.37
Paper sticks to the surface of the Print Drum (Cylinder). (The \mathcal{R} indicator lights frequently.)	The margin at the top of the original or print is too small.	The margin of the original (top of the print in the paper output direction) must be 5mm ($\frac{3}{16}$ ") atleast. Lower the vertical print position. If this adjustment is impossible, reproduce an original with enough margin and perform the master-making operation again. ☞ p.13
	The print paper is inappropriate.	Use the recommended paper. ☞ p.10
	The original has a solid black portion at its top.	If an original has a solid black portion at the top, printed copies may not properly output. Replace the original in the reverse direction and restart master-making process.
Printed and curled copies are output.	The print paper is loaded at a horizontal grain direction.	Load print paper with a vertical grain direction.
Printed copies are not neatly aligned on the Paper Receiving Tray. (The \mathcal{R} indicator lights frequently.)	The positions of the Paper Receiving Tray and the Receiving Tray Paper Guides are inappropriate.	Adjust the Paper Receiving Tray and the Receiving Tray Paper Guides to the size of paper. For thick paper, slightly widen them as necessary. If you have adjusted the horizontal position on the Paper Feed Tray, shift the Receiving Tray Paper Guides in the same direction. ☞ p.22
	The positions of the Paper Jump Wings are inappropriate.	Set the Paper Jump Wings according to the size and thickness of paper. ☞ p.23

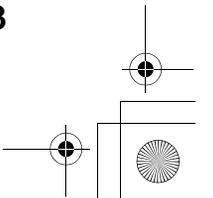
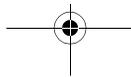
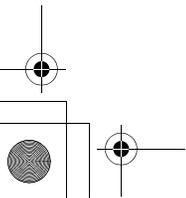
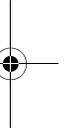
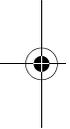
Problem	Cause	Action
Paper is not smoothly fed from the Paper Feed Tray. (No paper or piled paper is fed.)	The print paper is inappropriate.	Use the recommended paper. ☞ p.10
	The position of the Paper Feed Pressure Adjustment Lever is inappropriate.	For thick or smooth-surface paper, set the Paper Feed Pressure Adjustment Lever to the Thick paper position (). ☞ p.21
	The Paper Stripping Pressure is inappropriate.	Adjust the paper stripping pressure using the Stripper Pressure Adjustment Knob if necessary. ◆ No paper is fed. Set the Stripper Pressure Adjustment Knob to the lower position.  ◆ Piled paper is fed. Set the Stripper Pressure Adjustment Knob to the higher position.  Important!: <ul style="list-style-type: none"> • Before performing the adjustment, always remove paper from the Paper Feed Tray and check that the tray has been lowered to the bottom.
Paper frequently jams in the paper feed section even when the Paper Feed Pressure Adjustment Lever is set to the Thick paper position ().	The Paper Stripping Pressure is inappropriate.	Refer to the procedure provided for “No paper is fed” section of “Paper is not smoothly fed from the Paper Feed Tray (No paper or piled paper is fed.)”
The back of printed cards is peeling or the leading edge of the printed cards is wrinkled.	The Paper Stripping Pressure is inappropriate.	Set the Stripper Pressure Adjustment Knob to adjust the paper stripping pressure.

Troubleshooting

Problem	Cause	Action
The  indicator lights even when a paper jam has not occurred.	Lifted paper was ejected at the time of the second rotation of the Print Drum (Cylinder).	Check the printed copies, and if the top margin is less than 5 mm ($\frac{3}{16}$ "), slightly lower the print position.
	The machine is in the direct sunlight.	If sunlight is projected to the machine, the sensor does not function correctly. Use a curtain for example to shut out sunlight or move the machine to a place free from direct sunlight.
The machine repeats the master-making process for each original.	"Collate Copies" or "Collate" was selected for printer driver settings for the received document data.	Cancel the current print job and resend the document data without "Collate Copies" or "Collate" selected for the printer driver settings.
The  key blinks.	Received data is waiting for output.	Press the  key to output the data. To delete the data waiting for output, press the  key.
" - - - - " appears on the Print Quantity Display and the machine does not start.	The power was turned off when the machine was in operation.	Press the  key.



