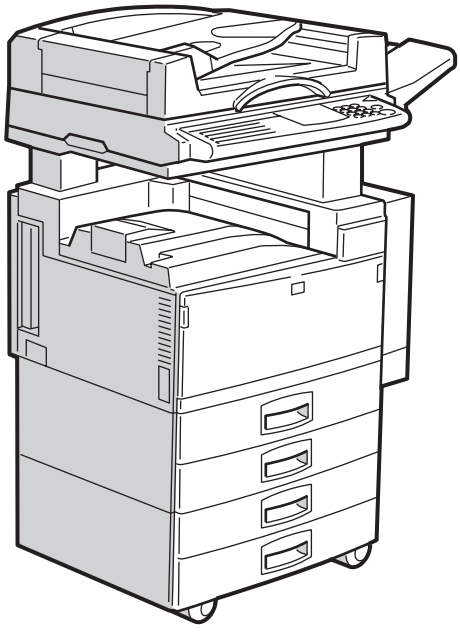
SCANNER Option Type 450

OPERATING INSTRUCTIONS

SCANNER REFERENCE(option)



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Read this manual carefully before you use this product and keep it handy for future reference.
For safety, please follow the instructions in this manual.

Printed in Japan
UE (USA) A695-8510
EE (GB)

Introduction

This manual contains detailed instructions on the operation and maintenance of this machine. To get maximum versatility from this machine all operators should carefully read and follow the instructions in this manual.Please keep this manual in a handy place near the machine.

Please read the Safety Information in the “Copy Reference” before using this machine. It contains important information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.

Important

Parts of this manual are subject to change without prior notice. In no event will the company be liable for direct, indirect, special, incidental, or consequential damages as a result of handling or operating the machine.

Note to users in the United States of America

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

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio /TV technician for help.

Warning:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Caution

Properly shielded and grounded cables and connectors must be used for connections to host computer (and/or peripheral) in order to meet FCC emission limits.

Declaration of conformity

Product Name: Scanner Option

Model Number: Type 450

Responsible party: Ricoh Corporation

Address: 5 Dedrick Place, West Caldwell, NJ 07006

Telephone number: 973-882-2000

This device complies with part 15 of FCC Rules.

Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and

2. this device must accept any interference received,

including interference that may cause undesired operation.

Note to users in Canada

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Remarque concernant les utilisateurs au Canada

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

In accordance with ISO Standard 7001, this machine uses the following symbols for the main power switch:

| means POWER ON.

○ means POWER OFF.

CE

Declaration of Conformity

“The Product complies with the requirements of the EMC Directive 89/336/EEC and the Low Voltage Directive 73/23/EEC.”

How to Read this Manual

Symbols

In this manual, the following symbols are used:

Important

If this instruction is not followed, paper might be misfed, originals might be damaged, or data might be lost. Be sure to read this.

Preparation

This symbol indicates the prior knowledge or preparations required before operating.

Note

This symbol indicates precautions for operation, or actions to take after misoperation.

Limitation

This symbol indicates numerical limits, functions that cannot be used together, or conditions in which a particular function cannot be used.

Reference

This symbol indicates a reference.

[ ]

Keys that appear on the machine's panel display.

Keys and buttons that appear on the computer's display.

【】

Keys built into the machine's operation panel.

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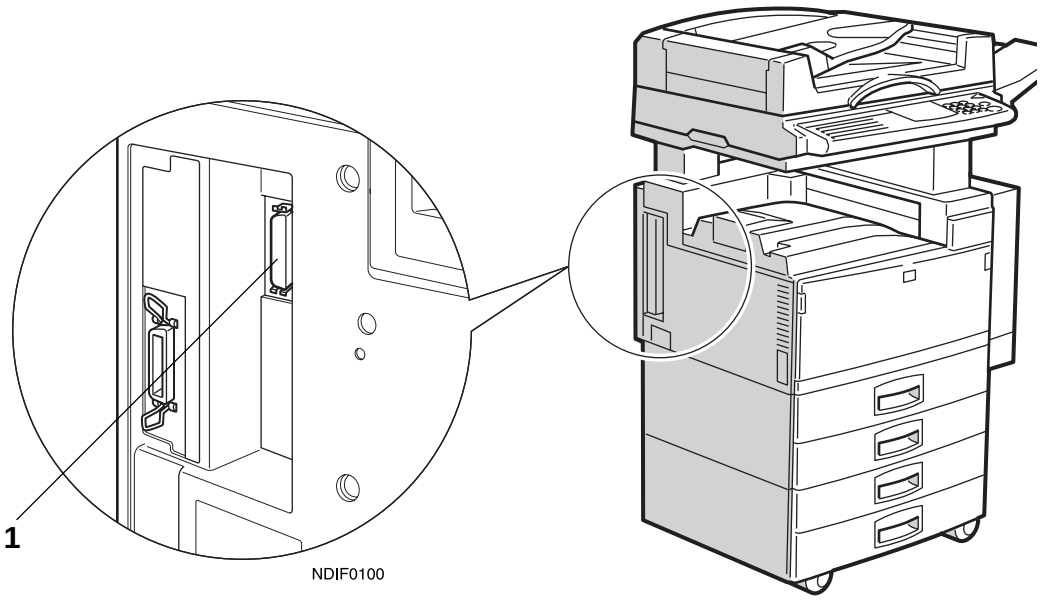
1. Preparation

