



RISOGRAPH

TR1530/1510

USER'S GUIDE

RISO

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FCC Warning

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

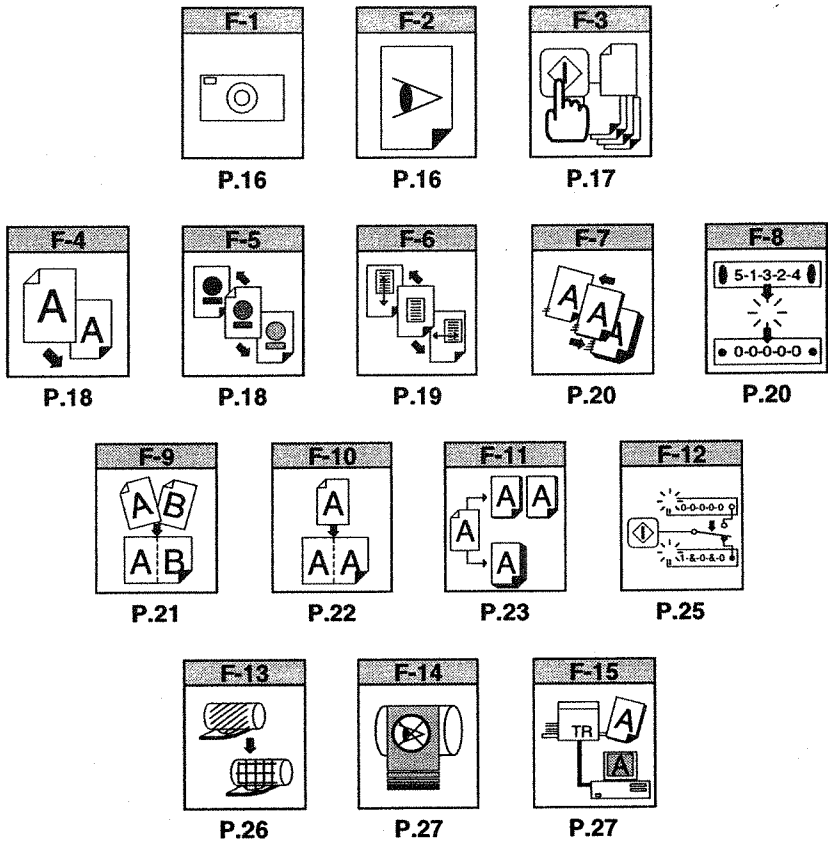
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Pictorial Contents of Features

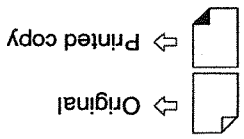


Welcome to the Risograph TR1530/TR1510

With its easy-to-read digital display and key entry for most procedures, this equipment has been specially designed for simple operation.

This Guide provides all the required information necessary to use your Risograph TR1530/TR1510. It is designed to help you take advantage of the features built into the Risograph TR1530/TR1510, and provides information on maintenance and troubleshooting.

[Pictorial Guide]



Pictorial Description

Describes a feature available in TR1530/TR1510 with a picture.

Panel Highlight

Indicates the key and/or indicator to be used or referred to during operation.

Operation Instruction

Describes operation procedures with simple numbered steps.

Cross-reference Remark
Indicates other sections of the User's Guide where you can find related descriptions.

Automatic Printing

If you do not need to check the print emphasis before making prints, press the AUTO PRINT key before pushing the START key to achieve the Auto Print feature. This feature enables copy emphasis through printing.

NOTE: By pressing the AUTO PRINT key again, the Auto Print feature can be set or reset.

1 Press the AUTO PRINT key.
This also fine-tunes print.

2 Set an original in place.
Insert an original document into the ADF. The ADF will automatically emphasize the text on the original.

3 Enter the number of copies to be printed.
If you enter a number incorrectly, press the C key to reset the Print Counter display to "0". Then enter the correct number.
If "0" is selected on the print quantity, the number will not start.

4 Press the START key.
The specified number of copies are produced with an extra good copy.

5 Holding down the R-3 (ALL RESET) key longer than one second restores the Auto Print feature to the default setting.
You can customize this setting.

6 Press the ADF key.
The ADF will release the ADF tray.

7 Wipe the Scanner Glass.
Cleanly wipe the Scanner Glass several times with a soft cloth or tissue.

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

9 Caution: Since the Scanner Glass is very sensitive, avoid scratches or recording with a hard object.

38 Maintenance

Cautions Concerning Maintenance

WARNING: [To Avoid Personal Injury During Handling]

- DO NOT remove any thermal copies.
- CALL your dealer immediately if you suspect any dangerous situation or have questions or problems with the unit.
- Remove parts and thermal reproductions are contained in the unit. Do not perform actions other than those described in this manual.
- Do not make any modifications to the unit or remove parts.
- When you want to move the unit, contact your dealer.

Caution [To Avoid Technical Problems]

- The best safety is to avoid persons to perform good service.
- Never (RISO) for its cause is responsible for maintenance service performed by non-RISO-authorized personnel.

Cleaning the Thermal Print Head
Clean the Thermal Print Head after every two hours.

Defective Prints
Let up the Heater Heating Unit. Then gently wipe the Thermal Print Head (Toward the unit) several times with a soft cloth or tissue.

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

Caution: Since the Thermal Print Head is very sensitive, avoid scratches or recording with a hard object.

Cleaning the Scanner Glass
Open the ADF unit while taking the ADF tray release lever.

1 Wipe the ADF unit.
Cleanly wipe the Scanner Glass several times with a soft cloth or tissue.

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

3 Caution: Since the Scanner Glass is very sensitive, avoid scratches or recording with a hard object.

Safety Remark
Gives you safety instructions under the following icons:
Caution
WARNING

Advice Remark
Gives you helpful advice for trouble-free operation under the following heads:
NOTE
Important!

Cautions Concerning Installation

Follow the directions below for proper location and environment when installing your Risograph. They are intended to increase safety and prolong the life of your equipment.

Location and Environment

Your dealer will help determine a proper location for your unit at the time of delivery.

Caution

- Install the unit near the electrical outlet to avoid using an extension cord between the unit and the electrical outlet. If an extension cord is unavoidable, do not use one longer than 15 ft (5 m).
- Do not allow anything to rest on or roll over the power cord, and do not place the unit where the power cord is subject to traffic or abuse. This can result in a shock or fire hazard.
- Maintain adequate distance from the rear wall to allow easy connection/disconnection of the power cord.

Important! [To Avoid Mechanical Problems]

- Avoid dusty locations, such as near blackboards.
- Select a location where the unit will be level (maximum of $\pm 3/8$ inch (± 10 mm) differential allowed).
- Avoid locations where direct sunlight will fall on the unit. If this is unavoidable, protect the unit with a curtain or shade on windows.
- Install within the recommended temperature range: 59°F to 86°F (15°C to 30°C) with moderate humidity (40% to 70%, no condensation).
- Avoid situations of sudden temperature change.
- Avoid locations where heat or air is directed onto the unit from an air conditioner or a heater.



Power Connections

WARNING [To Avoid Personal Injury]

- Securely insert the power cord plug into the electrical outlet to ensure proper electrical connection.
- Do not overload the electrical outlet or extension cord, as it can result in fire or electrical shock (check the "Specifications" section for the allowable range).
- Make sure that the power cord plug is not crushed under other pieces of machinery or stepped on by normal traffic.



Overview of Features

Your Risograph is a high-quality digital printer that is as easy to use as a copier.

• **Easy to Use and Fully Automatic**

The control panel shows you the features available and the current status of your Risograph with indicator lights and easy-to-read digital displays, and includes a convenient "Machine Monitor" for troubleshooting.

Your Risograph processes your original by first making a master and then printing.

• **Print Speed Control**

Any of three print speeds can be selected for optimum performance.

• **Confidential Feature**

An original can be printed and the master can be automatically discarded to prevent further, unauthorized printing.

• **Reduction Capabilities**

Prints can be reduced into standard ratios, according to your needs. (e.g., legal→letter or B4→A4).

• **Programmable Print Groupings**

Simple control panel entries can automate different types of print groupings to save time finishing your print jobs.

• **Two-Up Printing**

Originals can be printed side by side on a single sheet.

• **Color Printing Options**

Optional ink colors are available, by simply changing the Print Cylinder (Drum).

Knowing the Parts and Components

Upper Area

- ① Main Control Panel (p.8)
- ② Sub Control Panel (p.9)
- ③ Original Feed Tray (p.14)

④ ADF Unit
Feeds originals into the scanner.

⑤ Main Power Switch (p.14)

⑥ Original Receiving Table

Holds scanned originals.

⑦ Original Guides (p.15)

Hold and guide originals for feeding.

⑧ ADF Unit Release Lever (p.36)

Releases an original for removal when it is jammed in the ADF Unit.

⑨ White Sheet (p.37)

⑩ Scanner Glass (p.36)

⑪ Original Stopper

Prevents originals from dropping from the Original Receiving Table.

Paper Feed Area

⑫ Master Disposal Box (p.30)

Holds discarded masters.

⑬ Paper Feed Pressure Adjustment Lever (p.12)

Adjusts the paper feed pressure according to the paper being used.

⑭ Paper Feed Resistance Adjustment Lever (p.12)

Adjusts the paper feed resistance depending on paper stocks.

⑮ Feed Tray Paper Guides (p.12)

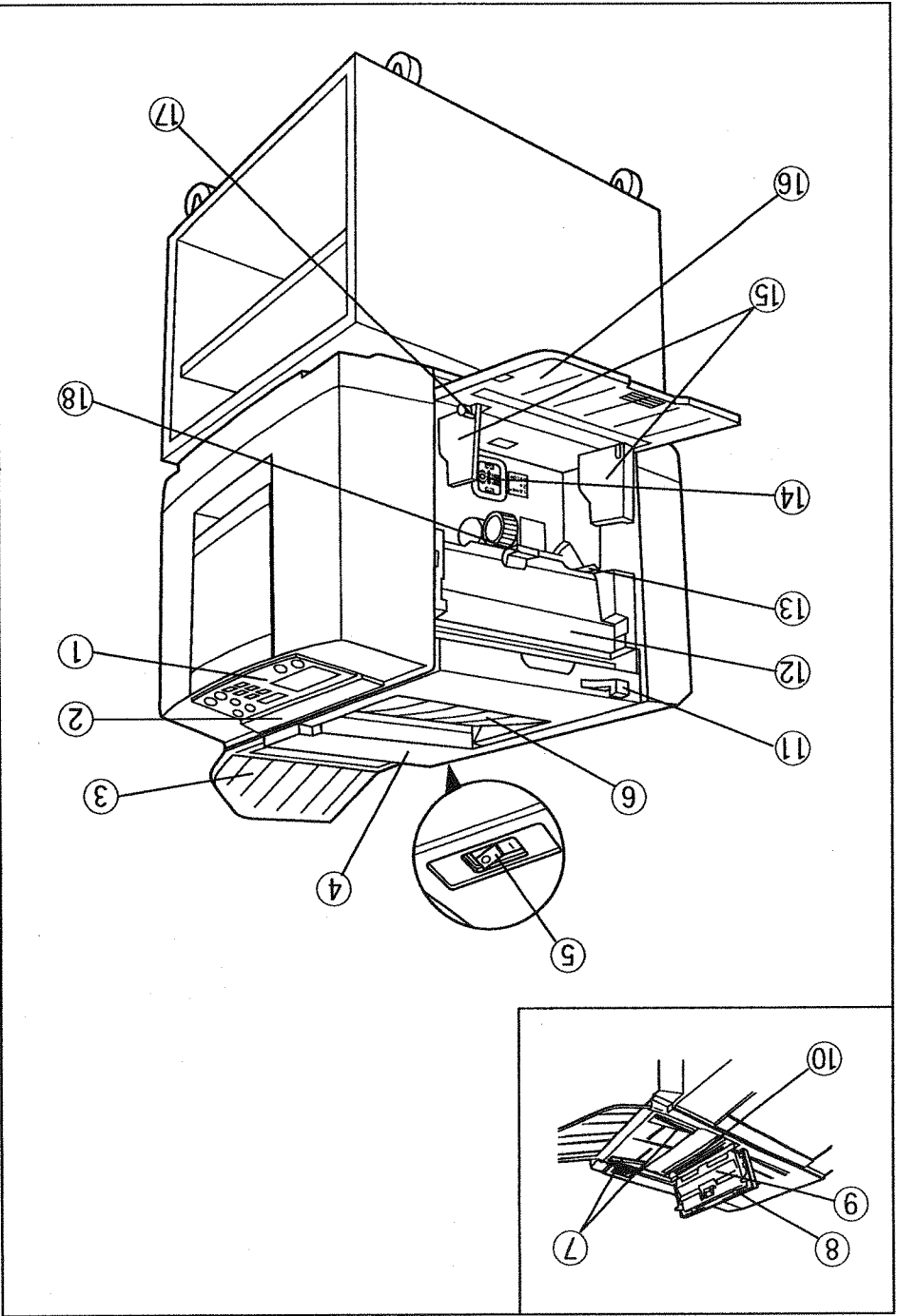
Hold and guide paper.

