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RICOH

FW7030D

Operating Instructions

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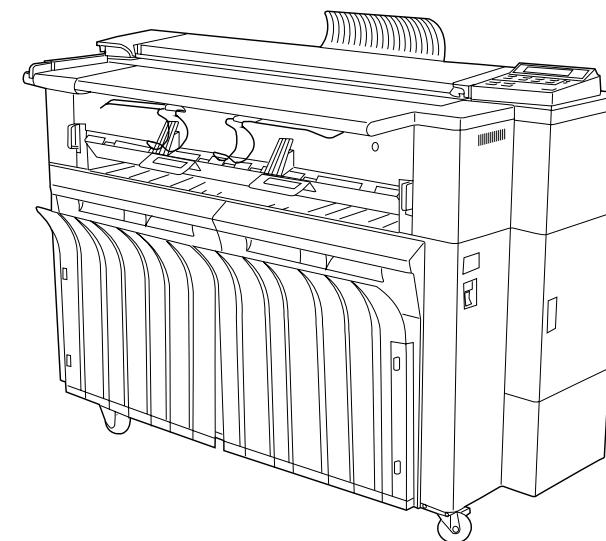
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Read this manual carefully before you use this product and keep it handy for future reference.
 For safety, please follow the instructions in this manual.





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

- ⏻ means POWER ON.
- ⏻ means POWER OFF.

Recycled paper:

Please contact your sales or service representative for recommended recycled paper types that may be used in this copier.

Two kinds of size notation are employed in this manual. With this machine refer to the inch version.

For good copy quality, Ricoh recommends that you use genuine Ricoh toner.

Ricoh shall not be responsible for any damage or expense that may result from the use of parts other than genuine Ricoh parts in your Ricoh office product.

Notes: Some illustrations may be slightly different from your machine.

Power Source: 120V, 60Hz, 13A
Please make sure to connect the power cord to a power source as above.
For details about power source, see page 80.

Note to users in the United States of America

Notice:

This equipment has been tested and found to comply with the limits for Class A digital devices, 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.

Warning:

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

Note to users in Canada

Warning:

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

Remarque concernant les utilisateurs au Canada Avertissement:

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





INTRODUCTION

This copier is a console plain paper copier carefully manufactured to exacting standards of high performance. It consistently yields high contrast copies with a superior finish.

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

Please read the next section before using this copier. It contains important information related to USER SAFETY and PREVENTING EQUIPMENT PROBLEMS.

SAFETY INFORMATION

When using your machine, the following safety precautions should be always be followed.

Safety During Operation

In this manual, the following important symbols are used:

 **WARNING:**


Ignoring this warning could cause serious injury or even death.

 **CAUTION:**

Ignoring this caution could cause injury or damage to property.

Examples Of Indications




Symbol  mean a situation that requires you take care.




Symbol  mean "Hot surface".



Do NOT carry out the operation represented by this symbol .
This example means "Do not take apart".



Symbols  mean you MUST perform this operation.
This example means "You must remove the wall plug".



WARNING:



- *Only connect the machine to the power source described on the inside front cover of this manual.*
- *Avoid multi-wiring.*
- *Do not damage, break or make any modifications to the power cord. Do not place heavy objects on it, pull it hard or bend it more than necessary. These actions could cause an electric shock or fire.*
- *Do not plug or unplug the power cord with your hands wet. Otherwise, an electric shock might occur.*



- *Make sure the wall outlet is near the machine and freely accessible so that in event of an emergency it can be unplugged easily.*



- *Do not remove any covers or screws other than those specified in this manual. Some parts of the machine are at a high voltage and could give you an electric shock. Also, if the machine has laser systems, direct(or indirect)reflected eye contact with the laser beam may cause serious eye damage. When the machine needs to be checked, adjusted, or repaired, contact your service representatives.*
- *Do not take apart or attempt any modifications to this machine. There is a risk of fire, electric shock, explosion or loss of sight. If the machine has laser systems, there is a risk of serious eye damage.*



- *If the machine looks damaged or breaks down, smoke is coming out, there is a strange smell or anything looks unusual, immediately turn off the operation and main power switches then unplug the power cord from the wall. Do not continue using the machine in this condition. Contact your service representative.*
- *If metal, liquid, or foreign matter falls into the machine, turn off the operation and main power switches, and unplug the main power cord. Contact your service representative. Do not keep using the machine with a fault or defect.*



- *Do not put any metal objects or containers holding water(e.g. vases, flowerpots, glasses) on the machine. If the contents fall inside the machine, a fire or electric shock could occur.*



- ***Do not incinerate used toner, toner bottles or toner cartridges. Toner dust might ignite when exposed to an open flame. Dispose of the used toner cartridges according to local regulations for plastics.***



⚠ CAUTION:



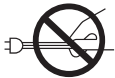
- *Keep the machine away from humidity and dust. A fire or an electric shock might occur.*
- *Do not place the machine on an unstable or tilted surface. If it topples over, it could cause injury.*



- *After you move the machine, fix it with the caster fixture. Otherwise, the machine might move or come down to cause a personal injury.*



- *When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.*
- *When the machine will not be used for a long time, unplug the power cord.*



- *When you pull out the plug from the socket, grip the plug to avoid damaging the cord and causing fire or electric shock.*



- *If you use the machine in a confined space, make sure there is a continuous air turnover.*



- *Do not reuse stapled paper. Do not use aluminium foil, carbon containing paper or other conductive paper. Otherwise, a fire might occur.*



- *When removing misfed paper, do not touch the fusing section because it could be very hot.*



- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*



- *Do not eat or swallow toner.*
- *Keep toner(used or unused) and toner cartridges out of reach of children.*



- *This equipment is only to be installed by a qualified service personnel.*



• *Deliver to collection point for waste products. Do not be disposed of via domestic refuse collection.*



HOW TO READ THIS MANUAL

Symbols

In this manual, the following symbols are used:

 **WARNING:**

This symbol indicates a potentially hazardous situation that might result in death or serious injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

 **CAUTION:**

This symbol indicates a potentially hazardous situation that might result in minor or moderate injury or property damage that does not involve personal injury when you misuse the machine without following the instructions under this symbol. Be sure to read the instructions, all of which are described in the Safety Information section.

* The statements above are notes for your safety.

 **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 action 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 built into the machine's operation panel.



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• Synchro Cut ⇒ Page 23
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• Check Display

• Fusing Temperature

User Tools Program

○ Synchro

○ Full Size

○ +

○ Up

○ -

○ Down

▶ 1

▶ 2

▶ 3

○ Preset Reduce/Enlarge

○ Auto Paper Select

○ Auto Reduce/Enlarge

○ Auto Reduce/Enlarge

○ Zoom

○ Direct Mag (%)

Leading

Edge

Shift Image

○ +

○ Left

○ -

○ Right

Enter

#

○ Interrupt

Memory Copy

○ On Line

Clear Modes/ Energy Saver

Preview Copy

Roll Edge Cut

Emergency Stop

Copy Media

○ Vellum

○ Film

Image Edit

○ Erase Border

○ Mirror Image

○ Positive/Negative

Image Density

○ Dark Original

○ Light Original

○ Photo

○ Auto Image Density

Lighter

Darker

1

2

3

4

5

6

7

8

9

0

Clear/Stop

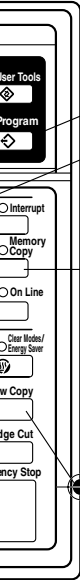
Adjust Image Density
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Edit
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Program
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Sort ⇒ Page 11
(Memory Unit required.)

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(Memory Unit required.)

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⇒ Page 39

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Image Shift (Lead)



Image Shift (Trail)

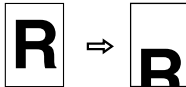


Image Shift (Left)

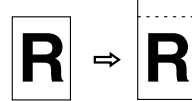


Image Shift (Right)

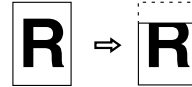


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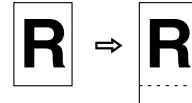
Leading edge margin (+)



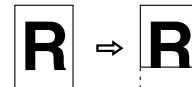
Leading edge margin (-)



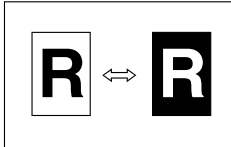
Trailing edge margin (+)



Trailing edge margin (-)



Positive / Negative ⇒ Page 34



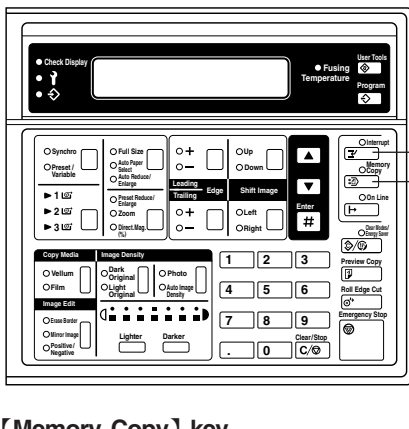


OPTIONAL MEMORY UNIT

If you attach the Memory Unit Type 7030D option to the main unit, the extra functions described below become available.

Note that when making copies with the Memory Copy feature, the machine scans in the image using either 2 or 4 gradations (Normal or Fine). This is as opposed to standard copying, where 32 gradations are used. Therefore, you should use standard copying when you want to clearly copy originals containing small numerals or characters, fine graphics or photographs.

To program images into memory and recall them, the HDD is required. If you need the HDD, please consult your sales or service representatives.

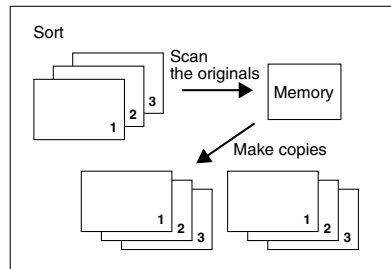
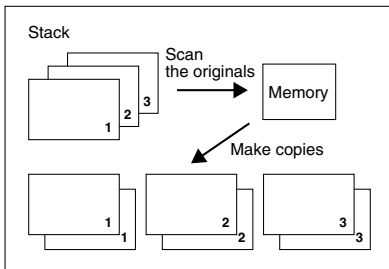


[Interrupt] key

If you wish to make a few copies but there is a long copy job in progress, press this key to temporarily stop the job. Then make your copies and press the **[Interrupt]** key to recall the previous copy settings.

[Memory Copy] key

If you wish to make multiple copy sets of multiple page originals, Memory Copy gives you control over how the copy sets are delivered. Before you start copying, specify the number of copy sets and delivery method (Stack or Sort). When you use this feature, the original is scanned once, and multiple copies are made from memory.





GUIDE TO COMPONENTS

Carrier sheet guides

(left and right)
Extend these guides when using the optional carrier sheet. If you are not using a carrier sheet, you can use them to hold a roll original when feeding it in.

Copy guides

(left and right)

Original cover

Original reverse guide
Guides copies so that are delivered towards you.

Original table

Set originals here.

Upper rear cover

Operation panel

Original guide

(left)

Right side cover

Manual copy guides

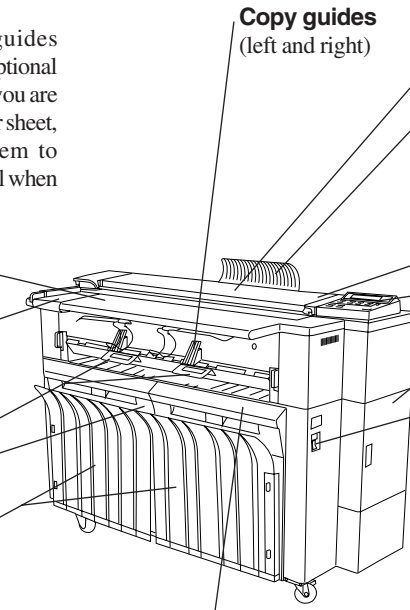
Power switch

Set this switch to "I" to turn on the power. Set this switch to "o" to turn off the power. Note that the copier turns itself off automatically if nobody uses it for a certain period of time.

Front cover

Copy catch tray

Copied paper is delivered here.



Manual feed table

Insert paper here to feed it manually. You also use this tray when copying onto non-standard size paper or film.

Reference

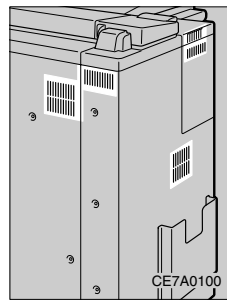
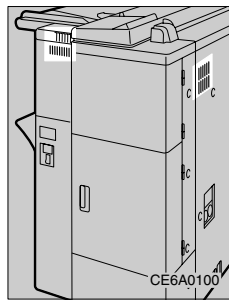
"COPYING ONTO PAPER SET ON THE MANUAL FEED TABLE" => Page 16

Reference

"Auto Off Timer" => Page 71

Ventilation grill

Prevents overheating. Do not obstruct the ventilation grill by placing or leaning an object near it. If the machine overheats, a fault might occur.

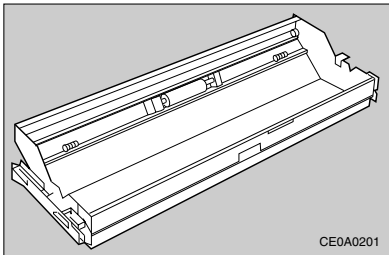




OPTIONS

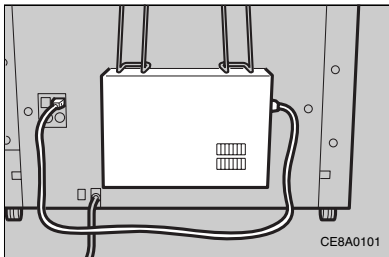
Ricoh Roll Feeder Type 7030D

You can add an extra roll feeder. It is of the same type as the second standard roll feeder.



Ricoh Memory Unit Type 7030D

Allows you to use the sort/stack function. This option also prevents originals from being damaged when making multiple copies or using the Auto Image Density function.

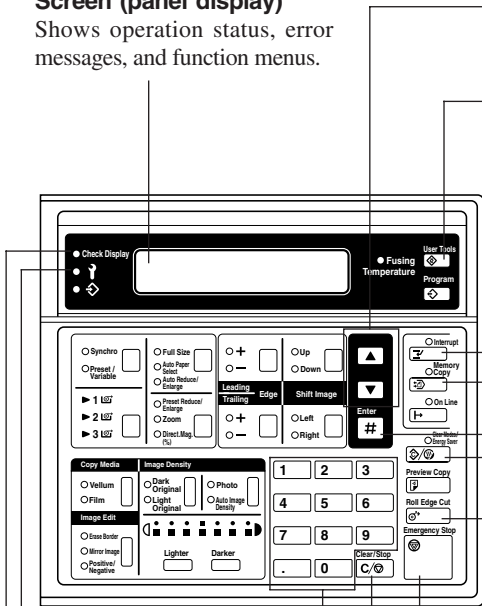




OPERATION PANEL

Screen (panel display)

Shows operation status, error messages, and function menus.



[▲][▼] keys

Press to adjust setting values or select functions.

[User Tools] key

Press to access the User Tools where you can customize the default settings to meet your requirements.

=> Page 79, "ACCESSING THE USER TOOLS OVERVIEW"

[Interrupt] key

Press to make interrupt copies during a copy run (The Memory Unit is required).

[Memory Copy] key

Having multiple page originals scanned into memory first gives you control over how copy sets are delivered with the Stack and Sort features (The Memory Unit is required).

[#] key

Use this key to enter values confirm settings.

[Clear Modes/Energy Saver] key

Press to clear any previously entered copy job settings. When you hold down this key for three seconds or more, the copier enters Energy Saver mode to conserve power. Press this key again to exit Energy Saver mode.

[Cut Leading Edge] key

Cuts the leading edge of the roll paper.

[Emergency Stop] key

Stops originals being fed.

[Clear/Stop] key

Clear Press to cancel a number you have entered. Stop Press to stop/cancel copying. During a memory copy run, this key has the following functions: Clear While entering the number of copies, press to cancel a number you have entered. Stop Press to stop a memory copy run and return to the previous operation.

These indicators show errors and the machine status.
Page 41, "WHAT TO DO IF SOMETHING GOES WRONG"

[Check Display]

See the panel display.

[Number] keys

Use to enter numbers such as the number of copies or a reproduction ratio.





1. BASICS

ORIGINALS

Sizes and Weights of Recommended Originals

Where original is set	Original size	Original weight
Original table	E (36" × 48") - A (9" × 12")	64 - 150 g/m ² (17.0 - 39.9 lb)
	Length: 11" - 197"	
	Width: 8.5" - 36"	

When making multiple copies, the original length must be between 11" and 48".

Originals that Require the Carrier Sheet

Use the carrier sheet when copying types of originals described below. You should also use it when copying originals you want to handle carefully or originals you use repeatedly.

- Originals that have low stiffness or thin originals
- Carbon paper
- Creased or folded originals
- Punched or perforated originals
- Pasted originals

Reference

"Using the Carrier Sheet" => Page 15



BASICS

Non-recommended Originals for the Original Table

- Setting the following originals on the original table might cause paper misfeeds or damage to the originals:
 - Originals other than those specified in “Sizes and Weights of Recommended Originals”
 - Stapled or clipped originals
 - Perforated or torn originals
 - Bent, 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
 - Thin originals that have low stiffness, such as registers
 - Originals of inappropriate weight, such as postcards
 - Bound originals such as books
 - Damp originals
 - Curled originals
 - Originals that have parts of different weight
 - Originals with adhesive tapes or paste
- When you make multiple copies of a translucent original written with a pencil, the original might be smudged with pencil dust. When you making multiple copies of such an original, make a copy on bond paper and use it as the original to make the necessary number of copies.



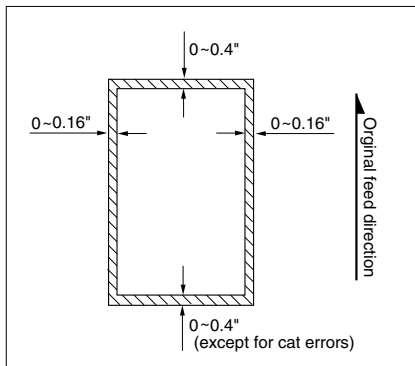
ORIGINALS

Original and Paper Sizes That Can Be Read Automatically

- The machine can only automatically detect the width of originals and copy paper. For originals, the position of the left original guide is used to detect this width, so make sure that the guide position matches the size of your original. For copy paper, the machine automatically recognizes the width of roll paper set as one of Engineering or Architecture type sizes.
- Depending on whether the size mode setting is set to Engineering sizes or Architecture sizes, the original and copy paper widths that can be read differ as shown in the table below. => Page 71, "Size mode setting"

Original width	Engineering	17.0"	22.0"	34.0"
	Architecture	18.0"	24.0"	36.0"
Paper width	Engineering	17.0"	22.0"	34.0"
	Architecture	18.0"	24.0"	36.0"

Scanning Area



- The machine does not copy a small bounding margin around all four sides of originals as shown in the illustration above (dimensions when using roll paper and full-size copying).



BASICS

COPY PAPER

Recommended Paper Sizes and Types

The following table shows the sizes and types of copy paper that you can load in this copier:

Tray type	Recommended paper type	Recommended paper size	Number of sheets that can be set
Paper tray	Bond paper 64 - 80 g/m ² (17.0 - 21.3 lb)	Roll paper diameter: 7.1" or less Internal diameter: 3.0" +/- 0.04" Width: 420 - 920 mm	—
	Translucent Paper (Vellum)		
	Film		
Manual feed table	Bond paper 64 - 80 g/m ² (17.0 - 21.3 lb)	E (36" × 48") <input type="checkbox"/> D (24" × 36") C (18" × 24") B (12" × 18")	1
	Translucent Paper (Vellum)	D (9" × 12") <input type="checkbox"/>	
	Film	Paper width: 8.3" - 34.6" Paper length: 11.7" - 78.7"	

Copying onto Translucent Paper or Film

After each copy is delivered to the copy catch tray, remove it and place on a flat surface.

Roll Paper

If roll paper is damp due to high humidity, cut off a length of about 40" immediately before copying.



COPY PAPER

Non-recommended Paper

⚠ CAUTION:



- **Do not reuse stapled paper. Do not use aluminum foil, carbon-containing paper, or other conductive paper. Otherwise, a fire might occur.**

Do not use the following types of paper because a paper misfeed might occur:

- Bent, folded, or creased paper
 - Torn paper
 - Perforated paper
 - Rough paper
 - Slippery paper
 - Thin paper that has low stiffness
 - Released paper
 - OHP sheets
- If you make a copy on rough grain paper, the copy image might be blurred.
- If you use curled paper, you might not be able to make clear copies.
- If you copy onto paper types other than those specified in this manual (in particular, Japanese chemical paper, saddle paper, or thin film), a paper misfeed might occur and the copy image might appear faulty or wrinkled.
- Do not use copy paper with any kind of coating, such as thermal fax paper, art paper, aluminum foil, carbon paper, or conductive paper. Otherwise, a fault might occur.
- Do not reuse paper that has been already copied on by another machine.

Paper Storage

- When storing paper, the following precautions should always be followed:
- Store paper in a location free from direct sunlight.
 - Store paper in a location with humidity of 70 % or less.
 - Store on a flat surface.
- Once you take paper out of the container it was supplied in, store it in a vinyl bag to keep it away from humidity.



BASICS

Handling Copy Paper

- Check the following table for advice on handling copy paper based upon how humid your locale is.

%	State of copies	Try this...
Low humidity	Part of the copy image is lost or a multi-sheet feed or wrinkling occurs both on translucent paper and normal paper.	<ul style="list-style-type: none"> Improve the environment where the copier is placed (e.g., install an air conditioner or humidifier). Remove paper from the copier immediately after copying, and store it in a vinyl bag.
40 (Normal conditions)	Part of the copy image is lost on translucent paper.	<ul style="list-style-type: none"> When you do not use the copier for a long time, remove translucent paper from the copier and store it in a vinyl bag.
		<ul style="list-style-type: none"> Store paper in a vinyl bag when you have finished copying every day.
70	Part of the copy image is lost both on translucent paper and normal paper.	<ul style="list-style-type: none"> When you do not use the copier for a long time, remove paper from the copier and store it in a vinyl bag.
	Part of the copy image is lost or a multi-sheet feed or wrinkling occurs both on translucent paper and normal paper.	<ul style="list-style-type: none"> Improve the environment where the copier is placed (e.g., install an air conditioner or dehumidifier). Remove paper from the copier immediately after copying, and store it in a vinyl bag.
High humidity		

Anti-humidity Heater

The copier paper tray has an Anti-humidity Heater. Turn on this heater when humidity is 70 % or more, or when the temperature changes suddenly.

Important

- Turn off the Anti-humidity Heater in cases other than the above.
- Turn off the Anti-humidity Heater when using translucent paper or film.

Note

- You can turn on the Anti-humidity Heater even when the copier is turned off.

Loading Copy Paper

Reference

“IF COPY PAPER RUNS OUT” => Page 48



TONER

TONER

Handling Toner

WARNING:



- *Do not incinerate toner or toner containers. When exposed to open flames, toner dust might ignite causing a burn. Dispose of the used toner container according to local regulations.*

CAUTION:



- *Keep toner (including used one) and toner containers out of reach of children.*

Toner Types : Ricoh Toner Type 1100W

CAUTION:



- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

- If you use toner other than that recommended, a fault might occur.

Toner Storage

- When storing toner, the following precautions should always be followed:
 - Store toner containers in a cool, dry place free from direct sunlight.
 - Do not store toner where it will be exposed to fire.
 - Keep toner out of reach of children.
 - Store on a flat surface.

If the waste toner tank full

- When "Check waste toner tank" is displayed, see Page 51.

Note

- Used toner cannot be used.

Adding Toner

Reference

"IF TONER RUNS OUT" => Page 53



BASICS



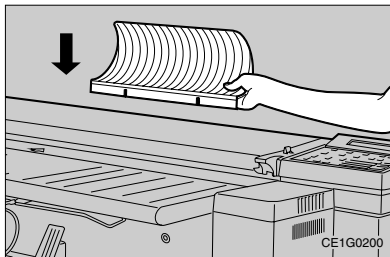


2. COPYING

SETTING UP THE MACHINE

Attaching the Original Reverse Guide

- 1 Attach the original reverse guide to the top on the rear side of the machine.

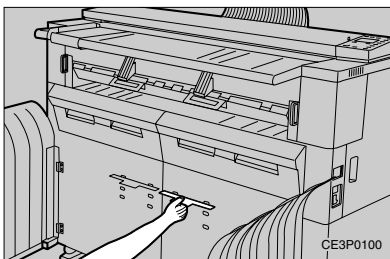


Note

- ❑ Remove the original reverse guide when making multiple copies, using Auto Image Density, using Pre-scan or when originals are delivered from the front of the copier.

Attaching the Copy Catch Tray Support Boards

- 1 Change the support board positions depending on the length of copies.

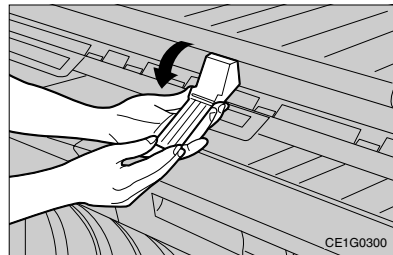


Note

- ❑ Open the copy catch tray before setting the support boards.
- ❑ You can set the support boards in one of five positions.
- ❑ When setting the support boards, see the label describing the procedure. If copied paper is not delivered to the tray properly, shift the support boards upward or downward.

Opening the Copy Guides

- 1 Open the copy guides on both sides when copying onto E (36" × 48", length: 48") or larger paper.



Note

- ❑ Be sure to close the copy guides except when copying onto E (36" × 48") or larger paper.

