RISO CV Series

User's Guide

3230/3130/3030

RISO

For CV3230(120)
Duplicator
Model: CV3230(120)
RFID System
Model: 050-34901
Contains FCC ID: RPARFR6
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-RFA6
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.
CAN ICES-3(B)/NMB-3(B)

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.

For CV3230, CV3130, and CV3030
This product contains RFID (Radio Frequency Identification) System.

$\mathsf{C}\mathsf{E}$

R&TTE directive Class1 device
Riso Kagaku Corporation London Office, 610 Centennial Park, Centennial Avenue, Elstree, Herts, WD6 3TJ U.K.

Für CV3230, CV3130 und CV3030 Modelle
MASCHINLÄRMINFORMATION
Maschinenlärminformations-Verordnung - 3. GPSGV, der höchste Schalldruckpegel beträgt 70 dB(A) oder weniger gemäss EN ISO 7779.
Hinweis: Das Gerät ist nicht für die Benutzung am Bildschirmarbeitsplatz gemäss Bildscharb V vorgesehen.

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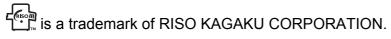**Riso shall not be liable for any direct, incidental, or consequential damages of any nature, or losses or expenses resulting from the use of this product or included manuals.**

⚠**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 i Quality System™ 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.**

Contents

Functions for Printing   38

Advanced Features   42

Replacing and Disposing Consumables   60

Maintenance   68

Troubleshooting   72

Appendixes   90

Preface

Thank you for purchasing this printing machine. It produces clear prints with easy key operations.
Besides its 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, and use the manual together with your machine.

About the notations in the explanatory note

The following icons are used throughout the document.

⚠ **WARNING**	**Ignoring this warning could cause death or serious injury.**
⚠ **Caution**	**Ignoring this caution could cause injury or damage to property.**
Important!	Indicates items that require special attention or that are prohibited actions. Read carefully and follow the directions as instructed.
Note	Gives you useful information.
Tip	Gives you additional hints for more convenience.
☞	Indicates a reference page.
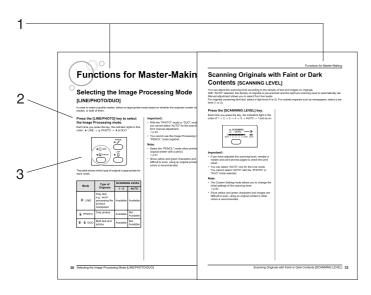
About the notations for operations and machine functions

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 in this manual

Master Making: An operation which uses an original page to make a master
Print: An operation which uses a master of an original and prints it on paper
Default Setting: The setting values when the machine is turned on

About the content in this manual

- Illustrations of the machine's outlines and control panels are based on CV3230.
- Units of length are shown in both metric and inch formats.
- Units of weight are shown in both g/m^2 and lb bond/lb index.

Before Starting Use

Safety Guide - Installation

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

Note:

- Your dealer (or authorized service representative) 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.
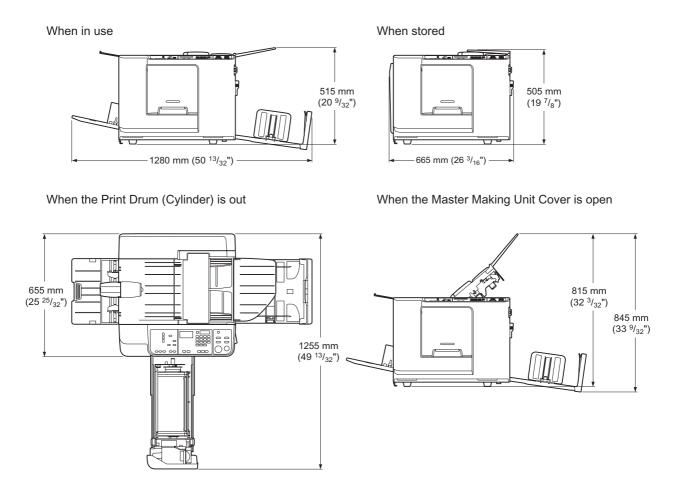
⚠**Caution:**

- Install the machine near the electrical outlet to avoid using an extension cord between the machine and the electrical outlet.
- Keep the machine away from dusty environments. Failure to do so may result in fire.
- Install the machine in a well-ventilated area.
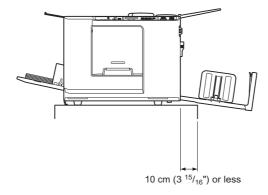
Important!:

- Select an installation location where the machine can be installed in a flat position without inclination. (Levelness of floor: Inclination of the floor should not surpass 10 mm ($^{13}/_{32}$") over the total area where the machine is installed.)
- 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
  - Poorly ventilated locations

• The amounts of free space noted below are necessary in order to extend the Paper Feed Tray and Paper Receiving Tray, to pull out the Print Drum (Cylinder), etc.

When in use

515 mm (20 $9/32$")

1280 mm (50 $13/32$")

When stored

505 mm (19 $7/8$")

665 mm (26 $3/16$")

When the Print Drum (Cylinder) is out

655 mm (25 $25/32$")

1255 mm (49 $13/32$")

When the Master Making Unit Cover is open

815 mm (32 $3/32$")

845 mm (33 $9/32$")

• The distance from the right side of the machine to the right edge of the stand (desk, etc.) should be 10 cm (3 $15/16$") or less. If the distance is greater than 10 cm (3 $15/16$"), the stand will interfere with the Paper Receiving Tray and it will not be possible to set the tray up correctly.

10 cm (3 $15/16$") or less

Power connection

⚠WARNING:

- Use the machine's rated voltage value. Also, plug into an electrical outlet with a capacity larger than the rated current value.
  For the rated voltage value and rated current value, check the "Power Source" entry of the Specifications at the end of this manual.
- Do not overload the electrical outlet or extension cord, nor 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 in or unplug the power cord if your hands are wet. This can result in electric shock.

⚠Caution:

- Unplug the power cord from the electrical outlet more than once a year and clean the prongs of the plug and their surroundings. Dust collected on 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.

Grounding

⚠Caution:

- Ensure a power plug with a ground conductor is inserted into the wall outlet for proper grounding.
- When the machine is not grounded, a short circuit may occur, resulting in fire or electric shock.

Safety Guide - Handling and Operation

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

Operation Environment

Important!:
- Operate the machine under the following 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 use combustible spray and flammable solvent near the machine.
  If sprayed gas and flammable solvent contact electronic components inside the machine, fire or electric shock might occur.
- 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 dealer (or authorized service representative). Failure to do so can result in fire or electric shock.
- If something drops inside the machine, immediately turn off the power, unplug the power cord and contact your dealer (or authorized 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 dealer (or authorized service representative) before moving the machine.

⚠️**Caution:**
- Never insert fingers, etc. into the openings around the Paper Feed Tray or the Paper Receiving Tray. This can result in injury.
- Do not touch the moving parts of the machine. This may cause injury.
- When you insert a hand inside the machine to remove paper, etc., be careful not to touch protruding objects or the edges of the plates. This may cause injury.
- Be careful not to touch the areas around the Print Drum (Cylinder) or inside the machine when the Print Drum (Cylinder) is removed, as ink may be present on those areas.
  If ink gets on your hands, etc., wash it off with soap as soon as possible.
- The tips of the paper separation hook and master removal hooks are sharp. When you insert a hand inside the machine to remove paper, be careful not to touch the paper separation hook or master removal hooks. Doing so may cause injury.
- Do not open any covers or move the machine during operation.
- Unplug the power cord, if you do not plan to use the machine for a long time.
- The machine has precision parts and moving parts inside. Do not handle the machine in other ways than described in this manual.
- Do not subject the machine to physical shock.
- Do not stand the Print Drum (Cylinder) vertically. Doing so may dirty the floor, etc.
- Allow plenty of ventilation during printing.

Important!:
- Do not unplug the power cord or turn off the power during operation.
- Be sure to open and close all machine covers gently.

USB Flash Drive

Important!:
- Use a USB Flash Drive that is compatible with the Mass Storage Class. Depending on the type of USB Flash Drive, the machine may not work properly.
- When connecting or disconnecting the USB Flash Drive, follow the proper procedures.
- We cannot guarantee data saved in the USB Flash Drive against loss caused by accidents or unforeseen events. We recommend that you use your computer to make back-up copies of any important documents.

Consumables

Important!:
- For the Ink and Master Rolls, it is recommended to use the products specified by Riso.
- Genuine RISO Inks and Master Rolls are engineered for maximum performance and maximum life, and RISO equipment is designed to give excellent performance when used with genuine RISO consumables.
  However, all consumables can and do deteriorate over time. We recommend that you use Ink and Master Rolls as soon as possible after purchase, and within 18 months of the date of manufacturing.
  You can find the date of manufacturing on the Ink Cartridge or the inside of Master Core.
  RISO genuine consumables transmit information regarding the age of the consumables that allows the machine to make adjustment based on the age of the consumables, e.g., time remaining until the Use By date.
- Store consumables such as Master Rolls and Ink properly.
  Do not store the 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, curtain the window.)
  – Locations that are subject to rapid changes in temperature
  – Extremely hot and humid locations or extremely cold and dry locations

  For more details, please read the packaging of the consumables.

Ink Handling

⚠**Caution:**
- If ink gets into your eyes, flush it out immediately with plenty of water. If irritation continues, seek medical attention.
- If ink comes into contact with your skin, wash it off thoroughly using soap.
- If someone swallows ink by mistake, force large quantities of water (or milk) without inducing vomiting, and watch his/her condition.
- 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

You can directly send original print data from a connected computer to the machine. The machine produces outstanding prints as a result of using digital data to make a master.
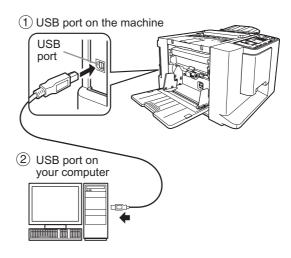
Connection Method

◆ Connection with a Windows PC

- Cable:
  USB cable
  2 m (6.6 feet) or less

Important!:

- Before connecting the USB cable, turn on the machine and computer, and wait until the initial screen is displayed.
- The maximum allowable voltage for USB connector input and output is 5 V.
- For the USB connections, use a commercially available USB cable (that conforms to the USB 2.0 standard).

① USB port on the machine

USB port

② USB port on your computer

Paper Recommendations

Size and Weight Restrictions

The table shows the specifications of usable print paper.

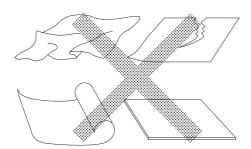| Model	Usable Printing Paper		
	Type	Size	Weight
CV3230/3130	mm	100 mm × 148 mm to 297 mm × 420 mm	50 g/m^2 to 157 g/m^2
	inch	3 $^{15}/_{16}$" × 5 $^{13}/_{16}$" to 11 $^{11}/_{16}$" × 16 $^{17}/_{32}$"	13-lb bond to 42-lb bond
CV3030	mm	100 mm × 148 mm to 257 mm × 364 mm	50 g/m^2 to 157 g/m^2
	inch	3 $^{15}/_{16}$" × 5 $^{13}/_{16}$" to 10 $^{1}/_{8}$" × 14 $^{11}/_{32}$"	13-lb bond to 42-lb bond

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.15).
- 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. (☞p.15) (For CV3230/3130)
- 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/m^2 (13-lb bond))
- Extremely thick or heavy paper (greater than 157 g/m^2 (42-lb bond))
- Wrinkled, curled, folded, or torn paper
- Chemically treated paper (such as thermal or carbon paper)
- Paper coated on its face or back surface
- Paper with 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, paper feeding and print quality with such paper are not guaranteed.
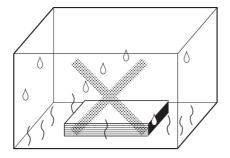
Tips for Better Paper Feeding

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 Jumping Wing according to the paper size. (☞p.23)
- 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.23)
- 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.23)
- Always set the Feed Tray Paper Guide and the Receiving Tray Paper Guide according to the print paper size.(☞p.22)
- 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 rotating the original.

Storage 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.

Originals

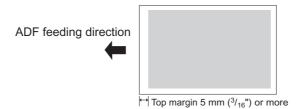## Size and Weight Restrictions

Usable originals are as follows.

Type	Size	Weight
mm	90 mm × 140 mm to 310 mm × 435 mm	50 g/m² to 107 g/m²
inch	3 $^{17}/_{32}$" × 5 $^1/_2$" to 12 $^7/_{32}$" × 17 $^1/_8$"	13-lb bond to 29-lb bond

Note:
- If the original image size is larger than the maximum printing area, 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.
- 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 (13-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 (29-lb bond))

Margins

- Include at least a 5 mm ($^3/_{16}$") margin on the top side of the original, since this area is left blank on the print result.
- Include some margins around the original, since a printing area larger than the print paper stains the Pressure Roller and smudges the paper.

ADF feeding direction

Top margin 5 mm ($^3/_{16}$") or more

Important!:
- If the original area is larger than the print paper, always reduce the original to fit it inside of the margins.

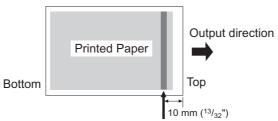# Maximum Printing Areas

The maximum printing areas are as follows.