⑯ Paper Feed Tray (p.12)

⑰ Feed Tray Paper Guide Lock Lever (p.12)

Locks the Feed Tray Paper Guide.

⑱ Master Disposal Box Lock Lever (p.30)



Master-Making Area

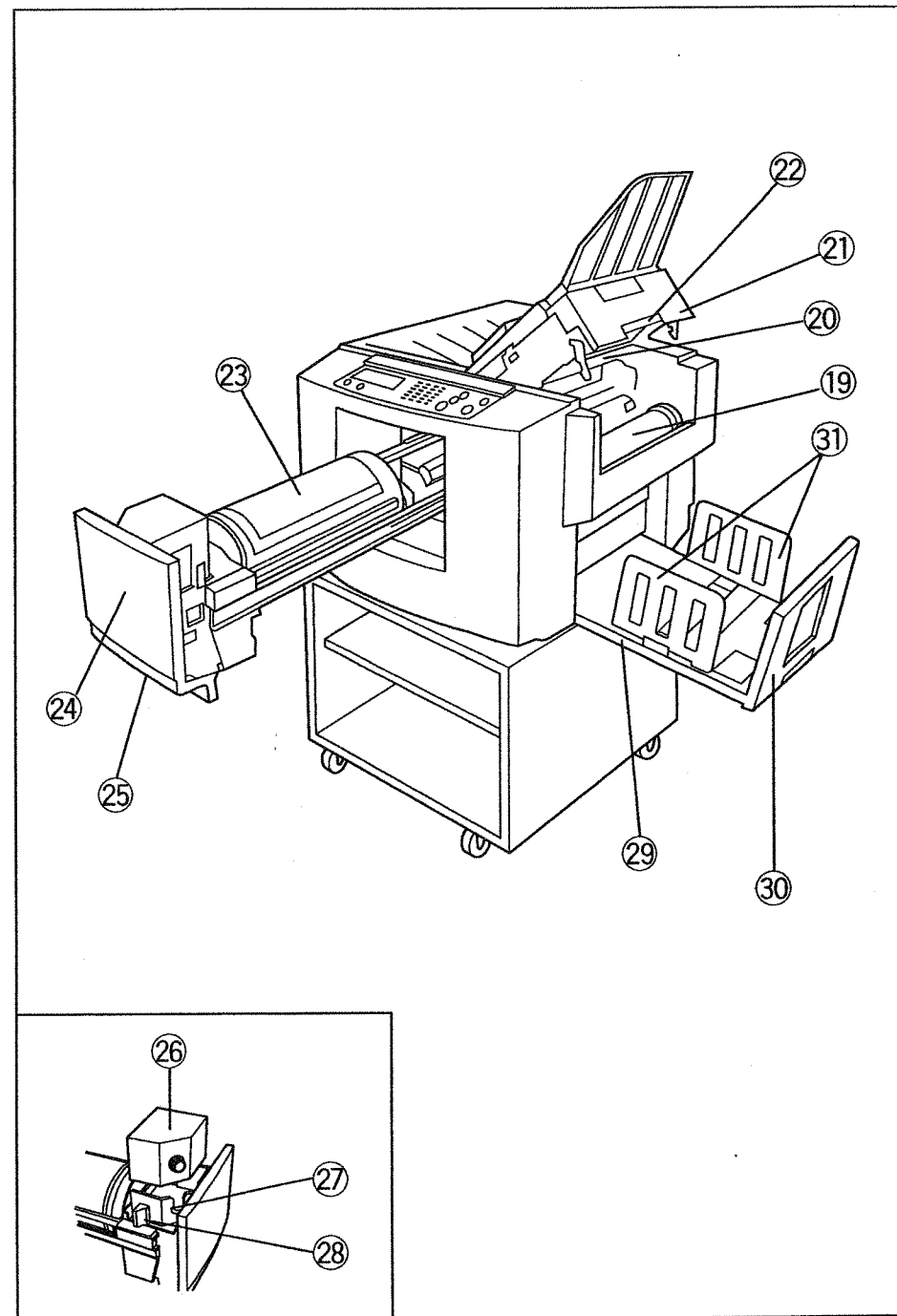
- ⑲ **Master Roll (p.29)**
- ⑳ **Thermal Print Head (p.36)**
- ㉑ **Master Loading Unit (p.29)**
Makes a master from the scanned original.
- ㉒ **Master Loading Unit Release Lever (p.29)**
Opens the Master Loading Unit.

Front Area

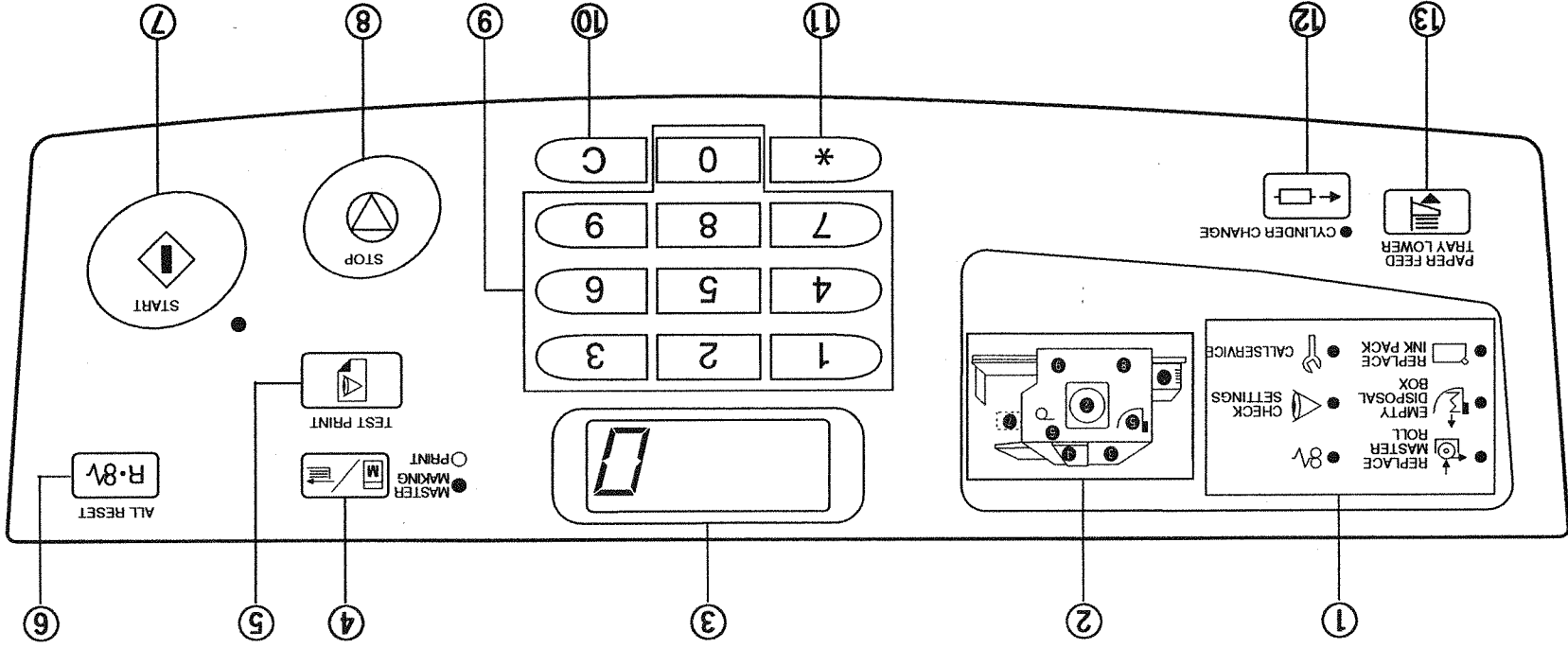
- ㉓ **Print Cylinder (Drum) (p.26)**
Holds the master.
- ㉔ **Front Cylinder (Drum) Cover (p.26)**
- ㉕ **Front Cylinder (Drum) Cover Lever (p.26)**
Used to slide the Print Cylinder (Drum) in and out of the unit.
- ㉖ **Ink Pack (p.28)**
- ㉗ **Ink Pack Holder (p.28)**
Secures the Ink Pack in position.
- ㉘ **Ink Pack Release Lever (p.28)**
Used to release the Ink Pack.

Paper Receiving Area

- ㉙ **Paper Receiving Tray (p.13)**
- ㉚ **Paper Stop (p.13)**
Stops printed paper ejected into the Paper Receiving Tray.
- ㉛ **Receiving Tray Paper Guides (p.13)**
Align printed paper neatly.

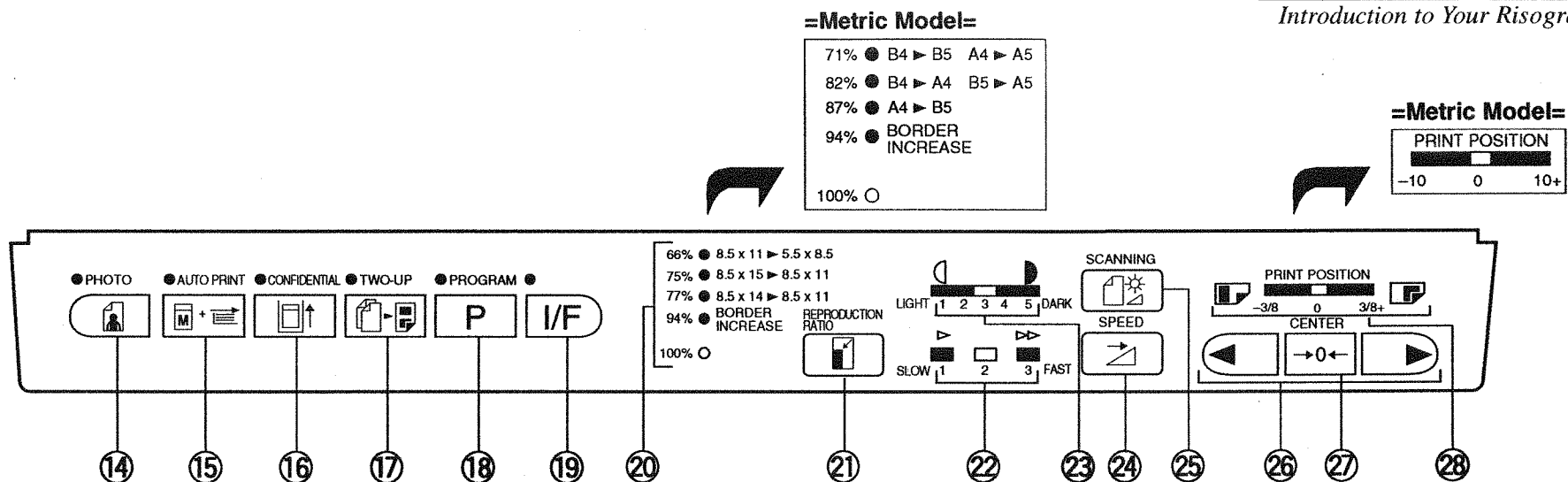


The Control Panel



Main Control Panel

- ① **Check & Error Display (p.31)**
Shows errors or machine status.
- ② **Machine Monitor Display (p.31)**
Shows locations which should be checked in relation with the error or machine status indicated in the Check & Error Display.
- ③ **Print Quantity Display**
Counts the number of printed copies or shows other numeric settings and advice codes.
- ④ **MASTER-MAKING/PRINT Key**
Switches between Master-Making and Printing operations. Normally, selection is automatically made according to the current process.
- ⑤ **TEST PRINT Key (p.16)**
Prints a sample from the current master to allow you to check print quality, print position, density, and so on.
- ⑥ **ALL RESET (R•8v) Key (p.20)**
Returns all settings to initial status. This key is also used to clear error displays after troubleshooting.
- ⑦ **START Key**
Starts printing or master-making process. The indicator is "GREEN" when the key is active. This key is also used to resume operation after troubleshooting.
- ⑧ **STOP Key**
Interrupts printing, and cancels confidential feature.
- ⑨ **Print Quantity Keys (0 to 9 Keys)**
Use these keys to enter the number of copies to be printed, or to enter other numeric values.
- ⑩ **C Key**
Cancels the number entered and resets the Print Quantity Display to zero.
- ⑪ *** Key (p.23)**
Use when making program settings.
- ⑫ **CYLINDER (DRUM) CHANGE Key (p.26)**
Positions and unlocks the Print Cylinder (Drum) for removal.
- ⑬ **LOWER PAPER FEED TRAY Key (p.12)**
Lowers the Paper Feed Tray for replacing or adding printing paper.