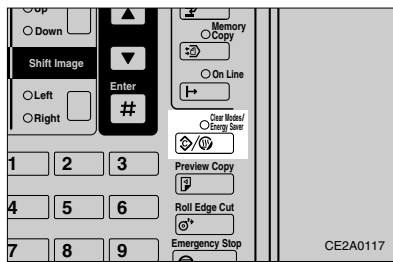


COPYING

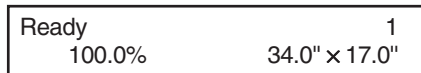
BASIC COPYING

When you set your original, the machine scans it in and copies it. If you specified more than one copy, the machine repeatedly scans the original for every copy made.

- 1** Press the **[Clear Modes/Energy Saver]** key if any previous copy settings remain.



- 2** Make sure that the **Memory Copy** indicator is not lit and the message **“Ready”** is shown on the panel display.

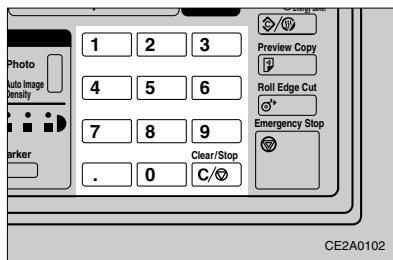


- 3** Select any copy functions you require.

Reference

For more information on functions that are available, check the table of contents on page xx.

- 4** Enter the number of copies you wish to make with the **[Number]** keys.



Limitation

- You can make up to 20 copies.

Note

- If you enter the wrong number, press the **[Clear/Stop]** key then try again.

- 5** Load copy paper or select **Paper Tray 1** or **2**.

- 6** Set your original.

The machine starts copying.

Important

- Do not open the front cover during a copy run.

Reference

“SETTING ORIGINALS” => Page 14

Note

- To stop originals being fed right away, press the **[Emergency Stop]** key. The machine will immediately stop feeding the current original. This might result in a paper jam, so see “IF COPY PAPER OR AN ORIGINAL IS MISFED” (= > Page 56) for how to remove the jammed original.
- To stop the current copy run, press the **[Clear/Stop]** key. The machine finishes copying the current copy and stops.
- The maximum number of copies that can be received in the copy catch tray is 15 for E (36" x 48") paper, 20 for D (24" x 36") paper, or 1 for paper of other sizes.

- 7** The original is delivered.

Originals are delivered from the original delivery slot on the back of the machine. Copied paper is delivered from the copy delivery slot and received in the copy catch tray.

Tips

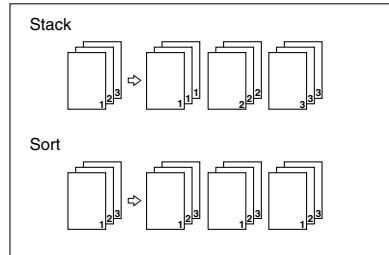
- You can change the initial settings for basic functions. => Page 69, “Initial Setting”



BASIC COPYING

- The machine returns to its initial condition automatically if you do not operate it for a certain period of time after your copy job is finished. This function is called “Auto Reset.”
 - To change the Auto Reset time:
=> Page 71, “Auto Reset Time”
- The machine turns itself off automatically if it is not in use for a certain period of time (30 minutes by default) after your copy job is finished. This function is called “Auto Off.”
 - To change the Auto Off time:
=> Page 71, “Auto Off Timer”

Select “Normal” when you store ordinary originals in memory. Select “Fine” when you store originals containing small characters or numbers, fine graphics, photographs, or maps.



Memory Copy (Memory Unit Required)

This function stores several originals (one original for copying with manual feed) in memory before making the necessary number of copies.

Preparation

- The Memory Unit Type 7030D contains 16 MB of memory as standard. You can extend this memory to a maximum of 64 MB. You can also add an HDD to the Memory Unit. For more information, contact your sales or service representative.
- The number of originals that you can store in memory at a time differs depending on the available memory space in the Memory Unit, and the original size and image.
- When you add extended memory to the copier, the Memory Copy is selected by default when you power on. To change this setting, see “Memory copy mode” on page 72.
- You should set the image quality level to “Normal” or “Fine” and the copy delivery method to “Stack” or “Sort” before starting a memory copy run.

Limitation

- You cannot select “Dark Original/Light Original” or “Photo” with the Memory Copy function.
- During a memory copy run, originals are delivered from the original delivery slot on the back of the machine.

Stack/Sort

Limitation

- When copying with manual feed, you cannot use the Stack/Sort function since it is not possible to store several originals in memory. => Page 17, “Copying Onto Paper Set On The Manual Feed Table (Memory Copy)”
- You can adjust the Copy Image Density (Lighter/Darker) for each original to be stored. However, can only specify the paper type, reproduction ratio, and other settings once before scanning the first original. When you select Auto Reduce/Enlarge, you can change the reproduction ratio by fitting the left original guide to an original size when you set the original (the reproduction ratio is not displayed while scanning the original).



COPYING

1 Press the **[Clear Modes/Energy Saver]** key if any previous copy settings remain.

2 Make sure that the Memory Copy indicator is lit.
If it is not lit, press the **[Memory Copy]** key.

Ready(Normal•Stack)	1
100.0%	34.0" × 17.0"

3 You can set the image quality level to “Normal” or “Fine” and the copy delivery method to “Stack” or “Sort.”

Reference

=> Page 74, “Copy quality setting” Page 75, “Output Setting”

4 Enter the number of copies required with the **[Number]** keys.

Limitation

You can make up to 20 copies.

Note

If you enter a wrong number, press the **[Clear/Stop]** key and enter the correct one.

5 Select a paper type.

Selecting a Paper Type

There are three ways to select the paper type:

- Select a paper tray.
- Select “Auto Paper Select.”
- Select “Auto Reduce/Enlarge” and choose a paper tray.

6 Specify any other functions you require, such as the reproduction ratio, margins, editing etc.

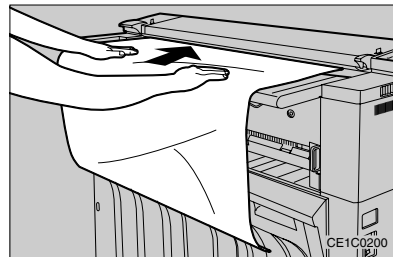
7 Select **[Auto Image Density]**, and use the **[Lighter]/[Darker]** key as necessary.

Note

When you select **[Auto Image Density]**, the copier scans part of the original in order to calculate the image density, then scans the entire original again. When scanning several originals, you can have this operation performed only for the first original. => Page 69, “Image Density”

8 Feed your original face down along the original guide.

The copier starts scanning.



Now scanning

Please wait
Ready to set original

9 Feed the next original along the original guide (you can use the **[Lighter]/[Darker]** key before this operation). Repeat this step to scan all originals you want to store in memory.

Insert next original	1-5
Last orig. -> #	



BASIC COPING

Note

- Numbers shown on the upper right corner of the screen represent the following:

1-5	Number on the left	Number of originals
	Number on the right	Number of copies

- The remaining memory space is displayed on the lower right corner of the screen if it reaches 64 MB or less.

10 When you have finished scanning the originals, press the **[#]** key.

11 To start copying, press the **[#]** key again.

Press # for copying	3-5
---------------------	-----

Note

- If you want to change the copy quantity, press the **[Clear/Stop]** key. Then press the **[Clear/Stop]** key again and enter a new quantity with the **[Number]** keys. To return to the previous screen, press the **[#]** key.

Memory copying

12 When the copier completes copying, the following message appears on the panel display:

Ready(Normal•Stack)

Note

- When using the Sort function, the maximum number of copies that can be received in the copy catch tray is 15 for E (36" × 48") paper or 20 for D (24" × 36") paper. When copying onto paper of other sizes,

take copies one by one out of the copy catch tray.

13 To copy the originals stored in memory again, press the **[#]** key then return to step 4.

- Enter the number of copies required with the **[Number]** keys.
- Press the **[#]** key.
The copier starts copying.

14 To clear memory, press the **[Clear Modes/Energy Saver]** key. The copier clears memory and returns to the ready condition for Memory Copy.



COPYING

SETTING ORIGINALS

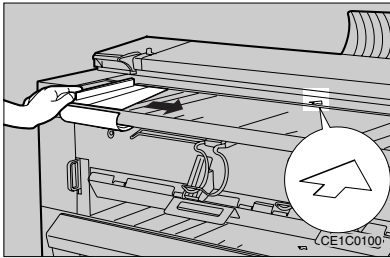
Reference

For information on originals, see “ORIGINALS.” => Page 1

Note

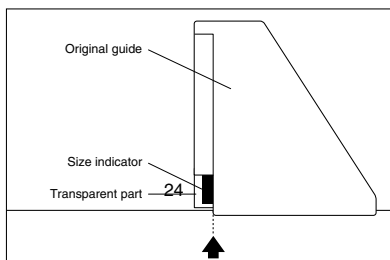
- Set originals after correction fluid or ink has completely dried. Not taking this precaution could mark the exposure glass and cause marks to be copied.

- 1** Set your original face down while aligning it to the reference mark, and fit the left original guide to the original width.



Note

- Be sure to fit the left and right original guides to the original width to prevent the original from being fed at a slant.
- Slide the original guides so that the inside of the transparent part fits the original.



- 2** Make sure that the message “Ready” is shown on the panel display.

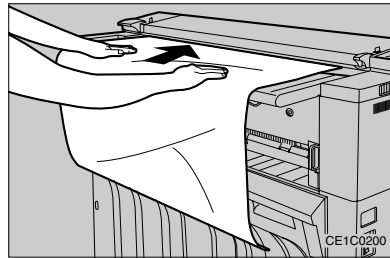


Note

- The green arrow lights when the copier enters the ready condition. When this arrow blinks, you can use the Auto Start function.
=> Page 27, “Auto Start”

- 3** Feed the original face down along the original guide.

The copier starts copying.



Note

- Release the original when the machine pulls it slightly into the machine.
- If the original is at a slant, pull it out and feed it in straight.
- If you wish to stop copying after the original has started to be fed, press the [Emergency Stop] key and remove the original from the copier.
- When copying a long original, prevent the leading portion of the delivered original from coming back into the original feed slot.



SETTING ORIGINALS

Using the Carrier Sheet

Reference

For original types you should copy with the optional carrier sheet, see “Originals that Require the Carrier Sheet.” => Page 1

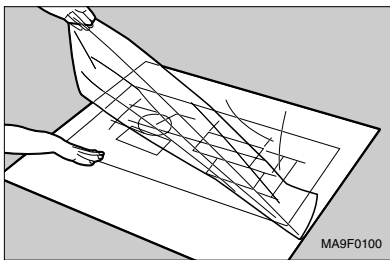
Note

- When you make copies using the carrier sheet and **[Synchro Cut]**, they are cut to the carrier sheet length.

Important

- When using the carrier sheet, specify “1” for the number of copies (when the Memory Unit is not attached). If you make multiple copies with a carrier sheet, originals might be damaged.
- You can use the carrier sheet only when originals are delivered from the original delivery slot on the back of the machine. If originals are delivered from the front of the machine, they might be damaged.

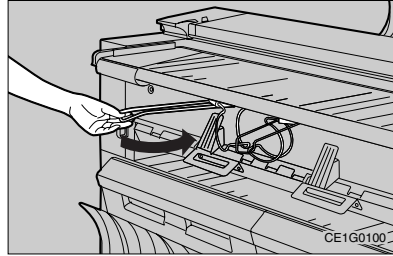
- 1** Open the carrier sheet with the transparent side facing up, and insert your original face up.



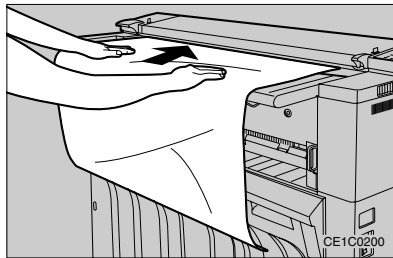
Note

- Align the original to the folded portion of the carrier sheet.

- 2** Extend the carrier sheet guides.



- 3** Insert the folded portion of the carrier sheet into the original feed slot.



Note

- Set the carrier sheet with the original face down.
- Release your hands from the carrier sheet when it is pulled slightly into the machine.
- If the carrier sheet is fed at a slant, pull it out and feed it in straight.
- If you wish to stop copying after the original has started to be fed, press the **[Emergency Stop]** key and remove the original from the copier.



COPYING

COPYING ONTO PAPER SET ON THE MANUAL FEED TABLE

This function allows you to copy onto paper of sizes that cannot be handled by the paper tray, as well as A (9" × 12") or other cut sheet paper.

This section describes the procedure you follow when the Memory Unit is not installed.

Reference

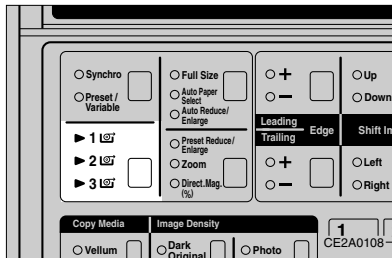
For recommended paper types, orientations, and capacity of the manual feed table, see "COPY PAPER." => Page 4

Limitation

- When copying with manual feed, you cannot use the following functions:
 - Erase Border
 - Margins

1 Press the key shown to turn off all of 1 to 3.

The message "Bypass" is shown on the panel display.



2 Select any special functions that you require.

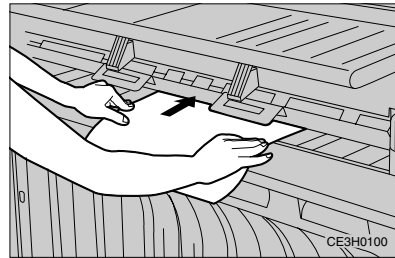
Reference

For more information on functions that are available, check the table of contents on page xx.

3 Insert the paper into the manual paper feed slot while aligning it to the size indicator on the manual feed table.

Note

- Set the paper with the side you wish to copy face-down.
- Release the paper when the machine pulls it slightly into the machine.
- If the paper is fed at a slant, pull it out and feed it in straight.



4 Set your original.

The copier starts copying.

Important

- If the copy curls when it is delivered, it might enter into the manual paper feed slot again and cause a paper misfeed. Prevent the copy from coming back into the manual paper feed slot.

When a copy is fed out, remove it by holding its edge with both hands.

Note

- You can set either an original or copy paper first.



COPYING ONTO PAPER SET ON THE MANUAL FEED TABLE

Memory Copying Onto Paper Set On The Manual Feed Table (Memory Unit Required)

! Limitation

- When setting paper on the manual feed table using the Memory Copy feature, you can only store a single original.
- You must set your original and scan it in before you set the copy paper in the manual feed table.

1 Press the **[Clear Modes/Energy Saver]** key if any previous copy settings remain.

2 Make sure that the Memory Copy indicator is lit.
If it is not lit, press the **[Memory Copy]** key.

Ready (Normal•Stack)

3 You can set the image quality level to “Normal” or “Fine.”

🔍 Reference

=> Page 74, “Copy quality setting”

4 Press the key shown to turn off indicators 1 to 3.

The **[Check Display]** indicator lights prompting you to set your original. The following message appears on the panel display:

Set original/paper 1
100% Bypass

5 Specify a reproduction ratio, editing, or any other functions you require. Select **[Auto Image Density]**, and use the **[Lighter]/[Darker]** key as necessary.

6 Set your original.

Now scanning

Please wait

Add paper 1
Bypass

7 Insert copy paper into the manual paper feed slot while aligning it to the size indicator on the manual feed table.

The copier starts copying.

Memory copying Bypass

📌 Note

- Release the paper when the machine pulls it slightly into the machine.
- If the paper is fed at a slant, pull it out and feed it in straight.

Set original/paper

8 Set the next paper.

9 When you have made the necessary number of copies, press the **[Clear Modes/Energy Saver]** key.

The copier clears memory and returns to the ready condition for Memory Copy.



COPYING

ADJUSTING COPY IMAGE DENSITY

Preparation

- ❑ You can adjust the copy image density in five ways:

【Auto Image Density】

Scans originals based on their image density, allowing you to copy originals with a dark background, such as newspapers.

【Darker/Lighter】

Allows you to specify 13 levels of image density manually.

【Dark Original】

Specify this option when copying dark originals.

【Light Original】

Specify this option when copying light originals.

【Photo】

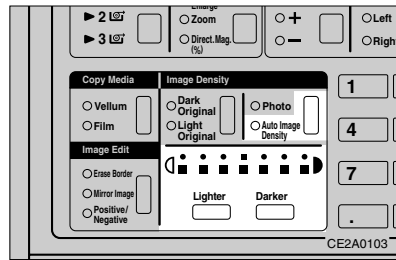
Clearly reproduces halftone images such as photographs.

Note

- ❑ By default, **【Auto Image Density】** is lit for the copy image density adjustment. You can change this setting. => Page 69, “Image Density”
- ❑ By default, **【Lighter】** is selected for the background image density. You can change this setting. => Page 65, “Setting background Image Density”
- ❑ You cannot select **【Dark Original】**/**【Light Original】** or **【Photo】** while the **【Memory Copy】** indicator is lit.

Auto Image Density

- 1 Press the key shown to turn on the **【Auto Image Density】** indicator.



Note

- ❑ If you do not wish to select any other functions, set your original and start copying.
- ❑ The copier scans a portion of the original to calculate the appropriate image density, then copies the entire original. Do not hold down or pull out the original while it is moving to and fro.
- ❑ You can also use the **【Darker】** or **【Lighter】** key to adjust the copy image density more subtly when **【Auto Image Density】** is selected.

Limitation

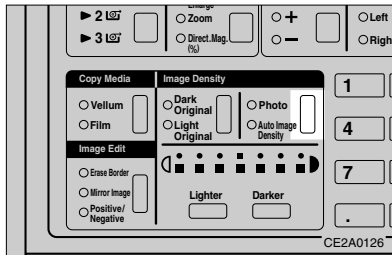
- ❑ You cannot select **【Dark Original】**/**【Light Original】** while the **【Auto Image Density】** indicator is lit.



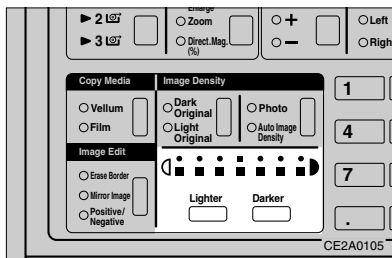
ADJUSTING COPY IMAGE DENSITY

Darker/Lighter

- 1 Press the key shown to turn off the [Auto Image Density] indicator.



- 2 Press the [Darker] or [Lighter] key to select an image density level.
The image density indicator shows the level.

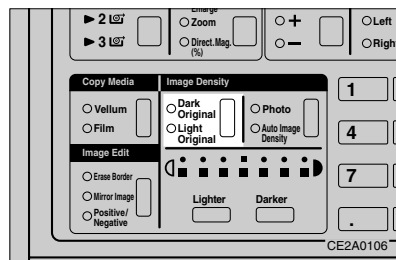


Note

- If you do not wish to select any other functions, set your original and start copying.
- When two image density indicators are lit, the selected density is half way between these two levels.

Dark Original/Light Original

- 1 Press the key shown to turn off the [Auto Image Density] indicator.
- 2 Press the key shown to turn on the [Dark Original] or [Light Original] indicator.



Note

- If you do not wish to select any other functions, set your original and start copying.
- You can use the [Darker] or [Lighter] key to adjust the copy image density more subtly when [Dark Original] or [Light Original] is selected

Limitation

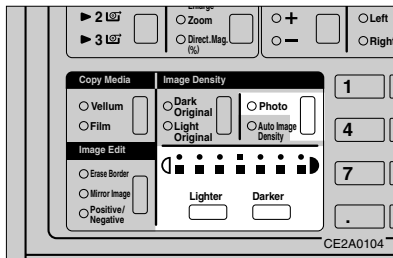
- You cannot select [Dark Original]/[Light Original] while the [Memory Copy] indicator is lit.



COPYING

Photo

- 1 Press the key shown to turn on the **[Photo]** indicator.



Note

- To adjust the copy image density, use the **[Darker]** or **[Lighter]** key.
- If you do not wish to select any other functions, set your original and start copying.
- You can also choose **[Dark Original]**/**[Light Original]** when **[Photo]** is selected.

Limitation

- You cannot select **[Photo]** while the **[Memory Copy]** indicator is lit.



SELECTING COPY PAPER

Paper Tray Select/Auto Paper Select

Preparation

- You can select copy paper types in two ways:

【Auto Paper Select】

The copier automatically selects a paper type appropriate for a specified original size and reproduction ratio.

【Paper Tray Select】

You can select a paper tray manually.

Reference

Original and paper widths to be read differ depending on whether Size mode setting is set to Engineering or Architecture sizes.

See “Original and Paper Sizes That Can Be Read Automatically.” => Page 3

For the procedure to switch between columns Engineering sizes or Architecture sizes, see “Size mode setting.” => Page 71

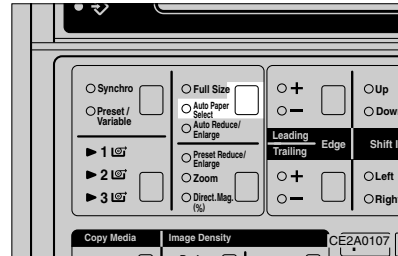
Selecting Copy Paper Automatically

Limitation

- Auto Paper Select detects original widths of 17,0", 22,0", and 34,0" (for Engineering sizes) based on the left original guide position, and selects paper width automatically (18,0", 24,0", and 36,0" for Architecture sizes).

1 Press the key shown to turn on the {Auto Paper Select} indicator.

2 Set your original while fitting the original guide to the original width. The copier selects a paper type appropriate for the original width, and [1], [2], or [3] goes on.

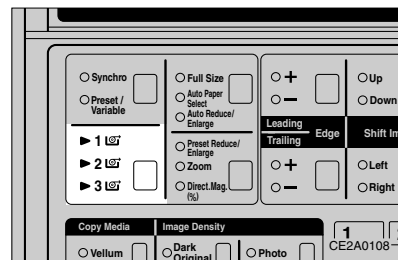


Note

- If the appropriate paper is not loaded, the message “Check paper size” appears on the panel display. Check the paper trays and select the correct type of paper.
- If you do not wish to select any other functions, set your original and start copying.

Selecting a Paper Tray

1 Press the key shown to turn on indicator [1], [2], or [3] to select the paper type you require.



Note

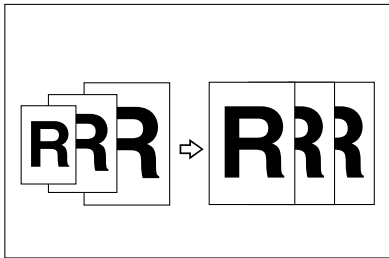
- The third paper tray is optional.
- When selecting the manual feed table, press the key shown to turn off indicators [1] to [3]. => Page 16, “COPYING ONTO PAPER SET ON THE MANUAL FEED TABLE”
- If you do not wish to select any other functions, set your original and start copying.



COPYING

Auto Reduce/Enlarge

This function enlarges/reduces copies automatically so that they match the specified paper width.



Preparation

- This function is useful when copying originals of different sizes onto copy paper of the same size.

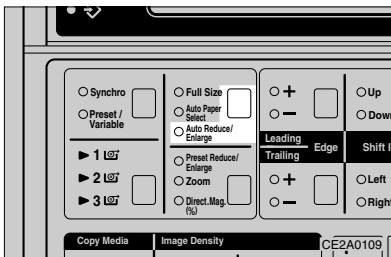
Limitation

- This function will use one of the following reproduction ratios: 200, 129, 100, 65 and 50 % for Engineering sizes, and 200, 133, 100, 67 and 50 % for Architecture sizes.

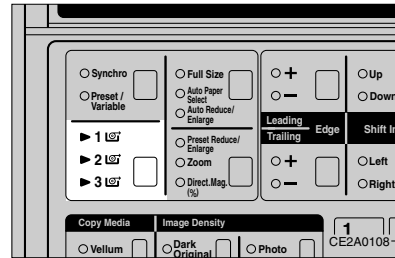
Preparation

For paper and original widths that can be read automatically, see “Original and Paper Sizes That Can Be Read Automatically.” => Page 3.

- 1 Press the key shown to turn on the **[Auto Reduce/Enlarge]** indicator.



- 2 Press the key shown to select a paper tray containing your desired paper.



Note

- If you do not wish to select any other functions, set your original and start copying.



SETTING THE LENGTH OF ROLL PAPER CUT

SETTING THE LENGTH OF ROLL PAPER CUT

Preparation

- You can cut roll paper in three ways:

[Synchro Cut]

Cuts roll paper to the same length as originals.

[Preset Cut]

Cuts roll paper by a length selected from the predefined, fixed lengths and two user-defined lengths.

[Variable Cut]

Cuts roll paper by the length you enter.

- Roll paper is cut regardless of original sizes (except when using Synchro Cut).
- The predefined, fixed lengths for Preset Cut depend on the paper size type (Engineering sizes or Architecture sizes) as shown in the following table.

Engineering Cut length	44.0"	34.0"	22.0"	17.0"
Architecture Cut length	48.0"	36.0"	24.0"	18.0"

- When you change Preset Cut/Variable Cut settings, roll paper will continue to be cut to the modified length until the Auto Reset function is executed.
- You can specify a Variable Cut length from 11" to 197" in 0.1" steps.

Limitation

- You can cut roll paper to lengths between 11" and 197" when using Synchro Cut.