Troubleshooting



Appendixes

Optional Accessories

A variety of optional accessories are available to enhance the capabilities of the machine. For details about the optional accessories, consult your dealer.

◆ Color Drum (Cylinder)

A variety of colors (colours) are available, such as blue, red, green, and brown. Store a drum (cylinder) in its own case.

◆ Job Separator

With the Programed Printing function, allows the machine to print and sort into groups separated by tape.

◆ Printer Control Board RISORINC3N

Use to connect a computer to the machine using a parallel cable.

◆ RISO PRINTER Network Interface Card RISORINC-NET

Use to directly connect the machine to the network.

This comes with the RISO-MONITOR software that allows you to check the status of the machine from computers.

Specifications

RISO CZ180

Feature	Unit of mm	Unit of inch
Master-making/ printing methods	High-speed digital master-making / fully automatic stencil printing	
Original Type	Sheet	
Original Size	Max. 310 mm × 435 mm Min. 90 mm × 140 mm	Max. 12 ³ / ₁₆ " × 17 ¹ / ₈ " Min. 3 ⁹ / ₁₆ " × 5 ¹⁷ / ₃₂ "
Original Paper Weight	50 g/m ² -107 g/m ²	14-lb bond to 59-lb index
Original paper capacity	10 originals (64 g/m ² , up to 1 mm high)	10 originals (17-lb bond, up to ³ / ₆₄ " high)
Print Paper Size	Max. 297 mm × 420 mm Min. 100 mm × 148 mm	Max. 11 ¹¹ / ₁₆ " × 16 ¹⁷ / ₃₂ " Min. 3 ¹⁵ / ₁₆ " × 5 ²⁷ / ₃₂ "
Paper Supply Capacity	1000 sheets (64 g/m ²)	1000 sheets (17-lb bond)
Paper Receive Capacity	800 sheets (64 g/m ²)	800 sheets (17-lb bond)
Print Paper Weight	50 g/m ² -157 g/m ²	14-lb bond to 87-lb index
Image Processing Mode	Line, Photo, Duo, Pencil	
Master-making Time	Approx. 37 sec. (for A4/portrait/100% reproduction ratio)	
Printing Area	Max. 251 mm × 357 mm	Max. 8 ¹ / ₄ " × 13 ³ / ₄ "
Print Reproduction Ratio	100% reproduction ratio Standard reproduction ratio(enlargement): 141%, 122%, 116% Standard reproduction ratio(reduction): 94%, 87%, 82%, 71%	100% reproduction ratio Standard reproduction ratio(enlargement): 154%, 129%, 121% Standard reproduction ratio(reduction): 94%, 78%, 65%, 61%
Print Speed	Approx. 60-130 pages per minute (three steps variable)	
Print Position Adjustment	Vertical: ±10 mm Horizontal: ±10 mm (for B4 portrait in center position)	Vertical: ± ³ / ₈ " Horizontal: ± ³ / ₈ " (for Legal portrait in center position)
Ink Supply	Fully automatic (800 ml per cartridge)	
Master Supply/ Disposal	Fully automatic (approx. 200 sheets per roll)	
Master Disposal Capacity	30 sheets	
User Interface	LED panel	
Optional Accessories	Color Drum (Cylinder), Job Separator, Network Interface Card RISORINC-NET, Printer Control Board RISORINC3N	

Appendixes

Feature	Unit of mm	Unit of inch
Power Source	CZ180 : 220-240V~, 50-60 Hz, 1.0 A CZ180(120) : 100-120V~, 50-60 Hz, 2.0 A	
Dimensions	When in use: 1270 mm (W) × 645 mm (D) × 510 mm (H) When in storage: 655 mm (W) × 645 mm (D) × 500 mm (H)	When in use: 50" (W) × 25 ³ / ₈ " (D) × 20 ⁵ / ₈ " (H) When in storage: 25 ²⁵ / ₃₂ " (W) × 25 ³ / ₈ " (D) × 19 ¹¹ / ₁₆ " (H)
Weight	Approx. 62 kg	Approx. 137 lb

Notes

- As we are constantly improving our products, the machine may differ in some respects from the illustrations used in this manual.
- The specifications are subject to change without prior notice.