Sub-Control Panel

14 PHOTO Key (p.16)

Selects the Photo processing mode. The indicator lights when the feature is active.

15 AUTO PRINT Key (p.17)

Automates the process of master-making through printing. The indicator lights when the feature is active.

16 CONFIDENTIAL Key (p.27)

Protects confidential documents from unauthorized duplication. The indicator lights when the feature is active.

17 TWO-UP Key (p.21, 22)

Reproduces two prints side by side on one sheet of paper. The indicator lights when the feature is active.

18 PROGRAM Key (p.23)

Provides access to programmed grouping of prints. The indicator lights when the feature is active.

19 INTERFACE (I/F) Key (p.27)

Allows data transmission between your Risograph and external equipment, such as personal computers, with the optional computer interface. The indicator lights when an interface line is opened.

20 Reproduction Size Indicator (p.18)

Shows the current reproduction size.

21 Size Adjustment Key (p.18)

Selects any of five preset reproduction sizes.

22 PRINT SPEED Indicator (p.20)

Shows the selected print speed.

23 ORIGINAL SCANNING CONTRAST Indicator (p.18)

Shows the current original scanning contrast.

24 PRINT SPEED Adjustment Key (p.20)

Adjusts print speed (on a 1 to 3 scale).

25 SCANNING CONTRAST Adjustment Key (p.18)

Selects contrast adjustments (on a 1 to 5 scale) for the darkness of the original to be scanned.

26 PRINT POSITION Adjustment Keys (p.19)

Adjust vertical print position.

27 PRINT POSITION CENTER Key (p.19)

Moves vertical print position back to center.

28 PRINT POSITION Indicator (p.19)

Shows the current vertical print position.

Paper Recommendations

Printing paper sizes of 3 1/2" x 5 1/2" (90 x 140 mm, A6 or postcard size) to 10 3/4" x 15 1/2" (274 x 395 mm or B4) can be used. A wide range of paper thicknesses and types can be used for printing. Use printing paper with weights between 15-lb bond (50 g/m²) and 36-lb bond (157 g/m²).

The maximum printing area is as follows:

=TR1530=

- B4 Cylinder (Drum) - 9.8" x 14.0" (251 x 357 mm)

=TR1510=

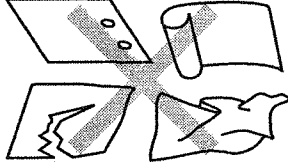
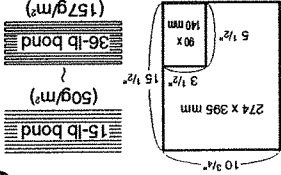
- Legal Cylinder (Drum) - 8.2" x 13.7" (210 x 349 mm)
- A4 Cylinder (Drum) - 8.2" x 11.4" (210 x 290 mm)

Important!

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

- Extremely thin paper (less than 15-lb bond or 50 g/m²)
- Extremely thick or heavy paper (greater than 36-lb bond or 157 g/m²)
- Wrinkled, curled, folded, or torn paper
- Chemically treated or coated paper (such as thermal or carbon paper)

Size and Weight Restrictions



Guides for Trouble-Free Use

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

- When using standard paper, set the Paper Feed Pressure Adjustment Lever to "NORMAL."

☞ p.12

- When using thick paper (such as card stock) or slippery paper, set the Paper Feed Pressure Adjustment Lever to "CARD." **☞ p.12**

- Slide the Feed Tray Paper Guides and Receiving Tray Paper Guides to fit the paper size.

☞ p.12, 13

- Position the Paper Receiving Tray to fit the paper length.

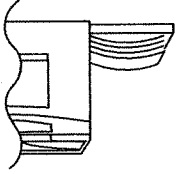
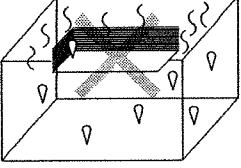
- Use flat printing paper that is free of folds. If curled paper is unavoidable, place the printing paper so that the curl faces down.

- Paper may stick to the Cylinder (Drum) surface if the top margin is too narrow on the original or if the upper portion of the original uses a large amount of ink. To solve this problem, lower the print position to provide a wider top margin or reverse the top and bottom of the original. Then restart printing from the beginning. **☞ p.19**

Storing Environment

Store printing paper in a level, dry area. Storing the paper in an excessively humid area could cause paper jams as well as poor print quality.

After unpacking 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.



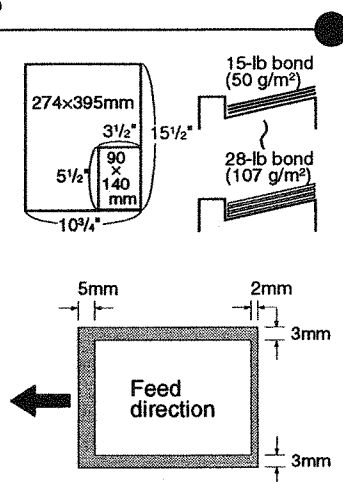
Originals

Size and Weight Restrictions

You can use originals from 3 1/2" x 5 1/2" (90 x 140 mm, A6 or postcard size) to 10 3/4" x 15 1/2" (274 x 395 mm or B4). The weight of originals should be between 15-lb bond (50 g/m²) and 28-lb bond (107 g/m²).

The margins indicated on the figure to the right are required for the original.

Reduce the original if necessary to fit it inside these margins.



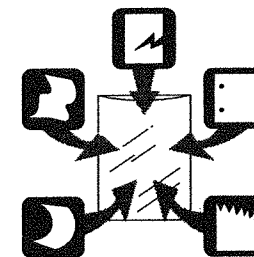
Use the carrier sheet when printing the following originals:

- Patched or worn originals
- Wrinkled, curled, folded, or torn originals
- Transparent originals (such as tracing paper, OHP transparency)
- Originals with correction fluid or glue. If correction fluid or glue is used on an original, thoroughly dry it before you set the original in position.
- Extremely thin originals (less than 15-lb bond or 50 g/m²)
- Originals with a chemically treated surface (such as thermal paper or carbon paper)

Important!

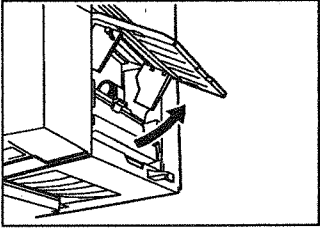
Do not use the following originals:

- Original with staples or clips
- Extremely thick originals (greater than 28-lb bond or 107 g/m²)

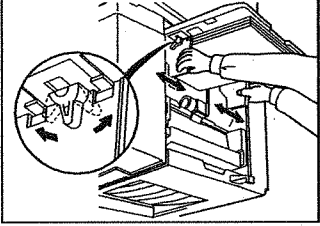


Setting Up the Paper Feed Tray

1 Open the Paper Feed Tray.



2 Adjust the Feed Tray Paper Guides to the width of the paper and load printing paper.



Slide the guides to the desired point on the scale, and push down the Feed Tray Paper Guide Lock Levers in order to lock the guides.

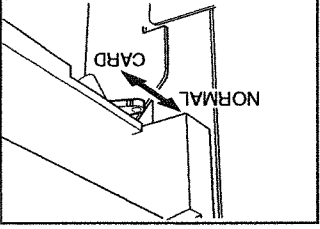
Important!

- Do not mix printing paper of different sizes.
- When using irregular sizes of paper, place the paper in the middle of the tray, then adjust the paper guides.

3 Set the paper feed pressure.

Position the Paper Feed Pressure Adjustment Lever at either "NORMAL" or "CARD," according to the paper to be used:

- NORMAL Standard paper
- CARD Thick paper such as card stock



the paper in the middle of the tray, then adjust the paper guides.

4 Set the paper feed resistance.

Position the Paper Feed Resistance Adjustment Lever at the middle. In the following cases, change the setting as indicated.

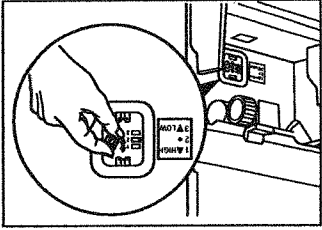
- When two or more sheets feed at the same time; → 1 ▲ HIGH
- When the top middle part is peeled or bent on the rear side of paper, especially when using card stock; → 3 ▲ LOW

Adding or Replacing Paper

If you want to add paper or use paper of different size, lower the Paper Feed Tray so that you can load the paper easily.
To lower the Paper Feed Tray, press the LOWER PAPER FEED TRAY key on the control panel.

Important!

Do not mix different paper sizes in the Paper Feed Tray.



Cautions Concerning Handling and Operation

To ensure proper product quality and the prolonged life of your Risograph, follow the directions below concerning handling and operation.

⚠ WARNING [To Avoid Personal Injury]

- Be alert and use common sense.
- Do not open the cover or move the unit during operation.
- Do not handle the parts inside the unit, except what is specified in this *User's Guide*. The parts are made with high precision and can be damaged easily.
- Never stick your hands or fingers in the openings in and around the Paper Feed Tray as well as the Paper Receiving Tray during operation.
- Keep loose clothing or long hair away from moving parts to avoid becoming entangled.
- Do not try to alter the unit or remove parts.
- Disconnect the power cord if you think there is an electrical problem.
- Before cleaning any parts of the unit, turn the power off.

⚠ Caution [To Avoid Mechanical Problems]

- Open/close the covers gently.
- Do not turn off or unplug the unit during operation.
- Do not place items on top of the unit or in any opening of the unit during operation. It could cause damage.
- Do not place heavy objects on any part of the unit.
- Do not subject the unit to jolts.
- Contact your local service center before moving the unit.

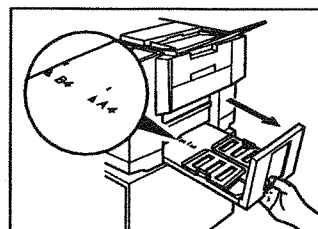
Important! - Materials Not to Be Printed

Remember not to infringe copyrights or violate laws when using the equipment, even during personal use. Consult your local authorities for further details. In general, use discretion and common sense.

Setting Up the Paper Receiving Tray

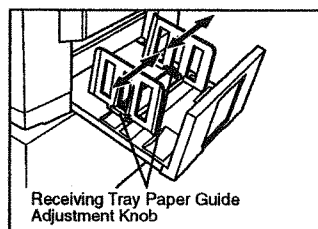
1 Pull out the Paper Receiving Tray.

Pull out the Paper Receiving Tray to fit the paper length.



2 Raise and slide the Receiving Tray Paper Guides to fit the paper width.

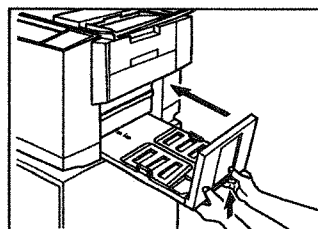
Holding the Receiving Tray Paper Guide Adjustment Knob, slide the guides.



NOTE For thick paper, set the Guides a little wider than the actual paper width.

Closing the Paper Receiving Tray

1 Spread the Receiving Tray Paper Guides to the B4 position, and then turn them down.



2 Lift up the Paper Receiving Tray slightly and push it all the way in.

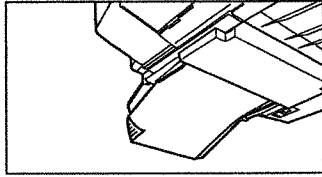
Basic Processes

The basic processes of your Risograph can be divided into two stages: making a master of an original (Master-Making), and then printing copies from the master. Your Risograph has been designed so that these two processes flow smoothly from one to the other.

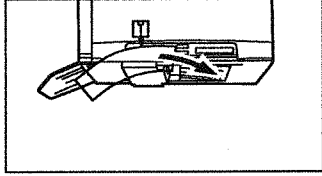
Master-Making

When you create a master, an original is scanned. The master is imaged and then automatically placed on the Print Cylinder (Drum).

1 Set an original in place.

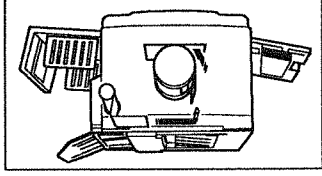


2 Scan the original.



3 Create a master.

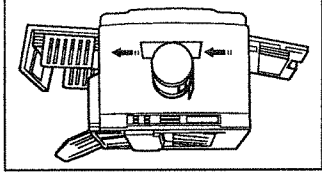
The master is placed on the Print Cylinder (Drum) and a proof copy is produced.



Printing

When you print, the Print Cylinder (Drum) rotates to print the specified number of copies.

4 Enter the number of copies you want.

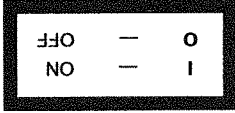


5 Start printing.

Basic Operation

1 Turn the power switch ON.

The power switch is located on the far side on the top of the machine.