Note

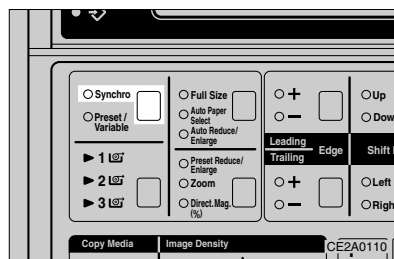
- By default, **[Synchro Cut]** is lit for the paper cut method. You can change this setting. => Page 69, "Set cutting method"
- You can store up to two Preset Cut lengths. => Page 73, "Copy length"
- You can also select whether to show Synchro Cut lengths on the panel display. => Page 70, "Synchr. cut length"
- You can select the default paper sizes that are available (Engineering sizes or Architecture sizes). => Page 71, "Size mode setting"

Synchro Cut

- Press the key shown to turn on the **[Synchro Cut]** indicator.

Note

- If you do not wish to select any other functions, set your original and start copying.



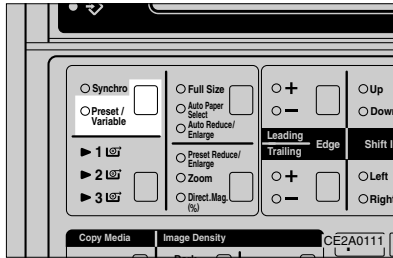


COPYING

Preset Cut/Variable Cut

Preset Cut

- 1 Press the key shown so that the **[Preset Cut/Variable Cut]** indicator blinks.



Standard size cut ▲▼→#
100.0%

- 2 Press the **[▲]/[▼]** key until the cut length you require appears on the panel display.

- 3 Press the **[#]** key.
The **[Preset Cut/Variable Cut]** indicator will light.

Note

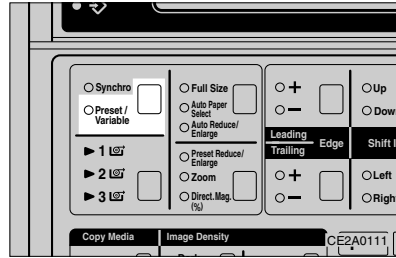
- If you do not wish to select any other functions, set your original and start copying.

Variable Cut

Preparation

- When entering numbers, add leading zeroes as necessary. For example, if the value requires 4 digits and you wish to set it to “299”, enter “0299”.

- 1 Press the key shown so that the **[Preset Cut/Variable Cut]** indicator blinks.



- 2 Press the **[▲]/[▼]** until “Variable Cut” appears on the panel display.

- 3 Press the **[#]** key. The variable cut length entry screen is displayed.

Set length Num. ▲▼→#
100.0%

- 4 Use the **[▲]/[▼]** or **[Number]** keys to select a cut length.

Note

- If you have entered a wrong number, use the **[▲]/[▼]** key or **[Number]** keys to enter the correct one.

- 5 Press the **[#]** key.

The **[Preset Cut/Variable Cut]** indicator lights.

Note

- If you do not wish to select any other functions, set your original and start copying.



FUSING TEMPERATURE

FUSING TEMPERATURE

This feature lets you select an optimal fusing temperature for the type of media you are copying onto.

Preparation

- Choose one of the following fusing temperature options that best matches your copy media:

[Vellum Paper]

Select this option when copying onto translucent paper.

[Film]

Select this option when copying onto film.

[Bond Paper]

This option is selected when both the **[Vellum Paper]** and **[Film]** indicators are not lit.

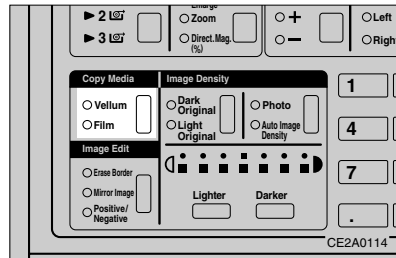
- Copies might be created or part of images might be lost if you make copies with a fusing temperature inappropriate to your copy paper.
- When you change the fusing temperature, it might take a few minutes for the copier to enter the ready condition.

Note

- You can adjust the fusing temperature in the range of -5 to +5°C in about 1°C steps. => Page 65, "Adjusting the Fusing temp. Temporary."
- The specified fusing temperature is cleared when you press the **[Clear Modes/Energy Saver]** key or change paper types.
- You can select the default fusing temperature for each paper type. => Page 68, "Fusing temp. adjustment."

- Press the key shown to turn on the **[Vellum Paper]** or **[Film]** indicator.

The message "Warming up" appears on the panel display.



- Select any copy functions you require and enter the number of copies.

- Set your original.

You can make copies after the copier finishes warming up.



COPYING

PROGRAM

If you find that you often use the same group of copy settings and get tired of selecting them over and over again for each copy job, store this group of settings in a Program. Once stored, you can quickly and easily recall these settings using the Recall Program key, then carry out the copy job.

Preparation

- To use the Program function, store copy job settings you want to use repeatedly. This operation is called "Store program."
- You can store up to five programs.
- The programs are numbered 1-5. Note that if you store settings in a program that has already been used, the old settings will be overwritten with the new settings.

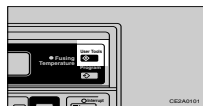
Note

- If you choose Auto Paper Select as one of the settings stored in a program and paper of the same size is loaded in more than one roll feeder, the lowest number tray takes priority.
- Unless you overwrite a program with new settings, programs remain memorized even when you turn off the machine or press the [Clear Modes/Energy Saver] key.

Storing/Changing a Program

1 Select all the settings and functions that you wish to store in a program.

2 Press the [User Tools] key.



3 Press the [▲]/[▼] key to show "2. Store program" on the panel display.

User Tools	▲▼→#
Store program	

4 Press the [#] key
"Program 1" is shown on the panel display

5 Press the [▲]/[▼] key to select the program number (1-5) you wish to store these settings in, then press the [#] key.

6 If you wish to store another program, repeat steps [1] to [5].

Note

- Press the [User Tools] key to return the copier to the ready condition.

Recalling a Program

1 Press the [Recall Program] key.

2 Press the [▲]/[▼] key to select the program you wish to recall (1-5).

Recall	▲▼→#
Program 1	

3 Press the [#] key.
The programmed functions are shown on the panel display.

4 Set your original.
The copier starts copying.



OTHER FUNCTIONS

Energy Saver Mode

When you press the **[Clear Modes/Energy Saver]** key, the display goes blank and the machine enters Energy Saver mode.

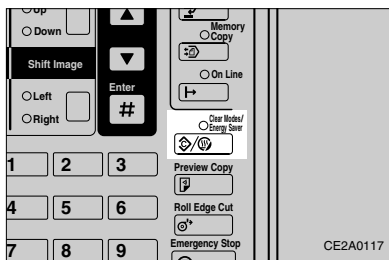
Preparation

- By default, Energy Saver is set to “Level 2” (the machine returns to the ready condition after about three minutes). => Page 70, “Energy saver”
- Energy Saver mode uses less power than the normal stand-by mode.

Important

- If you press the **[Clear Modes/Energy Saver]** key while you are specifying a number or function, all settings you have entered will be cleared.

- 1** Hold down the **[Clear Modes/Energy Saver]** key for about three seconds. The **[Clear Modes/Energy Saver]** indicator will light.



Note

- To exit Energy Saver mode, press the **[Clear Modes/Energy Saver]** key again.

Auto Start

If you set up a copy job while the machine is warming up, the machine starts copying automatically as soon as it enters the ready condition.

- 1** Select any functions you require and enter the number of copies while “Warming up” and “Auto Start” are shown alternately on the panel display.

- 2** Set your original.

The message “Please wait” is shown on the panel display.

Note

- When you use Memory Copy, “Ready to set original” is shown on the panel display.
- The center reference mark (arrow) blinks while “Auto Start” is shown on the screen.



COPYING

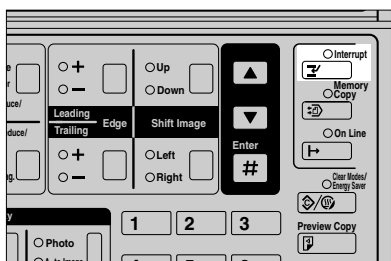
Interrupt (The Memory Unit is Required)

If the machine is making copies, you can interrupt the current copy run to copy another original using Memory Copy, or by recalling a stored original (with the hard disk).

Preparation

- You can press the **[Interrupt]** key to interrupt the current copy run when you are performing the following operations using Memory Copy:
 - Scanning an original
 - Copying (printing out)
 - Recalling a stored original
- When the machine is scanning an original, it finishes the scan before interrupting the copy run.
- When the machine is making a copy, it delivers the copy before interrupting the copy run.
- During a copy interruption, you cannot use Memory Copy (Sort/Stack) or store/recall an image.

- 1** Press the **[Interrupt]** key.
The **[Interrupt]** indicator lights.



- 2** Carry out your copy job.

- 3** When you have finished your copy job, press the **[Interrupt]** key again.
The **[Interrupt]** indicator goes off. The suspended memory copy run will be resumed.

Note

- After interrupting a copy run, follow the steps shown below.

If you interrupted scanning an original

- 1** Insert the next original or press the **[#]** key to start copying.

If you interrupted copying (printing out)

- 1** Resume copying.
When the message "Print out?" is displayed, press the **[#]** key.

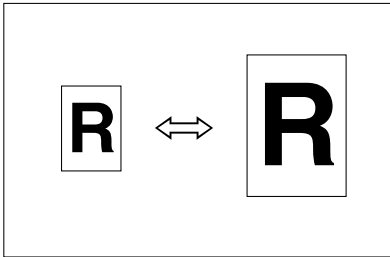
When you interrupted recalling a stored original

- 1** Continue the recall operation.

3. COPY SETTINGS

PRESET REDUCE/ENLARGE

You can select a preset magnification/reduction ratio for copying.



Preparation

- This function provides eight fixed reproduction ratios (four magnification ratios and four reduction ratios) and two arbitrary reproduction ratios:

Relationship between the Fixed Reproduction Ratios and Original/Paper Sizes

Engineering	
Magnification ratio	314%, 259%, 129%
Reduction ratio	65%, 50%, 32%, 25%
Architecture	
Magnification ratio	400%, 267%, 133%
Reduction ratio	67%, 50%, 33%, 25%

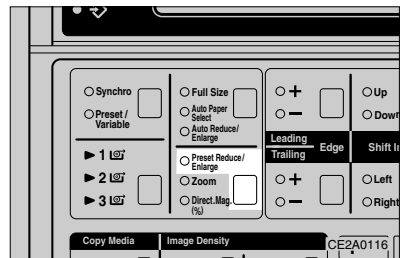
Note

- You can select a reproduction ratio regardless of an original or paper size. With some ratios, however, part of an image might be lost, or margins might appear on copies.
- When you reduce a copy of an original having thin lines, their thickness might differ or part of them might be lost.
- When you set the zoom increment to 0.1%, the fractional portion of numbers is also shown on the panel display. => Page 70, "Change zoom inc."

Tips

- By default, the arbitrary reproduction ratios are 100% for Magnification Ratio 1 and 200% for Magnification Ratio 2. You can change these settings to ratios you use frequently.
=> Page 74, "Setting Preset Reduce/Enlarge"

- 1 Press the key shown so that the [Preset Reduce/Enlarge] indicator blinks.





COPY SETTINGS

- 2** Press the [▲]/[▼] key to select a reproduction ratio.

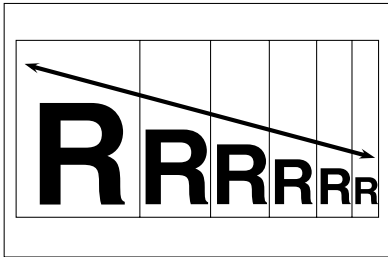
Preset R/E	▲▼→#
141%	841X ----mm

- 3** Press the [#] key.
The [Preset Reduce/Enlarge] indicator lights.
- 4** Set your original.
The copier starts copying.



ZOOM

You can specify the magnification/reduction ratio in 1 % or 0.1 % steps to change copy image sizes more subtly.



Preparation

- Use the **[▲]/[▼]** key or **[Number]** keys to specify the reproduction ratio.
- When entering numbers, add leading zeroes as necessary. For example, if the value requires 3 digits and you wish to set it to “50”, enter “050”.
- You can specify the reproduction ratio in the range of 25 to 400 %.

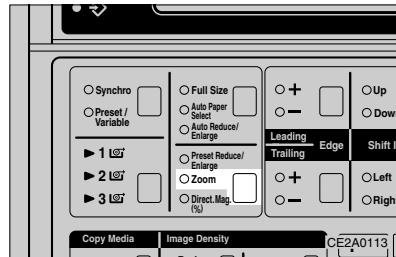
Tips

- You can also choose a ratio nearest to the one you require by choosing **[Preset Reduce/Enlarge]** and then selecting **[Zoom]**. Fine-tune the ratio with the **[▲]/[▼]** key.

Note

- You can also change the reproduction ratio increment to 1 % or 0.1 %. => Page 70, “Change zoom inc.”
- When you reduce a copy of an original having thin lines, their thickness might differ or part of them might be lost.

- 1** Press the key shown so the **[Zoom]** indicator blinks.



Zoom	Num. ▲▼→#
100.0%	34.0" × 17.0"

- 2** Press the **[▲]/[▼]** key or **[Number]** keys to specify a reproduction ratio.

Note

- If you enter a wrong number, use the **[▲]/[▼]** key or **[Number]** keys to enter the correct one.

- 3** Press the **[#]** key.
The **[Zoom]** indicator becomes lit.

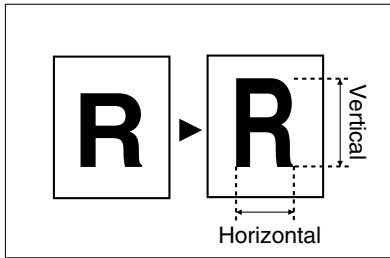
- 4** Set your original.
The copier starts copying.



COPY SETTINGS

DIRECTIONAL MAGNIFICATION

This feature lets you specify different reproduction ratios for the vertical and horizontal axes. To put it simply, you can stretch the image horizontally and vertically.



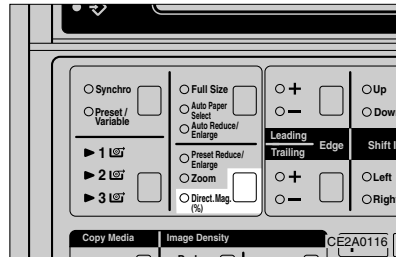
Preparation

- Use the **[▲]/[▼]** key or **[Number]** keys to specify the reproduction ratios.
- When entering numbers, add leading zeroes as necessary. For example, if the value requires 3 digits and you wish to set it to “50”, enter “050”.
- You can specify the reproduction ratios in the range of 25 to 400 %.

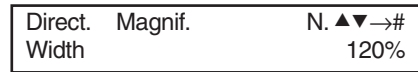
Note

- You can also change the reproduction ratio increment to 1 % or 0.1 %. => Page 70, “Change zoom inc.”
- When you reduce a copy of an original having thin lines, their thickness might differ or part of them might be lost.

- 1** Press the key shown so the **[Directional Magnification]** indicator blinks.



- 2** Press the **[▲]/[▼]** key or **[Number]** keys to specify a horizontal reproduction ratio.



Note

- If you enter a wrong number, use the **[▲]/[▼]** key or **[Number]** keys to enter the correct one.

- 3** Press the **[#]** key.
The vertical ratio entry screen is displayed.

- 4** Press the **[▲]/[▼]** key or **[Number]** keys to specify a vertical reproduction ratio.



- 5** Press the **[#]** key.
The **[Directional Magnification]** indicator lights.

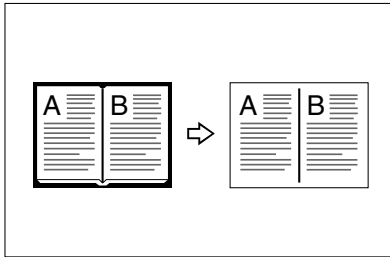
- 6** Set your original.
The copier starts copying.



ERASE BORDER

ERASE BORDER

This function erases shaded areas around original images.



Preparation

- By default, the bounding margin around all four edges that is erased is 0.4".
- You can specify erase widths in the range of 0 to 2" in 0.1" steps.

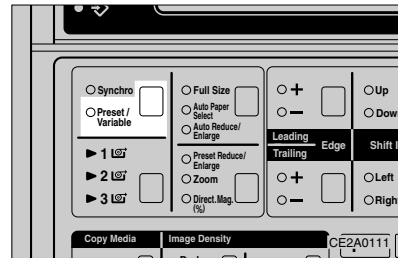
Limitation

- You cannot select Erase Border while the [Synchro Cut] indicator is lit.

Note

- You can also combine Erase Border and Positive/Negative when you set the "Image creation" initial setting to "combined function." => Page 34, "MIRROR," Page 34, "POSITIVE/NEGATIVE," Page 70, "Image creation"
- You can change the default erase width. => Page 66, "Erase Border"

- 1 Press the key shown so the [Preset Cut/Variable Cut] indicator blinks and then select a cut length.

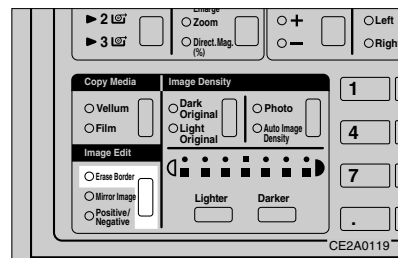


Standard size cut ▲▼→#
100.0%

Reference

"Preset Cut/Variable Cut" => Page 24

- 2 Press the key shown to turn on the [Erase Border] indicator.



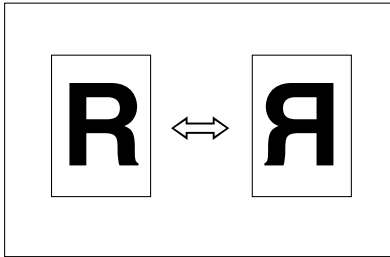
- 3 Set your original.
The copier starts copying.



COPY SETTINGS

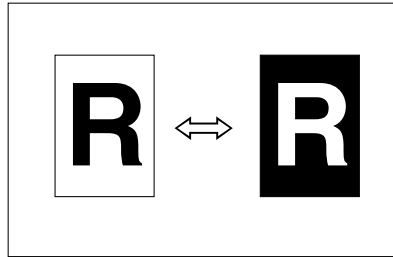
MIRROR

Like a mirror, this function reverses copy images from left to right and vice versa.



POSITIVE/NEGATIVE

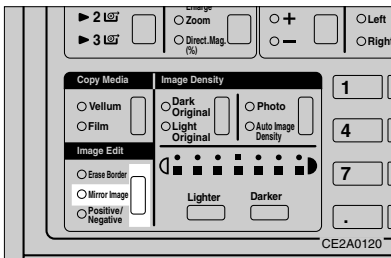
This function turns positive images to negative ones when copying originals.



Note

You can also combine Mirror with Erase Border or Positive/Negative when you set “Image creation” of initial setting to “combined function.” => Page 33, “ERASE BORDER,” Page 34, “POSITIVE/NEGATIVE,” Page 70, “Image creation”

1 Press the key shown to turn on the [Mirror] indicator.

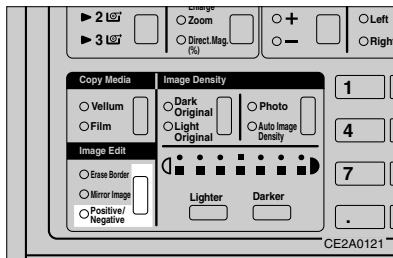


2 Set your original.
The copier starts copying.

Note

You can also combine Positive/Negative with Erase Border or Mirror when you set the “Image creation” of initial setting to “combined function.” => Page 33, “ERASE BORDER,” Page 34, “MIRROR,” Page 70, “Image creation”

1 Press the key shown to turn on the [Positive/Negative] indicator.

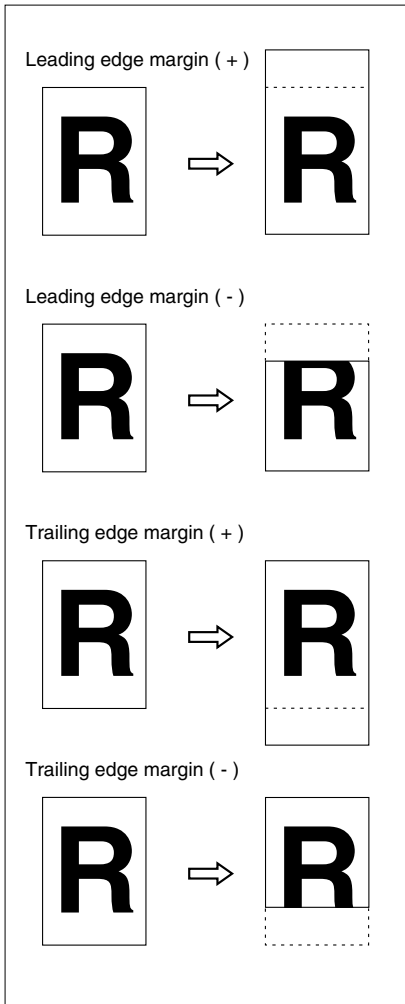


2 Set your original.
The copier starts copying.



MARGINS

This function creates a margin on the top (leading edge) or bottom (trailing edge) of copies or cuts off unnecessary portions of copies.



Preparation

- This function allows you to select the following four types of margins:
 - Leading edge margin (+): Creates a margin on the top (leading edge) of copies.
 - Leading edge margin (-): Cuts an unnecessary portion on the top (leading edge) of copies.
 - Trailing edge margin (+): Creates a margin on the bottom (trailing edge) of copies.
 - Trailing edge margin (-): Cuts an unnecessary portion on the bottom (trailing edge) of copies.
- Use the **[▲]/[▼]** key or **[Number]** keys to specify margins.
- When entering numbers, add leading zeroes as necessary. For example, if the value requires 3 digits and you wish to set it to “50”, enter “050”.
- You can specify margins in the range of -8" to 8" in 0.1" steps (negative numbers represent cut lengths).
- A copy length is a paper length plus a margin or minus a cut length.

Note

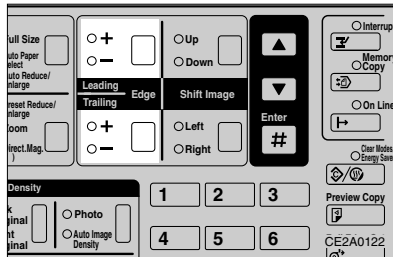
- You can change the default margin settings.
=> Page 66, “Margins”



COPY SETTINGS

- 1 Press the key shown so the **[+]** or **[-]** indicator for **[Leading Edge]** or **[Trailing Edge]** blinks.

The default margin setting is shown on the panel display.



Set lead. edge	N. ▲▼→# +2,0"
----------------	------------------

Set trail. edge	N. ▲▼→# +2,0"
-----------------	------------------

- 2 Press the **[▲]**/**[▼]** key or **[Number]** keys to specify a margin or cut length.

Note

- If you have entered a wrong number, use the **[▲]**/**[▼]** key or **[Number]** keys to enter the correct one.

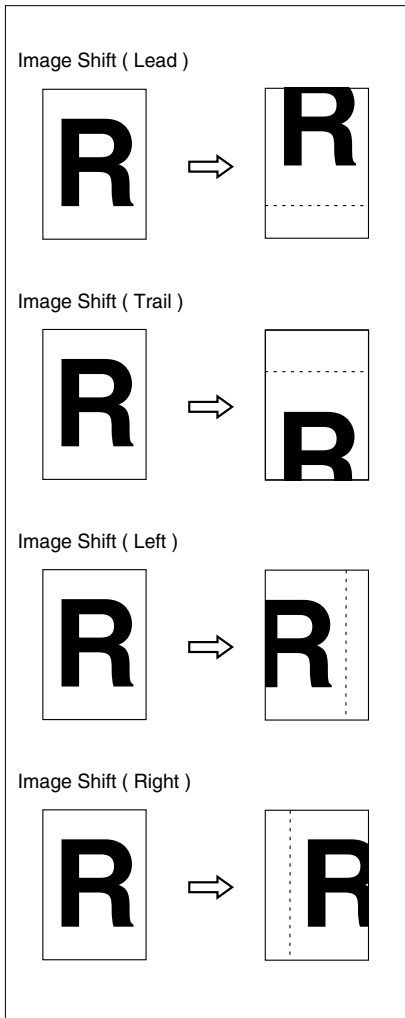
- 3 Press the **[#]** key.
The **[+]** or **[-]** indicator lights.

- 4 Set your original.
The copier starts copying.



IMAGE SHIFT

This function shifts a copy image upward/downward or left/right to make a margin.



Preparation

- This function allows you to select the following four types of shift:
 - Up: Moves an original image toward the top (leading edge) of a copy.
 - Down: Moves an original image toward the bottom (trailing edge) of a copy.
 - Left: Moves an original image to the left of the original feed direction.
 - Right: Moves an original image to the right of the original feed direction.
- Use the [▲]/[▼] key or [Number] keys to specify shift widths.
- When entering numbers, add leading zeroes as necessary. For example, if the value requires 3 digits and you wish to set it to “50”, enter “050”.
- You can specify shift widths in the range of 0 to 8” in 0.1” steps.
- If you are using roll paper, it is cut by the length specified for Preset Cut or Variable Cut. When you specify Image Shift together with Synchro Cut, the copy might be longer than the original.

Note

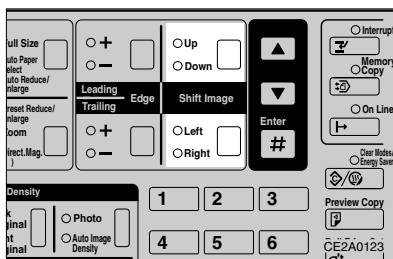
- You can change the default shift widths.
=> Page 66, “Image Shift”



COPY SETTINGS

- 1 Press the key shown so the **[Up]**, **[Down]**, **[Left]**, or **[Right]** indicator blinks.