RISO CZ100

Feature	Unit of mm	Unit of inch
Master-making/ printing methods	High-speed digital master-making / fully automatic stencil printing	
Original Type	Sheet	
Original Size	Max. 310 mm × 435 mm Min. 90 mm × 140 mm	Max. 12 ³ / ₁₆ " × 17 ¹ / ₈ " Min. 3 ⁹ / ₁₆ " × 5 ¹⁷ / ₃₂ "
Original Paper Weight	50 g/m ² -107 g/m ²	14-lb bond to 59-lb index
Original paper capacity	10 originals (64 g/m ² , up to 1 mm high)	10 originals (17-lb bond, up to ³ / ₆₄ " high)
Print Paper Size	Max. 257 mm × 364 mm Min. 100 mm × 148 mm	Max. 8 ¹ / ₂ " × 14" Min. 3 ¹⁵ / ₁₆ " × 5 ²⁷ / ₃₂ "
Paper Supply Capacity	1000 sheets (64 g/m ²)	1000 sheets (17-lb bond)
Paper Receive Capacity	800 sheets (64 g/m ²)	800 sheets (17-lb bond)
Print Paper Weight	50 g/m ² -157 g/m ²	14-lb bond to 87-lb index
Image Processing Mode	Line, Photo, Duo, Pencil	
Master-making Time	Approx. 37 sec. (for A4/portrait/100% reproduction ratio)	
Printing Area	Max. 210 mm × 290 mm	Max. 8 ¹ / ₄ " × 10 ³ / ₄ "
Print Reproduction Ratio	100% reproduction ratio Standard reproduction ratio(enlargement): 141%, 122%, 116% Standard reproduction ratio(reduction): 94%, 87%, 82%, 71%	100% reproduction ratio Standard reproduction ratio(enlargement): 154%, 129%, 121% Standard reproduction ratio(reduction): 94%, 78%, 65%, 61%
Print Speed	Approx. 60-130 pages per minute (three steps variable)	
Print Position Adjustment	Vertical: ±10 mm Horizontal: ±10 mm (for B4 portrait in center position)	Vertical: ± ³ / ₈ " Horizontal: ± ³ / ₈ " (for Legal portrait in center position)
Ink Supply	Fully automatic (800 ml per cartridge)	
Master Supply/ Disposal	Fully automatic (approx. 235 sheets per roll)	
Master Disposal Capacity	30 sheets	
User Interface	LED panel	
Optional Accessories	Color Drum (Cylinder), Job Separator, Network Interface Card RISORINC-NET, Printer Control Board RISORINC3N	
Power Source	100-120V~, 50-60 Hz, 2.0 A 200-240V~, 50-60 Hz, 1.0 A	

Appendixes

Feature	Unit of mm	Unit of inch
Dimensions	When in use: 1270 mm (W) × 645 mm (D) × 510 mm (H) When in storage: 655 mm (W) × 645 mm (D) × 500 mm (H)	When in use: 50" (W) × 25 ³ / ₈ " (D) × 20 ⁵ / ₈ " (H) When in storage: 25 ²⁵ / ₃₂ " (W) × 25 ³ / ₈ " (D) × 19 ¹¹ / ₁₆ " (H)
Weight	Approx. 62 kg	Approx. 137 lb

Notes

- As we are constantly improving our products, the machine may differ in some respects from the illustrations used in this manual.
- The specifications are subject to change without prior notice.