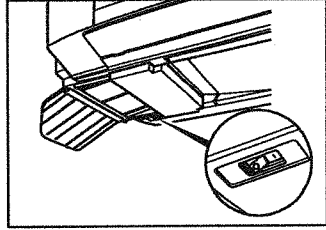
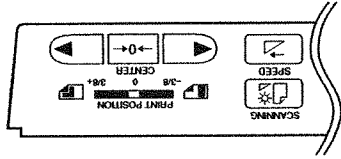
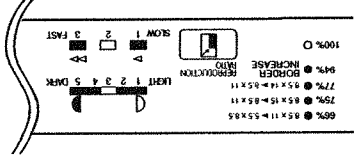
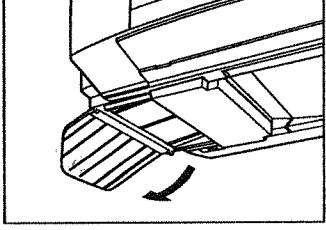
2 Check the settings on the control panel.

When the power is connected, the control panel indicators show the initial settings. Open the sub control panel cover and make any necessary changes, such as reproduction size and processing mode.

Holding down the R · 8V (ALL RESET) key longer than one second returns the control panel to the initial settings.

✎ p.20.....Return to initial settings.
✎ p.25.....You can customize the initial settings.

3 Open the Original Feed Tray.



4 Place an original on the Original Feed Tray.

Adjust the Original Guides to the width of the original. Then insert the original face down into the ADF Unit until it stops. The original is automatically fed and set in place.

A maximum of 10 originals can be set in place at one time.

NOTE When an original is in place, processing automatically changes to Master-Making from Printing. The MASTER-MAKING indicator on the control panel lights.

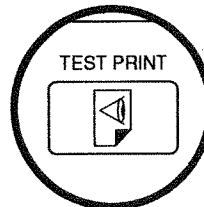
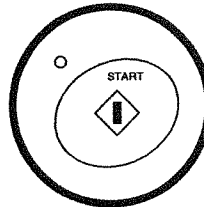
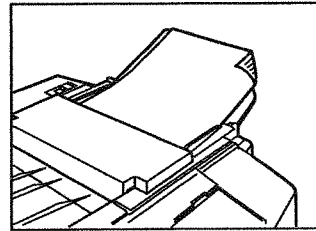
5 Press the START key.

After an original is scanned, a master is created. A sample is automatically printed to allow you to check the print quality, position, and density.

p.19.....To change the position of the printed image, press the PRINT POSITION Adjustment keys, and/or shift the printing paper along with the Feed Tray Paper Guides.

If settings are changed, press the TEST PRINT key to check the results with sample prints.

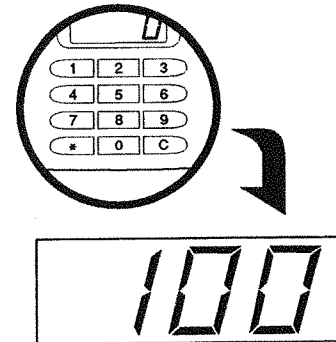
NOTE If the machine is not used for a long period of time, ink on the surface of the Print Cylinder (Drum) may dry. Dry ink on the Print Cylinder (Drum) may cause faint or blurred printing. In this case, press the TEST PRINT key several times until a clear printed image is obtained.



6 Enter the number of copies to be printed.

Specify the number of copies to be printed using the Print Quantity keys; the number is displayed in the Print Quantity Display.

NOTE If you enter a number incorrectly, press the C key to reset the Print Quantity Display to zero, then enter the correct number.

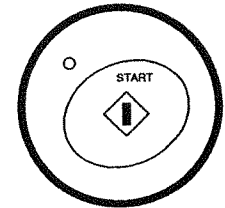


7 Press the START key.

The specified number of copies is printed.

NOTE If printing stops and the CHECK SETTINGS indicator flashes on the Check & Error Display with ① flashing to indicate its location, paper has run out. Load paper into the tray.

p.12



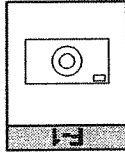
Special Note - Auto Idling Operation

In case ink is not supplied quickly enough to cover ink consumption during printing, paper stops feeding and the operation speed is slowed down to secure sufficient ink supply by free Print Cylinder (drum) rotation.

During this operation, a rotation signal is indicated in the Print Quantity Display as shown to the right. When a sufficient volume of ink is obtained for printing, the unit resumes printing operation. In case it stops and the remaining quantity to be printed appears in the Print Quantity Display, press the START key to finish your print job.



Photo/Half-Tone Processing



If an original contains photographs or half-tone images, or a multi-colored original is used, select PHOTO processing by holding down the PHOTO key.

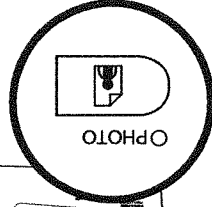
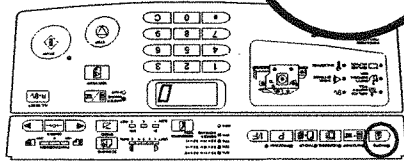
The PHOTO indicator lights.

Since the image is processed graphically, degrees of shading are accurately reproduced.

F1 p.18.....The scanning contrast setting should be checked and adjusted according to image density, if necessary.

NOTE If the PHOTO processing is not selected to print an original that contains a darkly shaded photograph, copies might be smudged.

Holding down the R·8V (ALL RESET) key longer than one second returns the image processing to the initial setting.

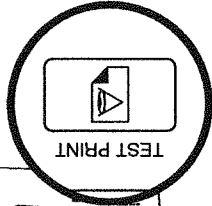
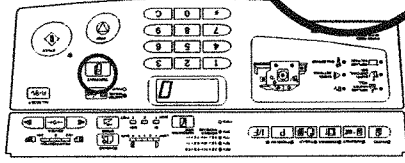
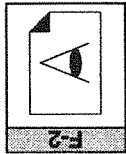


If changes have been made to the print position and other settings, check the print quality by producing proof copies.

By holding down the TEST PRINT key, you can print continuously.

NOTE Test printing does not affect the quantity in the Print Quantity Display.

Producing Proof Copies

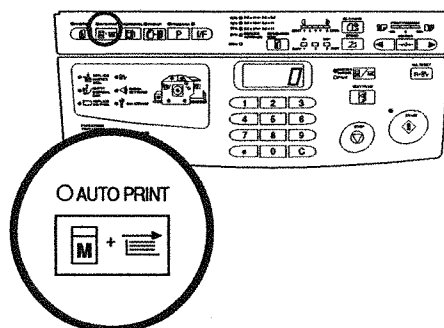


F-3 Automatic Printing

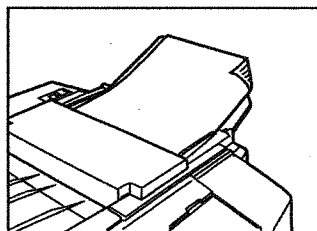
If you do not need to check the print samples before making prints, press the AUTO PRINT key before pressing the START key to activate the Auto Print feature. This feature enables non-stop operation from master-making through printing.

NOTE If you need to check or adjust the print position, cancel the Auto Print feature by pressing the AUTO PRINT key again.

- 1 Press the AUTO PRINT key.**
The Auto Print indicator lights.



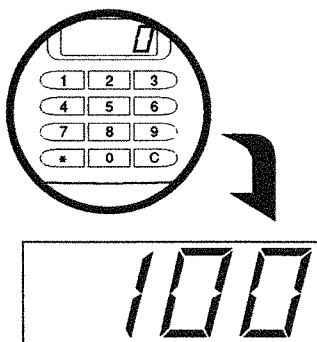
- 2 Set an original in place.**
Insert an original face-down into the ADF Unit until it stops. A maximum of 10 originals can be set at one time.



- 3 Enter the number of copies to be printed.**

NOTE If you enter a number incorrectly, press the C key to reset the Print Quantity Display to "0," then enter the correct number.

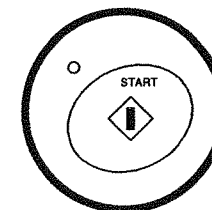
If "0" is selected as the print quantity, the machine will not start.



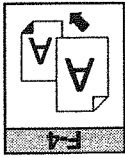
- 4 Press the START key.**
The specified number of copies are produced with an extra proof copy.

Holding down the R·8V (ALL RESET) key longer than one second returns the Auto Print feature to the initial setting.

☞ p.25.....You can customize initial settings.

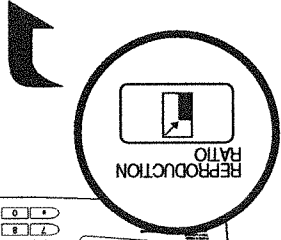
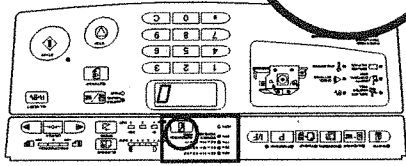


Reducing Originals



Originals can be reduced to a preset percentage. Four preset Reduction Size indicators in the Sub Control Panel lights up. If selected, the chosen Reproduction Size indicator in the Sub Control Panel lights up.

Press the Size Adjustment key to select a desired percentage.
 Each time the Size Adjustment key is pressed, the indicators light in the following order:
 <USA model> 94%→77%→75%→66%→100%→94%
 <Metric model> 94%→87%→82%→71%→100%→94%
 Holding down the R·8v (ALL RESET) key longer than one second returns print size to the initial setting (100%).



=TR1530=

- 100% ○
- 71% ● B4 ▶ B5 A4 ▶ A5
- 82% ● B4 ▶ A4 B5 ▶ A5
- 87% ● A4 ▶ B5
- 94% ● BORDER INCREASE

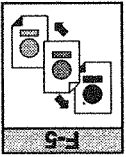
=TR1510/Metric Model=

- 100% ○
- 71% ● A4 ▶ A5
- 82% ● B5 ▶ A5
- 87% ● A4 ▶ B5
- 94% ● BORDER INCREASE

- 100% ○
- 66% ● 8.5 X 11 ▶ 5.5 X 8.5
- 75% ● 8.5 X 15 ▶ 8.5 X 11
- 77% ● 8.5 X 14 ▶ 8.5 X 11
- 94% ● BORDER INCREASE

=TR1510/U.S.A. Model=

Changing Image Contrast on Prints



To achieve different tones on printed copies from those of an original, adjust the scanning contrast according to the darkness of the original.

Press the SCANNING CONTRAST Adjustment key to change contrast.

Each press of the SCANNING CONTRAST Adjustment key changes the contrast by one degree in the following order:

4→5→1→2→3→4

⏏ (1 or 2) For newspaper or colored originals.

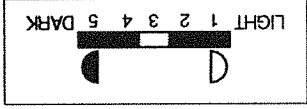
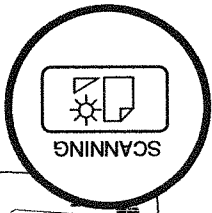
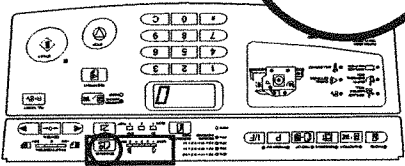
⏏ (4 or 5) For poor copies or pencil-written originals.

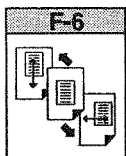
NOTE

After adjusting the scanning contrast, make another master copy to make the adjustment effective for further printed copies.

Holding down the R·8v (ALL RESET) key longer than one second returns the Scanning Contrast to the initial setting (3).

...p.25. You can customize initial settings.





Repositioning the Print

The print position can be adjusted vertically (up and down) and horizontally (to the right and left).


NOTE If you adjust the print position, be sure to produce test prints to verify the new print position.


Adjusting Vertical Print Position

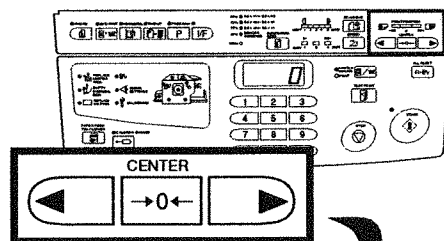
You can move the print position vertically by pressing either of the PRINT POSITION Adjustment keys. The allowable range is $\pm 3/8$ " (± 10 mm).

When the key is pressed, the adjusted vertical print position is roughly given by the PRINT POSITION indicator.

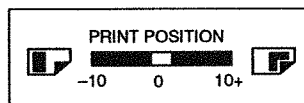
 Moves print position down.

 Moves print position up.

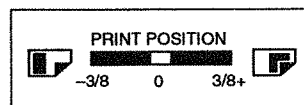
 Returns print position to the center.