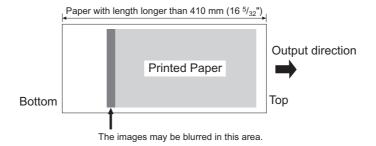| Model	Type	Maximum Printing Area	Usable Maximum Print Paper Size
CV3230	mm	251 mm x 357 mm	297 mm x 420 mm
	inch	8 $9/32$" $\times$ 13 $3/4$"	11 $11/16$" $\times$ 16 $17/32$"
CV3130	mm	210 mm x 357 mm	297 mm x 420 mm
	inch	8 $9/32$" $\times$ 13 $3/4$"	11 $11/16$" $\times$ 16 $17/32$"
CV3030	mm	210 mm x 290 mm	257 mm x 364 mm
	inch	8 $9/32$" $\times$ 10 $3/4$"	10 $1/8$" $\times$ 14 $11/32$"

Note:
- If print paper is sticking to the Print Drum (Cylinder), smudges are appearing 10 mm ($13/32$") from the top, etc., include a margin 10 mm ($13/32$") or larger at the top.
  Use one of the two methods below to do so.

  – Move the print position towards the bottom with Print Position Adjustment.

  – Extend the margin on the original to 10 mm ($13/32$") or more from the top and remake the master.

The images may be blurred in this area.

CV3230/3130
- 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.
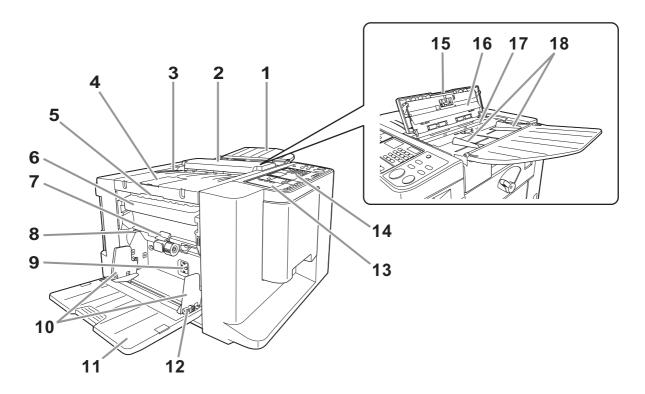

The images may be blurred in this area.

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.

Getting Acquainted

Function and Name of Each Part

1) **Original Tray (☞p.22)**
   Place an original face down.

2) **ADF Unit**
   Automatically feeds the original from the Original Tray to the Scanner.

3) **Master Disposal Unit (Receiving Originals)**
   The scanned original is ejected.

4) **Original Stopper**
   Stops an original scanned by the ADF unit.

5) **Master Disposal Unit Release Lever**
   Grasp the lever to open the Master Disposal Unit when the master jams or others.

6) **Master Disposal Box (☞p.64)**
   Holds discarded masters.

7) **Master Disposal Box Release Lever (☞p.64)**
   Push down the lever when pulling out the Master Disposal Box when the box is filled with discarded masters.

8) **Paper Feed Pressure Adjustment Lever (☞p.23)**
   Adjusts the paper feed pressure according to the paper in use.

9) **Stripper Pressure Adjustment Knob (☞p.23)**
   Adjusts the paper stripping pressure according to paper in use.

10) **Feed Tray Paper Guides (☞p.22)**
    Hold and guide paper. Slide to fit to the sides of paper.

11) **Paper Feed Tray (☞p.22)**
    Load print paper on this tray.

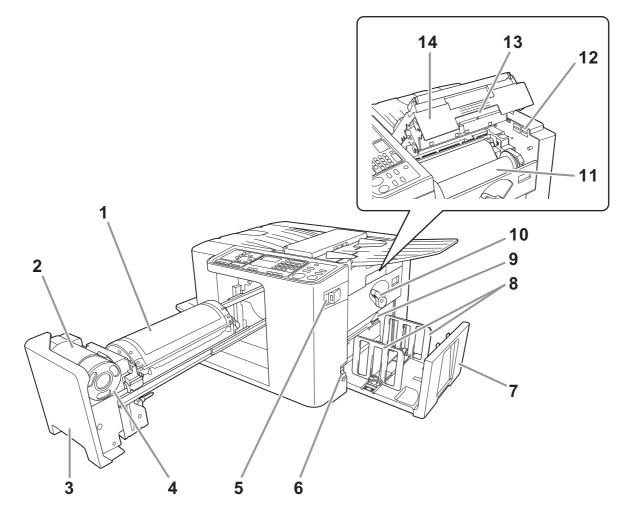12) **Feed Tray Paper Guide Lock Levers (☞p.22)**
    Locks the Feed Tray Paper Guides.

13) **Sub Control Panel (☞p.19)**

14) **Main Control Panel (☞p.18)**

15) **Original Release Lever**
    Use the lever to open the ADF Unit if paper jams or originals need to be repositioned.

16) **White Sheet**

17) **Scanner Glass**

18) **Original Guides**
    Hold and guide originals on the Original Tray. Slide to fit to the sides of originals.

1) **Print Drum (Cylinder) (☞p.66)**

2) **Ink Cartridge Holder**

3) **Print Drum (Cylinder) Handle (☞p.60)**
Pull out the Print Drum (Cylinder) by holding this handle.

4) **Ink Cartridge (☞p.60)**

5) **USB Slot (☞p.29)**
Connect the USB Flash Drive.

6) **Power Switch (☞p.26)**
Turns the machine power ON or OFF.

7) **Paper Receiving Tray (☞p.24)**
The printed copies are output to this tray.

8) **Receiving Tray Paper Guides (☞p.24)**
Aligns printed paper neatly. Slide according to the width of paper before printing.
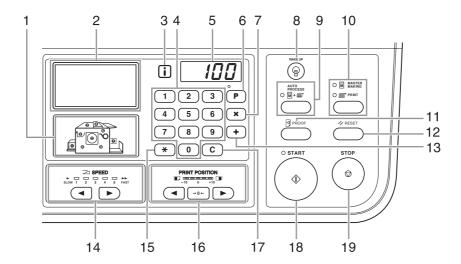
9) **Paper Jumping Wing (☞p.25)**
Adjust according to the finish and size of paper in order to align printed paper.

10) **Master Roll Lock Lever (☞p.62)**
Locks the Master Roll in position.

11) **Master Roll (☞p.62)**

12) **Counter**
Counts the number of pages (Total Print Counter) and the number of made masters (Master Counter).

13) **Master Making Unit Handle (☞p.62)**
Unlock the handle to open the Master Making Unit.

14) **Master Making Unit Cover (☞p.62)**
Open the cover to mount the Master into position.

Control Panel

1) Error Location Indicator (☞p.72)
Numbers correspond to error locations.

2) Display (☞p.20)

3) ⓘ Indicator (☞p.72)

4) Numeric Keys
Use to enter the number of pages to be printed or to enter other numeric values.

5) Numeric Display
Shows the number of printed pages, numeric values entered for various settings, and error numbers.

6) [P] Key / Indicator (☞p.44)
Use to set up and retrieve programs. (programed printing)
When activated, the indicator above the key lights.

7) [×] Key
Use when setting up for programed printing.

8) [WAKE UP] Key
Wakes up the printer in Energy Saving mode.

9) [AUTO PROCESS] Key / Indicator (☞p.37)
Performs non-stop operation from master-making through printing.
When activated, the indicator above the key lights.

10) [MASTER MAKING/PRINT] Key / Indicator
Switches 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.

11) [PROOF] Key (☞p.38)
Use when you want to check print results, for example after adjusting the print position.
This allows you to print sample copies without affecting the value on the Numeric Display.

12) [RESET] Key
Returns all settings to the initial settings.

13) [+] Key
Use when setting up for programed printing or when changing the initial settings.

14) [SPEED] Keys / Indicator (☞p.40)
Use to select the print speed from five levels.
The indicator above the key shows the current speed level.

15) [✳] Key
Use to perform programed printing or to display the error number if an error occurrs.

16) [PRINT POSITION] Keys / Indicator (☞p.39)
Adjusts the print position in the vertical direction (within 10 mm ($^{13}/_{32}$")) after making a master.
The indicator above the keys shows the offset amount from the center.
To clear the offset amount, press [→0←].

17) [C] Key
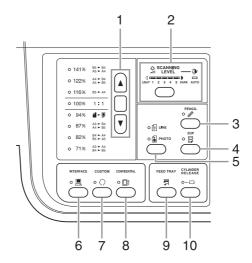Cancels entered numeric values or resets the counter to zero.

18) [START] Key / Indicator
Starts the master-making or printing process, or executes specified operations.
The key is lit only when the key is active.

19) [STOP] Key
Stops operation in progress.

1) Reproduction Size Selection Key (☞p.32)

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] Key / Indicator (☞p.33)

Selects an original scanning level.
The indicator above the key shows the current scanning level.

3) [PENCIL] Key / Indicator (☞p.31)

Select for an original written using a pencil.
Each time you press the key, the function is switched between on and off.
When activated, the indicator above the key lights.

4) [2UP] Key / Indicator (☞p.36)

Allows side-by-side printing on a single page.
Each time you press the key, the function is switched between on and off.
When activated, the indicator above the key lights.

5) [LINE/PHOTO] Key / Indicator (☞p.30)

Each time you press the key, the Image Processing mode is changed.

6) [INTERFACE] Key / Indicator (☞p.28)

Use to select the Online or Offline mode when interfaced with a computer.
The Online and Offline modes are switched each time the key is pressed.
The indicator above the key lights when Online mode is selected.

7) [CUSTOM] Key / Indicator (☞p.57)

Activates the "Custom Setting Mode".
When activated, the indicator above the key lights.

8) [CONFIDENTIAL] Key / Indicator (☞p.52)

Prevents confidential documents from being copied.
Each time you press the key, the function is switched between on and off.
When activated, the indicator above the key lights.
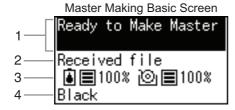
9) [FEED TRAY] Key (☞p.24)

Press the key to lower the Paper Feed Tray if you replace paper or if you remove the Master Disposal Box when it is filled.

10) [CYLINDER RELEASE] Key / Indicator (☞p.60)

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, so you can pull out the Print Drum (Cylinder).

Basic Screen Layout of the Display

The name and function of each area of all Basic Screens are described below.

Master Making Basic Screen

```
Ready to Make Master

Received file
▣100% ◎▣100%
Black
```
1 —
2 —
3 —
4 —

Print Basic Screen

```
Ready to Print

▣ ◁▷
▣100% ◎▣100%
Black
```
5 —

1) Message Area

Displays operation guidance and the status of the machine.

2) Job Information

When data has been acquired from a computer or USB Flash Drive, "Received file" is displayed.
In other cases, the display will be empty.

3) Consumables Information

The indicator icons and the percentage displays change in accordance with the remaining amounts of consumables.

▣: Ink remaining amount

◎: Master remaining amount

Display	Remaining amount
▤ 100%	91% or more
▤ 90%	71-90%
▤ 70%	41-70%
▢ 40%	11-40%
▢ 10% (blinks)	10% or less

4) Ink Color

The ink color set for the machine is displayed.

5) Vertical Print Position

You can check the current print position in the vertical direction.
☞p.39

Icon	Position
▣ ◁▷	Shifted downward
▣ ◁▷	In original position
▣ ◁▷	Shifted upward

Note:

In cases when information about the master roll or ink cartridge cannot be acquired, the status is indicated in the following ways.

• ▣/◎: Blinking
• Color name: Shown as "Black" or "Color" and blinking
• ⓘ Indicator: ☞p.72

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

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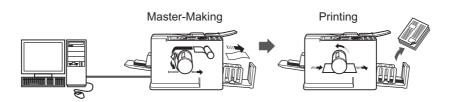After a while, a sample copy is created. After checking the print result, enter the number of pages to be printed and start printing.

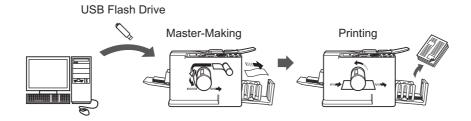## ◆ Process for printing from computer data

[Direct Printing]

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).

[USB Flash-via-Printing]

A USB slot for connecting a USB Flash Drive is supplied with this machine so that you can print using a USB Flash Drive with the original data even if the computer and machine are not connected with a cable.
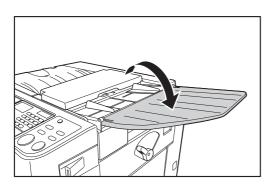

Note:

• First, install a proper printer driver on your computer. See the RISO Printer Driver User's Guide for installation details.

• This manual provides only a summary of the functions available when printing from a computer.
See RISO Printer Driver User's Guide for further details about sending data and other settings.
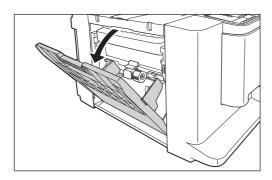
Basic Operations

Preparing to Print

Setting the Original Tray

Open the Original Tray to the outer side.

Setting up the Paper Feed Tray and Loading Paper
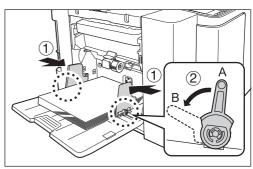
1 **Open the Paper Feed Tray.**

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.12) for appropriate paper.