This chapter provides important information on the requirements for using your machine installed with the scanner unit. This chapter also provides information on setting up your machine as a scanner.

The Scanner Interface

The scanner unit is installed in the left side of your machine (as shown in the illustrations) The scanner unit connects to a computer through a 50–pin half – pitch (pin type) SCSI connector.



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1. Scanner unit interface 50–pin half-pitch (pin type) SCSI connector

Optional equipment is installed in this illustration.

Requirements

In order to use your machine as a scanner, the following hardware/software is required in the computer that will be connected to the scanner. Make sure that all the necessary hardware and software is in place before attempting to scan.

❖ **CPU**
Intel®Pentium 75MHz or better.

❖ **OS**
Windows®95/98/3.11, Windows NT®3.51, or NT®4.0.

❖ **Memory**
16MB or more (for scanning).
48MB recommended.

❖ **Hard disk**
100MB or more of free disk space recommended. Approximately 16MB of space is required to save one page of an A4 monochrome image scanned at 400dpi with a 256–value gray scale.

❖ **SCSI board**
Use a SCSI board recommended by the local dealer. The system may not operate properly with some SCSI boards.

❖ **SCSI interface cable**
Use a SCSI interface cable recommended by the local dealer. The type of SCSI interface cable required depends on the SCSI board that is installed in the computer.

Connecting to the Computer

The scanner unit uses SCSI-2 interface to connect to the computer.

Important

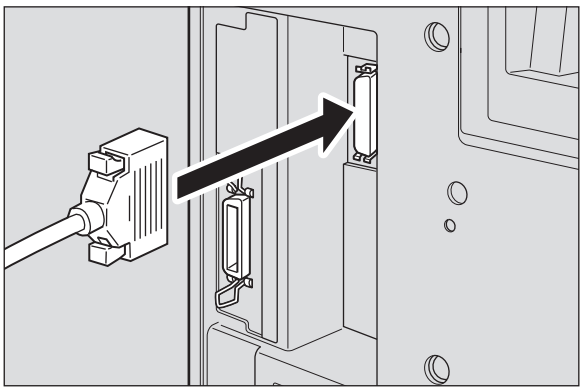
- ❒ Do not daisy chain other SCSI devices with the scanner.
- ❒ The scanner might not operate properly with some SCSI boards (installed in the computer).
- ❒ Since the scanner unit has a built-in terminator, no terminator needs to be connected to the scanner. A terminator is only required at the other end of the connection (i.e.,on the SCSI board in the personal computer).

Making the connection

1 Turn the computer off.

2 Make sure that none of the other functions are in use, and then turn off the main power switch of the machine.

3 Connect the 50–pin half-pitch (pin type) end of the SCSI interface cable to the SCSI connector on the machine.



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4 Connect the other end of the SCSI interface cable to the computer.

Setting the SCSI ID

The SCSI ID for the scanner is initially set to “4”. Normally, there is no need to change this ID. If it is necessary to change this ID, follow the procedure bellow.

1 Turn the computer off.

2 Turn on your machine, and wait until ”Ready” appears on the panel display of the machine.

3 **Press the【User Tools/Counter】key of the machine.**

The User Tools Main Menu appears.

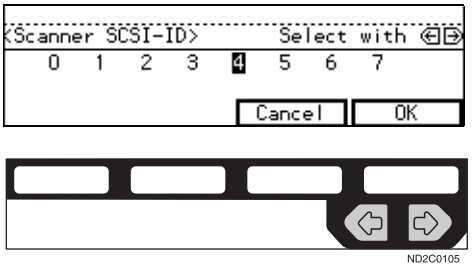
4 **Enter【1】with the【Number】keys.**

The System Settings appears.

5 **Press the【↓Next】or【↑Prev.】keys until "Scanner SCSI-ID" appears, and Enter its number with the【Number】key.**

The "Scanner SCSI-ID"appears.