=Metric Model=



=U.S.A. Model=



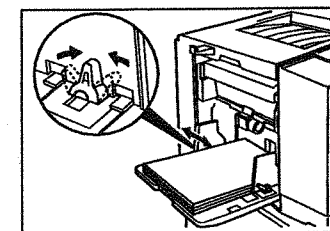
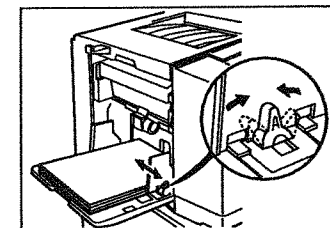
Adjusting Horizontal Print Position

You can move the print position horizontally by shifting the printing paper to the right or the left along with the Feed Tray Paper Guides. To move the Feed Tray Paper Guides, first release the lock by pulling up the Feed Tray Paper Guide Locking Levers.

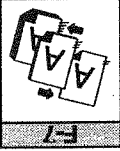
NOTE The allowable range is $\pm 3/4$ " (± 20 mm) except B4 size ($10 3/4$ " x $15 1/2$ " paper). For this paper size, it is limited to $\pm 3/8$ " (± 10 mm).

Important!

When adjusting horizontal print position, make sure to slide the Receiving Tray Paper Guides following the adjusted positions of the Feed Tray Paper Guides. Otherwise, printed copies may jam in the Paper Receiving Tray.



Changing Print Speed



Print speed can be set at any of three levels, among 60, 90 and 130 sheets per minute.

Press the PRINT SPEED

Adjustment key to change the print speed.

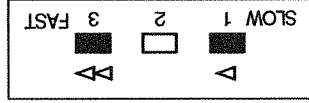
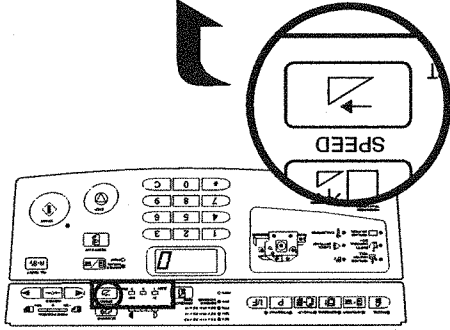
The setting is changed in the following order:

3 (130 cpm) → 1 (60 cpm) → 2 (90 cpm) → 3

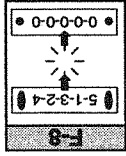
NOTE The normal print speed (setting 2) is 90 sheets per minute.

Holding down the R•8V (ALL RESET) key longer than one second returns print speed to the initial setting.

Ⓜ p.25 ... You can customize initial settings.



Return to Initial Settings



To return all the settings to initial status, including print position and reproduction percentage, turn the power off and on again, or hold down the R•8V (ALL RESET) key for more than one second.

NOTE If you have customized the initial settings, they will be the ones recovered when you perform the procedure above. Ⓜ p.25

INITIAL SETTINGS — at time of purchase

- Size Adjustment
 - 77% ● 8.5 x 14 ▶ 8.5 x 11
 - 94% ● BORDER INCREASE RATIO
 - 100% ○

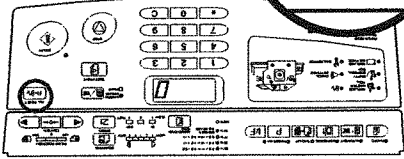
- Print Quantity Display

- Print Speed
 - SLOW 1
 - 2
 - 3 FAST

- Print Position
 - PRINT POSITION
 - 0
 - 3/8
 - 3/8+

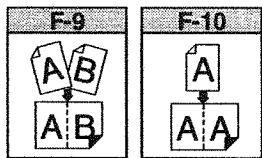
- Master-Making/Print
 - MASTER MAKING
 - PRINT

- Original Scanning Contrast
 - LIGHT 1 2 3 4 5 DARK



ALL RESET

R•8V



Printing Originals Side by Side

Two of the same (or two different) originals can be printed side by side and, if required, each original can have different settings: reproduction size, scanning contrast, and processing (Line/Photo).



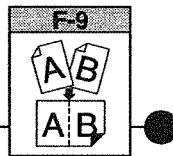
Productivity can be doubled by cutting or folding the Two-Up prints in half to finish your job.

NOTE Irregular size printing paper cannot be used with the Two-Up feature.

See p.17.....The Auto Print feature can be used with Two-Up printing.

Holding down the R-8 (ALL RESET) key longer than one second returns the control panel to the initial settings.

Printing Two Different Originals Two-Up

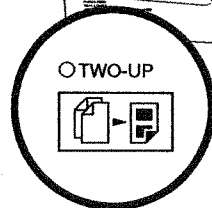
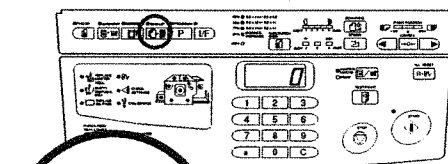


Using the Same Settings

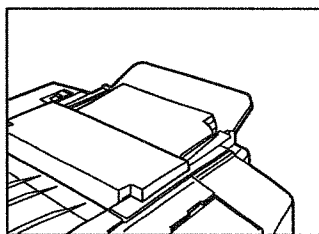
- 1 Press the TWO-UP key to activate the Two-Up feature.**

The Two-Up indicator lights when the feature is active.

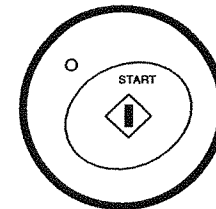
NOTE To cancel the Two-Up feature, press the key again.



- 2 Place two originals face-down on the Original Feed Tray.**



- 3 Press the START key.**
The originals are scanned and the Two-Up master is made.
A sample Two-Up print is made.



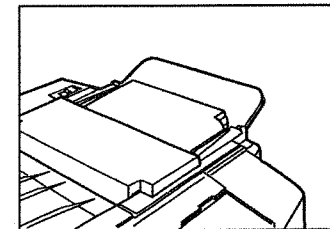
Changing Settings for One Original

When different settings are required for two different originals, place them individually.

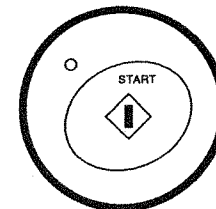
The Risograph scans the first original, and then provides a 15-second period (a beep sounds) within which to place the second original.

NOTE If you press the STOP key or do not place the second original during the 15-second period, the sample print will be produced with one side blank.

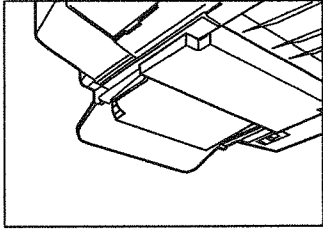
- 1 Activate the Two-Up feature and place the first original face-down on the Original Feed Tray.**



- 2 Press the START key.**
After the first original is scanned and ejected into the Original Receiving Table, a 15-second beep sounds.

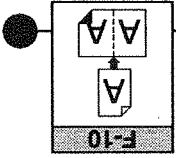


3 During the 15-second beep, enter the settings for the second original and place the second original on the Original Feed Tray.

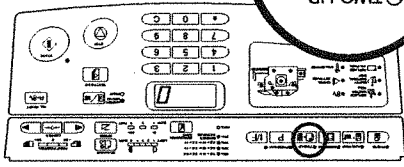


After the second original is scanned, a sample Two-Up print is automatically printed.

Printing the Same Original Two-Up

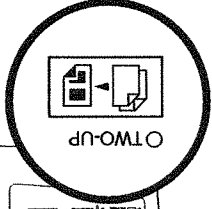


1 Press the TWO-UP key to activate the Two-Up feature.

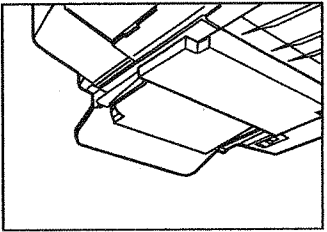


The Two-Up indicator lights when the feature is active.

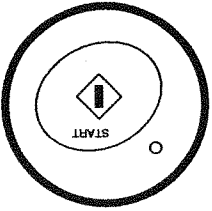
NOTE To cancel the Two-Up feature, press the key again.



2 Place an original face-down on the Original Feed Tray.

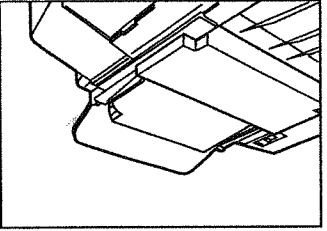


3 Press the START key. After the original is scanned and ejected into the Original Receiving Table, a 15-second beep sounds.



4 During the 15-second beep, change settings, if necessary, and place the original on the Original Feed Tray again.

After the original is scanned again, a sample Two-Up print is automatically printed.



NOTE If you press the STOP key or do not place the original during the 15-second period, the sample print will be produced with one side blank.

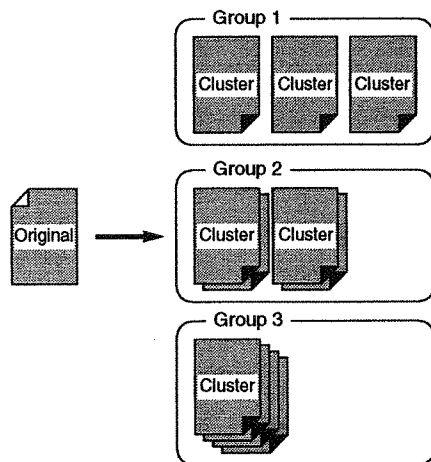
F11 Automatic Sorting into Groups

The Programmed Printing feature can be used to print and sort printed sheets into various groups automatically from one original.

Up to 5 groups can be set up, with a maximum of 99 clusters in each group and a maximum of 9,999 copies can be specified in each cluster.

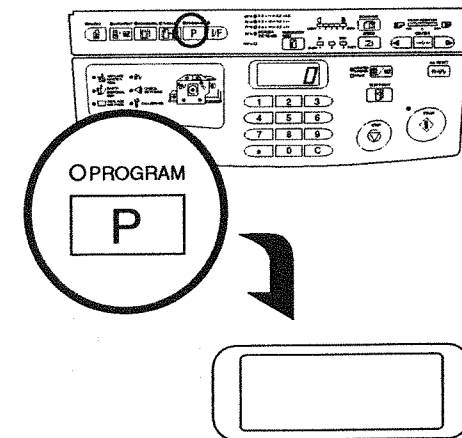
NOTE To cancel the Programmed printing feature, press the PROGRAM key again.

NOTE The Job Separator (optional) is useful for Programmed printing.



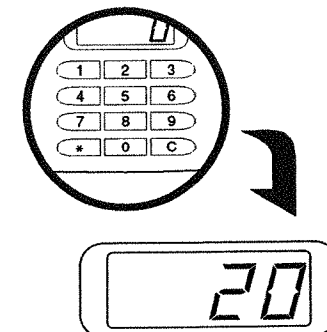
If more than one original (up to 10 sheets) is placed in the ADF Unit with the Auto Print feature activated, the set-up program runs completely for each original, until all the originals are printed and sorted into groups as specified in the program.

- 1 Press the PROGRAM key.**
The Program indicator lights and the numeric indication goes out in the Print Quantity Display.

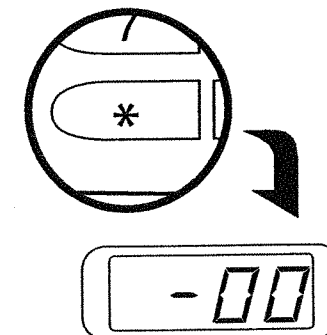


- 2 Input the number of copies to be printed for each cluster of the first group using the Print Quantity keys.**

NOTE If you enter a number incorrectly, press the "C" key to reset the Print Quantity Display to zero, then enter the correct number.

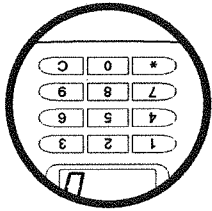


- 3 Press the "*" key.**
The Print Quantity Display is changed to [-00] to allow you to specify the number of clusters for the first group.



4 Input the number of clusters for the first group using the Print Quantity keys.

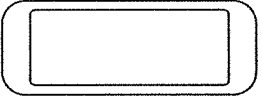
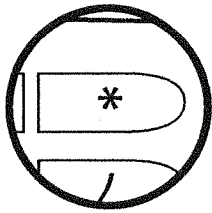
NOTE Unless you specify the number of clusters at this stage, it is automatically set at "1."



5 Press the "*" key again to set the print quantity for the second group.

Repeat the procedures in the steps 2 to 5 and input print quantities and cluster numbers for any remaining groups. Up to 5 groups can be specified.

NOTE If you want to correct the program setting, press the PROGRAM key and cancel the existing program setting. Then enter the correct one from the beginning.