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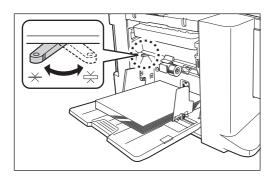

A: Unlock
B: Lock

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 the paper.
  Otherwise paper feeding may fail.
- Paper of B4/Legal size or smaller can pass through the CV3030. 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.
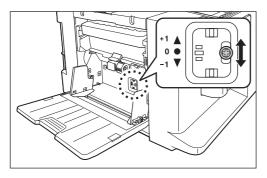
3 **Select the paper feed pressure and paper stripping pressure.**

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

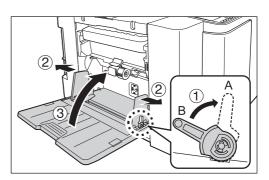**Paper Feed Pressure Adjustment Lever**

✕ : 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 the 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.
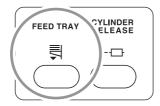
A: Unlock
B: Lock

Adding or Replacing Paper

To add paper or replace with paper of a different size at the time of printing, press the [FEED TRAY] key on the Control Panel to lower the Paper Feed Tray.
When the tray runs out of paper or you remove all the paper, the tray is automatically lowered to the bottom.
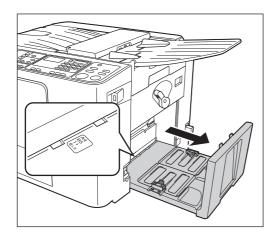

Important!:

- 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.

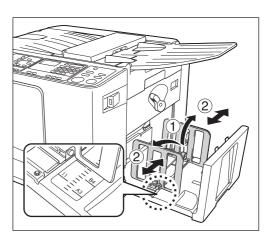# Setting up the Paper Receiving Tray

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

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

2 Position the Receiving Tray Paper Guides.

Raise the Receiving Tray Paper Guides, holding the 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 accordingly. If the guides are not correctly positioned, a problem such as a paper jam can occur.
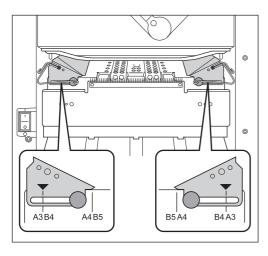
3   Adjust the Paper Jumping Wing.

Adjust the Paper Jumping Wing according to the paper size.
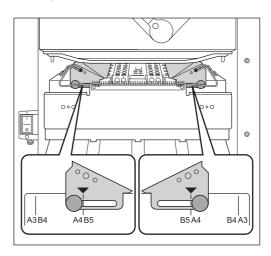
Loosen the setscrew for each Paper Jumping Wing, and set the "Y" mark to an appropriate position. Then, tighten each setscrew to fix each Paper Jumping Wing.

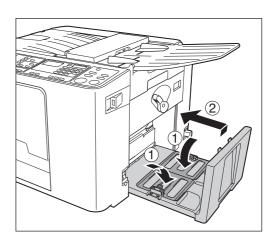| Paper Size	Paper Jumping Wing position
B4 and larger	B4 A3
Smaller than B4	B5 A4

◆ B4 and larger paper

◆ Paper smaller than B4

Closing the Paper Receiving Tray

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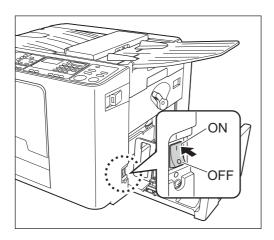

Important!:

- If the Receiving Tray Paper Guides are outside of the B4/A3 paper positions, slide them to the B4/A3 paper positions and fold them inward.

Printing from a Paper Document

1 **Turn the power switch to [|] (ON).**

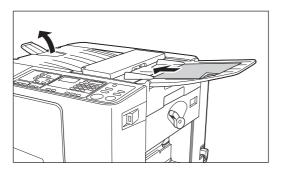The power switch is located on the lower right side of the machine.

2 **Check the display.**

Check that no errors are indicated.
☞p.72

3 **Place an original face down.**

Adjust the Original Guide to the width of the origi-
nals, and place the originals face down.
When multiple originals are placed on the Original
Tray, the bottom original is scanned first.
To place an A3/Ledger original or multiple origi-
nals, open the Original Stopper.

Note:

- You can place up to about 10 originals (64 g/m^2 (17-lb bond)) on the ADF Unit.
- When using the "Custom Setting Mode", if you select "ON" for "ADF Semi-Auto", the next mas-ter-making will be automatically started, and then the machine will print a proof copy and stop when the ADF Unit contains originals.
☞p.54

4 **Make necessary settings.**

Make various settings including image processing
mode selection.
☞p.30~☞p.37

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

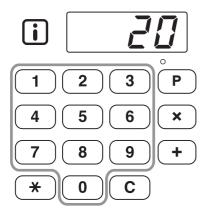The original is scanned, and a master is made.
A proof copy is printed.
Check the proof copy; e.g., print position and den-
sity.

Note:

- If you turn the "Idling Action" ON in the "Custom Setting Mode", the machine performs an "Idling Action" before making a master.
☞p.54
- If you adjust the print position or density, press the [PROOF] key to print a proof copy again.
☞p.38~☞p.40

6 **Enter the number of pages to be printed, using the Numeric Keys.**

The specified number is shown on the Numeric Display.

Note:

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

7 **Press the [START] key.**

The specified number of pages is printed.

Note:

*   You can change the print speed using the [SPEED] keys.
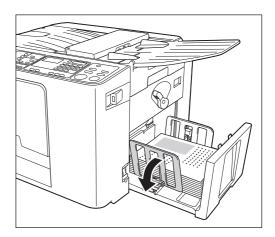
    ☞p.40

*   If printing is stopped halfway, check the display. ☞p.72~☞p.81

8 **Press the [RESET] key.**

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

9 **Remove the printed paper.**

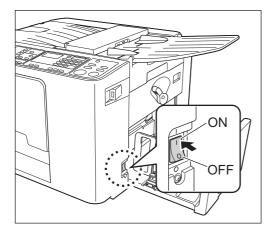Pull open the Receiving Tray Paper Guides, and remove the paper.

Printing from Computer Data
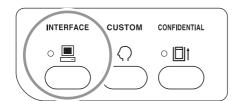
Printing with a USB Cable

The computer and printer must be connected with a cable.

1 Turn the power switch to [|] (ON).

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

2 Press the [INTERFACE] key to turn on its indicator.

Important!:

- If you press the [INTERFACE] key while the 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.24)

4 Send document data from the computer.

When the machine is receiving data, the [INTERFACE] indicator blinks.
When data reception is finished, the machine automatically starts printing according to the settings of the printer driver.

Important!:

- Some settings, such as image processing mode, cannot be configured with the machine and must be configured with the printer driver. For details, see the printer driver User's Guide.

Note:

- The data is printed in the order it is received.
- You can use the printer driver to pause the master-making or printing process. (For details, see the printer driver User's Guide.)

Tip:
About the [INTERFACE] indicator
The lighting / blinking of the indicator informs you of the conditions of this machine and data receiving conditions.

Lightning of Indicator	Description
☀🖥 blinking (fast)	Receiving
⌇🖥 blinking (slow)	Waiting for output instruction. (The received data, after being expanded, is waiting for output instructions.) Or the expanded data is in the master-making or printing process.
○🖥 lit	The data from your computer can be received.
● 🖥 off	The receiving of data is disabled.

Note:

- If you press the [INTERFACE] key while the indicator is blinking, you can delete the data waiting for output or being received.

Printing via a USB Flash Drive

Even if the computer and machine are not connected with a cable, you can print original data via a USB Flash Drive.
It is useful when the computer and printer are placed in different places.

1 **Connect the USB Flash Drive to the computer.**

2 **Set printing options from your computer screen.**

Use the USB flash-via-Printer Driver.

Note:

- Make sure to remove the checkmark from the "Collate" option in the Print dialog box.

3 **Click [OK] in the print dialog box.**

The data created on the computer is stored in the USB Flash Drive.

4 **Make sure the machine is ON.**

Check the Control Panel.

Note:

- When the power is OFF, both the Display and the [WAKE UP] key are off. Turn the power ON. ☞p.26
- If the [WAKE UP] key is lit, the machine is in the "Energy Saving Mode". Press the [WAKE UP] key to cancel the "Energy Saving Mode".

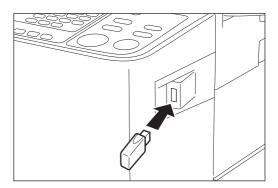**5** **Check for printing paper.**

Make sure paper is loaded.
To load or to change the loaded paper, see the following page.
☞p.24
After replacing with paper of a different size, adjust the position of the Receiving Tray Paper Guides and Paper Stopper.
☞p.24

6 **Connect the USB Flash Drive that contains the original data to print to the USB slot.**
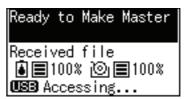
When data reception is finished, the machine automatically starts printing according to the settings of the printer driver.

After master-making, the data in the USB Flash Drive is automatically deleted.

Important!:

- "[USB] Accessing..." is displayed on the Basic screen while you are accessing the data. Do not remove the USB Flash Drive while this message is displayed. This will cause data to disappear and the USB Flash Drive to malfunction.

Note:

- The data is printed in the order it is received.
- You can use the printer driver to pause the master-making or printing process. (For details, see the printer driver User's Guide.)

Functions for Master-Making

Selecting the Image Processing Mode
[LINE/PHOTO/DUO]

In order to make a quality master, select an appropriate mode based on whether the originals contain only line (text), photos, or both of them.
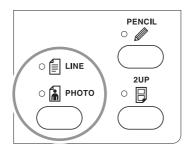
Press the [LINE/PHOTO] key to select the Image Processing mode.

Each time you press the key, the indicator lights in this order: ▤ LINE → ⍟ PHOTO → ▤ ⍟ DUO

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

Mode	Type of Originals	SCANNING LEVEL	
		1 - 5	AUTO
▤ LINE	Only text; e.g., word processing file printout, newspaper	Available	Available
⍟ PHOTO	Only photos	Available	Not Available
▤ ⍟ DUO	Both text and photos	Available	Not Available

Important!:

- With the "PHOTO" mode or "DUO" mode selected, you cannot select "AUTO" for the scanning level. Perform manual adjustment.
  ☞p.33
- You cannot use the Image Processing mode and "PENCIL" mode together.
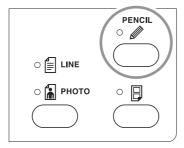
Note:

- Select the "PENCIL" mode when printing from an original written with a pencil.
  ☞p.31
- Since yellow and green characters and images are difficult to scan, using an original printed in other colors is recommended.

Scanning Originals Written with Pencils

[PENCIL]

This function allows clearer printing from originals containing faint content such as that written in pencil.

Press the [PENCIL] 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.33

Note:

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

Enlarging/Reducing Originals

[Enlargement/Reduction]

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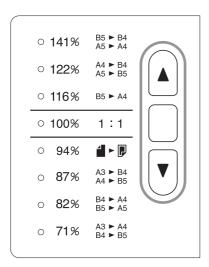Specify the standard ratio to enlarge or reduce an original.

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.

Ratio	
○ 141%	B5 ► B4 / A5 ► A4
○ 122%	A4 ► B4 / A5 ► B5
○ 116%	B5 ► A4
○ 100%	1 : 1
○ 94%	📄 ► 📄
○ 87%	A3 ► B4 / A4 ► B5
○ 82%	B4 ► A4 / B5 ► A5
○ 71%	A3 ► A4 / B4 ► B5

Note:

•   An original must have a 5 mm ($^3/_{16}$") or larger margin at its top end when it is placed on the Original Tray. A top margin is not added even if you have assigned the 94% Reduction.

Tip:
The enlargement/reduction ratio may differ according to your machine's specification.

- CV3230 -
Type: mm

Ratio	
● 141%	B5 ► B4 / A5 ► A4
● 122%	A4 ► B4 / A5 ► B5
● 116%	B5 ► A4
● 100%	1 : 1
● 94%	📄 ► 📄
● 87%	A3 ► B4 / A4 ► B5
● 82%	B4 ► A4 / B5 ► A5
● 71%	A3 ► A4 / B4 ► B5

- CV3230/CV3130 -
Type: inch

Ratio	
● 154%	5½ x 8½ ► 8½ x 14
● 129%	5½ x 8½ ► 8½ x 11
● 121%	
● 100%	1 : 1
● 94%	BORDER INCREASE
● 78%	11 x 17 ► 8½ x 14 / 8½ x 14 ► 8½ x 11
● 65%	11 x 17 ► 8½ x 11 / 8½ x 11 ► 5½ x 8½
● 61%	8½ x 14 ► 5½ x 8½

- CV3130/CV3030 -
Type: mm

Ratio	
● 141%	A5 ► A4
● 122%	A5 ► B5
● 116%	B5 ► A4
● 100%	1 : 1
● 94%	📄 ► 📄
● 87%	A4 ► B5
● 82%	B4 ► A4 / B5 ► A5
● 71%	A3 ► A4 / B4 ► B5

- CV3030 -
Type: inch

Ratio	
● 154%	
● 129%	5½ x 8½ ► 8½ x 11
● 121%	
● 100%	1 : 1
● 94%	BORDER INCREASE
● 78%	8½ x 14 ► 8½ x 11
● 65%	11 x 17 ► 8½ x 11 / 8½ x 11 ► 5½ x 8½
● 61%	8½ x 14 ► 5½ x 8½

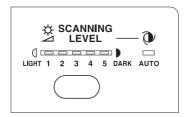# Scanning Originals with Faint or Dark Contents [SCANNING LEVEL]

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 colored originals such as newspapers, select a low level (1 or 2).

Press the [SCANNING LEVEL] key.

Each time you press the key, the 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.53
- Since yellow and green characters and images are difficult to scan, using an original printed in other colors is recommended.

Printing Originals Side-by-Side [2UP]

The same or different originals can be printed side by side.
This is called 2-Up Printing.
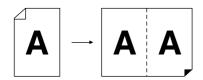2-Up Printing is divided between "Single-original printing" and "Two-original printing".