The default shift width is shown on the panel display.



- 2 Press the **[▲]**/**[▼]** key or **[Number]** keys to specify a shift width.

Note

- If you enter a wrong number, use the **[▲]**/**[▼]** key or **[Number]** keys to enter the correct one.

- 3 Press the **[#]** key.
The **[up]**, **[Down]**, **[Left]**, or **[Right]** indicator becomes lit.

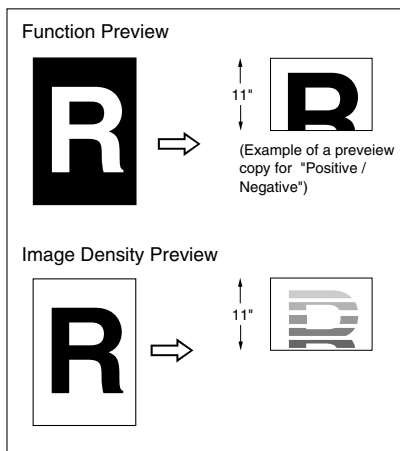
- 4 Set your original.
The copier starts copying.



PREVIEW COPY

PREVIEW COPY

This function makes a partial copy (11" long from the leading edge) of an original in the original feed direction. Use this feature to check image quality with the current settings before starting a copy run.



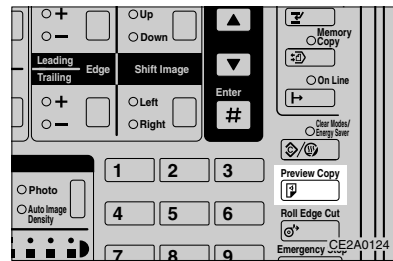
Preparation

- Your machine is furnished with two types of preview feature:
 - **Function Preview:** Allows you to check the Mirror, Positive/Negative, or other functions.
 - **Image Density Preview:** Copies the leading portion of an original with seven levels of image density on a 1" basis.

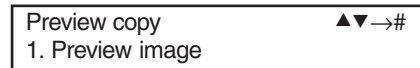
Note

- When you make an image density preview copy, the Image Shift (Up/Down), Margins, and Reduce/Enlarge functions are disabled.
- If you choose **[Auto Image Density]**, You cannot select Preview Copy.

- 1** Select any copy functions you wish to use, then press the **[Preview Copy]** key.



- 2** Press the **[▲]**/**[▼]** key until "1. Preview image" or "2. Preview contrast" is shown on the panel display.



Note

When using Memory Copy, you can also select "3: full sample."

- 3** Press the **[#]** key.

- 4** Set your original.

The copier starts copying.

Note

- When the copy run starts, the original is fed a little and delivered back to position. Then it is kept on the original table.
- After preview copying, press the **[#]** key when you want to start copying the entire original with the these copy settings.
- To cancel copying the original, press the **[Emergency Stop]** key and remove the original.



4. WHAT TO DO IF SOMETHING GOES WRONG

IF YOU CANNOT START COPYING



If a Message Appears

This section describes messages shown on the panel display. If you see a message other than those in the table below, follow the instructions given in the message.

Message	Problem/Cause	Action
Warming up	This message appears when you turn on the main switch.	Wait for the machine to warm-up. You can specify copy functions and the number of copies during the warm-up period. => Page 27, "Auto Start" Note • It takes up to 10 minutes for the machine to enter the ready condition when you turn on the main switch.
No roll unit	The roll feeder is not set firmly in a selected paper tray.	Open the front cover and push the roll feeder firmly. => Page 48, "IF COPY PAPER RUNS OUT"
Check paper size	There is no copy paper that matches an original you set when the [Auto Paper Select] indicator is lit.	Change the roll paper and start copying. Alternatively, turn on the [Auto Reduce/Enlarge] indicator with the relevant key to enlarge/reduce copies. => Page 48, "IF COPY PAPER RUNS OUT," Page 22, "Auto Reduce/Enlarge"
Close original holder	The original holder is not fixed with the pins.	Fix the original holder firmly with the pins on both sides.
Close doors and covers	The front cover is open.	Close the front cover firmly.
Close doors and covers	The main unit is open.	Hold the original table with both hands and push it toward the rear side of the machine to close the main unit. Make sure that the main unit release lever is returned to the original position.
	The upper rear cover is open.	Close the upper rear cover firmly.
	The right side cover is open.	Close the right side cover firmly.
Please wait	The machine is adjusting its temperature because you have changed the fusing temperature.	Wait for the machine to adjust to the new temperature.



WHAT TO DO IF SOMETHING GOES WRONG

Message	Problem/Cause	Action
Memory full Eject original?	The machine has run out of free memory space.	If you select "Yes," the original is ejected. If you select "No," remove the original manually. When you press the [#] key after ejecting/removing the original, the machine prints out the originals it has already scanned.
Memory unit error Press any key	You cannot make copies with memory because the Memory Unit is not working properly.	Contact your service representative. However, you can still make copies without using memory. Press any key to return to the "Ready" screen.
Turn on the memory unit	The Memory Unit's power cord is unplugged from the connector on the back of the machine.	Plug the power cord in firmly. If the message appears again after you have made sure that the power cord is plugged in, contact your service representative.
Select lighter exposure, set original again	You are trying to store in memory a large-size blueprint original, or an containing many photographs, maps, or other halftone images.	Lighten the copy image density with the [Lighter] key, or change the image quality level from "Fine" to "Normal." Change the original feed orientation from  to  .
Paper empty Remove remaining paper	The end portion of the roll paper is stuck to its roll. If the remaining paper is too short, the machine will not cut it.	Open the front cover and remove the paper.
Now adding toner	The machine adds and shakes the toner after you supply it.	Make sure that the toner is added, and wait for the message to disappear.
Please call service		When this message appears with a number, pull the release lever to open the main unit, and then close it. If the message appears again, check the number and other information given in the message, turn off the main switch, and unplug the power cord. Then contact your service representative.
Maintenance due.	Machine maintenance is due.	Contact your service representative.



IF YOU CANNOT START COPYING

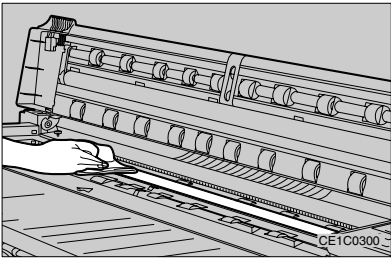
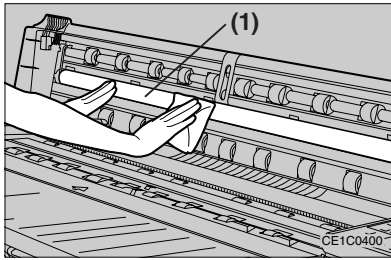
Others

Problem	Cause	Action
The 【Clear Modes/Energy Saver】 indicator is lit and the panel display is turned off.	The machine is in Energy Saver mode.	Press the 【Clear Modes/Energy Saver】 key.
Nothing appears on the panel display even when you turn on the main switch.	The power cord is not plugged in the outlet.	Plug the power cord in the outlet.



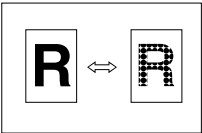
WHAT TO DO IF SOMETHING GOES WRONG

IF YOU CANNOT MAKE CLEAR COPIES

Problem	Cause	Action
Black lines appear on copies.	<p>The image density is too dark.</p> <p>The exposure glass or original feed roller is dirty.</p> <p>There is foreign matter or dust on the originals.</p>	<p>Adjust the image density. => Page 18, "ADJUSTING COPY IMAGE DENSITY"</p> <p>Clean the exposure glass and original feed roller.</p> <p>Cleaning the Exposure Glass</p>  <p>Cleaning the Original Feed Roller</p> <p>Wipe the original feed roller while rotating the part indicated by (1) in the illustration below.</p>  <p>Remove the foreign matter or dust from the originals before copying.</p> <p>In particular, be careful when copying the following types of originals:</p> <ol style="list-style-type: none"> 1. Originals containing characters in pencil, either handwritten or plotter-generated. 2. Film or translucent paper originals which easily build up static electricity. 3. Originals long enough to reach the floor.
The reverse side of an original	The image density is too dark.	Adjust the image density. => Page 18, "ADJUSTING COPY IMAGE DENSITY"



IF YOU CANNOT MAKE CLEAR COPIES

Problem	Cause	Action
Copies appear dirty.	The image density is too dark.	Adjust the image density. => Page 18, "ADJUSTING COPY IMAGE DENSITY"
A shadow appears on copies if you use pasted originals.	The image density is too dark.	Adjust the image density. => Page 18, "ADJUSTING COPY IMAGE DENSITY" • Change the original feed orientation. • Put mending tape on the pasted part.
Something other than original images is copied	The exposure glass or original feed roller is dirty.	Clean the exposure glass and original feed roller. => Page 44
Copy images are blurred.	The image density is too light.	Adjust the image density. => Page 18, "ADJUSTING COPY IMAGE DENSITY"
	Unsuitable paper is set.	Check non-recommended paper. => Page 5 Note • If you make a copy on rough-grain, coated, or damp paper, the copy image might be blurred.
Toner is not fused properly.	The fusing temperature is too low.	Specify a fusing temperature appropriate to the paper type. => Page 25, "FUSING TEMPERATURE," Page 68, "Fusing temp. adjustment," Page 65, "Adjusting the Fusing Temperature Temporarily"
	Copies are made onto thick paper.	Specify a higher fusing temperature. => Page 65, "Adjusting the Fusing Temperature Temporarily"
A moire pattern is produced on copies. 	The moire pattern is created because regularly arranged dot patterns or lines overlaps when the image is processed.	The moire pattern might not be produced if you change the original orientation. Copy the original in the Photo mode.
Copies become lighter when continually copying a solid, black image.		Open and close the right side cover and wait for a while.



WHAT TO DO IF SOMETHING GOES WRONG

IF YOUR COPIER DOES NOT OPERATE AS YOU WANT

Problem	Cause	Action
Misfeeds occur frequently.	Copy paper is folded or creased.	Cut the folded or creased portion of the roll paper.
	Misfed paper or pieces of paper remain inside the machine.	Remove such paper in an appropriate way. => Page 56, "IF COPY PAPER OR AN ORIGINAL IS MISFED"
	The original is curled.	Straighten the curled portion of the original before copying.
Part of a copy image is lost when using Erase Border.	The erase width is too large. The original you set has too narrow a margin.	Set the default erase width to a smaller value. => Page 66, "Erase Border"
Part of a copy image is lost.	The original was not set in the correct position.	Set the original properly. => Page 14, "SETTING ORIGINALS"
	An unsuitable paper size is selected.	Select copy paper of the correct size. => Page 4, "Recommended Paper Sizes and Types"
	Image Shift or Leading Edge Margin (or Trailing Edge Margin) is selected.	Press the relevant key to turn off the [Image Shift] or [Leading Edge Margin] (or [Trailing Edge Margin]) indicator. => Page 37, "IMAGE SHIFT," => Page 35, "MARGINS"
An original image is not copied.	The original was set with the wrong side facing down.	Set the paper with the side you wish to copy face-down.
The copy image is shifted horizontally on the copy paper.	The roll paper is not set properly in the roll feeder.	Align the roll paper properly to the size indicator on the roll spool. => Page 48, "IF COPY PAPER RUNS OUT"
	The original size does not match the size indicators on the original table.	Align the original guides to the size indicators and insert the original along them. => Page 14, "SETTING ORIGINALS"
	The copy paper was not inserted properly when copying with manual feed.	Align the copy paper properly to the size indicator on the manual feed table. => Page 16, "COPYING ONTO PAPER SET ON THE MANUAL FEED TABLE"
The copy image is shifted in the original feed direction (on the opposite direction)	Image Shift or Leading Edge Margin (or Trailing Edge Margin) is selected.	Press the relevant key to turn off the [Image Shift] or [Leading Edge Margin] (or [Trailing Edge Margin]) indicator. => Page 37, "IMAGE SHIFT," => Page 35, "MARGINS"
Copies are shorter than the specified length, or they are cut at some midpoint.		



IF YOUR COPEIR DOES NOT OPERATE AS YOU WANT

Problem	Cause	Action
Copies are creased.	The copy paper is damp.	Replace the copy paper with new one. Turn on the anti-condensation heater. => Page 6, "Anti-humidity Heater"
Copies are slanted.	The originals were not fed straight.	Feed the originals straight along the original guides.
Copies are waved. (on translucent paper)	The fusing temperature is too low.	Specify a fusing temperature. => Page 68, "Fusing temp. adjustment," Page 65, "Adjusting the Fusing Temperature Temporarily."
The reproduction ratio is inappropriate for full-size copying.	The default full-size reproduction ratio is inappropriate.	Adjust the default full-size reproduction ratio. => Page 67, "Magnif. adjustment"
Data other than original images is copied.	The hard disk is damaged.	Format the hard disk and store the copy job settings again. Ask your service representative.
A trailing edge margin is made on a copy when reducing the copy image using Synchro Cut.	The margin is made because copy paper is fed into the machine first.	Enable the Pre-scan function.=>P.88,"Pre-scan(Reduction)"
A trailing portion of an image is not copied when copying an original containing halftones.	The copy is made in the Text mode.	Set Background setting to Lighter and make copies in the Photo/Light Original mode when copying an original having text and halftones.
A paper misfeed occurs and the machine sounds abnormally when roll paper is running out.	A paper misfeed occurs if the end portion of paper is pasted on the roll.	Open the front cover and remove the roll paper.



WHAT TO DO IF SOMETHING GOES WRONG

IF COPY PAPER RUNS OUT

Reference

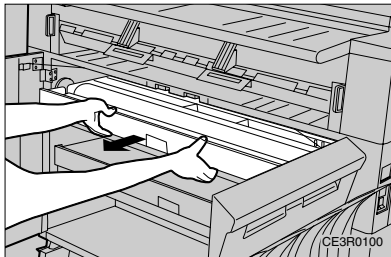
For the sizes and types of paper you can set, see “Recommended Paper Sizes and Types.”
=> Page 4

1 Open the front cover.

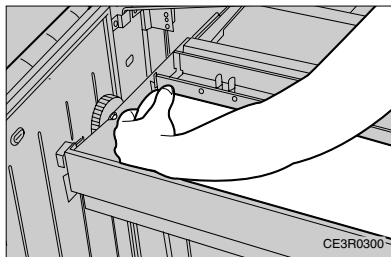
Note

- When opening the front cover, close the manual feed support table.

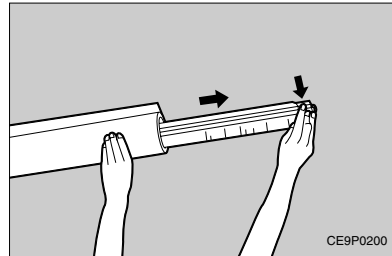
2 Hold the front part of the roll feeder to release the lock. Then pull out the feeder.



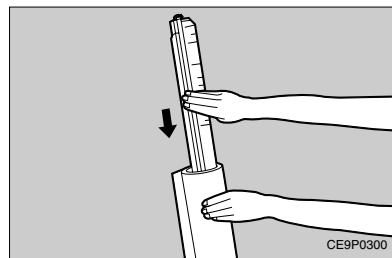
3 Remove the roll paper.



4 Remove the roll spool while pressing the lever.

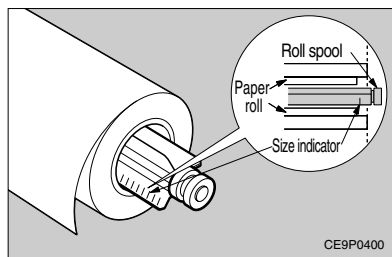


5 Check the paper roll direction and set the new roll paper on the roll spool.



Note

- Align the side edge of the roll paper to the scale on the roll spool.
- When you release the lever, the roll paper is fixed on the roll spool.
- The scale on the roll spool is the reference for aligning roll paper. To align roll paper precisely, set it in position based on actual copy sizes.



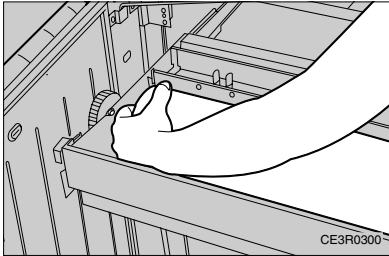


IF COPY PAPER RUNS OUT

6 Set the roll paper in the roll feeder.

Important

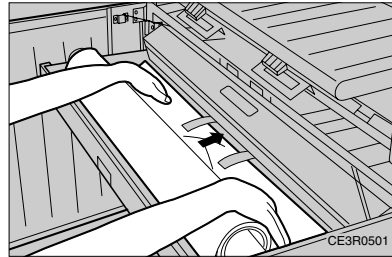
- When setting the roll paper in the roll feeder, be careful not to pinch your fingers between the paper and the guide grooves in which you set it.



7 Open the paper feed guide while holding the levers.

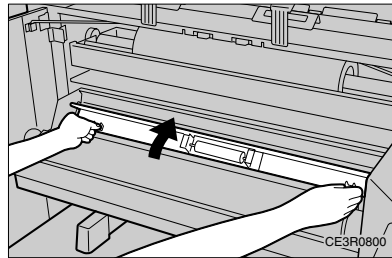
Setting the Roll Paper in the First Roll Feeder

- ① Feed the paper under the black sheet by about 0.4".

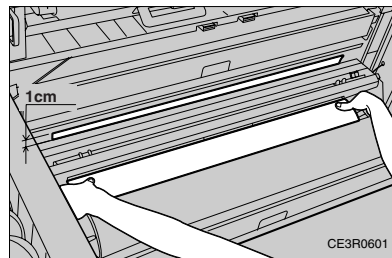


Setting the Roll Paper in the Second/Third Roll Feeder

- ① Open the paper feed guide while holding the levers as shown below.



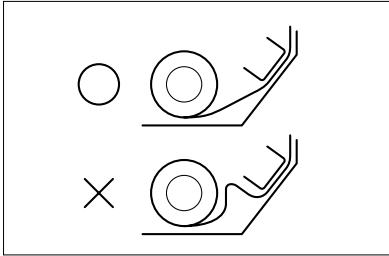
- ② Pull out the paper edge by about 0.4" as shown below. Then close the paper feed guide while holding the levers.





WHAT TO DO IF SOMETHING GOES WRONG

8 Stretch the paper.



9 Close the front cover.

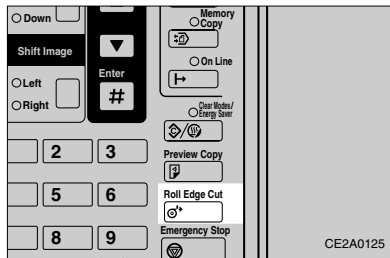
The paper edge is set in position automatically.

Note

- If a message appears to indicating a paper misfeed, set the paper again.

10 Press the [Cut Leading Edge] key.

The leading portion of the roll paper is cut by about 1.2" and delivered from the copy delivery slot.



Note

- If the leading portion is cut at a slant or irregularly, press the [Cut Leading Edge] key a few more times.



IF THE WASTE TONER TANK FULL

IF THE WASTE TONER TANK FULL

WARNING:



- *Do not incinerate used toner, toner tank or toner cartridge.*
- *Toner dust might ignite when exposed to an open flame.*
- *Dispose of the toner cartridge and the used toner tank according to local regulations for plastics.*

CAUTION:



- *Do not eat or swallow toner.*
- *Keep toner(used or unused), toner tank, and toner cartridge out of reach of children.*

CAUTION:



- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

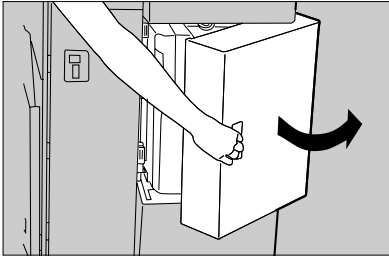
Note

- Put the Tank with full of the used toners in the vinyl bag and ask your service representative the way to dispose of it.
- Used toner cannot be re-used.

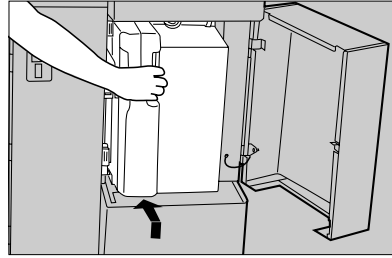


WHAT TO DO IF SOMETHING GOES WRONG

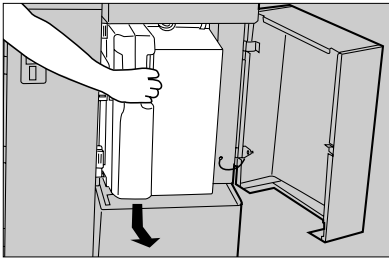
1 Open the Right Cover.



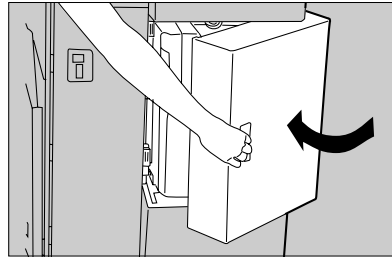
4 Set a new Waste Toner Tank into the Copier



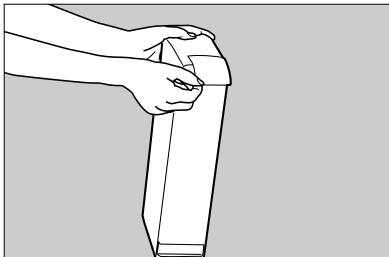
2 Remove the Waste Toner Tank by pushing down and pulling out towards you.



5 Close the Right Cover.



3 Seal the Waste Toner Tank Opening with the seal located on.





IF TONER RUNS OUT

IF TONER RUNS OUT

This section describes how to supply toner when toner is low or runs out.

WARNING:



- *Do not incinerate used toner, toner tank or toner cartridge.*
- *Toner dust might ignite when exposed to an open flame.*
- *Dispose of the toner cartridge and the used toner tank.*
- *according to local regulations for plastics.*

CAUTION:



- *Do not eat or swallow toner.*
- *Keep toner(used or unused), toner tank, and toner cartridge out of reach of children.*

CAUTION:



- *This machine has been tested for safety using this supplier's parts and consumables. We recommend you only use these specified supplies.*

Important

- If you use toner other than that recommended, a fault might occur.
- Add toner with the power turned on. If you turn off the power, your copy settings are cleared and you cannot resume a copy run.
- Always add toner after the machine instructs you to add toner.
- Set a toner cartridge in each of the left and right holders (two cartridges in total).

Reference

For information on storing toner, see "Toner Storage." => Page 7

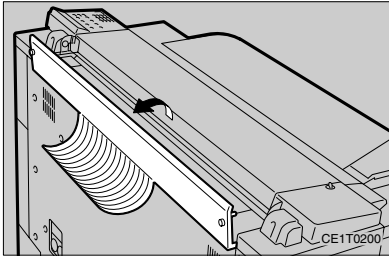
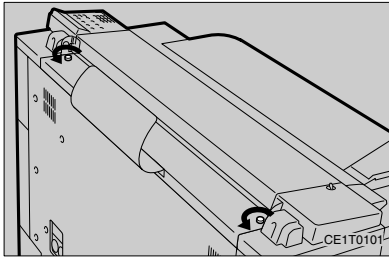
Note

- You can still make several copies after the message "Toner is nearly empty" is displayed. However, you should replace the toner as soon as possible.
- If toner runs out, the message "Add toner" appears and you cannot make copies.
- When you supply toner, the copier automatically adds it for up to four minutes and shake it for up to two minutes. While this is happening, the message "Now adding toner" is displayed.
- If you have been copying originals of high image density, you may not be able to fully replenish the toner reservoir in one operation. Toner cannot be fully added at a time depending on the image density of originals you have copied. If the message "Toner is nearly empty" appears again after supplying toner, open and close the right side cover. This lets the copier start adding the toner again.

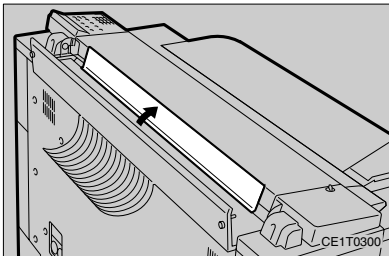


WHAT TO DO IF SOMETHING GOES WRONG

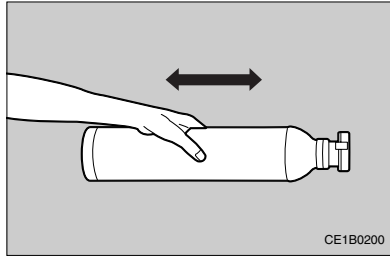
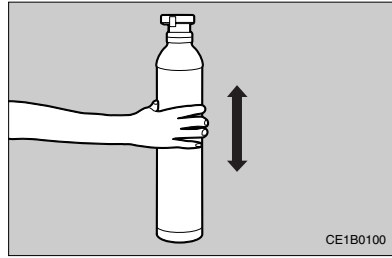
- 1** Loosen both screws on the upper rear cover and open it.



- 2** Open the toner supply cover.



- 3** Shake the new toner cartridge horizontally and vertically 10 to 15 times to remove lumps.



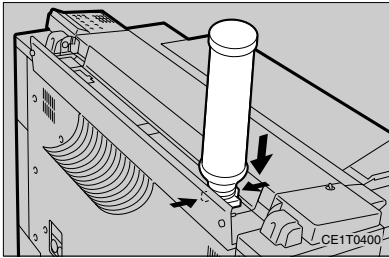
- 4** Remove the seal from the cap.