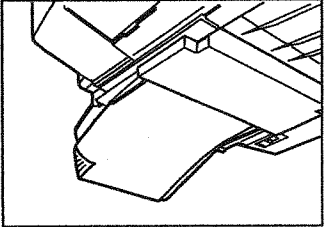


6 Enter other settings.

Specify printing position, reproduction size, and so on.

NOTE If you want to print more than one original using the same program settings, press the AUTO PRINT key to activate the Auto Print feature.

7 Place an original face-down on the Original Feed Tray.



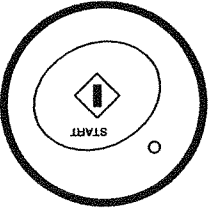
8 Press the START key.
A sample print is produced. If the Auto Print feature is not activated, press the START key again.

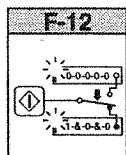
Copies are produced and sorted according to the program, starting with the last group specified. When printing is completed, the program settings are automatically cleared.

To interrupt the programmed printing, press the STOP key.

NOTE If the Auto Print feature is activated, the program settings are recovered at the end of printing.

Holding down the R-8v (ALL RESET) key longer than one second returns the control panel to the initial settings and clears the program.





Customizing the Initial Settings

You can select some of the initial settings to which the machine status will be returned when the power is turned on, or the R•8v (ALL RESET) key is held down for more than one second.

NOTE When you customize the initial settings, they remain valid until they are changed again.

INITIAL SETTINGS OPEN TO ARBITRARY CHANGES

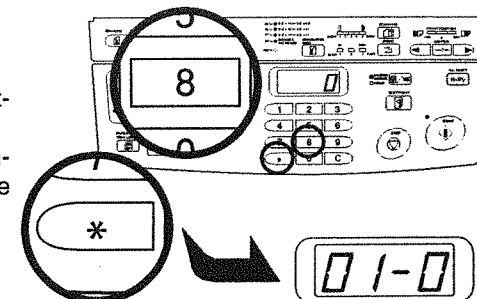
Item No.	Title	Description	Choices	Ref. Page
01	PRINT SPEED	Selects the initial print speed (copies per minute).	0(=90) , 1(=130), 2(=60)	p.20
02	AUTO PRINT FEATURE	Selects the initial status of the Auto print feature.	0(OFF) , 1(ON)	p.17
03	JOB SEPARATOR CONNECTION	Opens/Closes the data line for the optional Job Separator. Select "YES" when attaching the Job Separator.	0(NO [Close data line]) , 1(YES [Open data line])	p.37
04	AUTO RESET TIME	Gives/Ignores the period for automatic initialization.	0(NONE) , 1(3 Minutes)	
06	MINIMUM PRINT QUANTITY	Selects the minimum print quantity which should be produced from one master.	0(1) , 1(10), 2(20), 3(30), 4(40), 5(50) [Copies]	
07	AUTO DOCUMENT FEED	Requires or does not require the START key, to feed the following original placed in the ADF unit without the Auto print feature activated.	0(OFF [START key required]) , 1(ON [START key not required])	
09	ORIGINAL SCANNING CONTRAST	Selects the initial setting of the Original scanning contrast.	0(3) , 1(4), 2(5), 3(1), 4(2) [Setting]	p.18

* The framed item is the default setting.

1 Press "8" while holding down the "*" key.

Access the changeable initial settings.

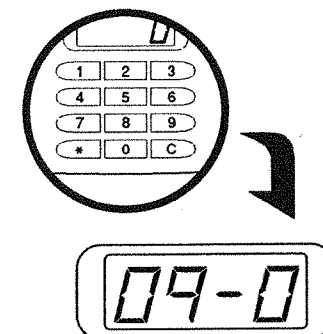
Item number **01** and a setting-status number **0** appear on the Print Quantity Display.



2 Enter the item number that you want to customize.

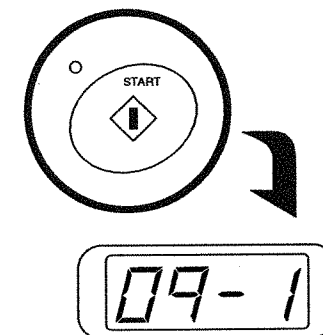
Use the Print Quantity keys.

For example, to select item **09**, enter **0** and **9**.



3 Press the START key.

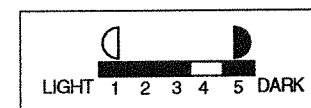
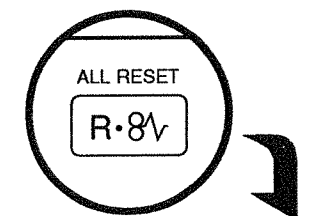
Each time you press the START key, the setting is changed. Select a desired setting.



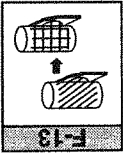
4 Press the R•8v (ALL RESET) key.

After customizing the settings, hold down the R•8v (ALL RESET) key for more than one second.

The custom settings appear as the initial settings when the power is turned ON or the R•8v (ALL RESET) key is held down for more than one second.



Changing Print Color



To print with an optional color Print Cylinder (Drum), simply remove the existing Print Cylinder (Drum) from the Risograph and replace with the color of choice.

Caution Only use Risograph TR Print Cylinder (Drum).

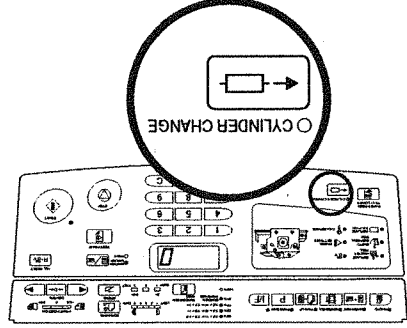
- NOTE**
- Change the Print Cylinder (Drum) with the power ON.
 - Store the removed Print Cylinder (Drum) horizontally in the Print Cylinder (Drum) case.
 - Never store the Print Cylinder (Drum) in an upright position.

Changing Print Cylinders (Drums)

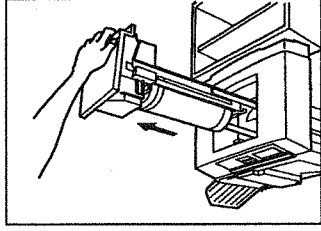
1 Check that the CYLINDER (DRUM) CHANGE indicator is lit on the Control Panel.

If the indicator is not lit, press the CYLINDER (DRUM) CHANGE key to turn it on.

Important!
Do not pull out the Print Cylinder (drum) unless this indicator is lit.

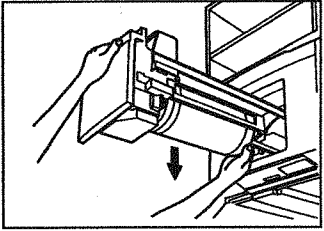


2 Pull out the Print Cylinder (Drum).
Hold the Front Cylinder (Drum) Cover Lever and pull out the Print Cylinder (Drum) until it stops.



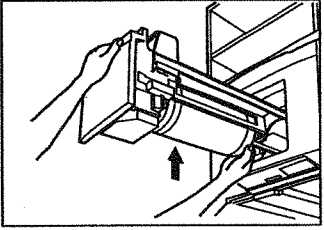
3 Remove the Print Cylinder (Drum) from the unit.

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



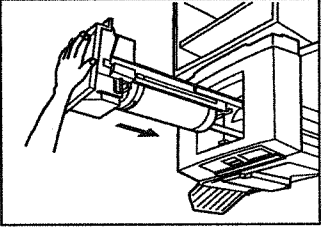
4 Load another color Print Cylinder (Drum) onto the holder.

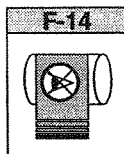
Insert another Print Cylinder (Drum) into the holder horizontally, holding the Front Cylinder (Drum) Cover and Print Cylinder (Drum) body with both hands.



5 Slide the Print Cylinder (Drum) into the unit.

Slide the Print Cylinder (Drum) into the unit until it stops.





Protecting Confidential Documents

After printing is complete, the master remains on the Print Cylinder (Drum). Copies of this master can be printed at any time by pressing the START key. To protect confidential documents from unauthorized duplication, press the CONFIDENTIAL key to discard the master after printing.

1 Confirm that printing has ended.

2 Press the CONFIDENTIAL key.

The CONFIDENTIAL indicator lights.

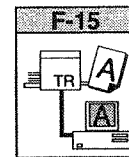
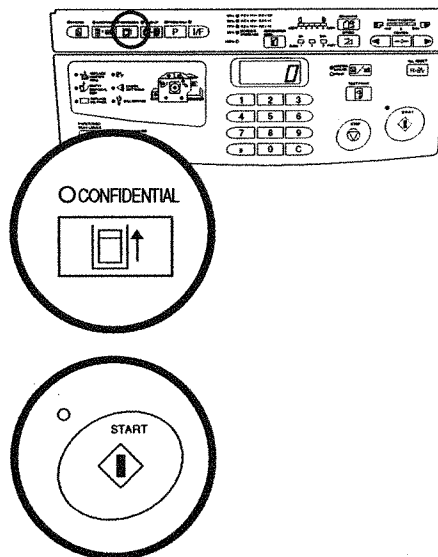
NOTE To cancel the Confidential feature, press the STOP key or the CONFIDENTIAL key again.

3 Press the START key.

The current master is discarded and replaced with a blank one. The CONFIDENTIAL indicator goes out, and the Confidential feature is canceled.

NOTE The master is discarded into the Master Disposal Box.

p.30.....For strictly confidential documents, discard the contents of the Master Disposal Box.



Interfacing with a Computer

Your Risograph can be interfaced with Computers (such as IBM and compatibles, and Macintosh) via the dedicated computer interface (optional).

When the Risograph is interfaced with a Computer, the I/F key opens the interface line to the Computer.

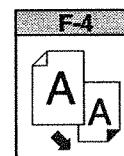
For more details on how to interface with Computers, consult the manual for the Risograph Computer Interface system.

Open the sub-panel cover and press the I/F key.

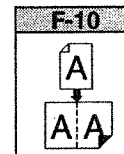
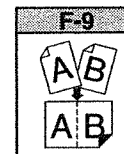
The I/F indicator lights when the interface line to a Computer is open.

NOTE The following features become inactive when the I/F key is selected:

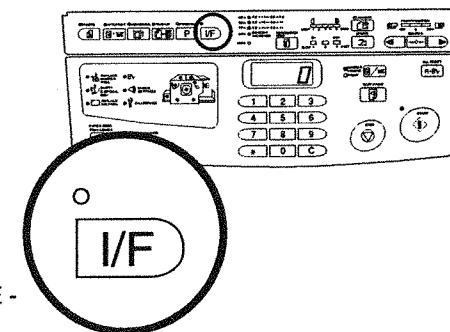
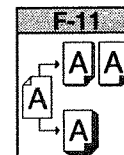
- SIZE ADJUSTMENT FEATURE -



- TWO-UP PRINTING FEATURE -



- PROGRAMMED PRINTING FEATURE -



Replacing the Ink Pack

1 Check that the CYLINDER (DRUM) CHANGE indicator is lit on the Control Panel.

If the indicator is not lit, press the CYLINDER (DRUM) CHANGE key to turn it on.

Important!
Do not pull out the Print Cylinder (drum) unless this indicator is lit.

2 Pull out the Print Cylinder (Drum).

Hold the Front Cylinder (Drum) Cover Lever and pull out the Print Cylinder (Drum).

3 Pull the Ink Pack Release Lever.

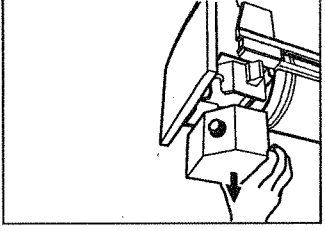
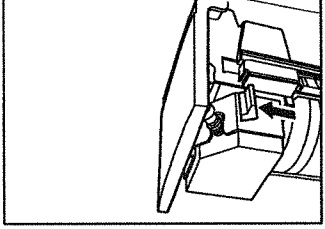
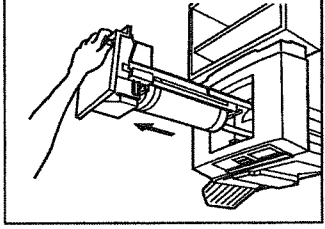
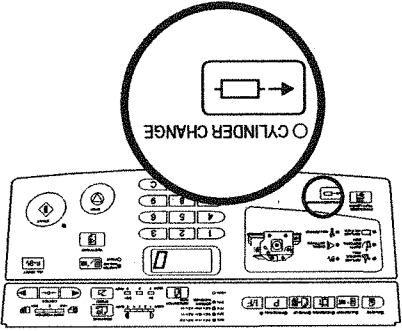
Pull the Ink Pack Release Lever in the direction illustrated.