Important!:

- CV3230/3130 -

- 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 the "Custom Setting Mode" (No.12) in advance. ☞p.54

- When a paper size other than B4 or A4 (Legal or Letter) is used, appropriate 2-Up Printing cannot be performed.

- CV3030 -

- The paper size that can be used for this function is A4 (Letter) only.

- When a paper size other than A4 (Letter) is used, appropriate 2-Up Printing cannot be performed.

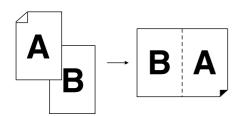## Single-Original Printing and Two-Original Printing

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.

Important!:

- When placing two originals one after another, place the second original on the Original Tray during the "2-Up Mode scan waiting time". You can set the "2-Up Mode scan waiting time" at 15 or 30 seconds in the "Custom Setting Mode". (The factory default is 15 seconds.)
  ☞p.53

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.
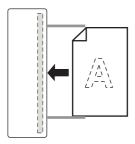
In units of mm

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

In units of inches

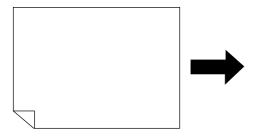|		Original	
		Letter	**Statement**
Print Paper	Legal	78%	100%
	Letter	65%	100%

Orientation of originals

Always place originals in the orientation below.

Orientation of print paper

Always place print paper in the orientation below.
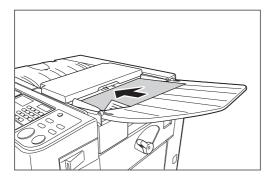

Note:

- Originals must have sufficient margins. Insufficient margins result in inappropriate page layout.
  ☞p.15
- The 5 mm ($^3/_{16}$") 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
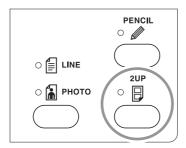
Operational Procedure

1 Place an original.

Place a stack of 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 [2UP] key to turn on its indicator.

Note:
- To clear the mode, press the [2UP] key again to turn off its indicator.

3 Make necessary settings.

Select the Image Processing, Reduction Ratios and other functions as necessary.
☞p.30~☞p.35

4 Start the master-making process.

◆ **Single-original printing**

Press the [START] key to start the first scan. Place the original again within the interval time. The second scan is automatically started.
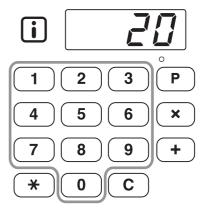
Note:
- If the "2-Up Mode scan waiting time" is not set in the "Custom Setting Mode", you cannot use single-original printing.

◆ **Two-original printing**

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

5 Enter the number of pages to be printed, using the Numeric Keys.

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

6 Press the [START] key.
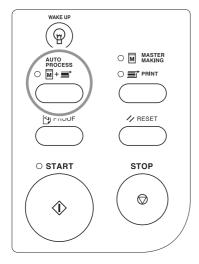
2-Up printed copies are output.

Note:
- If an original exists on the ADF Unit and if "AUTO PROCESS" is ON for two-original printing, 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 [START] key.

Press the [AUTO PROCESS] key to turn on its indicator.

With the [MASTER MAKING] indicator turned on, press the [AUTO PROCESS] key.

Note:

- When printing is completed, Print Quantity will restore the number originally entered.
- To cancel the "AUTO PROCESS", press the [AUTO PROCESS] key again to turn off its indicator.
- If you place multiple originals on the ADF unit, pressing the [START] key causes the placed originals to be automatically printed for the specified number of pages.
- If you select "AUTO PROCESS" when the [PRINT] indicator is turned 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 so that "Auto-Process" is always set to "ON" when you reset or start the machine.
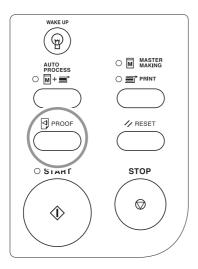 ☞p.53

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 [PROOF] key.

Proof does not affect the number shown on the Numeric Display.

Note:

• By holding down the [PROOF] key, you can continuously perform Proof.

Adjusting the Print Position [PRINT POSITION]

You can adjust the print position in the vertical direction using the [PRINT POSITION] Keys. Also, you can adjust it in the horizontal direction by sliding the Feed Tray Paper Guides.

Adjustment range

- Vertical direction: ±10 mm (±$^{13}/_{32}$")
- Horizontal direction: ±10 mm (±$^{13}/_{32}$")*

*If the width of the paper surpasses 277 mm (10 $^{29}/_{32}$"), the horizontal print position adjustment widths narrows depending on the width of the paper.
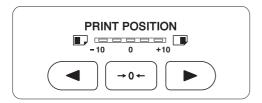
Important!:

- After adjusting the print position, perform Proof to check the new print position.
  ☞p.38

Adjusting the Vertical Position

Press the [◀]/[▶] keys 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 the vertical direction with the indicator.
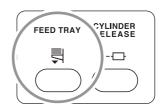
▐▗ : Shifts the print position downward.
▗▐ : Shifts the print position upward.

You can also check the current print position on the Print Basic Screen.
☞p.20
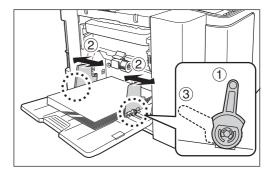
Adjusting the Horizontal Position

1 **Press the [FEED TRAY] 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.
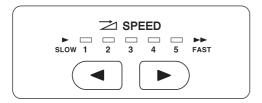
Changing the Print Speed [SPEED]

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

Press the [◀]/[▶] keys to adjust the print speed.

Pressing the [▶] key increases the print speed incrementally.
Pressing the [◀] key decreases the print speed incrementally.

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

Segment Position	1	2	3	4	5
Print Speed (sheets/ minutes)	Approx. 60	Approx. 80	Approx. 100	Approx. 120	Approx. 130

Note:

• The "Custom Setting Mode" allows you to change the initial setting for the print speed.
  ☞p.53
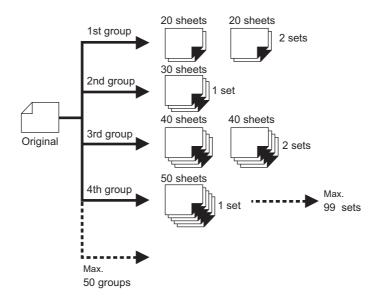
Advanced Features

Automatic Sorting into Groups [Program]

"Program" allows 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).
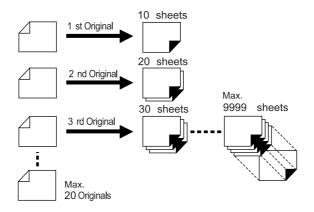
◆ Program A (Single Page Mode)

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 set can be up to 9999 pages.
The machine can be configured to specify the number of pages (sheets) per set and then the number of sets to be created for each group.

◆ Program B (Multi-Page Mode)

For multiple originals, different number of copies are printed for each original.
Up to 9999 copies can be made from a single original.
Each original can reproduce a pre-assigned number of sheets (up to 20 originals).

◆ How to Program Print

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

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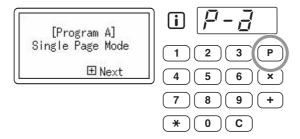- Retrieve a saved program, then print (when program is registered)

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.

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 Numeric Display.

Note:
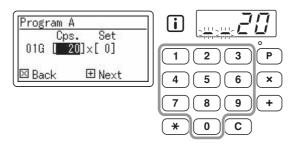
- The mode switches between **[Program A]**, **[Program B]** and **[Cancel Program]** by pressing the [P] key.

2 **Press the [+] key.**

The print quantity entry mode is started.

Note:

- Press the [×] key to return to the previous step.

3 **Enter the number of pages to be printed, using the Numeric Keys.**

Enter the number of pages for the first group.

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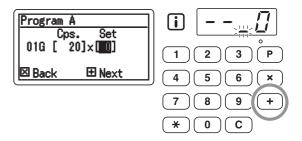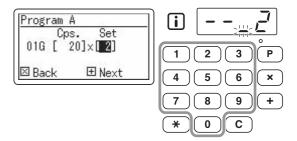
- If you enter an incorrect number, press the [C] key to clear the number, then enter the correct number.

4 **Press the [+] key.**

The number of sets entry mode is started.

5 **Enter the number of sets using the Numeric Keys.**
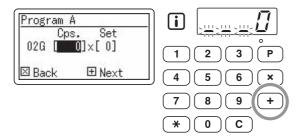
To set the next group, go to step 6.
To finish the setting and start printing, go to step 7.

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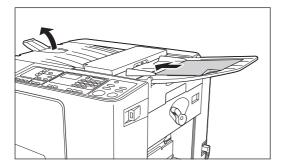
The print quantity entry mode for the second group is started.

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 the originals, and place the originals face down.

Note:

- If you place multiple originals on the ADF unit and select ON for "AUTO PROCESS", the programed 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
- Enlargement/Reduction
- Auto Process

Important!:

- To save the current program settings, see "Saving Programs" (☞p.48) for further information. Once printing is finished, the settings cannot be saved.

9 Press the [START] key.

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

10 Press the [START] key again.

Printing is started with the first programed 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 are not using the Job Separator (optional), remove printed pages from the Paper Receiving Tray or add separation paper.
- To interrupt printing, press the [STOP] key. Press the [START] key to resume printing.

◆ 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 Numeric Display.

Note:
- The mode switches between **[Program A]**, **[Program B]** and **[Cancel Program]** each time you press the [P] key.
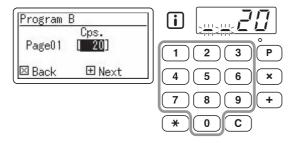
2 Press the [＋] key.

The print quantity entry mode is started.

Note:
- Press the [✕] key to return to the previous step.

3 Enter the number of pages to be printed, using the Numeric Keys.

Enter the number of pages for the first original.
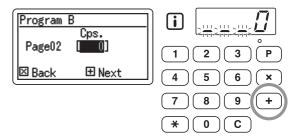
Note:
- If you enter an incorrect number, press the [C] key to clear it. Then enter the correct number.

4 Press the [＋] key.

The print quantity entry mode for the next original is started.
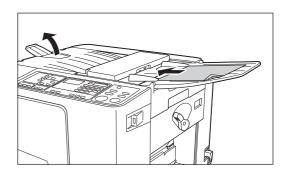
5 Enter the number of pages for each original using the Numeric Keys.

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 the 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
- Enlargement/Reduction
- Auto Process

Important!:

- To save the current program settings, see "Saving Programs" (☞p.48) for further information. Once printing is finished, the settings cannot be saved.

8 **Press the [START] key.**

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

9 **Press the [START] key again.**

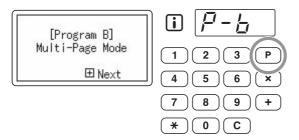Printing is started with the first programed original.

Note:

- Printing is stopped each time a routine for one original is finished. If you are not using the Job Separator (optional), remove printed copies from the Paper Receiving Tray or add separation paper.
- To interrupt printing, press the [STOP] key. Press the [START] key to resume printing.

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 can be stored.

1 Set the program.
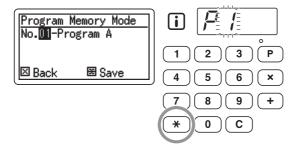
Enter the required program settings from the Control Panel.
For details on the setting operations, refer to the following steps.
Program A: steps 1 through 6 (☞p.44)
Program B: steps 1 through 5 (☞p.46)
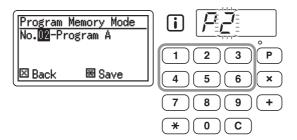
2 Press the [✳] key.

Store program settings.

```
Program Memory Mode
No.01-Program A

⊠ Back      ▦ Save
```

3 Enter the program number using the Numeric Keys.

Select a program number from 1 to 6.

```
Program Memory Mode
No.02-Program A

⊠ Back      ▦ Save
```
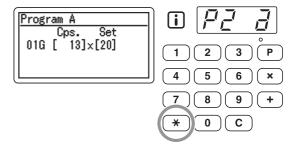
Important!:

• 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 with the same number.

4 Press the [✳] key.

Program settings are stored and **[Program A]** or **[Program B]** is displayed.

```
Program A
       Cps.    Set
01G [  13]×[20]
```
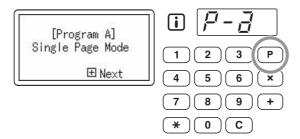
Note:

• After storing a program, pressing the [P] key to finish saving the program. Press the [START] key to print with a stored program.

Retrieving a Program

Stored programs can be retrieved for printing.
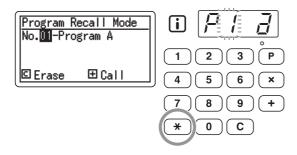
1 Press the [P] key to turn on its indicator.

Note:

• To cancel the program mode, press the [P] key twice.

2 Press the [✳] key.
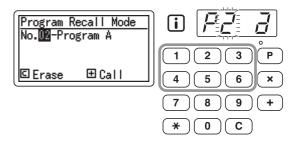
3 Enter program number using the Numeric Keys.

The registered program is retrieved.

Note:

• Press the [START] key to start printing with the retrieved program.
• You cannot enter an unregistered program number.

Making Changes to Stored Programs
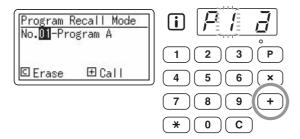
Modifying its settings.

1 **Retrieve a program to modify.**

Follow steps 1 through 3 in "Retrieving a Program". (☞p.49)

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 Numeric Keys to change the number of pages or sets.**

4 **Press the [✳] key.**

The program setting is modified.

5 **Store a program.**

Changed program settings are stored.
To overwrite the retrieved program, press the [✳] key again.
To store with a new program number, enter and display the program number using the Numeric Keys and press the [✳] key.