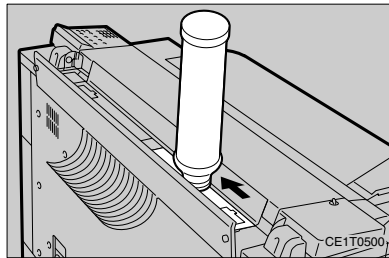


IF TONER RUNS OUT

- 5** While holding both tabs on the cap, set the toner cartridge on each of the left and right holders in the machine.



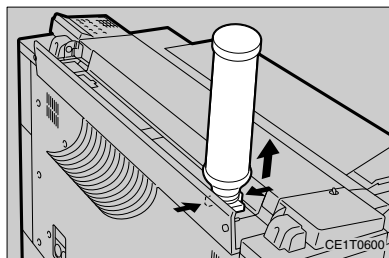
- 6** Holding it near the cap, and slide the toner cartridge to the middle of the machine while tapping its bottom. Then slide the cartridge back to the original position.



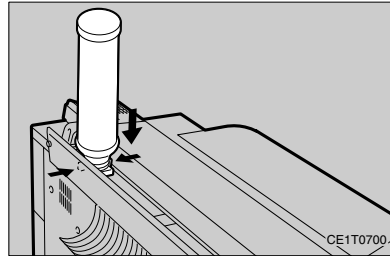
 **Note**

- Slide the toner cartridge left and right a few times for about 15 to 20 seconds, and leave it for 2 or 3 minutes.

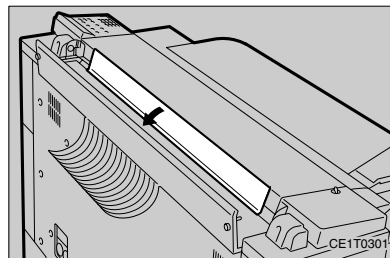
- 7** Remove the toner cartridge from the machine while holding both tabs on the cap in setting the cartridge.



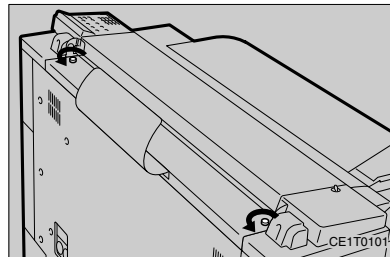
- 8** Repeat steps [5] to [7] to add toner from the other holder.



- 9** Close the toner supply cover.



- 10** Close the upper rear cover and fasten both screws on the cover.





WHAT TO DO IF SOMETHING GOES WRONG

IF COPY PAPER OR AN ORIGINAL IS MISFED

CAUTION:



- *Since some parts of the copier are supplied with high electrical voltage, touch only the parts specified in this manual, otherwise a burn might occur.*

Important

- When clearing misfeeds, do not turn off the power. If you do, your copy settings are cleared.
- Remove misfed paper carefully not to tear it. If torn scraps of paper remain within the machine, a paper misfeed might recur or a fault might occur.
- If paper misfeeds occur repeatedly, contact your service representative.

Note

- More than one misfed areas might be indicated. In this case, check every applicable area.
 - B, C, or D => Page 57, "When B, C, or D is Displayed"
 - S => Page 58, "When S is Displayed"
 - P => Page 59, "When P is Displayed"
 - A => Page 60, "When A is Displayed"
- You can find a sticker explaining how to remove misfed paper in front of the roll feeder.
- If no misfed paper is found in the roll feeders when B, C, or D is displayed, release the lock of the first and second roll feeders and set them again with the third one fixed. Then check the third roll feeder.



IF COPY PAPER OR AN ORIGINAL IS MISFED

When B, C, or D is Displayed

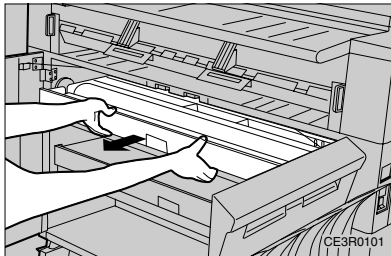
When the following message appears, a paper misfeed has occurred in the corresponding roll feeder. Remove the paper by following the steps shown below.

- B: First roll feeder
- C: Second roll feeder
- D: Third roll feeder (optional)

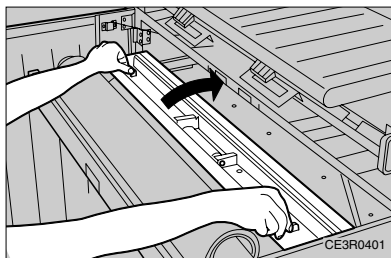
Clear Misfeed(s):B
Open front doors

1 Open the front cover.

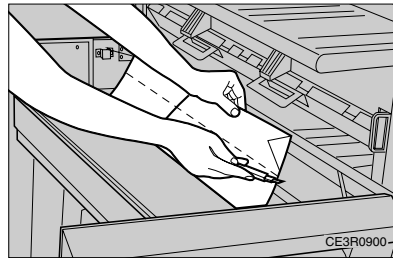
2 Hold the front part of the roll feeder shown below to release the lock. Then pull out the feeder.



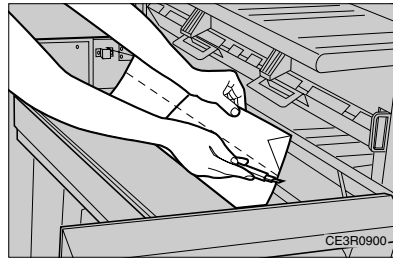
3 Open the paper feed guide while holding the levers.



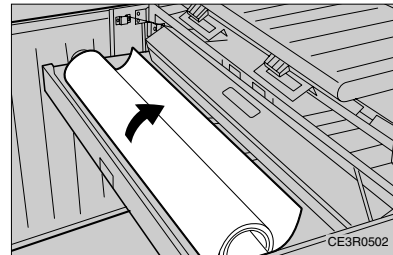
4 Cut the creased or folded portion of the roll paper with a cutter or scissors, if any.



5 Roll the paper to remove slack from it.



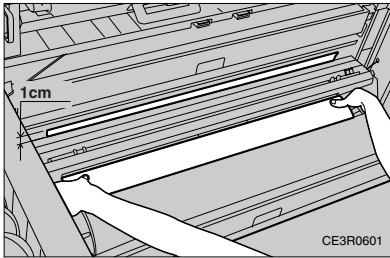
6 Feed the paper under the black sheet by about 0.4".



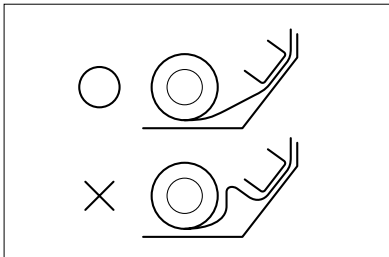


WHAT TO DO IF SOMETHING GOES WRONG

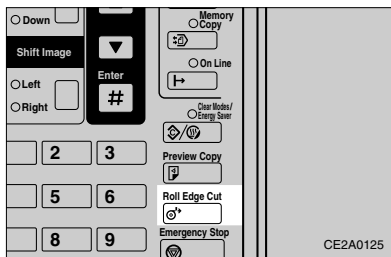
- 7** Pull out the paper edge by about 1 cm. Then close the paper feed guide while holding the levers.



- 8** Stretch the paper.



- 9** Press the [Cut Leading Edge] key.



Note

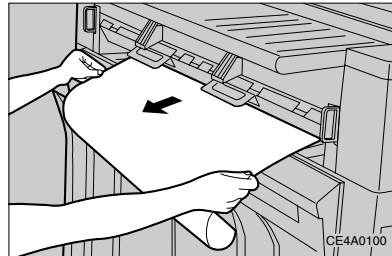
- If the leading portion is cut at a slant or irregularly, press the [Cut Leading Edge] key a few more times.

When S is Displayed

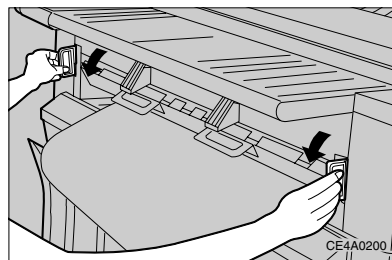
When the following message appears, a paper misfeed has occurred in the manual paper feed slot. Remove the paper by following the steps shown below.

Clear Misfeed(s):S
Remove paper

- 1** Pull the misfed paper from the manual paper feed slot.



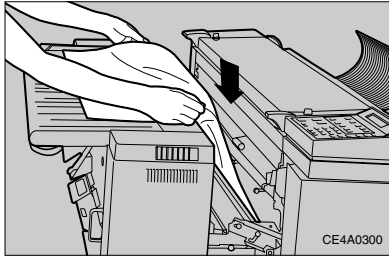
- 2** Pull down the main unit release levers lightly to open the main unit.





IF COPY PAPER OR AN ORIGINAL IS MISFED

- 3** Remove the paper from inside the machine. Be careful not to touch the part labeled “High Temperature. Do Not Touch.”



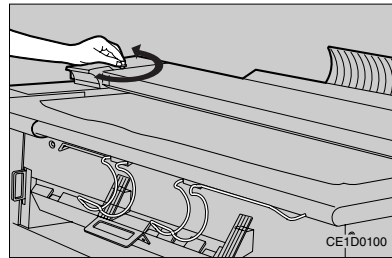
- 4** Close the main unit.

When P is Displayed

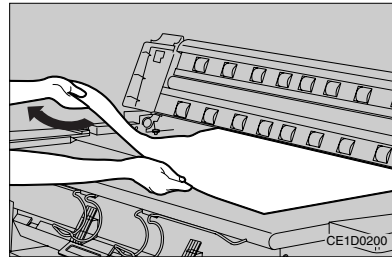
When the following message appears, an original misfeed has occurred in the original feed slot. Remove the original by following the steps shown below.

Clear Misfeed(s)
Reset original

- 1** Loosen the fixing pins on both sides on the original cover to release the lock.



- 2** Open the original cover and remove the misfed original carefully without tearing it.



Note

- When you pull up the original cover to a certain position, it will lock and will not close.

- 3** Close the original cover.



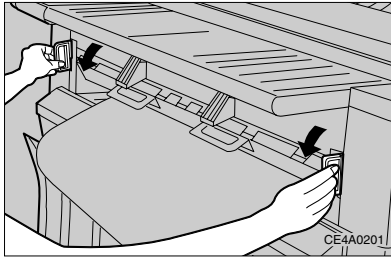
WHAT TO DO IF SOMETHING GOES WRONG

When A is Displayed

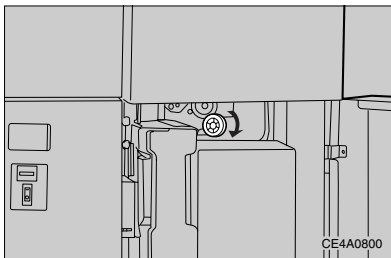
When the following message appears, the leading portion of paper is misfed within the machine. Remove the paper by following the steps shown below.

Clear Misfeed(s)
Open fusing unit

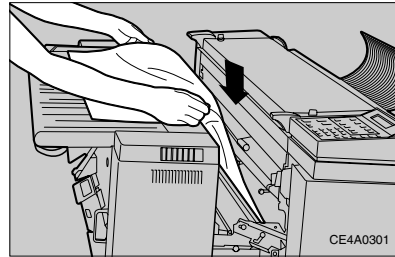
- 1** Pull down the main unit release levers lightly to open the main unit.



- 2** Open the right side cover and rotate the paper feed knob clockwise.



- 3** Remove the paper from inside the machine. Be careful not to touch the part labeled “High Temperature. Do Not Touch.”



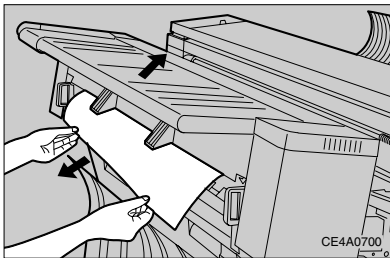


IF COPY PAPER OR AN ORIGINAL IS MISFED

- 4** Press the fusing unit release button.



- 5** Open the fusing unit and remove the misfed paper from the copy delivery slot.



- 6** Close the fusing unit and main unit.



WHAT TO DO IF SOMETHING GOES WRONG



5. USER TOOLS

ACCESSING THE USER TOOLS OVERVIEW

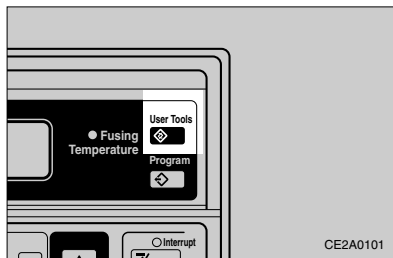
The User Tools let you change various default settings to match the kind of copy jobs you carry out most frequently.

Preparation

- Any changes you make to the User Tool settings are not cleared even when you turn off the power, or press the [Clear Modes/Energy Saver] key (except for “Adjust the Fusing Temperature Temporarily”).

1 Make sure that the copier is in the ready condition.

2 Press the [User Tools] key.



3 Press the [▲]/[▼] and [#] keys to find the setting you wish to adjust. The diagram on the next page shows the available settings.

Default setting	▲▼→#
1. Fusing temp. adjust.	

4 Enter or select the new value for this setting.

Note

- How you do this will depend on which setting you are changing. See the section entitled “CHNGING THE USER TOOL

SETTING” on Page 65 for more details. “DEFAULT FUNCTION SETTINGS” on Page 69.

5 Repeat steps 3 and 4 for all the settings you wish to change.

Exiting the User Tools menu

1 Press the [User Tools] key.
The copier returns to the ready condition.

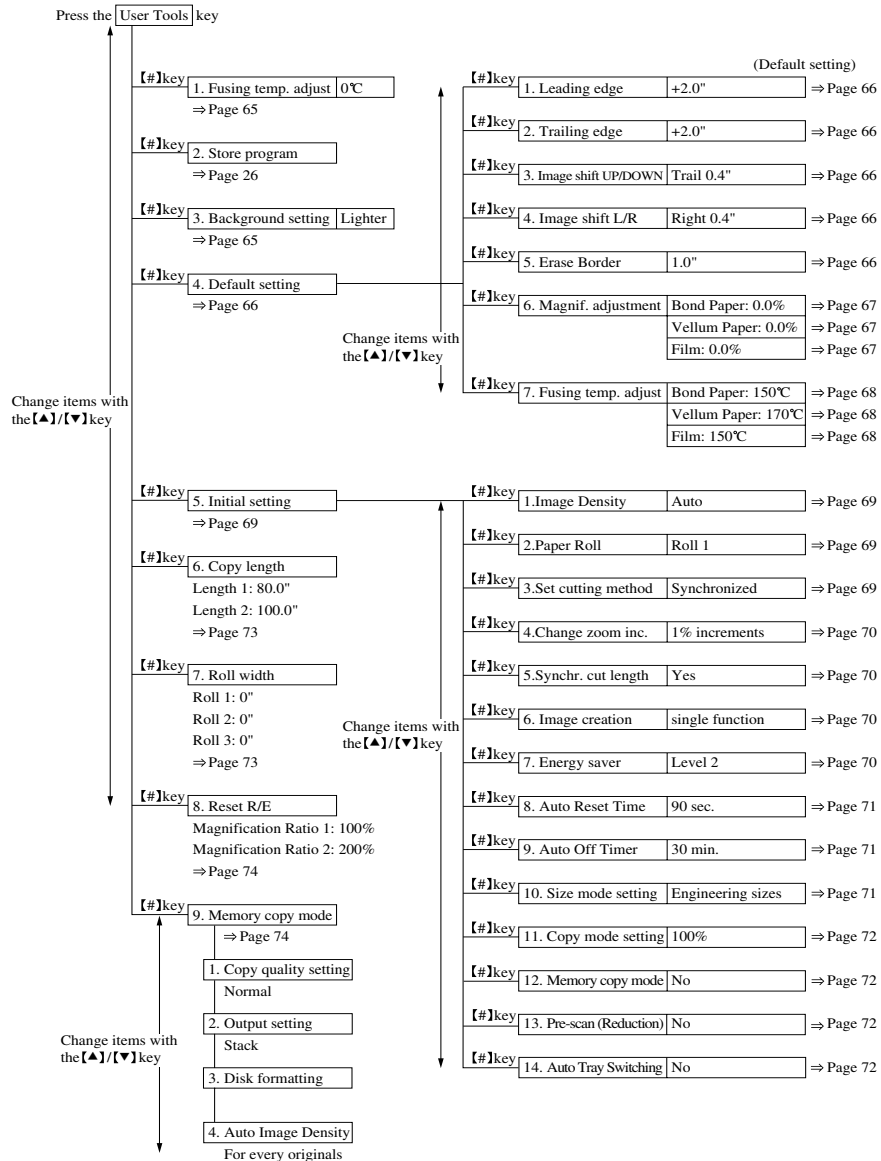
Note

- You can also press the [Clear Modes/Energy Saver] key to quit the User Tools menu.



USER TOOLS

USER TOOLS MENU TREE





CHAGING THE USER TOOL SETTING

Adjusting the Fusing Temperature Temporarily

Follow these steps to temporarily adjust the fusing temperature. The machine will return to the default fusing temperature when you press the [Clear Modes/Energy Saver] key or change paper types. For how to change the default fusing temperature permanently, the see “Fusing temp. adjust.” setting on page 68.

- 1 Press the [User Tools] key.
“1. Fusing temp. adjust.” is displayed.

Default setting	▲▼→#
1. Fusing temp. adjust.	

- 2 Press the [#] key.
The default fusing temperature is displayed.

Fusing temp. adjust	▲▼→#
	0 °C

- 3 Press the [▲]/[▼] key to adjust the fusing temperature.
 - -5 - +5°C(about 1°C steps)

- 4 Press the [#] key and then press the [User Tools] key.
“Warming up” is displayed.

Note

- When “Ready” is displayed, you can start copying.
- The [Temperature Adjustment] indicator is lit when the fusing temperature is not +0 °C.
- When you press the [Clear Modes/Energy Saver] key or change paper types, the

specified fusing temperature is cleared and the [Temperature Adjustment] indicator goes off.

Reference

You can specify the default fusing temperature. => Page 68, “Fusing temp. adjust.”

Storing a Program

Reference

“PROGRAM” => Page 26

Setting background Image Density

- 1 Press the [▲]/[▼] key until “3. Background setting” appears.

Default setting	▲▼→#
3. Background setting	

- 2 Press the [#] key.
The default background image density is displayed.

Background setting	▲▼→#
2. Lighter	

- 3 Press the [▲]/[▼] key to specify the background image density.
 - Darker/Lighter

- 4 Press the [#] key.

Note

- To return the copier to the ready condition, press the [User Tools] key.



USER TOOLS

Changing Default Setting

Margins

You can specify margins in the range of -8.0" to +8.0" in 0.1" steps.

- 1** Press the **[▲]/[▼]** key to display “1. Leading edge” or “2. Trailing edge.”

Default setting 1. Leading edge	▲▼→#
------------------------------------	------

Default setting 2. Trailing edge	▲▼→#
-------------------------------------	------

- 2** Press the **[#]** key.
The margin setting (cut length) is displayed.

Set lead. Edge	N. ▲▼→#
----------------	---------

Set trail. Edge	N. ▲▼→#
-----------------	---------

- 3** Press the **[▲]/[▼]** keys to specify the default margin setting.

- 4** Press the **[#]** key.

Note

- To return the copier to the ready condition, press the **[User Tools]** key.

Image Shift

You can specify shift widths in the range of -8.0" to +8.0" in 0.1" steps.

- 1** Press the **[▲]/[▼]** key to display “3. Image shift UP/DOWN” or “4. Image shift L/R.”

Default setting 3. Image shift UP/DOWN	▲▼→#
---	------

Default setting 4. Image shift L/R	▲▼→#
---------------------------------------	------

- 2** Press the **[#]** key.
The image shift width is displayed.

Set image shift	▲▼→# Trail 0.4"
-----------------	--------------------

Set image shift	▲▼→# Right 0.4"
-----------------	--------------------

- 3** Press **[0]** of the **[Number]** keys three times.

- 4** Press the **[▲]** key for the upward or left direction, **[▼]** for the downward or right direction, or press the **[Number]** keys to specify the default shift width.

- 5** Press the **[#]** key.

Note

- To return the copier to the ready condition, press the **[User Tools]** key.

Erase Border

You can specify erasing widths in the range of 0 to 2.0" in 0.1" steps.

- 1** Press the **[▲]/[▼]** key until “5. Erase Border” appears.

Default setting 5. Erase Border	▲▼→#
------------------------------------	------



CHANGING THE USER TOOL SETTING

2 Press the [#] key.

The border erasing width is displayed.

Erase border	Num./▲▼→#
	1.0"

3 Press the [▲]/[▼] key or [Number] keys to specify the default erasing width.

4 Press the [#] key.

Note

- To return the copier to the ready condition, press the [User Tools] key.

Magnification Adjustment

The magnification ratio for full-size copying differs depending on the paper characteristics. In particular, when using large-size paper, you need adjust the magnification ratio because it differs widely from the default.

Preparation

- You can adjust the full-size reproduction ratio by +/-3 % in 0.1 % steps. You can specify a ratio separately for the length and width of paper of three types: bond paper, vellum paper, and film.
- When you enlarge/reduce copies by changing the default reproduction ratio, the new ratio is regarded as 100 %.
- If you change the default reproduction ratio for each paper type, the specified ratio is used for [Vellum Paper] or [Film] when selecting these media types.

1 Press the [▲]/[▼] key until "6. Magnif. adjustment" appears.

Default setting	▲▼→#
6. Magnif. adjustment	

2 Press the [#] key.

The reproduction ratio for the bond paper width is displayed.

Mgnif. adjust.	▲▼→#
Bond paper width	+0.0%

3 Press the [▲]/[▼] key to specify your desired reproduction ratio.

4 Press the [#] key.

The reproduction ratio for the bond paper length is displayed.

Mgnif. adjust.	▲▼→#
Bond paper Length	+0.0%

5 Press the [▲]/[▼]key to specify your desired reproduction ratio.

6 Press the [#] key.

The reproduction ratio for the vellum paper (translucent paper) width is displayed.

Mgnif. adjust.	▲▼→#
Vellum width	+0.0%

Note

- To return the copier to the ready condition, press the [User Tools] key.
- To change the full-size reproduction ratio for vellum paper, repeat steps [2] to [6].
- To change the full-size reproduction ratio for film, repeat steps [2] to [6].



USER TOOLS

Fusing Temperature Adjustment

- 1 Press the **[▲]/[▼]** key until “7. Fusing temp. adjust” appears.

Default setting	▲▼→#
7. Fusing temp. adjust	+0.0 °C

Fusing temp. adjust	▲▼→#
Bond Paper	+150 °C

- 2 Press the **[#]** key.
The fusing temperature for “Bond Paper” is displayed.

- 3 Press the **[▲]/[▼]** key to select a fusing temperature.
 - 150°C/160°C/170°C

- 4 Press the **[#]** key.
The fusing temperature for “Vellum Paper” is displayed.

Note

- When you press the **[User Tools]** key, “Please wait” is displayed. When “Ready” appears, you can start copying.
- To specify the fusing temperature for vellum paper (translucent paper), repeat steps [2] to [4].
(145°C/160°C/170°C)
- To specify the fusing temperature for film, repeat steps [2] to [4].
(150°C/160°C/170°C)



CHANGING THE USER TOOL SETTING

Initial Setting

Reference

- The following procedures begin assuming that the display shows the initial settings menu. For how to bring up this menu, and exit the User Tools menu, see “ACCESSING THE USER TOOLS OVERVIEW.” => Page 63

Image Density

You can set the default image density setting to one of the following: Manual Image Density, Auto Image Density, and Photo. You can also use **[Darker]** and **[Lighter]** to adjust the density more subtly.

Note

- To specify Manual Image Density, make sure that both the **[Photo]** and **[Auto Image Density]** indicators are not lit. Then use the **[Darker]** or **[Lighter]** key to select the density you require.

- 1 Press the **[▲]/[▼]** key until “1. Image Density” appears.

Initial setting	▲▼→#
1. Image Density	

- 2 Press the **[#]** key.

- 3 Press the **Image Density** key to select your desired image density. Manual Image Density/Auto Image Density/Photo (you can also use the **[Darker]** or **[Lighter]** key to adjust the density more subtly.)

- 4 Press the **[#]** key.

Paper Roll

You can set the default paper tray (the third one is optional).

Note

- To specify manual paper feed, make sure that the **[1☒]**, **[2☒]**, and **[3☒]** indicators are not lit.

- 1 Press the **[▲]/[▼]** key until “2. Paper Roll” appears.

Initial setting	▲▼→#
2. Paper Roll	

- 2 Press the **[#]** key.

- 3 Press the **Paper Roll** key to select your desired paper tray. 1/2/3 (the third tray is optional)/Manual Feed

- 4 Press the **[#]** key.

Set cutting method

You can set the default paper cut method to Synchro Cut or Preset Cut. For Preset Cut, you can set the default cut length to one of the lengths shown in the table below.

Note

- The Preset Cut lengths that can be selected differ depending on whether the paper size mode is Engineering sizes or Architecture sizes.

Engineering Cut length	44.0"	34.0"	22.0"	17.0"	80.0"	100.0"
Architecture Cut length	48.0"	36.0"	24.0"	18.0"	80.0"	100.0"
					*1	*2

*1: A value specified for “Length 1” of Copy length (=> Page 73).

*2: A value specified for “Length 2” of Copy length (=> Page 73).



USER TOOLS

Reference

Size mode setting => Page 71

- 1 Press the **[▲]/[▼]** key until “3. Set cutting method” appears.