4 Remove the empty Ink Pack.

Pull out the empty Ink Pack straight up in the direction indicated.

NOTE

If you cannot pull out the Ink Pack, contact your service representative.



1 Check that the CYLINDER (DRUM) CHANGE indicator is lit on the Control Panel.

If the indicator is not lit, press the CYLINDER (DRUM) CHANGE key to turn it on.

Important!
Do not pull out the Print Cylinder (drum) unless this indicator is lit.

2 Pull out the Print Cylinder (Drum).

Hold the Front Cylinder (Drum) Cover Lever and pull out the Print Cylinder (Drum).

3 Pull the Ink Pack Release Lever.

Pull the Ink Pack Release Lever in the direction illustrated.

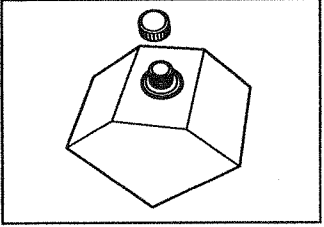
4 Remove the empty Ink Pack.

Pull out the empty Ink Pack straight up in the direction indicated.

NOTE

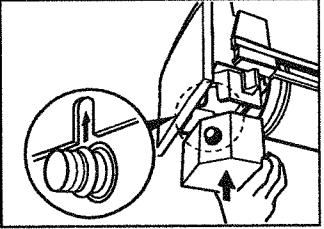
If you cannot pull out the Ink Pack, contact your service representative.

5 Remove the cap from a new Ink Pack.



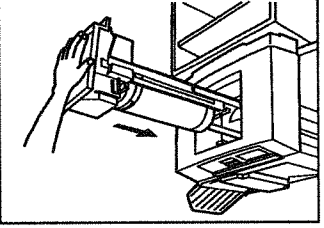
6 Set the new Ink Pack in place.

Place the Ink Pack into the Ink Pack Holder so that its nozzle is aligned with the U-shaped groove of the holder.



7 Slide the Print Cylinder (Drum) back into the Unit

Slide the Print Cylinder (Drum) into the unit until it stops. The Ink Pack is automatically set in place.



Important!

• Never insert a pack of a different color ink.

Always be sure that the color of the new Ink Pack is the same as that of the old one. If you want to change the print color, replace the entire Print Cylinder (Drum).

See P. 26

• If you squeeze or press the Ink Pack, ink may spurt out and get on your hands and clothes.

Be careful when handling it.

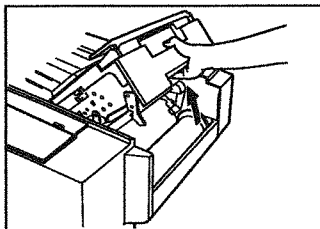
• There is ink on the master wrapped around the Print Cylinder (Drum). Keep your hands and clothes away from it.

If your hands come into contact with ink, wash thoroughly.

Replacing the Master Roll

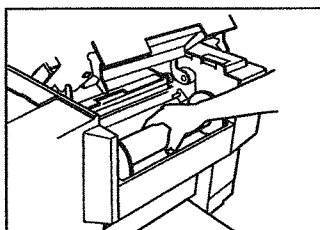
1 Open the Master Loading Unit.

Hold the Master Loading Unit Release Lever and raise the Master Loading Unit until it stops.



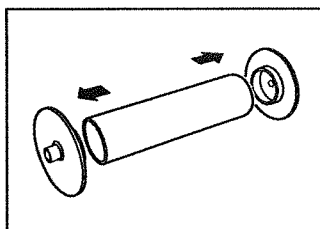
2 Remove the depleted Master Roll.

Pull out the depleted Master Roll from the holder.



3 Remove both left and right flanges.

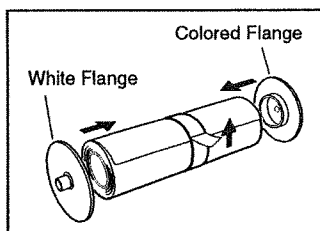
Remove both left and right flanges from the depleted Master Roll.



4 Attach the existing flanges to a new Master Roll.

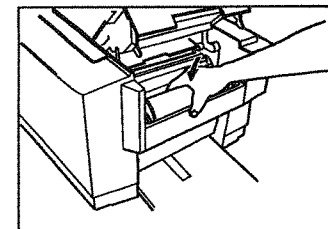
Unpack a new Master Roll.

Attach the flanges removed from the depleted Master Roll to the new one, with the colored flange to the right end and the white one to the left end. Then unwrap the new Master Roll.



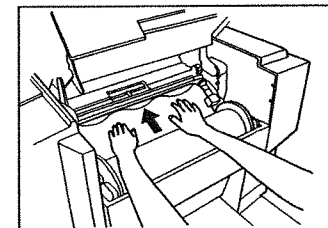
5 Install the new Master Roll.

Push the Master Roll into the holder with the colored flange on the right side.



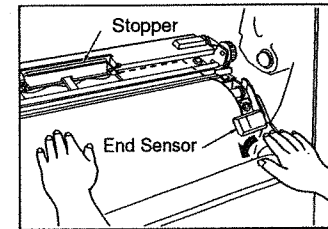
6 Insert the leading edge of the Master Roll into the Master Entrance.

Unroll the Master Roll by pulling on the leading edge and insert the leading edge into the Master Entrance.



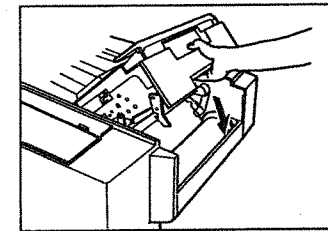
7 Set the Master in place.

Pass the Master under the Master End Sensor on the right side and feed it until the leading edge reaches the Master Stopper. Then remove the slack from the master by winding up the Master Roll holding the master.



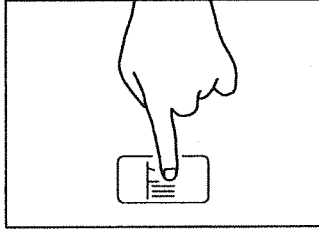
8 Close the Master Loading Unit.

Close the Master Loading Unit gently.

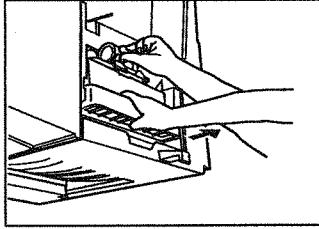


Emptying the Master Disposal Box

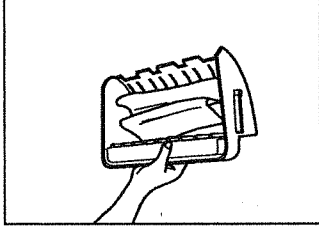
1 Lower the Paper Feed Tray.
Press the LOWER PAPER FEED TRAY key on the control panel.



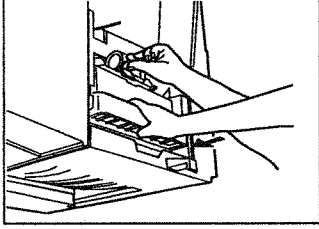
2 Pull out the Master Disposal Box.
Pull out the Master Disposal Box while pressing down the Master Disposal Box Lock Lever.



3 Discard used masters.



4 Insert the Master Disposal Box into position.
While pressing down the Master Disposal Box Lock Lever, insert the Master Disposal Box into position as far as it will go. Then release the lever.



Advisory Displays

When the machine is not ready for use (when consumables are not installed, for example), an indicator flashes in the Check & Error Display. In some cases, it is accompanied by a related advice code which is indicated in the Print Quantity Display.

Beside the Check & Error Display, the Machine Monitor Display indicates the related location which should be checked on the unit.

If you need help in checking the unit, consult the following index and refer to the corresponding page.

When a corresponding advice code is required to find an advisory description concerning the current machine status, press the "*" key. The corresponding advice code will be indicated in the Print Quantity Display.

REPLACE MASTER ROLL Indicator

This indicator flashes when the Master roll is depleted.

Location	Code No.	Ref. Page.
No indication	None	p. 29

EMPTY DISPOSAL BOX Indicator

This indicator flashes when the Master Disposal Box is full of used masters.

Location	Code No.	Ref. Page.
No indication	None	p. 30

REPLACE INK PACK Indicator

This indicator flashes when the Ink Pack is empty.

Location	Code No.	Ref. Page.
No indication	None	p. 28

8V (JAM) Indicator

This indicator flashes when printing paper, originals, or masters get jammed inside the unit.

The Machine Monitor Display indicates the related locations.

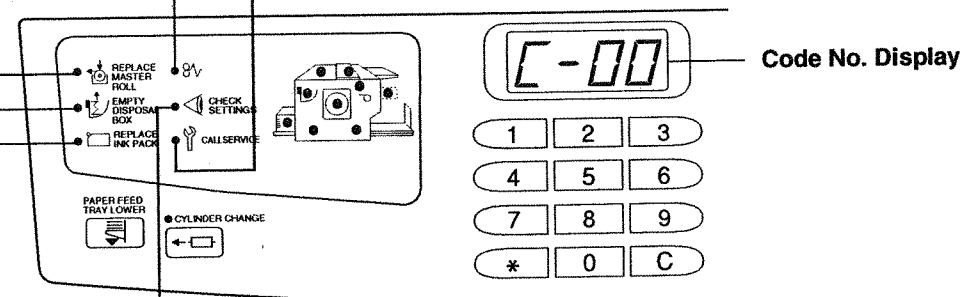
Location	Code No.	Ref Page.
⑥	[C21]	p. 32
⑥	[C22]	p. 32
⑥	[C23]	p. 32
②	[C25]	p. 32
⑤	[C26]	p. 32
②	[C27]	p. 32
⑧	[C31]	p. 32
⑨	[C32]	p. 32
①	[C33]	p. 32
②	[C34]	p. 32
④	[C37]	p. 32
④	[C38]	p. 33

CALL SERVICE Indicator

This indicator flashes when a problem occurs.

If this indicator flashes, contact your authorized service representative and report the trouble code (E##).

Location	Code No.
No indication	E##



◀ CHECK SETTINGS Indicator

This indicator flashes when consumables or components are not set in place. The Machine Monitor Display indicates the related locations.

Location	Code No.	Ref Page.
③	[C49]	p. 33
⑦	[C51]	p. 33
②	[C52]	p. 33
②	[C53]	p. 33
④	[C56]	p. 33
⑥	[C58]	p. 33
②	[C61]	p. 33
①	None	p. 33

Location	Code Number	Description and Action
⑥	C21	Master has not been properly loaded on the Print Cylinder (Drum). Action Open the Master loading unit and rewind the Master roll. Reload Master. After closing the Master loading unit, press the ALL RESET [R•8V] key, then press the START key to restart the master-making operation.
⑥	C22	Master has misted. Action Open the Master loading unit and rewind the Master roll. Reload Master.
⑥	C23	Master was not cut correctly. Action Pull out the Print Cylinder (Drum) to check whether a master was properly loaded on it. If not, remove the master and return the Print Cylinder (Drum) inside the unit. Then press the START key to restart the operation from master-making.
②	C25	A used master remains on the Print Cylinder (Drum). Action Pull out the Print Cylinder (Drum) and remove the remaining master. After returning the Print Cylinder (Drum) inside, press the START key to restart the master-making operation.
⑤	C26	A used master is stuck at the entrance of the Master disposal box. Action Pull out the Master disposal box and look inside the unit. If a master is present, remove it.

Location	Code Number	Description and Action
②	C27	There is no master on the Print Cylinder (Drum). Action Press the ALL RESET [R•8V] key. Then place an original on the Original feed tray and press the START key.
⑧	C31	Paper is jammed in the paper feed area. Action Remove the jammed paper from the paper feed area.
⑨	C32	Paper is jammed in the paper ejection area. Action Check paper ejection area and remove jammed paper.
①	C33	Printing paper was not fed, or was improperly fed. Action Check paper and the Paper feed tray and press the ALL RESET [R•8V] key.
②	C34	Paper has stuck to the Print Cylinder (Drum). Action Pull out the Print Cylinder (Drum), and remove the paper.
④	C37	An original is jammed at the entrance of the ADF unit. Action Open the ADF unit by holding the ADF unit release lever. Then remove the original and reload it.

Location	Code Number	Description and Action
④	C38	An original is too long for the ADF unit. Action Open the ADF unit by holding the ADF unit release lever. Remove the original. Reduce the size of the original and reload it.

NOTE TO PREVENT PAPER JAMS

* Use flat printing paper that is free of folds. If curled paper is unavoidable, place it so that the curl faces down.

☞ p.10

* When using smooth paper for printing, set the paper feed pressure adjustment lever to "CARD."