Important!:
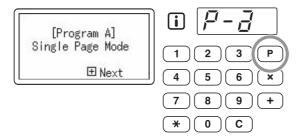
• If you select an already stored program number, the existing settings are overwritten by your new settings.

Note:

• See "Saving Programs" (☞p.48) for details on how to store a program.
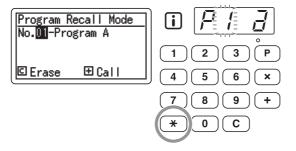
Clearing Programs
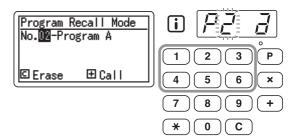
1 **Press the [P] key to turn on its indicator.**

Note:

• To cancel the program mode, press the [P] key twice.

2 **Press the [✳] key.**
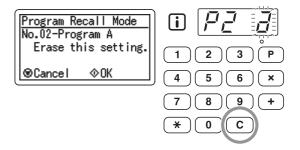
3 **Using the Numeric Keys, enter the program number to be cleared.**

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 [STOP] key to cancel clearing of program.

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

The selected program settings are cleared.

6 **Press the [P] key to exit program mode.**
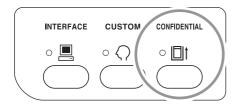
Protecting Confidential Documents
[CONFIDENTIAL]

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 [CONFIDENTIAL] key to turn on its indicator.**

Note:
- To clear the mode, press the [CONFIDENTIAL] key to turn off its indicator.

3 **Press the [START] key.**

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

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

Changing Default Settings [Custom Setting Mode]

You can modify the Default Settings to best suit your needs.
You can edit them as needed.

Note:

• The default setting are the values restored when the machine is turned ON or the [RESET] key is pressed.

Configurable Functions

__: Initial settings (factory default)

Item No.	Items	Parameter Selection					
		0	**1**	**2**	**3**	**4**	**5**
01	Print Speed Change the initial setting for the print speed.	Level 1	Level 2	**Level 3**	Level 4	Level 5	
02	Auto-Process Change the initial setting for "AUTO PROCESS".	**OFF**	ON				
03	Scanning Level Change the initial setting for the scanning level.	Level 1	Level 2	Level 3	Level 4	Level 5	**Auto**
04	2-Up Mode scan waiting time Select the interval time (seconds) before the second scan is automatically started when "2UP" is ON.	None	**15s**	30s			
05	Auto Clear Time Select the waiting period required to make the machine automatically clear settings.	**None**	3mn	5mn			
06	Minimum Print Q'ty 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.	**0page**	10pages	20pages	30pages	40pages	50pages
07	Beep Sound Customize the beep sound ON/OFF setting during key operation or during error occurrence. • 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. • Level 0 No beep sounds at any occasion.	**Level 2**	Level 1	Level 0			

| Item No.	Items	Parameter Selection					
		0	1	2	3	4	5
08	ADF 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, and then machine operation is stopped. **Important!:** • If the "AUTO PROCESS" is ON, ADF Semi-Auto will be ignored.	<u>OFF</u>	ON				
09	Job Separation Select "ON" when using Job Separator (optional).	<u>OFF</u>	ON				
10	Idling Action 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 Action" ON to use the "Idling Action" of the machine. **Important!:** • When you turn "Idling Action" ON and when the first master-making has finished, "Idling Action" is turned OFF automatically.	<u>OFF</u>	ON				
11	Paper Ejection Adjustment Change the initial setting for the air blow setting. If printing paper sticks to the print drum (cylinder) frequently, select a higher level setting.	OFF	**<u>Low</u>**	Medium	High		
12	2-Up Printing Paper Setting Set the printing paper size.	A4/ Letter	**<u>B4/ Legal</u>**				
13	Original Scanning Mode Default Setting Change the initial setting for the Image Processing Mode.	**<u>Line</u>**	Photo	Duo	Pencil		
15	Energy Saving Mode You can select the "Energy Saving Mode" type. **Note:** • When the machine is in the Sleep Mode, only the [WAKE UP] key is lit on the control panel. When the machine is in the Sleep Mode and receives data from a PC, it is automatically activated. To activate the machine manually, press the [WAKE UP] key or place an original on the ADF.	OFF	Auto Sleep	**<u>Auto Power-OFF</u>**			
16	Energy Setting The machine enters the Energy Saving Mode if it is not used for a certain period of time. Set the time that must elapse before the machine enters the Energy Saving Mode.	5mn	15mn	30mn	**<u>60mn</u>**	90mn	
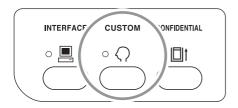
Item No.	Items	Parameter Selection					
		0	1	2	3	4	5
17	Reserve Period Specify the amount of time for blocking document data output from a computer when the machine is not operated.	OFF	**15s**	30s	60s		
18	Print Count Hold Setting Select whether or not to return the number of pages displayed in the Quantity Display to the set amount. For example, when the number of print pages is set to 10, the display will show "0" after printing for "Do Not Return" and will return to "10" for "Return".	**Do Not Return**	Return				
19	2-Up Print Hold Setting Select whether or not to set 2-Up to OFF after 2-Up printing is finished. For "Do Not Return", 2-Up is set to OFF after 2-Up printing is finished, and for "Return", the 2-Up printing settings are left on.	**Do Not Return**	Return				
20	First Print Vertical Position Setting Changes the first print printing position according to the settings of the [PRINT POSITION] Keys.	**OFF**	ON				
21	Displayed Language Select the language displayed on the screen.[1]	**1: English**, 2: Chinese ...					
30	Total Print Count Display The total number of pages printed with the machine is displayed.	Follow steps 1 through 3 of the "Changing Procedure". ☞p.57 The total number of printed copies is shown on the Total Print Count Display.					
31	Total Master Count Display The total number of masters generated with the machine is displayed.	Follow steps 1 through 3 of the "Changing Procedure". ☞p.57 The total number of generated masters is shown on the Total Master Count Display.					
35	Display Density The LCD display density can be set at one of 9 available levels.	0: Level 1 (Light) · **4: Level 5** (Standard) · 8: Level 9 (Dark)					
36	LCD Brightness The brightness of the LCD can be set at one of 5 levels.	Level 1 (Dim)	Level 2	**Level 3** (Standard)	Level 4	Level 5 (Bright)	

Item No.	Items	Parameter Selection					
		0	**1**	**2**	**3**	**4**	**5**
99	Reset to Default Setting Reset all "Custom Setting Mode" settings to the initial settings (factory default).	**Cancel**	OK				

*1 To change the displayed language, contact your dealer (or authorized service representative).

Changing Procedure

1 **Press the [CUSTOM] key to turn on the Custom Setting indicator.**
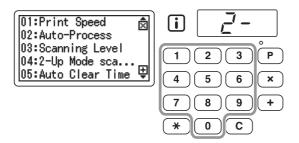
Note:

- To exit the "Custom Setting Mode", turn off the indicator by pressing the [CUSTOM] key again.

2 **Enter an item number to be changed, using the Numeric Keys.**

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

- Switch between the item menu displayed on the LCD screen with the [✕] key and the [✛] key.

Note:
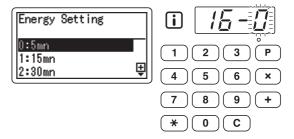
- To restore the initial settings for the "Custom Setting Mode", enter "99", and press the [START] key. Then, enter "1" and press the [START] key again.

3 **Press the [START] key.**
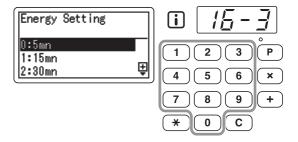
Pressing this key allows you to select a parameter number.
The currently set parameter number blinks.

- When there are 4 or more parameters which can be selected, the screen can be changed using the [✛] key and the [✕] key.

4 **Enter a parameter number using the Numeric Keys.**

5 **Press the [START] key to complete the settings.**

If you want to change multiple parameters, repeat steps 2 through 4 for them.
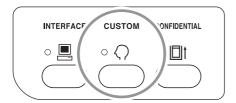
Note:

- To cancel the changed contents, press the [STOP] key instead of the [START] key.

6 Press the [CUSTOM] key.

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

Note:

• To cancel all of the changed contents in "Custom Setting Mode", press the [STOP] key instead of the [CUSTOM] key.

Replacing and Disposing Consumables

Replacing the Ink Cartridge

When the ink is depleted, a message is displayed and the machine stops. Replace with a new Ink Cartridge.

⚠ Caution:

- Ink may be left on the area around the Print Drum (Cylinder), so take care not to smudge your hands or clothes.
- Wash immediately with soap if you should get ink on your hands, etc.

Important!:
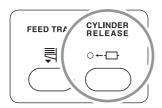
- It is recommended to use products specified by RISO when replacing the Ink Cartridge.
- Keep the power ON while replacing the Ink Cartridge.
- Replace with an Ink Cartridge of the same ink color. If you want to change the ink color, replace the Print Drum (Cylinder) itself.

  ☞p.66

1 Press the [CYLINDER RELEASE] key.

Make sure that the [CYLINDER RELEASE] indicator is turned on.
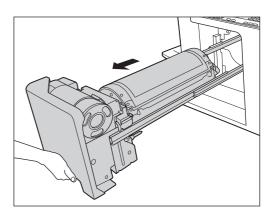
Important!:

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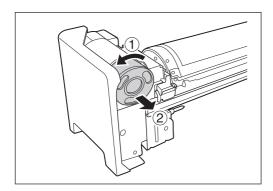
2 Pull out the Print Drum (Cylinder).

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:
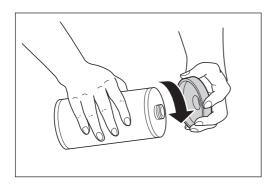
- Dispose of the depleted Ink Cartridge according to the disposal rules of your local community.☞p.65

4 Remove the cap from a new Ink Cartridge.
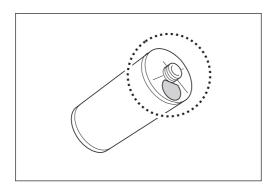
Turn the cap of the Ink Cartridge to remove the cap.

Important!:
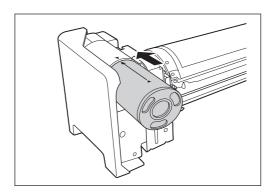
- Do not touch or hit the outlet surface of the new Ink Cartridge.
  Do not remove the label attached to the outlet surface of the Ink Cartridge.
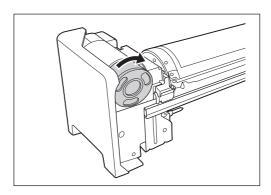
5 Insert the new Ink Cartridge.

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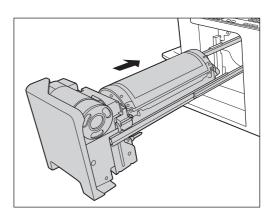
6 Lock the Ink Cartridge.

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 the Master Roll
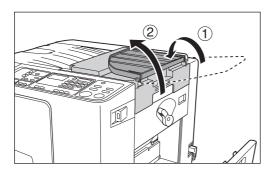
When the Master Roll is depleted, a message is displayed and the machine stops. Replace with a new Master Roll.

Important!:
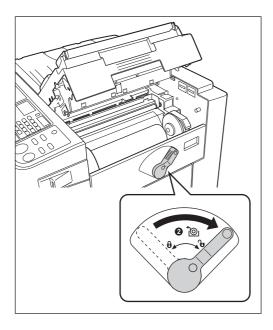
- It is recommended to use products specified by RISO when replacing the Master Roll.
- Keep the power ON while replacing the master.

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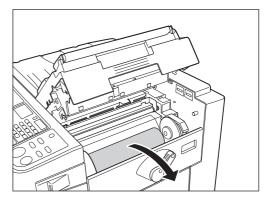
Turn over the Original Tray, and lift and open the Master Making Unit Cover by holding the Master Making Unit Handle.

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

3 **Remove the depleted Master Roll.**

Note:
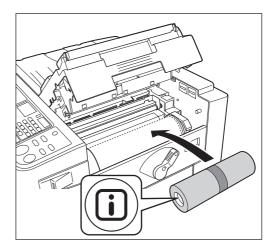
- Dispose of the depleted Master Roll according to the disposal rules of your local community. ☞p.65

4 **Install a new Master Roll.**

Remove the shrink-wrap (transparent film) from the new Master Roll, and place the roll so that the "ⓘ" mark on the master core is on the left.
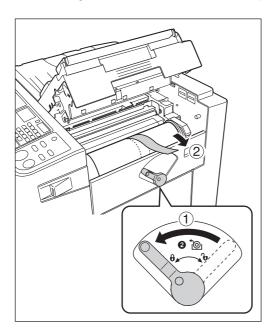
Important!:

- Do not remove the tape yet.

5 **Turn the Master Roll Lock Lever counterclockwise to lock the Master Roll.**
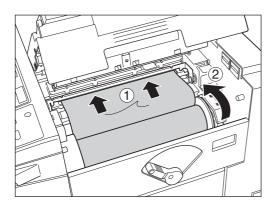
After locking the Master Roll, remove the tape.

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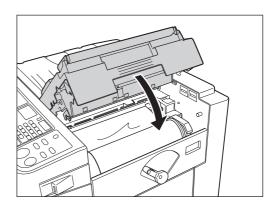
Insert the leading edge under the Master Guide Flap until it stops (①).
If the master is loose, turn the flange at the right inward to rewind (②).