Index

Symbols

* Key	16
+ Key	16
× Key	16

Numerics

2-UP Indicator	17, 34
2-UP Key	17, 34
2-Up Printing	32
2-Up Printing Interval Time	52

A

ADF Unit	14, 65
Adjusting the Vertical Position	37
Auto Clear Time	52
Auto Scanning Level Adjustment Indicator	17
Automatic Sorting	40
Auto-Process	35
Auto-Process Indicator	16, 35
Auto-Process Key	16, 35

B

Basic Process	18
Beep Sound	52

C

C Key	16
Call Service Indicator	68, 74
Check & Error Display	16, 68
Check Settings Indicator	68, 72
Confidential	51
Confidential Indicator	17, 51
Confidential Key	17, 51
Connection with a Computer	9
Control Panel	16
Counter	15
Custom Indicator	17
Custom Key	17
Custom Setting Mode	52, 54
Custom Setting Mode Indicator	54

D

Disposal of Consumables	61
Disposal of Ejected Master	61
Disposal of Ink Cartridge	61
Disposal of Master Core	61
Duo (Image Processing Mode)	28

E

Empty Disposal Box Indicator	60, 68, 74
Emptying the Master Disposal Box	60
Enlargement	30
Error Location Indicator	68
Error Number Display	16, 68
Error Type Indicator	68

F

Feed Tray Descent Key	17, 22, 37
Feed Tray Paper Guide	14, 20
Feed Tray Paper Guide Lock Lever	14, 20
Feed Tray Paper Guide Lock Levers	37
Free Reproduction Size Ratio	33
Function and Name of Each Part	14

G

Groups	40
--------------	----

H

Horizontal Print Position Adjustment	37
--	----

I

i Indicator	16, 68, 75
Idling	53
Image Processing Mode	28
Image Processing Selection Indicator	17, 28
Image Processing Selection Key	17, 28
Initial Settings	52
Ink	8
Ink Cartridge	15, 56
Ink Cartridge Holder	15
Ink Indicator	68, 74
Installing the Print Drum (Cylinder)	62
Interface Indicator	17, 26
Interface Key	17, 26

J

Jam Indicator	68, 69
Job Separator	41

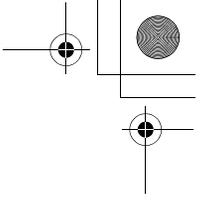
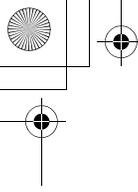
L

Line (Image Processing Mode)	28
Loading Paper	20

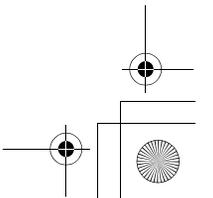
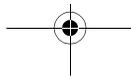
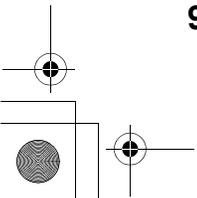
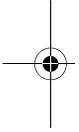
M

Main Control Panel	14, 16
Maintenance	64
Maintenance Call Indicator	68, 74
Master Disposal Box	14, 60
Master Disposal Box Release Lever	14
Master Disposal Unit (Receiving Originals)	14
Master Disposal Unit Release Lever	14
Master Guide Flap	59
Master Indicator	68, 74
Master Making Unit Cover	15, 58
Master Making Unit Cover Lever	58
Master Making Unit Handle	15
Master Roll	15
Master Roll Lock Lever	15, 58
Master-Making/Print Changeover Indicator	16
Master-Making/Print Changeover Key	16
Maximum Printing Areas	13
Minimum Print Quantity	52