☞ p.12

 CHECK SETTINGS Indicator

Location	Code Number	Description and Action
③	C49	The Master disposal box is not properly installed. Action Insert it completely.
⑦	C51	An operator card is required to be inserted into the key/card counter (optional). Action Insert it properly.
②	C52	The Print Cylinder (Drum) is not properly installed. Action Slide it into place and confirm that the CYLINDER (DRUM) CHANGE indicator is lit.

Location	Code Number	Description and Action
②	C53	The Ink Pack is not properly installed. Action Place it in position.
④	C56	The ADF Unit is not properly closed. Action Close it tightly.
⑥	C58	The Master Loading Unit is open. Action Close it securely.
②	C61	This type of Print Cylinder (Drum) is not acceptable for this machine. Action Install a correct type. If you don't know what Print Cylinder (Drum) is the correct type, contact your service representative.
①	None	Paper is depleted and/or not loaded in the Paper feed tray. Action Load paper in the Paper feed tray.

Troubleshooting Tips

Tips List

Check the following "Tips List" and the related items before calling your authorized service representative.

• The unit does not start even when the power switch is pressed.34

• The START key does not function.34

• There is no image on copies.34

• The unwanted background of an original is picked up on copies.34

• Copies are incomplete; some images are missing or unclear.34

• Printed images are excessively faint or blurred.35

• Vertical blank lines are found on printed copies.35

• The backs of finished copies are smudged with ink.35

• Paper sticks to the surface of the Print Cylinder (Drum).35

• Paper slips when it is fed.35

• The Print Cylinder (Drum) is rotating slowly without feeding paper.35

The unit does not start even when the power switch is pressed.

Action Check whether the power cord is firmly connected to an electrical outlet.

• Check whether the power cord is connected to the unit.

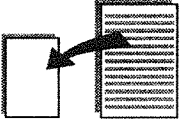
• Check whether the commercial power circuit breaker is on.

The START key does not function.

• Check whether the print quantity display is set to "0" with the Auto print feature activated.

Action Cancel the Auto print feature or enter the number of copies.

The unwanted background of an original is picked up on copies.



• Check whether the original is correctly placed.

Action Be sure it is placed face down.

☞ p.15

• Check whether the master is correctly placed.

Action Be sure that it is placed with the leading edge unrolled from below.

☞ p.29

The unwanted background of an original is picked up on copies.



• If newspaper or colored paper is used as an original, the background might have been picked up on copies.

Action Press the SCANNING CONTRAST Adjustment Key [] to make the scanning contrast lighter. Then replace the original and press the START key.

☞ p.18

Copies are incomplete; some images are missing or unclear.

• The Scanner glass may be stained with correction fluid or glue.

Action Open the ADF unit and clean the Scanner glass using a soft cloth or tissue.

☞ p.36

• A foreign object may be on or under the master on the Print Cylinder (Drum).

Action Pull out the Print Cylinder (Drum) and remove the object.

☞ p.26



Printed images are excessively faint or blurred.



- If the machine is not used for a long period of time, ink on the surface of the Print Cylinder (Drum) may dry. Dry ink on the Print Cylinder (Drum) may cause faint or blurred printing.

Action Press the TEST PRINT key several times until a clear printed image is obtained.

☞ p.16

- Light originals result in light images.

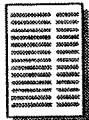
Action Press the SCANNING CONTRAST adjustment key [] to make scanning contrast darker. Then replace the original and press the START key.

☞ p.18

- If the temperature is low (below 59°F or 15°C) or the Ink Packs are stored in a cold place, ink may not flow smoothly.

Action Warm the room or Ink Pack before operating the unit.

Vertical blank lines are found on printed copies.



- The Thermal print head (the device that makes the master) may be smudged with paper powder from the master.

Action Open the Master loading unit and clean the Thermal print head using a soft cloth or tissue.

☞ p.36

The back of finished copies are smudged with ink.

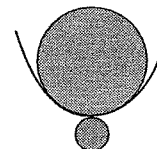


- The rubber Pressure roller, which keeps printing paper pressed against the Print Cylinder (Drum) during printing, may be stained with ink.

Action Remove the Print Cylinder (Drum) and clean the roller gently with a soft cloth or tissue.

☞ p.37

Paper sticks to the surface of the Print Cylinder (Drum).



Action • Use recommended printing paper.

☞ p.10

- Lower the vertical print position with the PRINT POSITION Adjustment key <.

☞ p.19

- Replace the original in the reverse direction and restart printing from the beginning (master-making).

Paper slips when it is fed.

- Misfeeding of printing paper might have caused a paper jam.

Action Set the Paper feed pressure adjustment lever to "CARD."

☞ p.12

The Print Cylinder (Drum) is rotating slowly without feeding paper.



- Ink is being supplied for covering ink consumption during printing.

During this operation, a rotation signal (as indicated to the left) appears in the Print Quantity Display.

When a sufficient volume of ink is obtained for printing, the unit resumes printing operation.

Action Press the START key to finish your print job if the printing operation is not resumed.

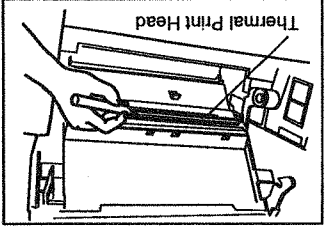
☞ p.15

Cautions Concerning Maintenance

- ▲ **WARNING [To Avoid Personal Injury During Handling]**
 - DO NOT allow unauthorized persons to make adjustments or repairs.
 - DO NOT remove any fixed covers.
 - CALL your dealer immediately if you suspect any dangerous situations or have questions or problems with the unit.
 - Precision parts and driving mechanisms are contained in the unit. Do not perform actions other than those described in this manual.
 - Don't make any modifications to the unit or remove parts.
 - When you want to move the unit, contact your dealer.
- ▲ **Caution [To Avoid Mechanical Problems]**
 - The best safety device is an alert person who demonstrates good sense.
 - Neither RISO nor its dealer is responsible for maintenance service performed by non-RISO-authorized personnel.

Cleaning : Preventing Defective Prints

Cleaning the Thermal Print Head



Clean the Thermal Print Head after every two Master Rolls.
Lift up the Master loading unit. Then gently wipe the Thermal Print Head (inside the unit) several times with a soft cloth or tissue.

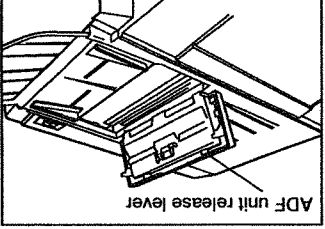
NOTE

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

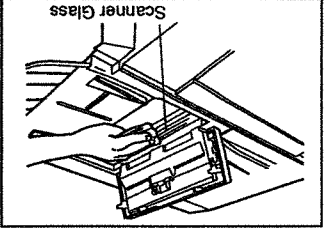
▲ **Caution**

Since the Thermal Print Head is very delicate, avoid shocks or scratching with a hard object.

Cleaning the Scanner Glass



1 Open the ADF unit while holding the ADF unit release lever.



2 Wipe the Scanner Glass.
Gently wipe the Scanner Glass several times with a soft cloth or tissue.

NOTE

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

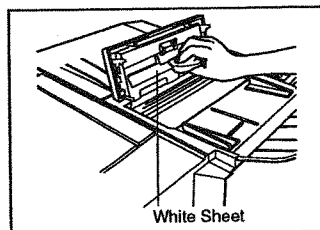
▲ **Caution**

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

Cleaning the White Sheet

1 Open the ADF unit.

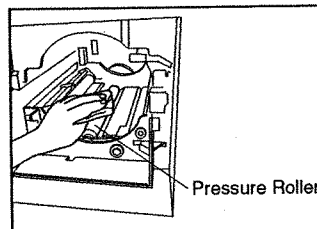
2 Wipe the White Sheet gently with a soft cloth or tissue.



Cleaning the Pressure Roller

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

In such a case, wipe the Pressure roller thoroughly with a soft cloth dampened with alcohol, or pass used paper with a blank master loaded on the Print Cylinder (Drum) using the Confidential feature.

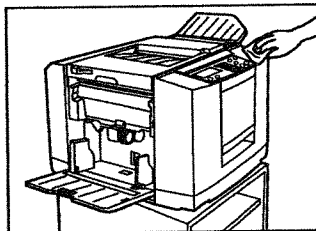


Cleaning the Risograph Exterior

To remove dust, wipe the machine exterior periodically with a soft cloth.

To remove stains, use an appropriate cleanser recommended by your authorized service representative.

⚠ Caution The machine exterior is plastic. Never use alcohol or solvent for cleaning.



Optional Accessories

A variety of optional accessories are available to enhance the capabilities of your Risograph TR1530/TR1510.

Color Print Cylinder (Color Drum)

A variety of colors are available, such as blue, red, green, and brown. Each Print Cylinder (Drum) has its own case for storage.

▶ p.26.....By exchanging the Print Cylinder (Drum), you can achieve multicolor prints.

Key/Card Counter III

This counter shows the numbers of printed sheets and consumed masters within a preset period of time. This can help you control costs.

Job Separator III

This accessory efficiently sorts groups of prints with strips of paper as they are printed. The Job Separator is attached next to the Paper Receiving Tray.

Computer Interface

The Computer Interface enables you to combine all the advantages of your desktop publishing software with the high speed efficiency and low cost printing benefits of your Risograph Digital Printer.

Specifications

—TR1530

Processing High-speed automatic digital scanning/fully automatic, thermal screening duplicating system

Time to First Copy Approx. 25 seconds (letter, or A4 original)

Print Speed 3 selectable print speeds (60 to 130 sheets per minute)

Scanning Resolution 300 dpi

Original Input Type Sheets

Original Size 3 1/2" x 5 1/2" (90 x 140 mm, A6 or postcard) to 10 3/4" x 15 1/2" (274 x 395 mm or B4)

Output Paper Size 3 1/2" x 5 1/2" (90 x 140 mm, A6 or postcard) to 10 3/4" x 15 1/2" (274 x 395 mm or B4)

Original Weight 15-lb bond (50 g/m²) to 28-lb bond (107 g/m²)

Paper Weight 15-lb bond (50 g/m²) to 36-lb bond (157 g/m²)

Image Area B4 Cylinder (Drum) - 9.8" x 14.0" (251 x 357 mm)

Paper Capacity Feed tray - 1,000 sheets (16-lb bond or 64 g/m²)

Receiving tray - 800 sheets (16-lb bond or 64 g/m²)

4 selectable reductions: 94%, 82% and 71% for metric models)

Features • Print speed control

• Confidential mode

• Two-Up printing

• Programmed printing

• Photo enhancement

• Interface capabilities

• Scanning contrast adjustment

A wide range of colors including: black, blue, red, green, brown, yellow, etc.

Optional Accessories Color Cylinder (Drum), Job Separator III, Key/Card Counter III and Computer Interface

Power Source USA Model:

• 120 V AC, 60 Hz <5 A>

• 220-240 V AC, 50/60 Hz <3 A> (220 V model)

WARNING Always check the rating plate on the machine before connecting the power.

Approx. 141 lbs. (64 kg)

In use: 48.2" x 25.0" x 21.5" (1225 x 635 x 546 mm)

In storage: 25.0" x 18.9" x 18.9" (635 x 479 mm)

NOTE

The specifications are subject to change without prior notice. Please acknowledge that the illustrations and descriptions in this manual may differ from the actual machine, due to the change in specifications.

Specifications:

—TR1510

Processing High-speed automatic digital scanning/fully automatic, thermal screening duplicating system

Time to First Copy Approx. 25 seconds (letter, or A4 original)

Print Speed 3 selectable print speeds (60 to 130 sheets per minute)

Scanning Resolution 300 dpi

Original Input Type Sheets

Original Size 3 1/2" x 5 1/2" (90 x 140 mm, A6 or postcard) to 10 3/4" x 15 1/2" (274 x 395 mm or B4)

Output Paper Size 3 1/2" x 5 1/2" (90 x 140 mm, A6 or postcard) to 10 3/4" x 15 1/2" (274 x 395 mm or B4)

Original Weight 15-lb bond (50 g/m²) to 28-lb bond (107 g/m²)

Paper Weight 15-lb bond (50 g/m²) to 36-lb bond (157 g/m²)

Image Area Legal Cylinder (Drum) - 8.2" x 13.7" (210 x 349 mm)

Paper Capacity Feed tray - 1,000 sheets (16-lb bond or 64 g/m²)

Receiving tray - 800 sheets (16-lb bond or 64 g/m²)

4 selectable reductions: 94%, 82% and 71% for metric models)

Features • Print speed control

• Confidential mode

• Two-Up printing

• Programmed printing

• Photo enhancement

• Scanning contrast adjustment

A wide range of colors including: black, blue, red, green, brown, yellow, etc.

Optional Accessories Color Cylinder (Drum), Job Separator III, Key/Card Counter III and Computer Interface

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