7 **Close the Master Making Unit Cover.**

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

Emptying the Master Disposal Box

Used masters are held in the Master Disposal Box. When the Master Disposal Box becomes full, a message is displayed and the machine stops. Discard the used masters.

⚠Caution:
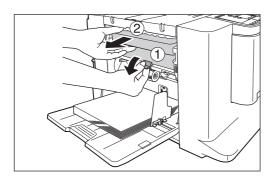
• Wash immediately with soap if you should get ink on your hands, etc.

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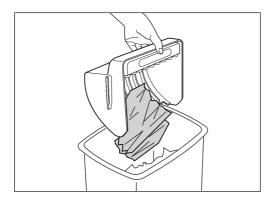
Hold down the Master Disposal Box Release Lever and pull out the box.

Important!:

• Make sure that the Paper Feed Tray is lowered to the bottom before pulling out the Master Disposal Box. If it is not, press the [FEED TRAY] key on the Control Panel to lower the Paper Feed Tray to the bottom.
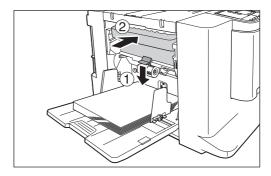
2 Discard the ejected masters.

3 Place the Master Disposal Box into position.

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

Important!:

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

Note:

• Dispose of the ejected masters according to the disposal rules of your local community. ☞p.65
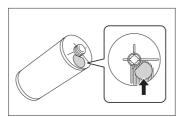
Disposal of Used Consumables

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

Ink Cartridge

Remove the label (metal included) at the arrow from the outlet surface of the Ink Cartridge, and then dispose of them separately.
Because ink may have adhered to the outlet surface of the Ink Cartridge, be careful not to get your clothes dirty.
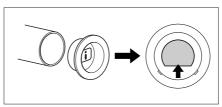
Part Name	Material
Ink Cartridge	Plastic (polypropylene or polyethylene)
Label	Plastic (metal included)
Ink	Petroleum carbon hybrid, water, and pigment

Master Core

A metallic component has been attached to the bottom of the end section with the " $\boxed{i}$ " 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 the Print Drum (Cylinder)

When replacing with a Color Print Drum (Cylinder) to change colors, or when removing jammed paper, follow the steps to remove Print Drum (Cylinder). Be sure to use a Color Print Drum (Cylinder) specifically designed and approved for use with this machine.

⚠Caution:
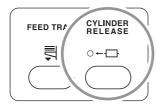
- Do not stand the Print Drum (Cylinder) upright. Doing so may dirty the floor, etc.

Important!:

- Use only Print Drums (Cylinders) specifically designed and approved for use with this machine.
- Keep the power ON while removing or replacing the Print Drum (Cylinder).
- Be sure to place the changed Print Drum (Cylinder) into the Print Drum (Cylinder) case and store horizontally.

1 Press the [CYLINDER RELEASE] key.

Make sure that the Print Drum (Cylinder) Release indicator is turned on.
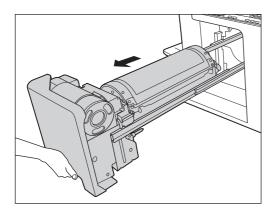
Important!:

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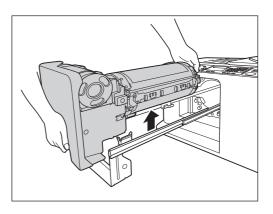
2 Pull out the Print Drum (Cylinder).

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

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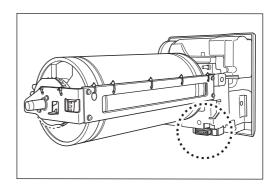
Lift the Print Drum (Cylinder) with both hands to remove it from the guide.

⚠Caution:
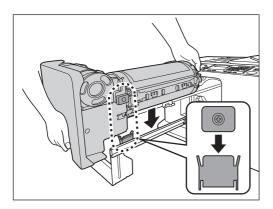
- Do not touch the connector on the Print Drum (Cylinder).
  Doing so may result in malfunction of the Print Drum (Cylinder) because of static electricity or other factors.
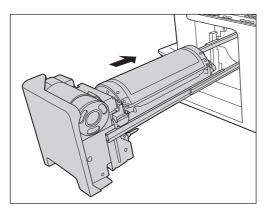
4 **Install the Print Drum (Cylinder).**

Align the protrusion on the 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 conditions or have questions or problems with the machine.
- Contact your service representative before moving the machine.
- Do not allow unauthorized people to make adjustments or repairs.

⚠ Caution:
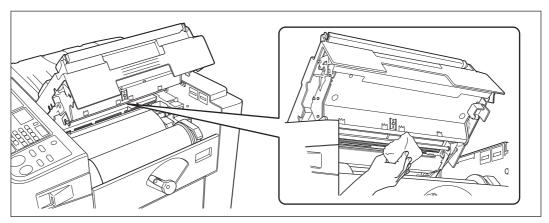
- The machine has precision moving parts inside. Do not handle the machine in any way other than described in this guide.
- Be careful of the edges of metal parts to avoid injury.
- Do not make any modifications to the machine or remove any parts.
- Neither RISO nor its dealers (or authorized service representatives) are 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 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!:
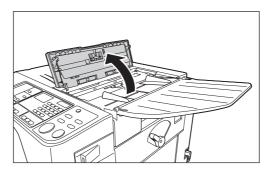
- Since the Thermal Print Head is a very delicate part, avoid shocks or scratches with a hard object.
- Since the Thermal Print Head is susceptible to (damage by) static electricity, please be sure to discharge any static electricity before cleaning.

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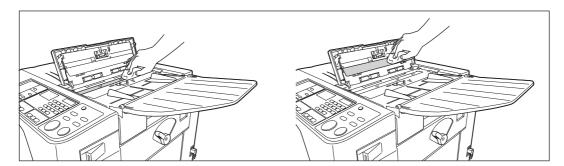
- For more effective cleaning, dampen a soft cloth or tissue with a small amount of alcohol before wiping the Thermal Print Head.

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 hitting or scratching it with a hard object.
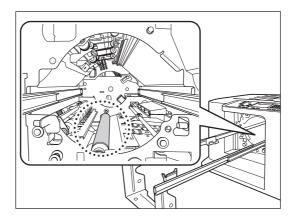
Note:

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

Pressure Roller
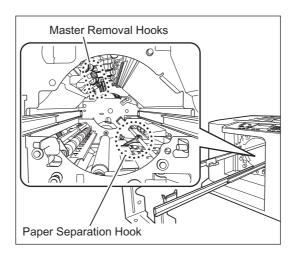
If the Pressure Roller, which presses print paper against the Print Drum (Cylinder), is stained, smudged strips may appear on the back of copies.
If this happens, gently wipe the Pressure Roller with a soft cloth or tissue.

⚠️**Caution:**
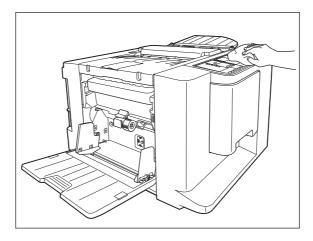
- Be sure to turn off the power switch when cleaning the Pressure Roller.

- When you insert a hand inside the machine, be careful not to touch the paper separation hook or master removal hooks. The tips of the paper separation hook and master removal hooks are sharp, so they may cause injury.

- Ink may be left on the area near the Print Drum (Cylinder), so take care not to smudge your hands or clothes. Wash immediately with soap if you should get ink on your hands, etc.

Master Removal Hooks

Paper Separation Hook

The Exterior

Use a soft cloth to gently wipe down the entire printer on a regular basis in order to prevent the exterior from getting dirty.
If using a cleaning agent, use one recommended by your authorized service representative.

Important!:

- Because the machine exterior is plastic, never use alcohol or a solvent when cleaning.
- The Display may be cleaned by gently wiping with a dry cloth. Dampen a cloth with a small amount of cleaner and gently wipe to remove any ink.
  Do not spray or pour cleaner solution directly onto the Display. Doing so can cause damage.

Troubleshooting

When a Message Appears
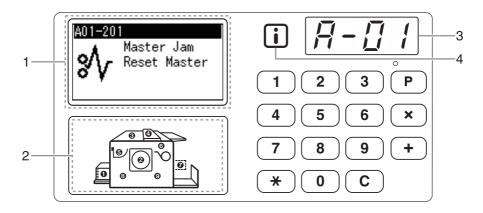
Refer to the following information to determine the cause and take the appropriate action when the machine stops operating and a message is displayed.

⚠ **Caution:**
When you insert a hand inside the machine to remove paper, etc., be careful not to touch protruding objects or the edges of the plates. Doing so may cause injury.

Error Indicators

A message and error locations will be displayed in accordance with the message type to show how to resolve the problem.

1) **Display**
   Error codes, icons, and messages are displayed.

2) **Error Location Indicator**
   Numbers corresponding to error locations light.

3) **Numeric Display**
   Error numbers appear and blink on the Numeric Display. Error contents are shown with alphabetical characters (single digit) and numeric characters (two digits).

4) 🛈 **Indicator**

Indicator	Description
Blue	The machine acquired information from the consumables. The machine is operating properly, and the print-related functions are working properly.
Yellow	The machine did not acquire appropriate information from the consumables. The machine is operating properly, but some functions that require information from the consumables are not working, e.g. the consumables information is not displayed. When blinking, enter the appropriate parameters. ☞p.81
Off	☞p.82

T00-000: Service Call Errors

When "CALL SERVICE" message is displayed on the panel, check error numbers (T00-000) on the display and contact your dealer (or authorized service representative).

A00-000: Jam Errors

Location No.	Error No.	Message	Possible Cause	Action
❻	A01	Master Jam Reset Master	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.62
❷	A02	Master Jam Remove Master	A master has not been correctly wrapped around the Print Drum (Cylinder).	**1)** Pull out the Print Drum (Cylinder). ☞p.66 * 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). **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). **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.	Message	Possible Cause	Action
❷	A02	Master Jam Remove Master	A master has not been correctly wrapped around the Print Drum (Cylinder).	⚠**Caution:** • 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, or 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.
❷	A04		Master ejection has failed.	**1)** Pull out the Print Drum (Cylinder) and remove the master from the drum (cylinder) by hand. ☞p.66 **2)** Set the Print Drum (Cylinder) again. **3)** Press the [START] key.
❺	A05		A master jam has occured in the master disposal section.	Remove the Master Disposal Box and remove the jammed master. ☞p.64 If you cannot remove the jammed master even after removing the Master Disposal Box, open the Master Disposal Unit and remove the master. **Important!:** • Once you pull out the Master Disposal Box, make sure to empty it before placing it back into position.

Location No.	Error No.	Message	Possible Cause	Action
❷	A16	Master Remains Remove Master	An unnecessary master remains on the Print Drum (Cylinder).	1) Pull out the Print Drum (Cylinder). ☞p.66 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). 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). 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.
❻	A17	Remove Master Close Unit Cover	A master has not been cut correctly.	1) Remove the master roll and close the Master Making Unit Cover. 2) Set the master again. ☞p.62
❻	A34	CHECK SETTINGS	A master roll has not been set correctly.	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.62

B00-000: Optional Device Errors

Location No.	Error No.	Message	Possible Cause	Action
⑦	B22	CHECK SETTINGS	Power to the Job Separator (optional) is off.	Turn on the power to the Job Separator.
⑦	B23		The Job Separator (optional) has run out of tape.	Install new tape in the Job Separator.
⑦	B24		A tape jam has occured in the Job Separator (optional).	Check the Job Separator (optional) and remove the jammed tape.
-	B29	Can not identify (USB hub)	A USB hub is connected to the USB slot.	Connect the correct USB Flash Drive. ☞p.29
-	B30 B38 B39	Can not identify	• Something other than a USB Flash Drive is connected to the USB slot. • A defective USB Flash Drive is connected to the USB slot. • A USB Flash Drive not recognized by this machine is connected to the USB slot.	Connect a USB Flash Drive for this machine.

C00-000: Consumable Errors

Location No.	Error No.	Message	Possible Cause	Action
②	C01	REPLACE INK CARTRIDGE	The ink is depleted.	Replace and install a new Ink Cartridge. Use an Ink Cartridge specifically designed and approved for use with this machine. ☞p.60 **Important!:** • If the error persists after replacing the Ink Cartridge, check that the Ink Cartridge is properly installed.
⑥	C02	REPLACE MASTER ROLL	The Master Roll is depleted.	Install a new Master Roll. Use a Master Roll specifically designed and approved for use with this machine. ☞p.62

Location No.	Error No.	Message	Possible Cause	Action
❺	C03	EMPTY DISPOSAL BOX	The Master Disposal Box is full.	Remove the Master Disposal Box.
❶	C04	CHECK SETTINGS	The tray has run out of paper.	Place paper on the Paper Feed Tray.
❷	C11	EXPIRED INK REPLACE INK CARTRIDGE	The ink is old.	Replace with a new Ink Cartridge. ☞p.60
❻	C12	EXPIRED MASTER REPLACE MASTER ROLL	The master is old.	Replace with a new Master Roll. ☞p.62

D00-000: Installation Errors

Location No.	Error No.	Message	Possible Cause	Action
❷	D01	CHECK SETTINGS	The Print Drum (Cylinder) has not been set or has not been correctly inserted.	Set the Print Drum (Cylinder) correctly. ☞p.66
❷	D03		The Ink Cartridge has not been set or it has not been set correctly.	Set the Ink Cartridge correctly. ☞p.60
❷	D04		An inappropriate Ink Cartridge has been set.	Set an Ink Cartridge specific to the machine. ☞p.60 **Important!:** • Use an Ink Cartridge specific to the machine. Using other Ink Cartridges can result in malfunctions or other issues.
❻	D05		A master roll has not been set or it has been set incorrectly.	Set the master roll correctly and close the Master Making Unit Cover. ☞p.62 If a rewound master has been wrinkled or has worn off, cut the edge of the master straight and then set the master again.