Initial setting	▲▼→#
3. Set cutting method	

- 2 Press the **[#]** key.
- 3 Press the **[▲]/[▼]** key to select your desired cut method.
 - Synchronized/Std. size cut
- 4 Press the **[#]** key.

Change zoom inc.

You can set the reproduction ratio zoom increment to 1 or 0.1 %.

- 1 Press the **[▲]/[▼]** key until “4. Change zoom inc” appears.

Initial setting	▲▼→#
4. Change zoom inc.	

- 2 Press the **[#]** key.
- 3 Press the **[▲]/[▼]** key to select your desired zoom increment.
 - 1% increments/0.1% increments
- 4 Press the **[#]** key.

Synchr. cut length

You can choose whether to have paper cut lengths shown on the panel display when copying with Synchro Cut.

- 1 Press the **[▲]/[▼]** key until “5. Synchr. cut length” appears.

Initial setting	▲▼→#
5. Synchr. cut length	

- 2 Press the **[#]** key.
- 3 Press the **[▲]/[▼]** key to choose whether to display cut paper lengths.
 - No/Yes
- 4 Press the **[#]** key.

Image creation

You can choose whether multiple edit functions can be used together.

- 1 Press the **[▲]/[▼]** key until “6. Image creation” appears.

Initial setting	▲▼→#
6. Image creation	

- 2 Press the **[#]** key.
- 3 Press the **[▲]/[▼]** key to choose whether functions can be used together.
 - single function/combined function
- 4 Press the **[#]** key.

Energy saver

You can set the Energy Saver mode to one of two levels:

- Level 1: The machine returns to the ready condition paper after about 1 minute.
- Level 2: The machine returns to the ready condition after about 3 minutes. This conserves more power than Level 1.



CHANGING THE USER TOOL SETTING

- 1 Press the **[▲]/[▼]** key until “7. Energy saver” appears.

Initial setting	▲▼→#
7. Energy saver	

- 2 Press the **[#]** key.

- 3 Press the **[▲]/[▼]** key to select your the Energy Saver level
 - Level 1/Level 2

- 4 Press the **[#]** key.

Auto Reset Time

You can select the interval after which the machine resets copy mode automatically after your copy job is finished, or turn off Auto Reset completely.

- 1 Press the **[▲]/[▼]** key until “8. Auto Reset Time” appears.

Initial setting	▲▼→#
8. Auto Reset Time	

- 2 Press the **[#]** key.

- 3 Press the **[▲]/[▼]** key to select your desired auto reset time.
 - — (Does not reset)/30/60/90/120/150/180/210/240/270 seconds

- 4 Press the **[#]** key.

Auto Off Timer

You can select an interval after which the machine turns itself off automatically after your copy job is finished.

- 1 Press the **[▲]/[▼]** key until “9. Auto Off Timer” appears.

Initial setting	▲▼→#
9. Auto Off Timer	

- 2 Press the **[#]** key.

- 3 Press the **[▲]/[▼]** key to select the desired Auto Off Time.
 - 15/30/45/60/75/90/105/120 minutes

- 4 Press the **[#]** key.

Size mode setting

You can select Engineering or Architecture sizes for original and paper sizes.

- 1 Press the **[▲]/[▼]** key until “10. Size mode setting” appears.

Initial setting	▲▼→#
10. Size mode setting	

- 2 Press the **[#]** key.

- 3 Press the **[▲]/[▼]** key to select A or B sizes
 - Engineering sizes/Architecture sizes

- 4 Press the **[#]** key.



USER TOOLS

Copy mode setting

You can select the copy mode to 100 %, Auto Paper Select, and Auto Reduce/Enlarge.

- 1 Press the [▲]/[▼] key until “11. Copy mode setting” appears.

Initial setting ▲▼→#
11. Copy mode setting

- 2 Press the [#] key.
- 3 Press the [▲]/[▼] key to select the copy mode.
 - 100 %/Auto Paper Select/Auto Reduce/Enlarge
- 4 Press the [#] key.

Memory copy mode

You can determine whether the machine starts in the Memory Copy mode ([Memory Copy] is lit) when you turn on the power or exit the Energy Saver mode.

(The Memory Unit is required.)

- 1 Press the [▲]/[▼] key until “12. Memory copy mode” appears.

Initial setting ▲▼→#
12. Memory copy mode

- 2 Press the [#] key.
- 3 Press the [▲]/[▼] key to choose whether the machine enters the Memory Copy mode.
 - Yes/No
- 4 Press the [#] key.

Pre-scan (Reduction)

When using Synchro Cut, this function scans an original length and cuts copy paper by reduced copy length.

- 1 Press the [▲]/[▼] key until “13. Pre-scan (Reduction)” appears.

Initial setting ▲▼→#
13. Pre-scan (Reduction)

- 2 Press the [#] key.
- 3 Press the [▲]/[▼] key to choose whether to scan an original length.
 - Yes/No
- 4 Press the [#] key.

Auto Tray Switching

If roll paper runs out during a copy run, the machine selects another roll of the same size automatically to continue copying.

- 1 Press the [▲]/[▼] key until “14. Auto Tray Switching” appears.

Initial setting ▲▼→#
14. Auto Tray Switching

- 2 Press the [#] key.
- 3 Press the [▲]/[▼] key to choose whether to select another roll of the same size.
 - Yes/No
- 4 Press the [#] key.



CHANGING THE USER TOOL SETTING

Copy Length

- 1 Press the **[▲]/[▼]** key until “6. Copy length” appears.

User length	▲▼→#
6. Copy length	

- 2 Press the **[#]** key.
“Length 1” is displayed.

Set copy length	N. /▲▼→#
Length 1	80.0”

- 3 Press the **[▲]/[▼]** key or **[Number]** keys to specify your desired length.

Note

- If you have entered a wrong number, use the **[▲]/[▼]** key or **[Number]** keys to enter the correct one.

- 4 Press the **[#]** key.
“Length 2” is displayed.

Note

- To return the copier to the ready condition, press the **[User Tools]** key.
- By default, lengths 1 and 2 are set to the following values:
 - Length 1 80.0”
 - Length 2 100.0”
- To specify a value for “Length 2,” repeat steps [2] and [3].

Tips

- You can also enter a length approximate to the length you require with the **[Number]** keys, then adjust it with the **[▲]/[▼]** key.

Roll Width

You can specify a roll width regardless of roll paper widths. When using non-standard size roll paper, specify a roll width that matches the roll paper width.

Preparation

- If you specify “0,” the machine automatically detects the size (as one of the A or B sets of paper sizes).

- 1 Press the **[▲]/[▼]** key until “7. Roll width” appears.

User Tools	▲▼→#
7. Roll width	

- 2 Press the **[#]** key.
“Roll 1” is displayed.

Set roll width	N. /▲▼→#
Roll 1	

- 3 Press the **[▲]/[▼]** key or **[Number]** keys to specify a roll width for Roll 1.

Note

- You can specify roll widths in the range of 17.0” ~ 36.0” in 0.1” steps.
- If you have entered a wrong number, use the **[▲]/[▼]** key or **[Number]** keys to enter the correct one.

- 4 Press the **[#]** key.
“Roll 2” is displayed.

Note

- To return the copier to the ready condition, press the **[User Tools]** key.
- To specify a roll width for Roll 2, repeat steps [3] and [4].
- When the optional paper tray is added to your machine, specify a roll width for Roll 3 in the same way.



USER TOOLS

Setting Preset Reduce/Enlarge

- 1 Press the **[▲]/[▼]** key until “8. Preset R/E” appears.

User setting	▲▼→#
8. Preset R/E	

- 2 Press the **[#]** key.
“Magnification Ratio 1” is displayed.

Reset R/E	N./▲▼→#
Magnification Ratio 1	100%

- 3 Press the **[▲]/[▼]** key or **[Number]** keys to specify your desired magnification ratio.

Note

- If you have entered a wrong number, use the **[▲]/[▼]** key or **[Number]** keys to enter the correct one.

- 4 Press the **[#]** key.
“Magnification Ratio 2” is displayed.

Note

- To return the copier to the ready condition, press the **[User Tools]** key.
- By default, magnification ratios 1 and 2 are set to the following values:
 - Magnification Ratio 1 100 %
 - Magnification Ratio 2 200 %
- To specify a value for “Magnification Ratio 2,” repeat steps [3] and [4].

Memory Copy

Note

- When specifying the following function settings, the Memory Unit is required:

Copy quality setting(Normal/Fine)

“Memory Copy” allows you to change the resolution at which the copier scans originals. Select “Normal” to scan ordinary originals. Select “Fine” when scanning originals containing small numbers or characters, fine graphics, photographs, or maps.

Preparation

- Scanning with “Fine” takes up more memory space than with “Normal”.
=> Page 84, “OPTIONS”

- 1 Press the **[▲]/[▼]** key to display “1. Copy quality setting”. Then press the **[#]** key.

Memory copy	▲▼→#
1. Copy quality setting	

- 2 Press the **[▲]/[▼]** key to display your desired setting.

	▲▼→#
1. Normal	

Note

1. Normal (default)
2. Fine

- 3 Press the **[#]** key.

Note

- To return the copier to the ready condition, press the **[User Tools]** key.



CHANGING THE USER TOOL SETTING

Output setting(Sort/Stack)

You can specify how to deliver copies when copying with “Memory Copy.”

1 Press the **[▲]/[▼]** key to display “2. Output setting”. Then press the **[#]** key.

Memory copy ▲▼→#
2. Output setting

2 Press the **[▲]/[▼]** key to display your desired setting.

1. Sort ▲▼→#

Note

1. Sort
2. Stack (default)

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

Note

- To return the copier to the ready condition, press the **[User Tools]** key.

Auto Image Density

When scanning originals made up of more than one page using Memory Copy and Auto Image Density, you can choose whether the copier detects the image density for every original or only for the first original (first time).

1 Press the **[▲]/[▼]** key to display “4. Auto Image Density”. Then press the **[#]** key.

Memory copy ▲▼→#
4. Auto image Density

2 Press the **[▲]/[▼]** key to display your desired setting.

1. For First orig. only ▲▼→#

Note

1. For first orig. only
2. For every originals (default)

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

Note

- To return the copier to the ready condition, press the **[User Tools]** key.



USER TOOLS

WHAT YOUR SERVICE REPRESENTATIVES CAN CHANGE

Your service representative can change some functions to meet your needs and make the copier easier to use. Please contact your service representative for more details. The functions that can be changed are shown below.

Changing the Maximum Original Length When Making Multiple Copies

You can specify a maximum original length between 48" and 60" for making multiple copies.

Changing the Original Delivery Direction

Originals are delivered from the back of the copier after copying. You can change this function so that they are delivered from the front of the copier. When Memory Copy is selected, however, originals are delivered only from the back of the copier.

! Limitation

- You cannot make multiple copies when delivering originals from the front of the copier.
- Remove the original reverse guide when delivering originals from the front of the copier.

Changing the Number of Levels for Copy Image Density Adjustment

You can change the number of image density adjustment levels from 13 to 7.



6. REMARKS

DO'S AND DON'TS

⚠ CAUTION:



- *When you move the machine, unplug the power cord from the wall outlet to avoid fire or electric shock.*
- *When the machine is not in use for a long time, unplug the power cord.*

- Do not touch areas on or around the fusing unit. These areas get hot.
- After making copies continuously, you may feel the original table surface is heated. But this is not a malfunction.
- You may feel warm around the ventilation hole. This is caused by exhaust air, and not a malfunction.
- Do not turn off the main switch while copying. When turning off the main switch, make sure that copying is completed.
- The machine might fail to produce good copy images if there should occur condensation inside caused by temperature change. To avoid this condition, the machine has the anti-condensation feature. When you turn on the anti-condensation heater, the machine keeps itself warm even after you turn off the main switch.
- Do not open the front or right side cover while copying. If you do, misfeeds might occur.
- Do not move, slant, or vibrate the machine while copying.
- Do not use for other OA machines paper on which you copied with this machine. Otherwise, a fault might occur.
- Take a note of your machine settings.
If you operate the machine improperly or a failure occurs on the machine, your machine settings might be lost. Be sure to take a note of your machine settings.
- Supplier shall not be liable for any loss or damages resulting from a failure on the machine, loss of machine settings, and use of the machine.
- Use the machine in a well-ventilated location. When you are using the machine, ozone is built up, but does not affect the human body since its amount is very small. However, your working room might be filled with a bad smell if you use the machine for a long period of time or make a large number of copies without good ventilation. You should ventilate your working room to keep it comfortable.



REMARKS

PLACING, MOVING, AND DISPOSING OF YOUR MACHINE

When you move the copier if your office changes the equipment layout or moves to another location, follow the precautions shown below.

Moving the Machine

CAUTION:



- **When you move the machine, unplug the power cord from the wall outlet. Otherwise, the cord might be damaged causing a fire or electric shock.**

- When you move the machine, contact your service representative. This is a charged work.

Where to Put the Machine

CAUTION:



- **Keep the machine away from humidity and dust. A fire or an electric shock might occur.**
- **Do not place the machine in an unstable location or on a slope. Otherwise, the machine might move or fall causing personal injury.**

CAUTION:



- **After you move the machine, fix it in place with the caster fixture. Otherwise, the machine might move or fall causing personal injury.**

Avoid placing the copier in the following locations. If you place it in an improper location, you cannot make copies normally or a failure might occur.

- Excessively cold and dry or hot and humid locations
 - The recommended temperature and humidity are as follows.
 - Temperature: 38 - 52°F
 - Humidity: 15 - 85%
- Locations exposed to direct sunlight
- Locations near a heater, air conditioner, or humidifier.
- Locations where the machine might be subjected to frequent strong vibration
- Locations without good ventilation
- Locations near an oil heater or equipment which generates ammonia (e.g., a diazo copier)



PLACING, MOVING, AND DISPOSING OF YOUR MACHINE

- Dusty areas
- Unstable floors or bases
 - Place the machine in a flat location. The machine must be level within 0.13 degrees both front to rear and left to right.
 - Place the machine on a stable floor. When placing the machine on a base, choose a strong, level one such as a dedicated table larger than the machine's area.

Cautions on Jamming

When you place the machine near another electronics equipment, they might adversely affect each other.

In particular, if the machine is adjacent to a television or radio, it might suffer their noise.

In this case, take the following actions:

- Keep the machine away from the television or radio.
- Use a different outlet separately for the machine and these products.
- Reorient the television or radio antenna.

For Customers Using an Ultrasonic Humidifier

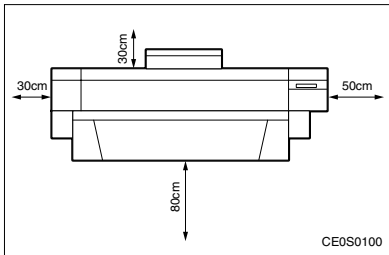
If you use tap or well water for an ultrasonic humidifier, impurities contained in the water become white powder and settle on the internal parts of the copier causing copies or copy paper to be dirty. In particular, when you use the humidifier continuously for a long time, a humidifier demineralizer is recommended.



REMARKS

Access to Machine

Leave enough space around the copier. This space is necessary for you to operate the copier or a customer engineer to work. When the copier is equipped with options, consult a customer engineer about the space.



	Standard setting
Front	32.0"
Rear	12.0"
Left	12.0"
Right	20.0"

Power Connection

⚠ WARNING:



- Connect the machine to a power source meeting the specifications given. Avoid overloading an outlet with too many power cords. Otherwise, a fire or electric shock might occur.
- Avoid using an extension cord.
- Do not damage, break, or make any modifications to the power cord. The power cord will be damaged if you set heavy items on it, pull it, or twist it excessively, and a fire or electric shock might occur.
- Do not plug in or unplug the power cord with wet hands. Otherwise, an electric shock might occur.

⚠ WARNING:



- Make sure that the wall outlet is near the machine and easily accessible.

⚠ CAUTION:



- When you unplug the power cord from the socket, hold the cord by the plug. Do not pull the cord. Otherwise, the cord might be damaged causing a fire or electric shock.



PLACING, MOVING, AND DISPOSING OF YOUR MACHINE

⚠ CAUTION:



- *When the machine is not in use for a long time, unplug the power cord.*

- When you unplug the power cord, the anti-condensation and dehumidification heaters are turned off.
- Plug the power cord in a wall outlet directly and firmly.

Disposing of the Machine

If you want to dispose of the machine, contact your local dealer or service representative.



REMARKS

CLEANING YOUR MACHINE

If the exposure glass or original feed roller is dirty, you cannot make copies as you want. Clean them if you find them dirty.

Cleaning the Machine

Wipe the machine with a soft, dry cloth. If contaminants remain, wipe it with a wrung, damp cloth. If you cannot remove them with the water, wipe the machine with a neutral detergent.

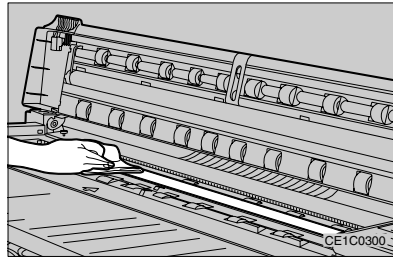
After wiping the machine with a damp cloth, wipe it with a dry cloth to remove the water.

Important

- Do not use chemical cleaner or organic solvent, such as thinner or benzene. If they get into the machine or melt plastic parts, a failure might occur.
- The internal parts of the machine should be cleaned by your service representative.

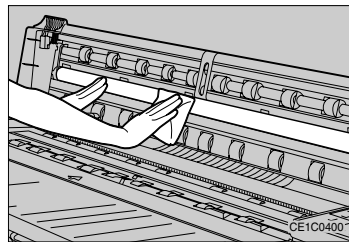
Cleaning the Original Cover

Cleaning the Exposure Glass



Cleaning the Original Feed Roller

Wipe the original feed roller while rotating the part indicated by (1) in the illustration below.





7. SPECIFICATIONS

SPECIFICATIONS

Configuration	Console
Photosensitivity Type	OPC drum
Copy Process	Dry electrostatic transfer system
Development	Dry two-component magnetic brush system
Fusing	Heating roll system
Scanning	Original moving over a fixed fiber optics array
Originals	Sheet
Original Size (W x L)	E (36" x 48") □ - A (9" x 12") □, 8.5" x 11" □ 8.5" x 11" - 36" x 197"
Resolution	400 dpi
Gradation Process	32 values
Warm-up Time	Within 10 minutes
First Copy Time	Within 22 seconds (D □, Roll 1, Manual Image Density)
Copying Speed (Full-size Copying)	1.9 copies/minute (E (36" x 48") □) 3.5 copies/minute (C (18" x 24") □)
Maximum Original Size	36" x 197"
Reproduction Ratio	Full size: 100 % +/- 0.5 % Enlarge: 129 %, 259 %, 314 % (for Engineering sizes) 133 %, 267 %, 400 % (for Architecture sizes) Reduce: 25 %, 32 %, 50 %, 65 % (for Engineering sizes) 25 %, 33 %, 50 %, 67 % (for Architecture sizes) Zoom: 25 - 400 % (in 1 % or 0.1 % steps)
Non-reproduction Area	Leading edge: 0.2" +/- 0.16" or less Trailing edge: 0.16" or less (excluding a cut error) Left edge: 0.08" +/- 0.08" or less Right edge: 0.08" +/- 0.08" or less
Paper Feed	2 roll feeders/manual feed table (an optional roll feeder can be added)
Series Copying	20 copies (maximum original length: 48.0")
Power Source	North America: 120 V, 60 Hz, 13 A
Power Consumption	1.5 kW at the maximum
Dimensions (W x D x H)	53.3" x 25.0" x 44.6"
Full System Area (W x D, Including the Extended Parts)	53.3" x 49.2"
Weight	613 lb



SPECIFICATION

OPTIONS

Roll Feeder Type 7030D

The roll feeder you can set as the third paper tray.

- Weight • 10 kg
(This includes the roll spool and excludes the parts to be attached to the main unit.)
- Dimensions (W x D x H) • 1,025 x 185 x 340 mm

Memory Unit Type 7030D

Allows you to add the Memory Copy function to the copier.

If you need SIMM (Memory) or HDD, please consult your sales or service representatives.

- Memory Capacity
Standard: 16 MB (64 MB at the maximum. 2-GB HDD can be added.)
- Resolution
400 dpi
- Gradation Process
Normal (2 values)/Fine (4 values)
- Coding System
QM-Corder
- Maximum Number of Originals That Can Be Stored in Memory
Maximum number of originals: 127
A1 (black proportion: 4 %)

	16 MB	32 MB	48 MB	64 MB
Normal	32	64	96	127
Fine	11	22	33	44

* When using the HDD, the maximum number of originals that can be stored is 127 both for Normal and Fine.

- First Copy Time
36 seconds/D (36" x 24")
- Copying Speed (Full-size Copying)
3.0 copies/E (36" x 48")
- Power Source
Supplied from the main unit
- Speed (Full-size Copying)
3.0 copies/E (36" x 48")

Important

- When you want to mount SIMM or an HDD on the machine, ask your service representative to do the work. If you mount or modify parts by yourself, the warranty is not applied to the machine.



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PROGRAMMING/RECALLING IMAGES (MEMORY UNIT AND HDD REQUIRED)

You can store original images in programs 6-10 and recall them at will with the [Recall Program] key.

Preparation

- The HDD is an option for the Memory Unit. For more information, contact your service representative.
- Once you store an image, it is not cleared even when you turn off the main switch.
- If you store an image in a program that already contains an image, the old image will be overwritten. Be sure to make a memo of stored images.
- To check whether a program already contains an image, use the [Recall Program] key.
- The store/recall image feature is only available when the [Memory Copy] indicator is lit.
- Before you store an image, select an image quality level (Normal/Fine) appropriate to the type of your original. Select "Fine" when your originals contain small characters, fine graphics, photographs, or maps.

Important

- Do not turn off the main switch while you are storing/recalling an image or making a copy. Otherwise, the hard disk might be damaged causing a malfunction.
- When you turn off the main switch with the hard disk attached to the machine, wait for about 20 seconds before you turn it on again. Otherwise, the hard disk might be damaged causing a malfunction.

Programming an Image

- 1** Make sure that the Memory Copy indicator is lit.
If it is not lit, press the [Memory Copy] key.

Ready(Normal•Stack)	1
---------------------	---

- 2** If you want to change the image quality level, select "Normal" or "Fine."

Reference

=> Page 74, "Copy quality setting"

- 3** Specify a reproduction ratio, margins, editing, or any other function you require. Use the [Lighter]/[Darker] key as necessary.

- 4** Press the [User Tools] key.

User Tools	▲▼→#
2. Store program	

- 5** Press the [▲]/[▼] key to show "2. Store program" on the panel display. Then press the [#] key.

- 6** Press the [▲]/[▼] key to select the program (6 - 10) in which you wish to store the image. Then press the [#] key.

Store program	▲▼→#
Ready to Preview copy	



APPENDIX

7 To store the image, press the **[#]** key.

Store Program #
Ready to Preview copy

Making a Preview Copy

Note

- You can use the following three functions to make a preview copy when you program an image:
 - Function Preview: Allows you to check Mirror, Positive/Negative, or other functions.
 - Image Density Preview: Copies the leading portion of an original with seven levels of image density on a 20-mm basis.
 - Full Preview: Makes a copy just as you would when recalling a stored image.
- 1 Press the **[Preview Copy]** key.
 - 2 Press the **[▲]/[▼]** key to select one of the preview modes.
 - 3 Press the **[#]** key.
 - 4 Set your original.
The copier starts copying.

Note

- When the copy run starts, the original is fed a little and delivered back to position. Then it is kept on the original table.
- After preview copying, press the **[#]** key if you want to start storing the entire original with the these copy settings.
- To cancel storing the original, press the **[Clear Modes]** key and remove the original.

8 Set your original.

Set Original

Note

- Move the left original guide so they match the original width. The machine detects the original width (841, 594, or 420 mm) based on the left guide position.

Now scanning

Store program
Program stored.

Note

- Do not move the original guides until "Program stored." is displayed.

9 Press the **[User Tools]** key.

The copier returns to the ready condition for Memory Copy.

Recalling a Programmed Image

1 Make sure that the Memory Copy indicator is lit.
If it is not lit, press the **[Memory Copy]** key.

Ready(Normal*Stack) 1

2 Enter the number of copies required with the **[Number]** keys.

3 Press the **[Recall Program]** key.



APPENDIX

- 4** Press the **[▲]/[▼]** key to select the program (6 - 10) you want to recall. Then press the **[#]** key.

Recall Program	▲▼→#
Program 6	841mm

Note

- The width of the original detected during scanning (841, 594, or 420 mm) is shown on the screen.

- 5** Select a paper tray based on the original width shown on the screen.

- 6** To start copying, press the **[#]** key.

Press # for opying	
100%	841mmX ----

Note

- The copier uses copy settings that were previously stored to make copies. You cannot specify additional function settings, but you can change paper tray or select Synchro Cut/Preset Cut.
- You can also check the stored copy settings by using the **[Preview Copy]** key before copying.

- 7** To finish copying, press the **[Clear Modes/Energy Saver]** key.



APPENDIX

Disk formatting

An image other than those stored in the HDD might be copied if you turn off the main switch or unplug the power cord while scanning an original with Memory Copy. In this case, you need to format the HDD again.

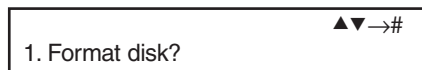
Preparation

- When you format the hard disk, stored originals are cleared.
- It takes about 20 minutes to format the hard disk. Once you start this operation, you cannot cancel it.
- While formatting the hard disk, you cannot use the Memory Copy function, but can perform normal copy jobs which do not require the hard disk.
- To enter to Memory copy mode, see P.64.