6 **Use ◀▶ keys to highlight the SCSI ID that is to be set.**



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

8 **Turn off the main power switch of the machine, and then back on again.**

9 **Turn the computer back on.**

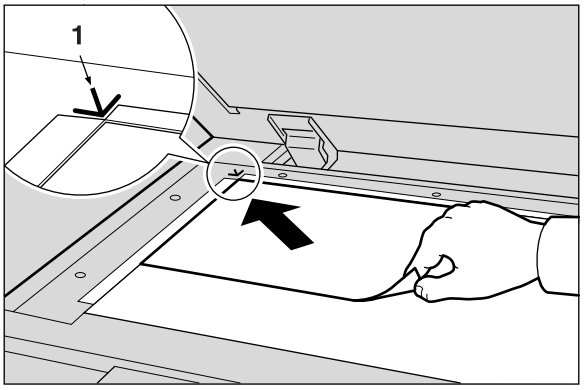
2. Setting Originals

This chapter explains how to set the originals in the machine when using it as a scanner. The originals can be set either on the exposure glass or in the document feeder (ADF).

Setting Originals on the Exposure Glass

The exposure glass can be used when scanning originals that cannot be set in the document feeder (ADF), such as books or originals that have been pasted together. For convenience, these types of originals will be referred to as "book originals." Follow these steps to set originals on the exposure glass.

1 Lift the platen cover or the document feeder(ADF), and place the original face down on the exposure glass.



ND1G0100

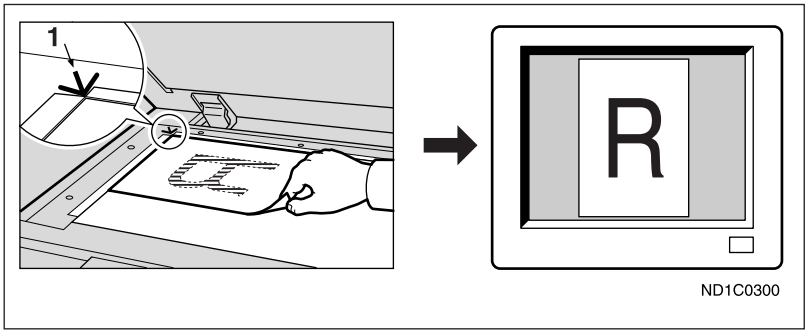
1. Reference mark

Important

❒ Set the original after correction fluid and ink has completely dried. Not taking this precaution could mark the exposure glass and cause marks to be copied.

Note

❒ Set the original in the direction shown in the illustration. The direction of resulting scan is as follows.



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1. Reference mark

2 **Lower the platen cover or the document feeder(ADF).**

Setting Originals In The Document Feeder (ADF)

You can set several pages of originals in the document feeder (ADF) at a time. Only originals that consist of separate sheets of paper can be set in the document feeder (ADF); for convenience, such originals will be called “sheet originals.” It is possible to copy not only one side but both sides of originals that are set in the document feeder (ADF).

❖ Non-recommended originals for the document feeder

Setting the following originals in the document feeder might cause paper misfeeds or damage to the originals. Set these originals on the exposure glass.

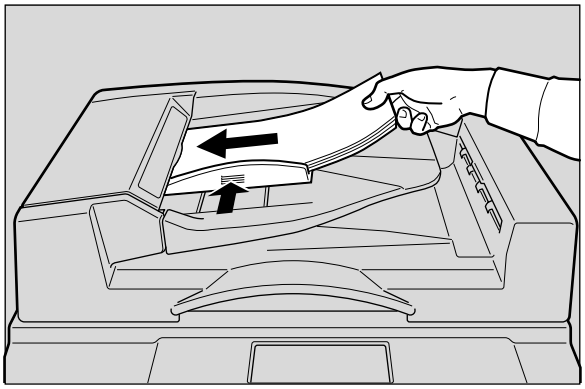
- Originals other than those specified in the copy reference
- Stapled or clipped originals
- Perforated or torn originals
- Curled, folded, or creased originals
- Pasted originals
- Originals with any kind of coating, such as thermal fax paper, art paper, aluminum foil, carbon paper, or conductive paper
- Originals with indexes, tags, or other projecting parts
- Sticky originals such as translucent paper
- Thin original that has low stiffness
- Originals of inappropriate weight in the copy reference
- Bound originals such as books
- Transparent originals such as OHP transparencies or translucent paper