Location No.	Error No.	Message	Possible Cause	Action
❸ ❺	D07	CHECK SETTINGS	The Master Disposal Box has not been set or it has not been set correctly. The Master Disposal Unit has not been closed correctly.	Set the Master Disposal Box correctly. ☞p.64
❻	D08		The Master Making Unit Cover has not been closed correctly.	Close the Master Making Unit Cover correctly. ☞p.62
-	D13	CALL SERVICE	The machine rear cover has been removed.	Contact your dealer (or authorized service representative).
❻	D17	CHECK SETTINGS	An inappropriate master roll has been set.	Set a master roll specific to the machine.
			The label at the opposite side of the "ⓘ" mark of the master core has been peeled off or contaminated.	The label attached to the opposite side of the "ⓘ" 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 master roll label has not peeled off or been contaminated.
❹	D23	CHECK SETTINGS	The ADF Unit is open or it has not been correctly closed.	Check the ADF Unit and close correctly.

E00-000: Maintenance Call

Location No.	Error No.	Message	Possible Cause	Action
-	E01	MAINTENANCE CALL	Low battery.	Contact your dealer (or authorized service representative) and have the battery replaced.
-	E02		Notifies user about the need for a periodic maintenance.	Contact your dealer (or authorized service representative).

F00-000: Warning Messages

Location No.	Error No.	Message	Possible Cause	Action
❷	F01	CHECK SETTINGS	A master has not been wrapped around the Print Drum (Cylinder).	Place an original on the ADF unit 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 [RESET] key, then press the [CONFIDENTIAL] key. Or perform master-making operation to wrap a master around the drum (cylinder).
-	F05	Enter Print Quantity Over xx	An attempt is being made to print a smaller number of pages than the Minimum Print Q'ty.	Select a larger number of pages than the Minimum Print Q'ty. ☞p.53
-	F33	USB Flash Drive is full Delete some files	Insufficient free space on the USB Flash Drive.	Check the USB Flash Drive data and delete unnecessary files.
❻	F50	Cooling down Please wait a moment	The TPH (Thermal Print Head) is too hot.	Wait for the TPH to cool down. Press the [RESET] key to erase the warning message.
-	F51	INK Near expiration Use or replace soon	The ink has passed the recommended Use By date.	Press the [RESET] key to erase the warning message. We recommend that you use the ink within 18 months of the date of manufacturing.
-	F56	MASTER Near expiration Use or replace soon	The master has passed the recommended Use By date.	Press the [RESET] key to erase the warning message. We recommend that you use the master within 18 months of the date of manufacturing.
-	F57	INK&MASTER Near expiration Use or replace soon	The ink and the master have passed the recommended Use By date.	Press the [RESET] key to erase the warning message. We recommend that you use the ink and the master within 18 months of the date of manufacturing.

J00-000: Paper Jam Errors

Location No.	Error No.	Message	Possible Cause	Action
❷	J00	Paper Jam Remove Paper	A paper jam has occured around the Print Drum (Cylinder).	**1)** Pull out the Print Drum (Cylinder). ☞p.66 **2)** If you find jammed paper, remove it. ⚠**Caution:** • 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. ☞p.70
❹			An original jam has occured in the ADF Unit.	Remove the original jammed in the ADF Unit. • Grasp the Original Release Lever and open the ADF Cover to remove the jammed original.
❽			A paper jam has occured on the Paper Feed Tray section.	**1)** Press the [FEED TRAY] key to lower the Paper Feed Tray, and remove the jammed paper. **2)** Set paper again. **3)** If the error indications do not disappear, press the [RESET] key.
❾			A paper jam has occured on the Paper Receiving Tray section.	Remove the paper jammed in the Paper Receiving Tray section. If you have changed the horizontal paper position, also adjust the position of the Receiving Tray Paper Guides. If the error indications do not disappear, press the [RESET] key.

When the ⓘ indicator blinks and "H" is shown on the Numeric Display.

In order to assure optimum printing, the machine acquires information from the consumables.
If the acquired information is not appropriate, "H" is shown on the Numeric Display. Enter an appropriate parameter.
Entering an inappropriate parameter does not affect usual operations, but may result in bad print quality.
The table explains "H" numbers shown on the Numeric Display and selectable parameters.

Location No.	H No.	Message	Description	Parameter
❷	H1	Ink Color Setting 1:Black 2:Color	**Ink Color Setting** Select the same color as currently used for the Print Drum (Cylinder).	**1:Black** 2:Color
	HE	Enter two digits of month xx	**Ink expiration time limit (month)** Set the month to the month of the recommended Use By date.	01 - 12
	HY	Enter last two digits of year 20xx	**Ink expiration time limit (year)** Set the year to the year of the recommended Use By date.	01 - 99
❻	H4	Master-making Density Setting	**Master-making Density Setting** Select the reference density for the master-making process.	**1:(Light)** - 10:(Dark)
	HE	Enter two digits of month xx	**Master expiration time limit (month)** Set the month to the month of the recommended Use By date.	01 - 12
	HY	Enter last two digits of year 20xx	**Master expiration time limit (year)** Set the year to the year of the recommended Use By date.	01 - 99

⎯ : Default settings
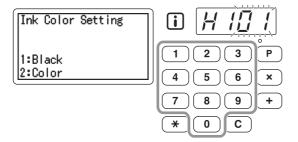
Note:

- When you perform the following operations, entered H Number information disappears and thus you need to enter it again.
  - After the power switch is turned OFF and turned ON again.
  - After the machine is put in Sleep mode and the [WAKE UP] key is pressed.

- If you are not sure the best setting for master-making density, we suggest you start from 1 (default setting) and adjust as necessary based on the print results.
  Riso takes no responsibility, and cannot advise as to the best setting, for particular supplies not manufactured and sold by Riso.

Use the following procedure to enter necessary information.

1 Enter a parameter using the Numeric keys.

The parameters that can be entered differ among the consumables.

```
Ink Color Setting

1:Black
2:Color
```

ⓘ *H 101*

```
1   2   3    P
4   5   6    ×
7   8   9    +
*   0   C
```

2 Press the [START] key to complete the settings.

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

Note:
• When necessary entry is completed, the Numeric Display restores to its normal status and is available for usual operations.

When the ⓘ indicator is off and an error number is shown on the Numeric Display.

When an error number is displayed, please refer to the following pages.

Error No.	Reference page
C01	☞p.76
C02	☞p.76
D04	☞p.77
D17	☞p.78
Other D No. errors	☞p.77 - ☞p.78

Troubleshooting Tips

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

Problem	Cause	Action
The machine does not start when the power switch is pressed.	Power has been disconnected.	• 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 widened 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 the Feed Tray Paper Guides to the limit, and close the Paper Feed Tray. ☞p.23
	The power was turned off before the Paper Feed Tray was 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 on the guide.	Set the drum (cylinder) to the guide correctly. ☞p.66
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.60
		Set a master roll so that the "ⓘ" mark comes to the left. ☞p.62
	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.60
	The master roll does not contain master information.	Do not remove the plastic cap from the master core. ☞p.62
There is no image on copies.	The original is placed face up.	Place the original face down.

Problem	Cause	Action
Portion on copies is missing.	The Scanner Glass of the ADF Unit is not clean.	Wipe the Scanner Glass with a soft cloth, etc. ☞p.69
	A foreign object may exist on the master.	Pull out the Print Drum (Cylinder) and check if any objects exist 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.66
Vertical blank lines are found on printed copies.	The Thermal Print Head and the Scanner Glass have been smudged.	Wipe the Thermal Print Head and the Scanner Glass with a soft cloth, etc. ☞p.68
The unwanted background of an original is picked up on copies.	If newspaper or colored paper is used as an Original, the background is picked up on copies.	Set the scanning level to "AUTO" or lower the level, and then perform the master-making operation again. ☞p.33
Dirt is found on printed copies.	The Scanner Glass of the ADF Unit is not clean.	Wipe the Scanner Glass with a soft cloth, etc. ☞p.69
Characters and images in the area approximately 10 mm ($^{13}/_{32}$") from the top of copies are stained with ink.	-	Lower the print position to provide a wider top margin or reverse the top and bottom of the original. ☞p.15
The trailing edge of printed copies are stained with ink.	The size of the original is almost equal to the maximum printing area size.	Reduce the size of the original and make a Master again, or use print paper with a length less than 410 mm (16 $^{5}/_{32}$"). ☞p.15

Problem	Cause	Action
The edges of printed copies are smudged with ink.	A size of paper longer than 410 mm (16 $5/_{32}$") was placed on the Paper Feed Tray during the master-making process. (For CV3230/CV3130 only)	If the size of the original is almost equal to the maximum print area size and if paper larger than 410 mm (16 $5/_{32}$") is used, the images on the area about 360 mm (14 $3/_{16}$") from the top edge of the printed paper may be blurred. Reduce the size of the original and perform the master-making operation again.
	When printing thick paper such as cards, corners of the paper contacted and damaged the master.	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.
The back of printed copies is smudged with ink.	The Pressure Roller has been stained with ink.	Remove the Print Drum (Cylinder), and wipe the Pressure Roller with a soft cloth, etc. ☞p.70 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.39
Printed images are faint. Printed text is blurred.	The machine was not used for an extended period of time, and printing was just restarted.	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 [PROOF] key to make several copies, and then start printing for actual use. Or use the "Idling Action" function. ☞p.54
	Faint originals result in faint images.	Increase the Scanning Level and perform the master-making operation again. ☞p.33 For originals written with a pencil, select the Pencil mode. ☞p.31
	The machine is installed or the Ink Cartridge is stored at low temperatures (below 15°C (59°F)).	Use the machine after keeping it at room temperature for a while.

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 to check the position. ☞p.39
Paper sticks to the surface of the Print Drum (Cylinder). (The 8|ᒑ icon is displayed frequently.)	The margin at the top of the original or print is too small.	The margin on the original (the top of the printed copy in the paper output direction) must be at least 5mm ($3/16$"). Lower the vertical print position. If this adjustment is impossible, reproduce an original with a large enough margin and perform the master-making operation again. ☞p.15
	The print paper is inappropriate.	Use the recommended paper. ☞p.12
	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 be output properly. Replace the original in the reverse direction and restart the 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 8|ᒑ icon is displayed 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.24
	The positions of the Paper Jumping Wings are inappropriate.	Set the Paper Jumping Wings according to the size and thickness of paper. ☞p.25

Problem	Cause	Action
Paper is not smoothly fed from the Paper Feed Tray. (No paper or stacked paper is fed.)	The print paper is inappropriate.	Use the recommended paper. ☞p.12
	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.23
	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. ◆ **Stacked paper is fed.** Set the Stripper Pressure Adjustment Knob to the higher position. **Important!:** • 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 the "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 printed cards is wrinkled.	The Paper Stripping Pressure is inappropriate.	Set the Stripper Pressure Adjustment Knob to adjust the paper stripping pressure.

Problem	Cause	Action
The ⚙ icon is displayed even when a paper jam has not occured.	Lifted paper is ejected during the second rotation of the Print Drum (Cylinder).	Check the printed copies, and if the top margin is less than 5 mm ($^3/_{16}$"), slightly lower the print position.
	The machine is in the direct sunlight.	If sunlight is projected onto 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 [START] key blinks.	Received data is waiting for output.	Press the [START] key to output the data. To delete the data waiting for output, press the [INTERFACE] key.
" – – – – " appears on the Numeric Display and the machine does not start.	The power was turned off when the machine was in operation.	Press the [START] key.

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)**

Simply change the Drum (Cylinder) to print in multiple colors. (Case included)

◆ **Job Separator**

Allows the machine to print and sort into groups separated by tape when using the Programed Printing function.