O	
Optional Accessories	84
Original Guide	14
Original Release Lever	14, 71
Original Stopper	14
Original Tray	14, 20
Originals	12
Originals written with Pencils	29
P	
P Indicator	16, 42, 44, 46, 47, 48, 49
P Key	16, 42, 44, 46, 47, 48, 49
Paper Feed Pressure Adjustment Lever	14, 21
Paper Feed Tray	14, 20
Paper Jump Wing	15, 23
Paper Receiving Tray	15
Paper Recommendations	10
Paper Stripping Pressure Adjustment Knob	21
Pencil Mode Indicator	17, 29
Pencil Mode Key	17, 29
Photo (Image Processing Mode)	28
Placing an original	24
Power Switch	15, 24
Preparing	20
Pressure Roller	66
Print Drum (Cylinder)	15
Print Drum (Cylinder) Handle	56, 62
Print Drum (Cylinder) Lever	15
Print Drum (Cylinder) Pullout Indicator	56, 62
Print Drum (Cylinder) Pullout Key	56, 62
Print Drum (Cylinder) Release Indicator	17
Print Drum (Cylinder) Release Key	17
Print Position Adjustment	37
Print Position Adjustment Indicator	16, 37
Print Position Adjustment Keys	16, 37
Print Position Center Key	37
Print Quantity Display	16
Print Quantity Keys (0 to 9 Keys)	16
Print Speed Adjustment	38
Print Speed Adjustment Indicator	16, 38
Print Speed Adjustment Key	16, 38
Printing Data from the Computer	26
Printing from a Paper Document	24
Program	40
Program A	40
Program B	40
Proof	36
Proof Key	16, 36
R	
Receiving Tray Paper Guides	15, 22
Reduction	30
Removing and Installing the Print Drum (Cylinder)	62
Replacing the Consumables	56
Replacing the Ink Cartridge	56
Replacing the Master Roll	58
Reproduction Size Selection Key	17, 30
Reset Key	16
S	
Safety Guide - Handling and Operation	7
Safety Guide - Installation	6
Safety Guide for Cleaning	64
Same Size Key	17
Scanner Glass	14, 65
Scanning Level	31
Scanning Level Adjustment Indicators	17, 31
Scanning Level Adjustment Key	17
Scanning Level Adjustment Keys	31
Semi-Auto	53
Separated by Tape	53
Setting up Paper Feed Tray	20
Setting up the Paper Receiving Tray	22
Single-Original Printing	32
Specifications	85
Standard Ratios	30
Start Indicator	16
Start Key	16
Stop Key	16
Stripper Pressure Adjustment Knob	14, 81
Sub Control Panel	14, 17
T	
The Exterior	67
Thermal Print Head	64
Troubleshooting	77
Two-Original Printing	32
V	
Vertical Print Position Center Key	16
W	
White Sheet	14, 65



Index



For CZ180(120) and CZ100

Duplicator

Model: CZ180(120) and CZ100

RFID System

Model: 042-50501

Contains FCC ID: RPARFA4

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The user is cautioned that unauthorized changes or modifications not approved could the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Contains IC: 4819A-RFA4

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Perchlorate Material-special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate

This product may contain certain substances which are restricted when disposed.

Therefore, be sure to consult your contracted service dealer.

MASCHINENLÄRM INFORMATION

Maschinenlärminformations-Verordnung 3. GSGV:

Der höchste Schalldruckpegel beträgt 70 dB(A) oder weniger gemäß EN ISO 7779.

Hinweis :

Das Gerät ist nicht für die Benutzung am Bildschirmarbeitsplatz gemäss BildscharbV vorgesehen.

For CZ180 and CZ100



Countries of intended use

Austria/Belgium/Denmark/Finland/France/Germany/Greece/Iceland/Ireland/

Italy/Luxembourg/Netherlands/Norway/Portugal/Spain/Sweden/Switzerland/U.K.

- This product contains RFID (Radio Frequency Identification) System.

Notice for European Union Member States

RISO, the environment and the Waste Electrical and Electronic Equipment Directive "WEEE Directive"

What is the WEEE Directive?

The purpose of the WEEE Directive is to reduce waste and ensure Electrical and Electronic Equipment is recycled at the end of its useful life.



What does the crossed out wheeled bin symbol mean?

The crossed out wheeled bin symbol indicates this product must be disposed of separately to normal waste.

Please contact your RISO service agent for information about disposal.

What does the solid bar symbol mean?

The solid bar under the crossed out wheeled bin indicates this product was put on the market after the 13th August 2005.

Who should I contact if I want more information about the WEEE Directive?

You should contact your local RISO service agent for more information.