❖ Setting Originals In The Document Feeder

- Do not stack originals above the limit mark
- When copying thin originals (41–52g/m^2 11–14lb), select **[DF Setting]** and set to Thin Paper mode, or set your originals on the exposure glass to avoid damage due to a multi-sheet feed (if several sheets are fed together at the same time).
  See”Thin Paper mode”in the copy reference.
- The original might become dirty if it is written with a pencil or similar tools.
- For 1–sided originals, you can select the ADF tray or the ADF external tray as an output tray
  See”22.ADF Orig.Ejection”in the System Settings.
- Scanning speed might be a little reduced if the ADF tray is selected as an output tray. (for 1–sided originals)

1-sided Scanning

1 **Set the originals into the document feeder (ADF) with the side to be scanned face up.**



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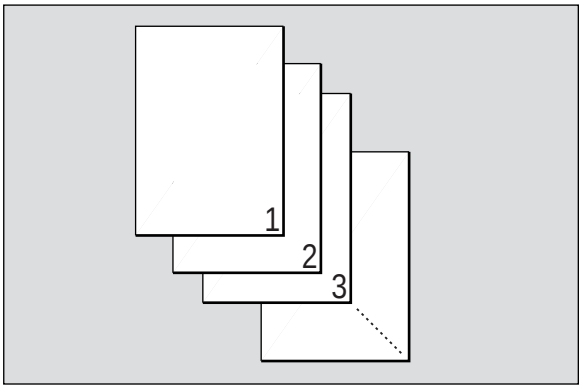
Note

❒ The sheet of the original should be ordered in the preferred page sequence.



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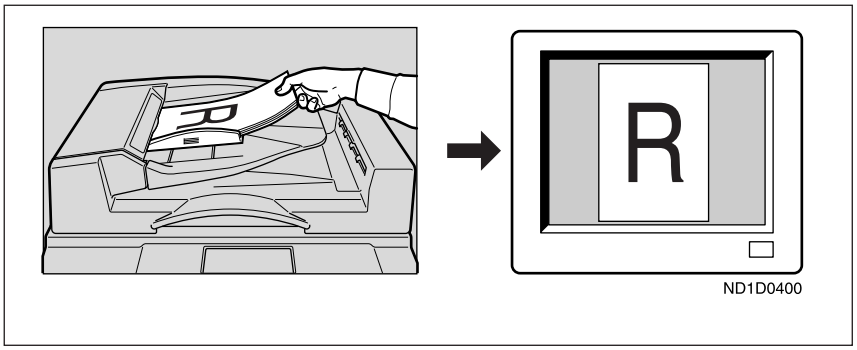
❒ To avoid a multi-sheet feed (in which the ADF feeds through more than one sheet at a time), fan the pages of the original before setting them in the document feeder (ADF).

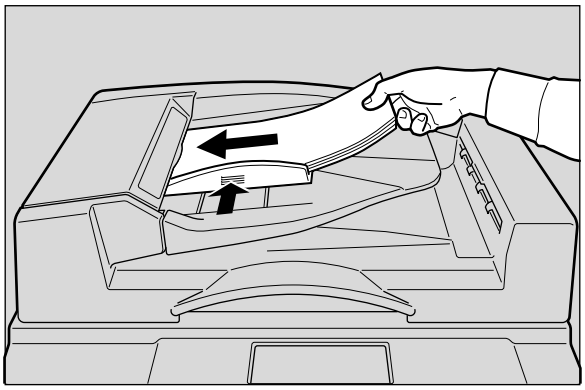
❒ Set the original with the same direction as shown in the illustration. The direction of the resulting scan is as follows.



2 Adjust the guide on the document feeder (ADF) to the original size.

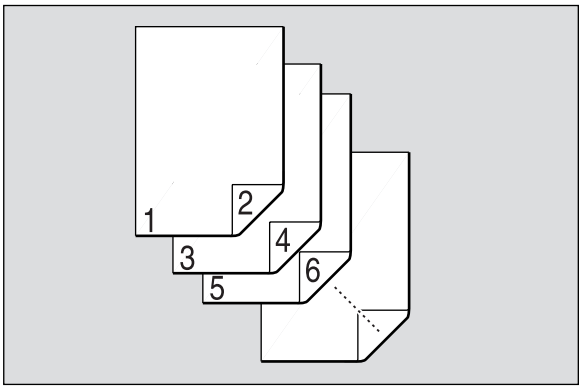
2-sided Scanning

1 set the originals in the document feeder (ADF) with the side to be scanned first (the front side of the original) face up.



Note

❒ The sheets of the original should be ordered in the preferred page sequence.