Specifications

RISO CV3230 / CV3230(120)

Master-making/Printing Methods	High-speed digital master-making / fully automatic printing
Original Type	Sheet
Original Size (min./max.)	90 mm x 140 mm (3 $^{17}/_{32}$" x 5 $^1/_2$") - 310 mm x 435 mm (12 $^7/_{32}$" x 17 $^1/_8$")
Original Paper Weight	50 g/m² (13-lb bond) - 107 g/m² (29-lb bond)
Original Paper Capacity	Approx. 10 sheets (64 g/m² (17-lb bond) - 80 g/m² (21-lb bond)) / Maximum Height 1 mm ($^3/_{64}$")
Scanning Area (max.)	297 mm x 435 mm (11 $^{11}/_{16}$" x 17 $^1/_8$")
Printing Paper Size (min./max.)	Minimum size: 100 mm x 148 mm (3 $^{15}/_{16}$" x 5 $^{13}/_{16}$") Maximum size: 297 mm x 420 mm (11 $^{11}/_{16}$" x 16 $^{17}/_{32}$")
Paper Supply Capacity	Approx. 1000 sheets (64 g/m² (17-lb bond) - 80 g/m² (21-lb bond)) / Maximum Height 110 mm (4 $^{11}/_{32}$")
Paper Receiving Capacity	Approx. 800 sheets (64 g/m² (17-lb bond) - 80 g/m² (21-lb bond)) / Maximum Height 90 mm (3 $^{17}/_{32}$")
Printing Paper Weight	50 g/m² (13-lb bond) - 157 g/m² (42-lb bond)
Image Processing Mode	Line, Photo, Duo, Pencil
Scanning Resolution	300 dpi x 600 dpi
Printing Image Resolution	300 dpi x 600 dpi (600 dpi x 600 dpi: Perforation density on the master)
Master-making Time	35 seconds or less (for B4 originals/short edge feed/100% reproduction ratio)
Printing Area (max.)	Type: mm - 251 mm x 357 mm (9 $^7/_8$" x 14 $^1/_{16}$") Type: inch (when printing on legal size paper) - 210 mm x 349 mm (8 $^9/_{32}$" x 13 $^3/_4$")
Print Reproduction Ratio	Type: mm 100% reproduction ratio Standard reproduction ratio (enlargement): 141%, 122%, 116% Standard reproduction ratio (reduction): 94%, 87%, 82%, 71% Type: inch 100% reproduction ratio Standard reproduction ratio (enlargement): 154%, 129%, 121% Standard reproduction ratio (reduction): 94%, 78%, 65%, 61%
Print Speed	60 - 130 sheets per minute (five steps variable)
Print Position Adjustment	Vertical: ±10 mm (±$^{13}/_{32}$") Horizontal: ±10 mm (±$^{13}/_{32}$")[*1]
Ink Supply	Fully automatic (800 ml per cartridge)
Master Supply/Disposal	Fully automatic (200 sheets per roll)
Master Disposal Capacity	Approx. 30 sheets

User Interface	LCD panel
Optional Accessories	Color Drum (Cylinder), Job Separator
Operating Noise	Max. 68 dB(A) (when printing 100 sheets per minute in the operator position)
Power Source[*2]	AC 100-120 V / 220-240 V, 50-60 Hz, 2.0 A / 1.0 A
Power Consumption	Max. 200 W At Ready: 15 W or less At Sleep: 10 W or less
Functions	Image Processing Mode (Line/Photo/Duo), Pencil, Enlargement/Reduction, Scanning Level, 2up, Auto Process, Proof, Print Position, Speed, Program (A/B), Confidential, Custom Setting Mode, Direct Printing, USB Flash-via-Printing, Consumables Information, Energy Saving Mode (Auto Sleep/Auto Power-OFF), RISO i Quality System
Dimensions	When in use: 1280 mm (W) x 655 mm (D) x 515 mm (H) (50 $13/32$" (W) x 25 $25/32$" (D) x 20 $9/32$" (H)) When in storage: 665 mm (W) x 655 mm (D) x 505 mm (H) (26 $3/16$" (W) x 25 $25/32$" (D) x 19 $7/8$" (H))
Required Space	1280 mm (W) x 1255 mm (D) x 845 mm (H) (50 $13/32$" (W) x 49 $13/32$" (D) x 33 $9/32$" (H))
Weight [*3]	Approx. 65 kg (144 lb)
Safety Standards	IEC 60950-1 compliant, Indoor, pollution degree 2[*4], at altitudes of 2000 m or lower

Notes

- Please note that due to improvements and changes to the machine, some images and explanations in this manual may not correspond to your machine.
- Specifications are subject to change without prior notice.

*1 If the width of the paper surpasses 277 mm (10 $29/32$"), the horizontal print position adjustment width narrows depending on the width of the paper.
*2 To switch between 100-120 V and 220-240 V, contact your dealer (or authorized service representative).
*3 The weight does not include the ink and master.
*4 The pollution degree of the usage environment due to dirt and dust in the air. Degree "2" corresponds to a general indoor environment.

RISO CV3130

Master-making/Printing Methods	High-speed digital master-making / fully automatic printing
Original Type	Sheet
Original Size (min./max.)	90 mm x 140 mm (3 $^{17}/_{32}$" x 5 $^1/_2$") - 310 mm x 435 mm (12 $^7/_{32}$" x 17 $^1/_8$")
Original Paper Weight	50 g/m^2 (13-lb bond) - 107 g/m^2 (29-lb bond)
Original Paper Capacity	Approx. 10 sheets (64 g/m^2 (17-lb bond) - 80 g/m^2 (21-lb bond)) / Maximum Height 1 mm ($^3/_{64}$")
Scanning Area (max.)	297 mm x 435 mm (11 $^{11}/_{16}$" x 17 $^1/_8$")
Printing Paper Size (min./max.)	Minimum size: 100 mm x 148 mm (3 $^{15}/_{16}$" x 5 $^{13}/_{16}$") Maximum size: 297 mm x 420 mm (11 $^{11}/_{16}$" x 16 $^{17}/_{32}$")
Paper Supply Capacity	Approx. 1000 sheets (64 g/m^2 (17-lb bond) - 80 g/m^2 (21-lb bond)) / Maximum Height 110 mm (4 $^{11}/_{32}$")
Paper Receiving Capacity	Approx. 800 sheets (64 g/m^2 (17-lb bond) - 80 g/m^2 (21-lb bond)) / Maximum Height 90 mm (3 $^{17}/_{32}$")
Printing Paper Weight	50 g/m^2 (13-lb bond) - 157 g/m^2 (42-lb bond)
Image Processing Mode	Line, Photo, Duo, Pencil
Scanning Resolution	300 dpi x 600 dpi
Printing Image Resolution	300 dpi x 600 dpi (600 dpi x 600 dpi: Perforation density on the master)
Master-making Time	35 seconds or less (for Legal originals/short edge feed/100% reproduction ratio)
Printing Area (max.)	Type: mm - 210 mm x 357 mm (8 $^9/_{32}$" x 14 $^1/_{16}$") Type: inch (when printing on legal size paper) - 210 mm x 349 mm (8 $^9/_{32}$" x 13 $^3/_4$")
Print Reproduction Ratio	Type: mm 100% reproduction ratio Standard reproduction ratio (enlargement): 141%, 122%, 116% Standard reproduction ratio (reduction): 94%, 87%, 82%, 71% Type: inch 100% reproduction ratio Standard reproduction ratio (enlargement): 154%, 129%, 121% Standard reproduction ratio (reduction): 94%, 78%, 65%, 61%
Print Speed	60 - 130 sheets per minute (five steps variable)
Print Position Adjustment	Vertical: ±10 mm (±$^{13}/_{32}$") Horizontal: ±10 mm (±$^{13}/_{32}$")[*1]
Ink Supply	Fully automatic (800 ml per cartridge)
Master Supply/Disposal	Fully automatic (200 sheets per roll)
Master Disposal Capacity	Approx. 30 sheets
User Interface	LCD panel
Optional Accessories	Color Drum (Cylinder), Job Separator

Operating Noise	Max. 68 dB(A) (when printing 100 sheets per minute in the operator position)
Power Source[*2]	AC 100-120 V / 220-240 V, 50-60 Hz, 2.0 A / 1.0 A
Power Consumption	Max. 200 W At Ready: 15 W or less At Sleep: 10 W or less
Functions	Image Processing Mode (Line/Photo/Duo), Pencil, Enlargement/Reduction, Scanning Level, 2up, Auto Process, Proof, Print Position, Speed, Program (A/B), Confidential, Custom Setting Mode, Direct Printing, USB Flash-via-Printing, Consumables Information, Energy Saving Mode (Auto Sleep/Auto Power-OFF), RISO i Quality System
Dimensions	When in use: 1280 mm (W) x 655 mm (D) x 515 mm (H) (50 $^{13}/_{32}$" (W) x 25 $^{25}/_{32}$" (D) x 20 $^{9}/_{32}$" (H)) When in storage: 665 mm (W) x 655 mm (D) x 505 mm (H) (26 $^{3}/_{16}$" (W) x 25 $^{25}/_{32}$" (D) x 19 $^{7}/_{8}$" (H))
Required Space	1280 mm (W) x 1255 mm (D) x 845 mm (H) (50 $^{13}/_{32}$" (W) x 49 $^{13}/_{32}$" (D) x 33 $^{9}/_{32}$" (H))
Weight [*3]	Approx. 65 kg (144 lb)
Safety Standards	IEC 60950-1 compliant, Indoor, pollution degree 2[*4], at altitudes of 2000 m or lower

Notes

- Please note that due to improvements and changes to the machine, some images and explanations in this manual may not correspond to your machine.
- Specifications are subject to change without prior notice.

*1 If the width of the paper surpasses 277 mm (10 $^{29}/_{32}$"), the horizontal print position adjustment width narrows depending on the width of the paper.
*2 To switch between 100-120 V and 220-240 V, contact your dealer (or authorized service representative).
*3 The weight does not include the ink and master.
*4 The pollution degree of the usage environment due to dirt and dust in the air. Degree "2" corresponds to a general indoor environment.

RISO CV3030

Master-making/Printing Methods	High-speed digital master-making / fully automatic printing
Original Type	Sheet
Original Size (min./max.)	90 mm x 140 mm (3 $^{17}/_{32}$" x 5 $^{1}/_{2}$") - 310 mm x 435 mm (12 $^{7}/_{32}$" x 17 $^{1}/_{8}$")
Original Paper Weight	50 g/m^2 (13-lb bond) - 107 g/m^2 (29-lb bond)
Original Paper Capacity	Approx. 10 sheets (64 g/m^2 (17-lb bond) - 80 g/m^2 (21-lb bond)) / Maximum Height 1 mm ($^{3}/_{64}$")
Scanning Area (max.)	297 mm x 435 mm (11 $^{11}/_{16}$" x 17 $^{1}/_{8}$")
Printing Paper Size (min./max.)	Minimum size: 100 mm x 148 mm (3 $^{15}/_{16}$" x 5 $^{13}/_{16}$") Maximum size: 257 mm x 364 mm (10 $^{1}/_{8}$" x 14 $^{11}/_{32}$")
Paper Supply Capacity	Approx. 1000 sheets (64 g/m^2 (17-lb bond) - 80 g/m^2 (21-lb bond)) / Maximum Height 110 mm (4 $^{11}/_{32}$")
Paper Receiving Capacity	Approx. 800 sheets (64 g/m^2 (17-lb bond) - 80 g/m^2 (21-lb bond)) / Maximum Height 90 mm (3 $^{17}/_{32}$")
Printing Paper Weight	50 g/m^2 (13-lb bond) - 157 g/m^2 (42-lb bond)
Image Processing Mode	Line, Photo, Duo, Pencil
Scanning Resolution	300 dpi x 600 dpi
Printing Image Resolution	300 dpi x 600 dpi (600 dpi x 600 dpi: Perforation density on the master)
Master-making Time	35 seconds or less (for A4 originals/short edge feed/100% reproduction ratio)
Printing Area (max.)	Type: mm - 210 mm x 290 mm (8 $^{9}/_{32}$" x 11 $^{13}/_{32}$") Type: inch (when printing on letter size paper) - 210 mm x 273 mm (8 $^{9}/_{32}$" x 10 $^{3}/_{4}$")
Print Reproduction Ratio	Type: mm 100% reproduction ratio Standard reproduction ratio (enlargement): 141%, 122%, 116% Standard reproduction ratio (reduction): 94%, 87%, 82%, 71% Type: inch 100% reproduction ratio Standard reproduction ratio (enlargement): 154%, 129%, 121% Standard reproduction ratio (reduction): 94%, 78%, 65%, 61%
Print Speed	60 - 130 sheets per minute (five steps variable)
Print Position Adjustment	Vertical: ±10 mm (±$^{13}/_{32}$") Horizontal: ±10 mm (±$^{13}/_{32}$")[*1]
Ink Supply	Fully automatic (800 ml per cartridge)
Master Supply/Disposal	Fully automatic (235 sheets per roll)
Master Disposal Capacity	Approx. 30 sheets
User Interface	LCD panel
Optional Accessories	Color Drum (Cylinder), Job Separator

Operating Noise	Max. 68 dB(A) (when printing 100 sheets per minute in the operator position)
Power Source[*2]	AC 100-120 V / 220-240 V, 50-60 Hz, 2.0 A / 1.0 A
Power Consumption	Max. 200 W At Ready: 15 W or less At Sleep: 10 W or less
Functions	Image Processing Mode (Line/Photo/Duo), Pencil, Enlargement/Reduction, Scanning Level, 2up, Auto Process, Proof, Print Position, Speed, Program (A/B), Confidential, Custom Setting Mode, Direct Printing, USB Flash-via-Printing, Consumables Information, Energy Saving Mode (Auto Sleep/Auto Power-OFF), RISO i Quality System
Dimensions	When in use: 1280 mm (W) x 655 mm (D) x 515 mm (H) (50 $^{13}/_{32}$" (W) x 25 $^{25}/_{32}$" (D) x 20 $^{9}/_{32}$" (H)) When in storage: 665 mm (W) x 655 mm (D) x 505 mm (H) (26 $^{3}/_{16}$" (W) x 25 $^{25}/_{32}$" (D) x 19 $^{7}/_{8}$" (H))
Required Space	1280 mm (W) x 1255 mm (D) x 845 mm (H) (50 $^{13}/_{32}$" (W) x 49 $^{13}/_{32}$" (D) x 33 $^{9}/_{32}$" (H))
Weight[*3]	Approx. 65 kg (144 lb)
Safety Standards	IEC 60950-1 compliant, Indoor, pollution degree 2[*4], at altitudes of 2000 m or lower

Notes

- Please note that due to improvements and changes to the machine, some images and explanations in this manual may not correspond to your machine.
- Specifications are subject to change without prior notice.

*1 If the width of the paper surpasses 277 mm (10 $^{29}/_{32}$"), the horizontal print position adjustment width narrows depending on the width of the paper.
*2 To switch between 100-120 V and 220-240 V, contact your dealer (or authorized service representative).
*3 The weight does not include the ink and master.
*4 The pollution degree of the usage environment due to dirt and dust in the air. Degree "2" corresponds to a general indoor environment.

Index

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.

RISO