1 Press the **[▲]/[▼]** key to display “3. Disk formatting”. Then press the **[#]** key.



2 Press the **[▲]/[▼]** key to display your desired setting.



Note

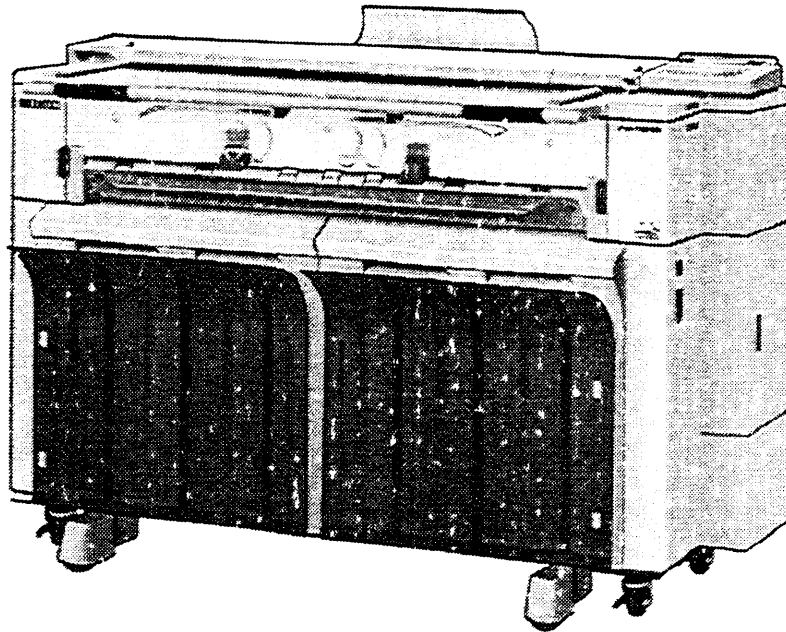
1. Format Disk? (default)
2. No

3 Press the **[#]** key and then press the **[User Tools]** key.
“Now formatting HDD” is displayed.

FW7030D

Repro System

INSTRUCTION HANDBOOK



ALWAYS read this Instruction Handbook thoroughly before use. After reading, maintain it in good condition and keep it together with the Instruction Handbook for your copier.

Revision 2

Preface

The Repro System is designed to connect a large format digital copier to a computer to be used as a plotter controller system.

This handbook describes how to use the software and applications included in the Repro System.

Please refer to the instruction handbook of the large format digital copier for information about the installation and use of the copier.

Notes

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1. Overview

This section provides an overview of Repro System.

- 1.1 Features
- 1.2 System configuration
- 1.3 Product components
- 1.4 System requirements

1. Overview

1.1 Features

The Repro System provides the interface between a large digital copier (hereafter called "copier") and computers to function as a plotter controller system.

The Repro System enables printing of multiple TIFF or HPGL/2 files at a time by inserting files to be printed into a set. Also, the traditional tasks of plotting and collating paper documents can be performed under software control.

With the Repro System, a copier can be used as a scanner. The scanned data is inserted into a set as TIFF files.

Other features include:

- Easy-to-use Windows NT Graphical User Interface.
- TIFF files and HPGL/2 files can be added to a set.
- By assigning the license, AutoCAD files (DWG, DXF) can also be added to a set (see 7. *License Setup*).
- Reports of system usage.

1.2 System configuration

The system configuration is shown in Figure 1-1.

The Repro System is to be installed on a computer running Windows NT. When connected to a copier via a PCI interface cable, a computer running this software performs as a plotter server. In such a system configuration, this computer is called the Local Client.

Computers that have this software installed and use the copier connected to the Local Client are called Remote Clients.

The Local Client also provides Remote Client facilities.

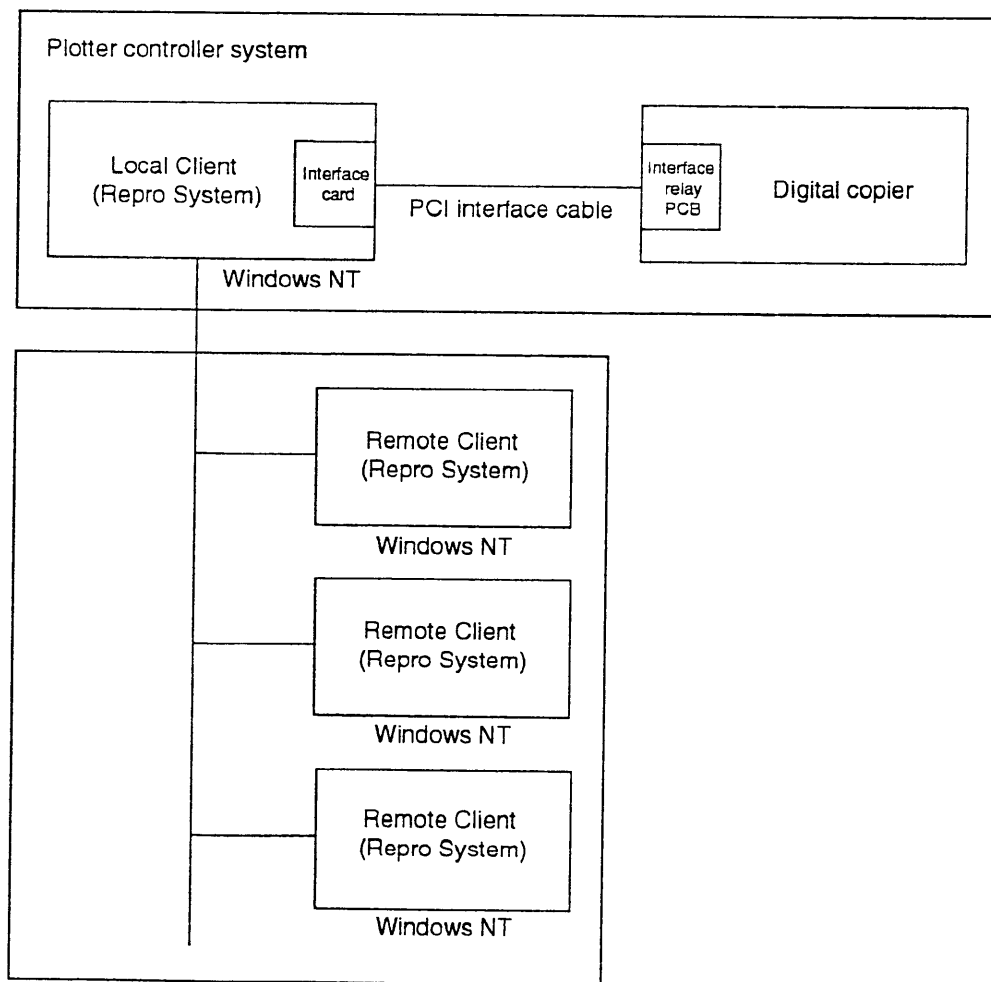


Figure 1-1 System configuration

1.3 Product components

1.3.1 Supplied products

The following are supplied with the package.

- CD-ROM (1)
- Interface card
- PCI interface cable
- Relay PCB (2, used during installation)
- Relay cable (used during installation)
- Installation manual

1.3.2 CD-ROM

The supplied CD-ROM contains:

- Repro System (the program for plotter controller)
- LittleBear Driver (the driver which communicates between copier and interface card)
- Installer (program to install Repro System and the LittleBear Driver)

1.3.3 Repro System

The Repro System consists of the following four applications:

1. Client

The Client application provides the Repro System's main facilities. Namely:

- Create a new set.
- Scan files into a set.
- Add files such as TIFF or HPGL/2 to a set.
- Assign pen settings and plotting instructions to each file.
- Change printing order.
- Preview the contents of an image file before printing.
- Assign stamps to be applied to each plot.
- Print the requested number of copies of a file within a set.
- Delete a set or files in a set.

2. Admin

The Admin application controls the copier interfacing with the Repro System and creates reports on the system usage conditions.

On a Local Client this application also administers the license.

3. Stamp

The Stamp application creates stamp files.

Using such files, stamps can be inserted into files in a set.

4. Server

The Server application controls the copier as a plotter/scanner and is installed only on the Local Client. This application relays print/scan jobs from the Local Client or print jobs from Remote Clients to the copier.

1.4 System requirements

The following is the minimum equipment required to use a system with the Repro System:

- **Copier**

FW7030D

- **Computer**

200 MHz Pentium Pro Processor

Microsoft Windows NT 4.0 (Service Pack 3 or higher must be installed)

2 GB Hard Disk

128 MB RAM

PCI Bus

2. *System Installation*

This section describes the installation procedure.

- 2.1 Connecting the machines
- 2.2 Installing the Repro System
- 2.3 Setting the copier
- 2.4 Checking operation
- 2.5 Other software

2. System Installation

Figure 2-1 shows the system installation procedure for the Local Client. See 6. *Network Plotting* for the installation procedure for the Remote Client.

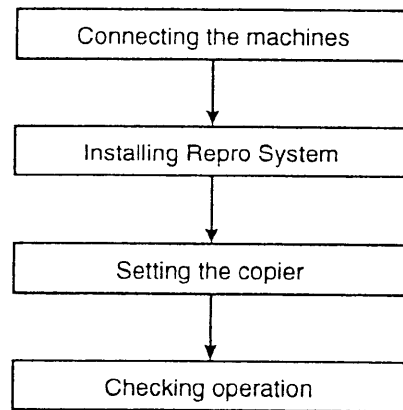
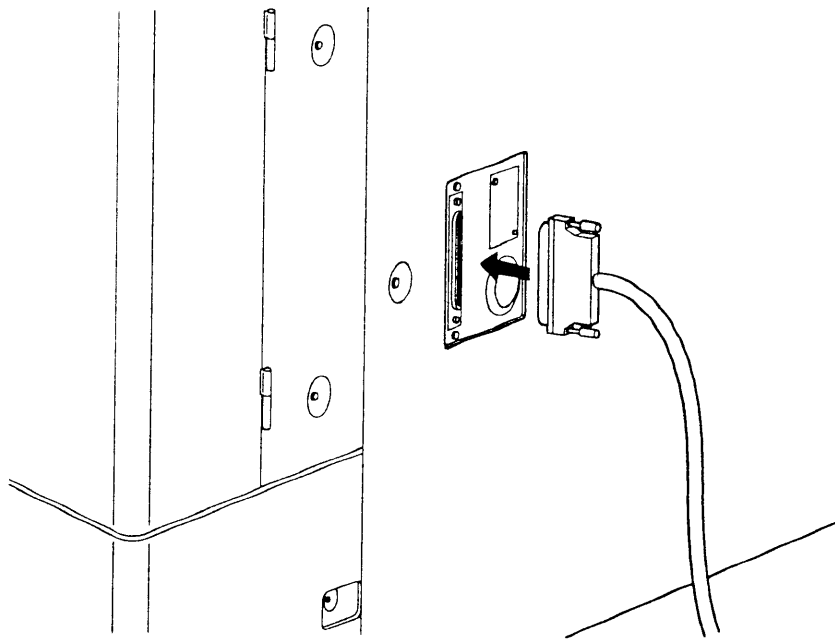


Figure 2-1 System installation procedure

2.1 Connecting the machines

Perform the following steps to install the interface card and connect the machines.

1. Turn the power to both the computer and copier off.
2. Remove the computer cover. Locate an available PCI slot and remove its bracket and screw.
3. Insert the interface card into the PCI slot by pressing it evenly until it sits correctly in the slot. Check for correct insertion and secure the card with a screw.
4. Refit the computer cover.
5. Connect the PCI interface cable between the copier and computer.



6. Turn the power to the computer and copier on and then proceed to *2.2 Installing the Repro System*.

2.2 Installing the Repro System

1. Start Windows NT and close any unnecessary applications.
2. Insert the supplied CD-ROM into the CD-ROM drive.
3. The **Setup** screen appears followed by the **Welcome** screen. Click on the “Next” button.
4. The **Choose Destination Location** screen appears.
Click on the “Next” button.
5. The **Setup Type** screen appears.
Select the connected copier and click on the “Next” button.
Select “Client Software” to install the Repro System on a Remote Client.
6. The **Select Components** screen appears.
Select all the components under normal circumstances and click on the “Next” button.
7. The **Select Program Folder** screen appears.
Click on the “Next” button.
The program group name can be changed to any desired name.
8. The **Start Copying Files** screen appears.
Click on the “Next” button.
9. The **Setup Complete** screen appears after installation is completed.
Remove the CD-ROM from the CD-ROM drive and click on the “Finish” button to restart the computer automatically.
Proceed to *2.3 Setting the copier*.

The installation program creates a program item in the Start menu. The program group name is “Repro System”, which contains three program items called Client, Admin and Stamp. The plotter driver is installed in the Windows NT Printers folder at the same time.

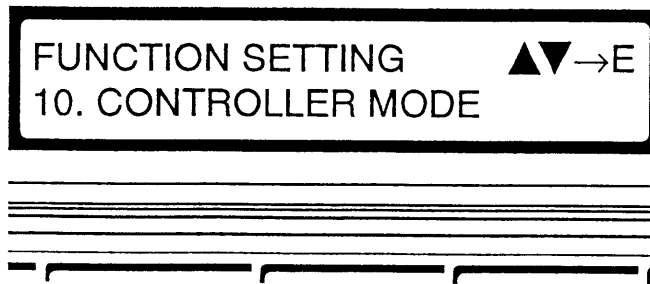
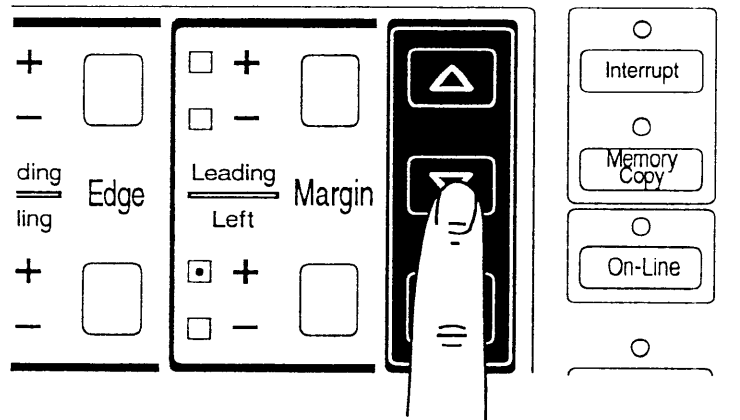
When uninstalling the Repro System, files in the **C:\Program Files\Repro System\Plots** directory may be deleted. Move any image files before uninstalling the Repro System.

2.3 Setting the copier

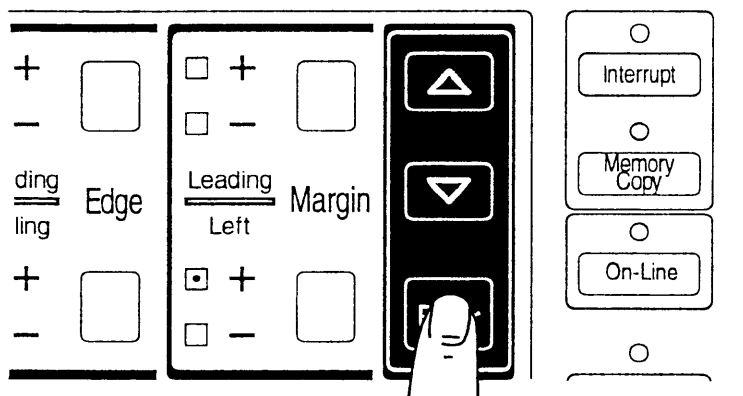
Reset the offline status of the copier to use the Repro System.

Resetting the offline status of the copier

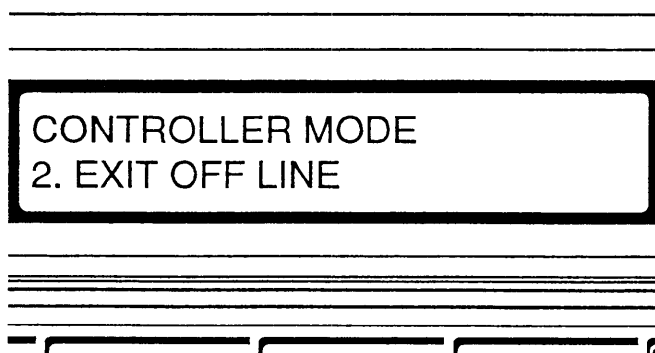
1. Press the added features key on the copier operation panel.
2. Press the mode set keys until the message "10. CONTROLLER MODE" appears.



3. Press the enter key.



4. Press the mode set keys until the message "2. EXIT OFF LINE" appears.



5. Press the enter key.
6. Press the mode set keys until the message "1. OFF LINE RELEASE" appears.
7. Press the enter key.
The offline status is reset and the on-line indicator on the operation panel turns on.
8. Press the added features key. The "READY TO COPY" message appears on the display of the operation panel.

The copier cannot be controlled via the copier operation panel while resetting the offline status. To control the copier via the operation panel, first press the on-line key to turn the on-line indicator off.

The copier is in the on-line mode (the on-line indicator is on) after the offline status has been reset. The copier automatically returns to the on-line mode if no copy is made for a certain period while the copier is offline.

Check the following before starting to control the copier via Repro System or the copier operation panel.

- **Controlling the copier via Repro System**

Check if the on-line indicator is on.

If the on-line indicator is off, turn it on by pressing the on-line key.

- **Controlling the copier via the copier operation panel**

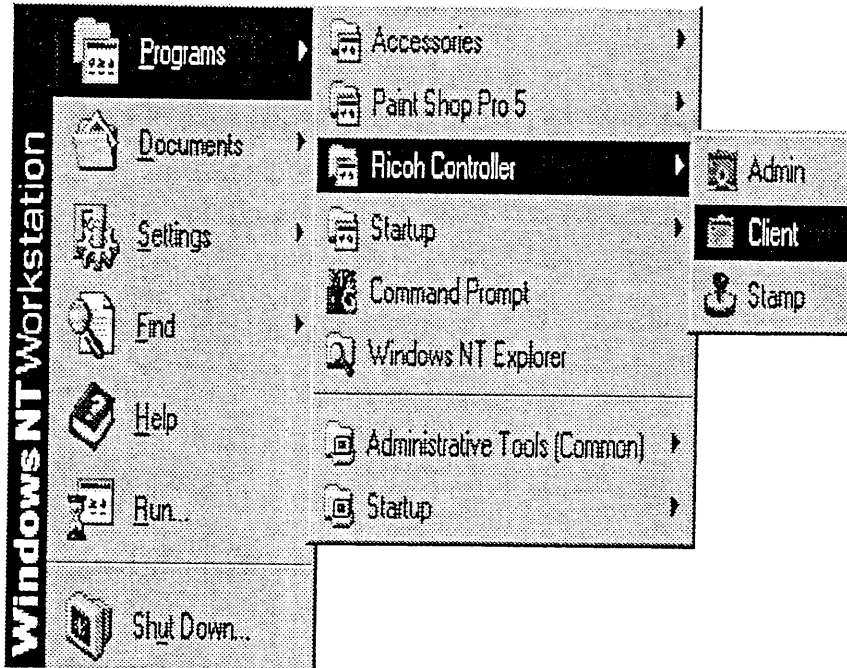
Check if the on-line indicator is off.

If the on-line indicator is on, turn it off by pressing the on-line key.

2.4 Checking operation

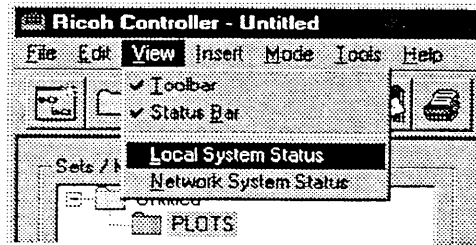
After the machines are connected, the Repro System is installed and the setting of the copier is complete, check for correct communication between the computer and copier by performing the following steps.

1. Start Windows NT.
2. Open the Start menu by clicking on "Start" in the task bar.
3. Select "Programs" and "Ricoh Controller".

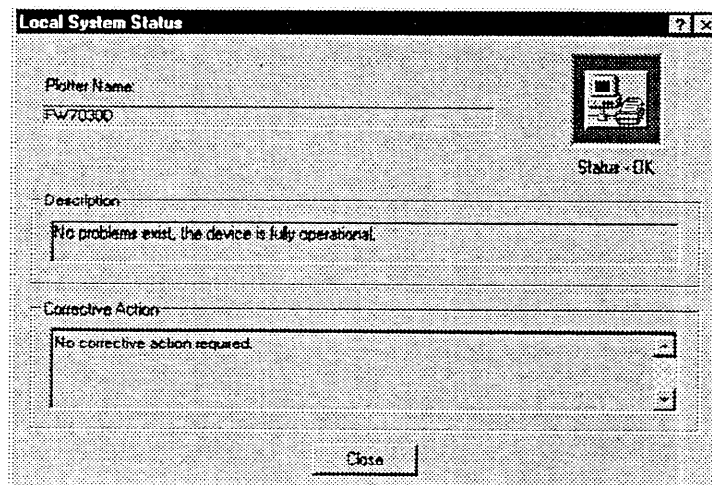


4. Click on "Client".
The application starts and the project window appears.

5. Select "Local System Status" from "View" in the menu bar.



6. The **Local System Status** screen appears. The "Status-OK" message is displayed at the top right of the screen if communication is good.



7. Click on the "Close" button to close the screen.

Check the following if the "Status-OK" message is not displayed in the **Local System Status** screen.

- Is the copier power turned on?
- Is the copier offline status reset?
- Is the copier on-line indicator turned on?
- Are there any error messages on the copier display?
- Is the PCI interface cable connected correctly?
- Is the interface card inserted correctly?

2.5 Other software

2.5.1 Virus protection

Since files can frequently be loaded from floppy disks when using the Repro System, installation of a virus protection application is highly recommended.

2.5.2 Image editor

The Repro System is capable of displaying images. High resolution images can also be displayed by specifying the image editor in the option setting of Client.

See *3.6 Displaying and editing a plot* for details.

Notes

To use the Repro System on a network, ensure that the Windows NT network is configured correctly.

To use the Repro System locally where no network adapter is installed, configure it as follows.

1. Open the control panel and click on "Network" to install the network software. If the network software is already installed, proceed to step 2. Restart Windows NT after installation.
2. Open the control panel, click on "Network" and select the Adapter tab.
3. Click on the "Add" button and select MS Loopback Adapter. Select Ethernet 802.3 for the frame type.
4. Insert the Windows NT CD-ROM into the CD-ROM drive if requested.
5. Restart the computer.

3. *Using Client*

This section describes how to use Client.

- 3.1 Starting and closing the application
- 3.2 Creating and saving a project file
- 3.3 Sets/members tree
- 3.4 Creating and deleting a new set
- 3.5 Inserting and deleting a plot
- 3.6 Displaying and editing a plot
- 3.7 Inserting and deleting a stamp
- 3.8 Editing a stamp
- 3.9 Inserting and deleting a pen set
- 3.10 Changing the order of the sets/members tree
- 3.11 Printing
- 3.12 Scanning
- 3.13 Setting properties
- 3.14 Setting options
- 3.15 Default settings

3. Using Client

The Local Client and Remote Clients provide the same facilities except that Remote Clients do not provide a scanner facility.

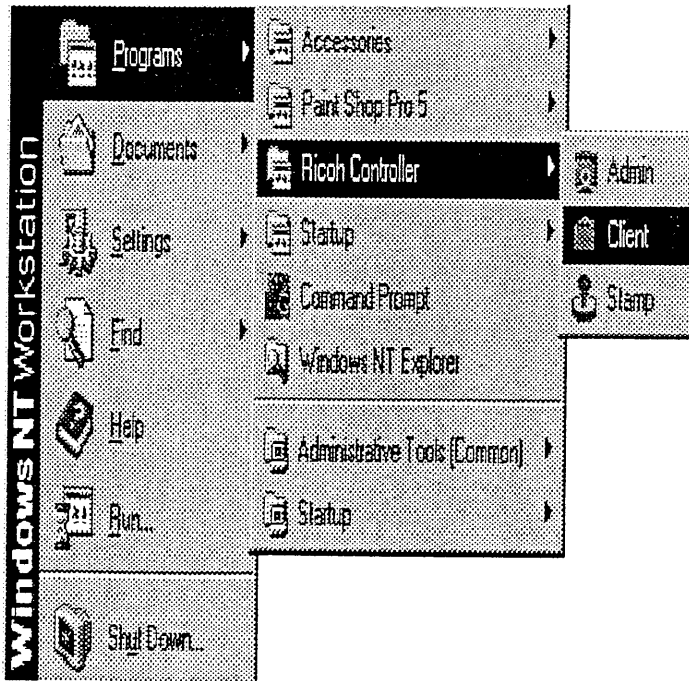
3.1 Starting and closing the application

3.1.1 Starting the application

Perform the following steps to start the application.