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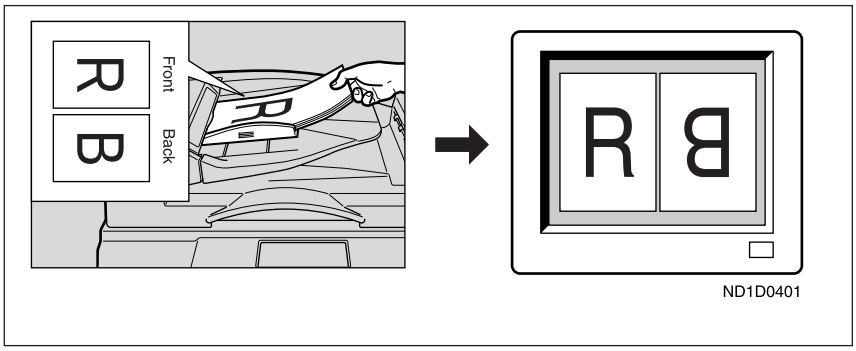
❒ To avoid a multi-sheet feed (in which the ADF feeds through more than one sheet at a time), fan the pages of the original before setting them in the document feeder (ADF).

❒ Set the original with the same direction of the front side as shown in the illustration. The direction of the resulting scan of the reverse side will be upside down, as shown below.



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2 Adjust the guide on the document feeder (ADF) to the original size.

Troubleshooting

This section explains the possible causes and the action when the scanner does not scan an image in the expected manner.

Status	Cause	Action
The scanned image is dirty.	The exposure glass or the platen cover is dirty.	Clean the exposure glass or the platen cover.
The scanned image is distorted or out of position	The original is moved while it is being scanned.	Do not move the original while it is being scanned.
	The original is not pressed flat against the exposure glass.	Make sure that the original is pressed flat against the exposure glass.
The scanned image is upside down.	The original was placed upside down.	set the original in the correct direction. **Reference** P.8 *"Setting Originals on the Exposure Glass"* P.10 *"Setting Originals In The Document Feeder (ADF)"*
The original image cannot be scanned.	The original was placed with the front and the back reversed.	When setting originals on the exposure glass, place the side to be scanned face down; when setting originals in the document feeder (ADF), place the side to be scanned face up. **Reference** P.8 *"Setting Originals on the Exposure Glass"* P.10 *"Setting Originals In The Document Feeder (ADF)"*
The image density has changed in the middle of the scan.	Some types of originals may cause the density to change in the middle of a scan.	Set the Erase Background to "off" and scan the original again.

Status Messages

The following table shows the status messages and the machine's conditions when used as a scanner.

Status	Messages	Descriptions
While standing by	Scanner on Line Set original on the platen glass (ADF) and set scanning mode from computer.	• Input from all of the function key is accepted. • Input from the 【Interrupt】 key is accepted • Interrupt requests from other functions are accepted. • The System Reset function works.
While scanning an original placed on the exposure glass. While transferring the data scanned from the exposure glass to a computer.	Scanner on Line Scanning- Please wait	• Input is not accepted from any of the function keys. • Input from the 【Interrupt】 key is not accepted • Interrupt requests from other functions are not accepted. • The System Reset function does not work.
During continuous scanning (while scanning originals placed on the document feeder (ADF). While transferring the scanned data to a computer.	Scanner on Line Scanning- Please wait	• Input is not accepted from any of the function keys. • Input from the 【Interrupt】 key is not accepted • Interrupt requests from other functions are not accepted. • The System Reset function does not work.

Status	Messages	Descriptions
While saving scanned data to a hard disk in a computer.	Scanner on Line Scanning- Please wait	• Input from all of the function keys is accepted. • Input from the 【Interrupt】 key is not accepted • Interrupt requests from other functions are not accepted. • The System Reset function does not work.

Note

❒ The scanner unit operates under incremental scanning control. Under "incremental scanning control", the scanned data is sent to the host (the attached computer) when the scanner unit's buffer becomes full. As a result, the scanner may appear to stop operating while it is in the process of scanning an original. Refer to the panel display (listed above) you will find whether or not the scanner is operating. Once the scanner has finished scanning, the display returns to the standby screen.

Specification

Scanning method	Stationary one-dimensional solid scanning system (incremental scanning control)
Image sensor type	CCD image sensor
Original types	sheet, book, object
Interface	SCSI-2 interface
Maximum original size	A3□,11"×17"□
Resolution	400dpi • For monochrome 256–value (gray scale) scanning, a resolution of 100 to 400dpi can be specified (in units of 4dpi). • For monochrome or monochrome (half tone) scanning, a resolution of 100 to 1600dpi can be specified (in units of 4dpi).