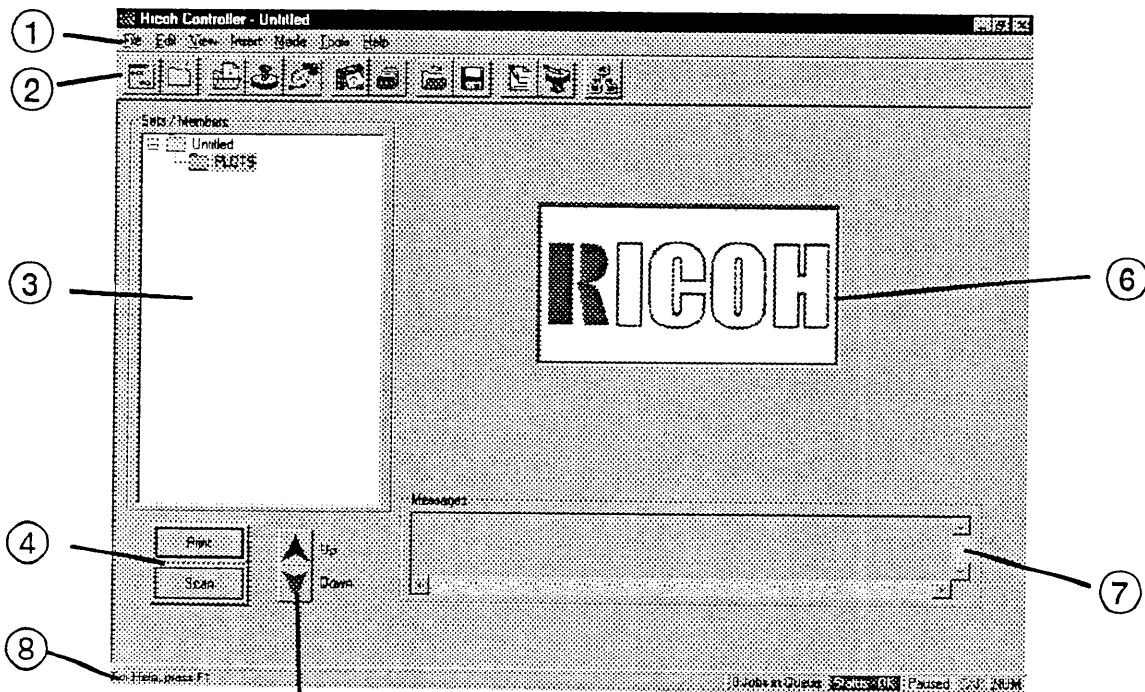
1. Click on "Start" in the task bar to open the start menu.
2. Select "Programs" and then "Repro system".
3. Click on "Client".

The application starts and the project window appears.



3.1.2 Project window

This section describes the project window displayed when starting Client.

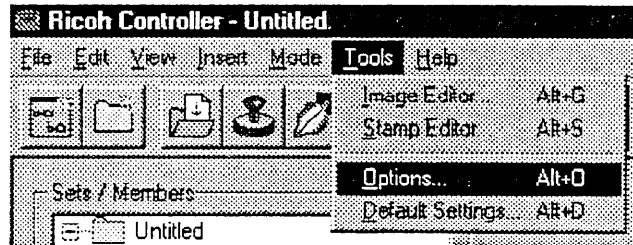


- ① Menu bar.
- ② Toolbar.
- ③ Sets/members tree of a project.
- ④ Buttons for printing/scanning.
- ⑤ Buttons to change the placement of set members.
- ⑥ Box in which a plot thumbnail is displayed.
- ⑦ Box in which a message indicating Client activities is displayed.
- ⑧ Status bar. Displays information about the menu item indicated by the mouse.

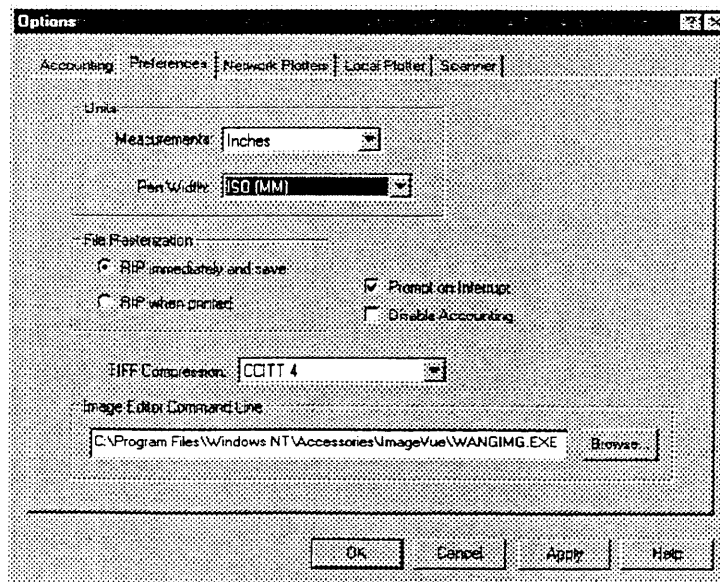
3.1.3 Select the units system

Perform the following steps to select the units system used in the application.

1. Click on "Tools" in the menu bar to open the Tools menu.
2. Click on "Options".



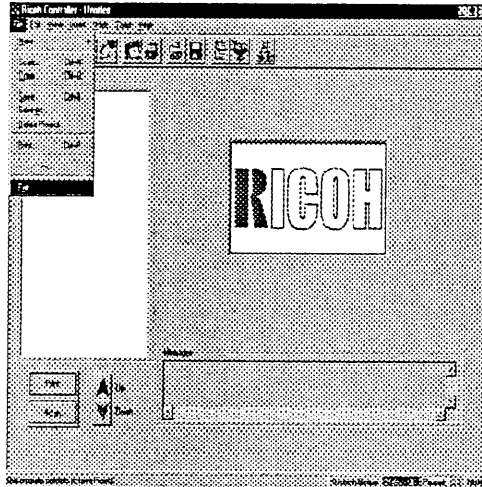
3. Select the Preferences tab, then the units system to be used in "Units" (see 3.14.2 Preferences tab).



3.1.4 Closing the application

Perform the following steps to close the application.

1. Click on "File" in the menu bar to open the File menu.
2. Click on "Exit".




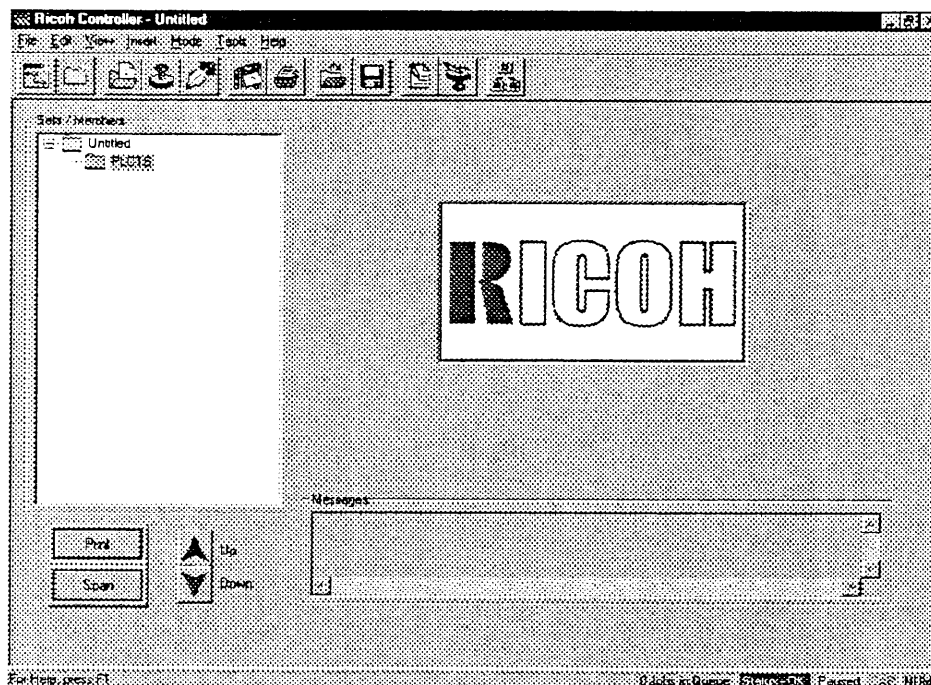
3.2 Creating and saving a project file

3.2.1 Creating a new project file


When Client is started, it creates a new project called "Untitled".

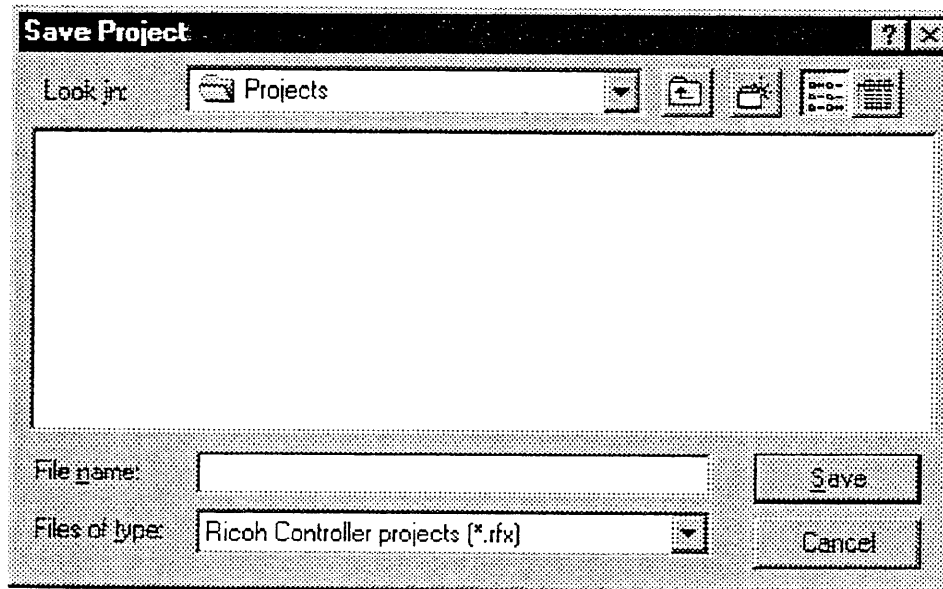
A new project can also be created by either of the following methods:

- Click on "New" and then "Project" from "File" in the menu bar.
- Click on the  button in the toolbar.




3.2.2 Saving a project file

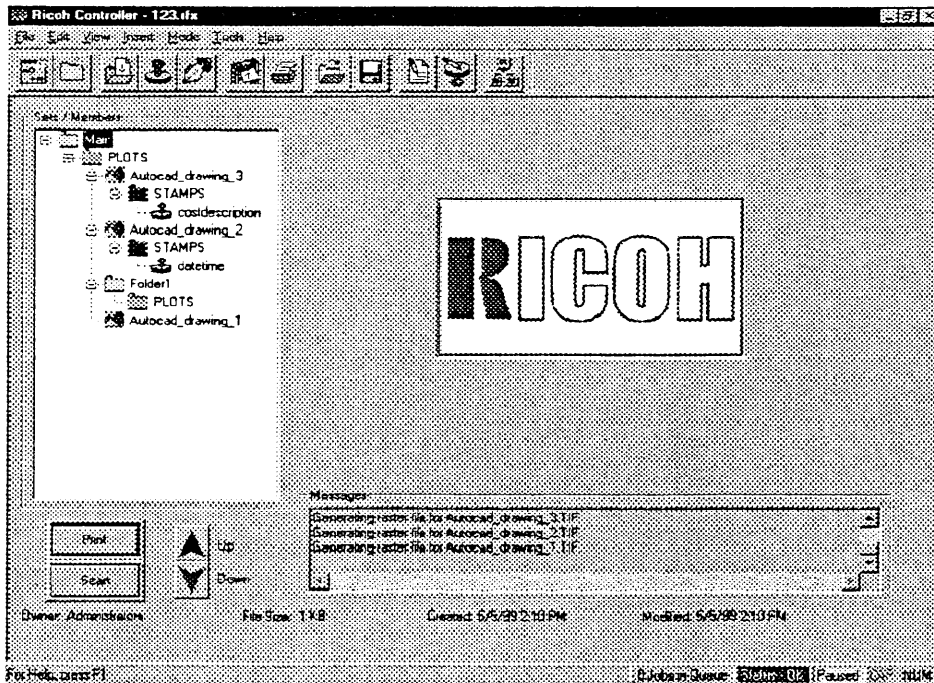
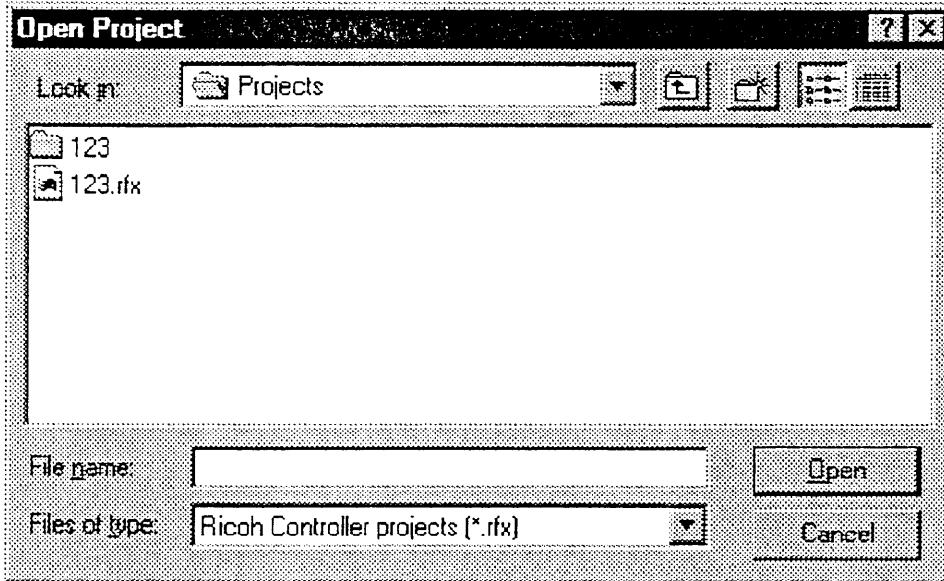
1. Click on “Save” from “File” in the menu bar or the  in the toolbar.
2. Specify the directory, enter the filename and then click on the “Save” button. A project is saved as a project file with the “.rfx” extension.



A project file is simply a list of the names of plots added to the sets/members tree; no images or stamps to be printed are contained in the project file.

3.2.3 Opening an existing project file

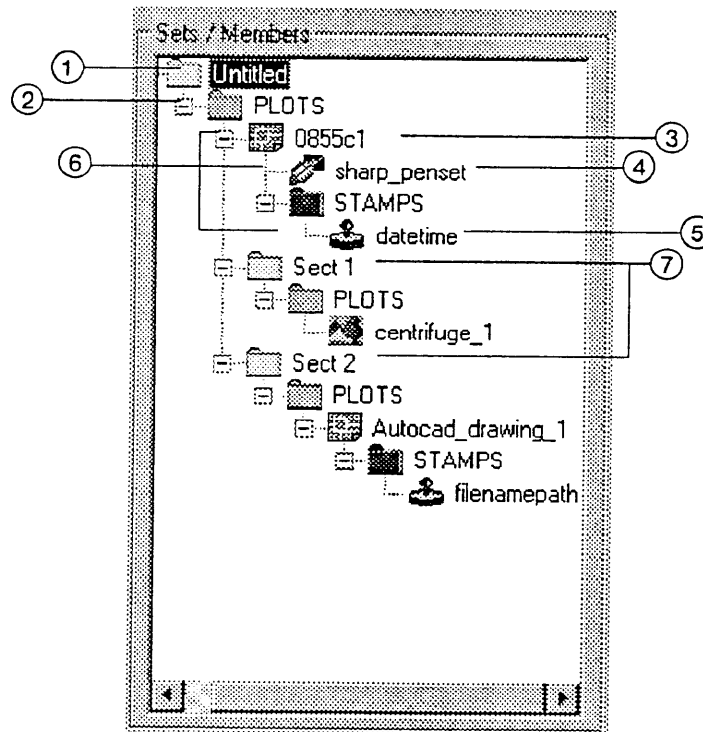
1. Click on “Open” from “File” in the menu bar or the  button in the toolbar.
2. Select the project to be opened and click on the “Open” button. The project window appears.



3.3 Sets/members tree

The sets/members tree in the project window shows the project file status visually. Using Client, printing is enabled by adding an image file to the sets/members tree. The Client application is used for adding a plot, stamp and pen set to and deleting them from the sets/members tree and for defining print settings.

The figure below is an example of the sets/members tree to which image files and other items have been added.



Using Client

- ① Project
Displays the project filename.
- ② Set
One per project.
A project can be compared to a box to which a plot, stamp and pen set are added. Multiple plots inserted in the set can be printed at one time.
- ③ Plot
An image file added to the set. Print and other settings can be defined for each of the inserted plots. Data from scanning a hard copy can also be added as a plot. See the appendix for a list of the acceptable file formats.
- ④ Pen set
Used when selecting pens for printing: can be set when a plot is a vector file format.
- ⑤ Stamp
Useful for printing the date and operator names over the plot file image. Since stamps are stored independently as stamp files, the contents of a stamp can be modified without affecting a plot.
- ⑥ Member
Each of the plots, stamps or pen sets added to a set.
- ⑦ Sub-sets
Can be created in a set by dividing multiple plots in a set into groups. The illustration on the previous page shows an example of sub-sets: two sub-sets "Sect 1" and "Sect 2" have been added. This is useful when, for example, one wishes to print only the plots in Sect 2.

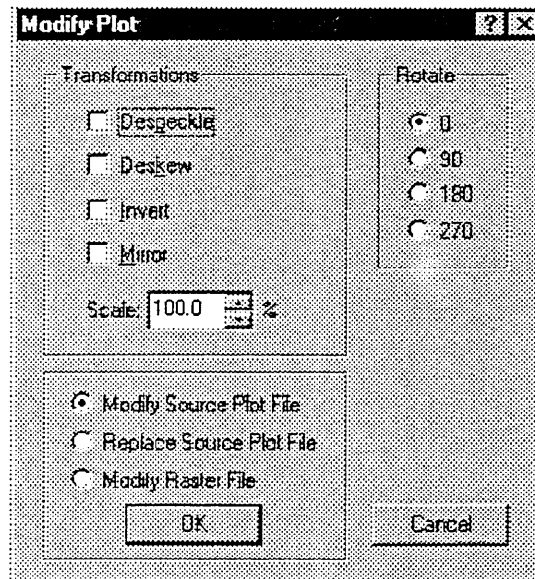
5. Select a method to save the edited source plot file.

Select "Modify Source Plot File" to overwrite the original file. Note that the old data cannot be recovered after the edited data is saved.


Select "Replace Source Plot File" to save the edited data as a new file having a different name.

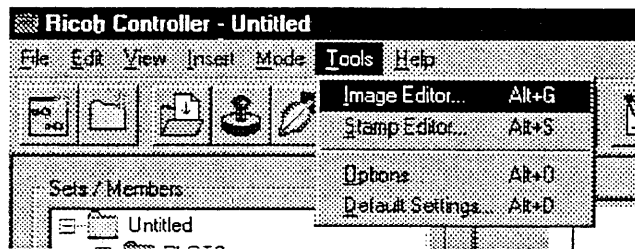
Select "Modify Raster File" to save the edited data over the raster file.

6. Click on the "OK" button.



3.6.3 Editing a raster file


Select the source plot file of the raster file to be edited from the sets/members tree and then “Image Editor” in the Tools menu or click on the  in the toolbar. The image editor is then started and a raster file image is displayed. Edit the raster file using the image editor.

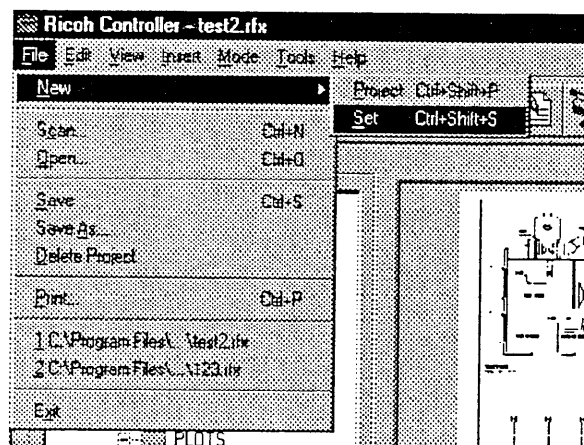


A raster file can also be edited by clicking on the “Edit” button in the Names tab of the Properties (see 3.13.1 Names tab). The edited raster file can be restored to the original one by clicking on the “RIP” button in the Names tab of Properties.

3.4 Creating and deleting a new set

3.4.1 Creating a new set

To create a new set, select “New” and then “Set” in the File menu or click on the  button in the toolbar. A new set is created as a sub-set of the currently selected set.



3.4.2 Changing a set name

A new set is automatically named “New Set”. To change the name, select the set in the sets/members tree and click on the name. The new name can then be entered.

3.4.3 Deleting a set


To delete a set, select the set to be deleted and press the delete key. All members within the set are deleted as well.

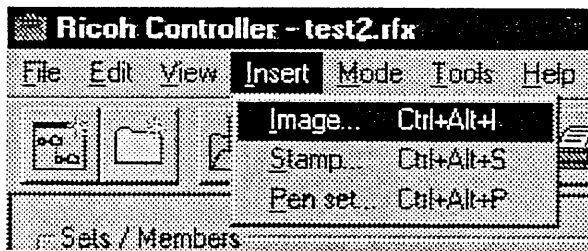
3.5 Inserting and deleting a plot

3.5.1 Inserting a plot

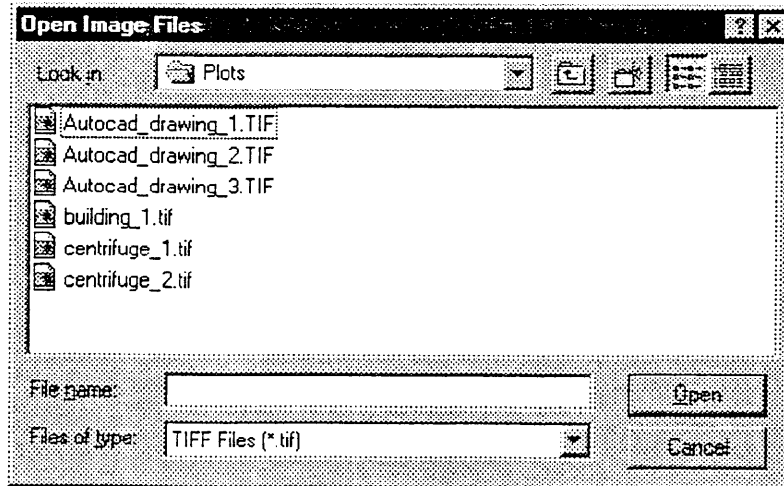
An existing image file can be inserted as a plot into a set. Scanned image data can also be inserted as a plot (see 3.12 Scanning).

Perform the following steps when inserting an image file as a plot into a set.

1. Select the set where the image is inserted from the sets/members tree.
2. Select "Image" in the Insert menu or click on the  button in the toolbar. The file select dialog box is displayed.



3. Select the file to be inserted and click on the "Open" button. Only file formats accepted by Client can be inserted (see 10.4 Plot file formats).




3.5.2 Deleting a plot

To delete a plot, select the file to be deleted and press the delete key.

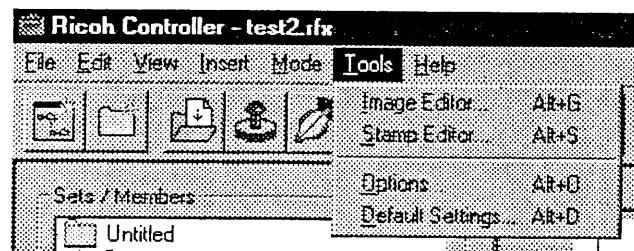
3.6 Displaying and editing a plot

3.6.1 Displaying a plot

When a plot is selected from the sets/members tree, a thumbnail (low resolution version) of the image is displayed on the right side of the project window. When a plot is inserted in a set, a thumbnail is automatically created from the plot.

When displaying an image of a higher resolution plot, select the plot to be displayed from the sets/members tree and select "Image Editor" in the Tools menu or click on the  button in the toolbar. The image editor is started and the image of the raster file is displayed. A raster file is a TIFF file created for printing from a source plot file inserted in the set.

By using the Preferences tab in Options, the point at which a raster file is created can be selected between when a plot is inserted into a set and when it is printed. It can also be created easily by using "RIP" in the Names tab in Properties.

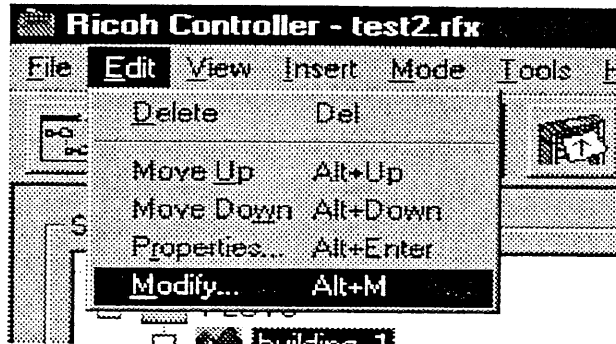


3.6.2 Editing a source plot file

A source plot file can be edited only when a plot is not saved in a vector format.

Perform the following steps when editing a source plot file.

1. Select the source plot file to be edited from the sets/members tree.
2. Select “Modify” in the Edit menu. The Modify Plot dialog box is displayed.




3. Check the item to be converted in “Transformations”.
 - Select “Despeckle” to remove small speckles (see *10.2 Technical notes*).
 - Select “Deskew” to correct a skewed image (see *10.2 Technical notes*).
 - Select “Invert” to swap white and black.
 - Select “Mirror” to mirror the plot file.
 - Select “Scale” to enlarge/reduce an image by 25 to 400%.
4. Define the rotation angle of the image by “Rotate”.

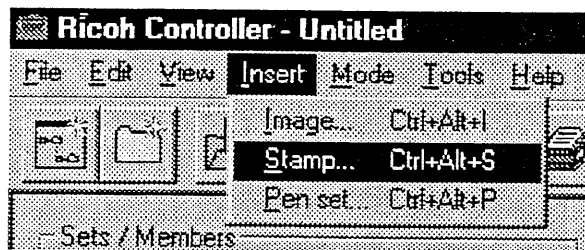
3.7 Inserting and deleting a stamp

3.7.1 Inserting a stamp

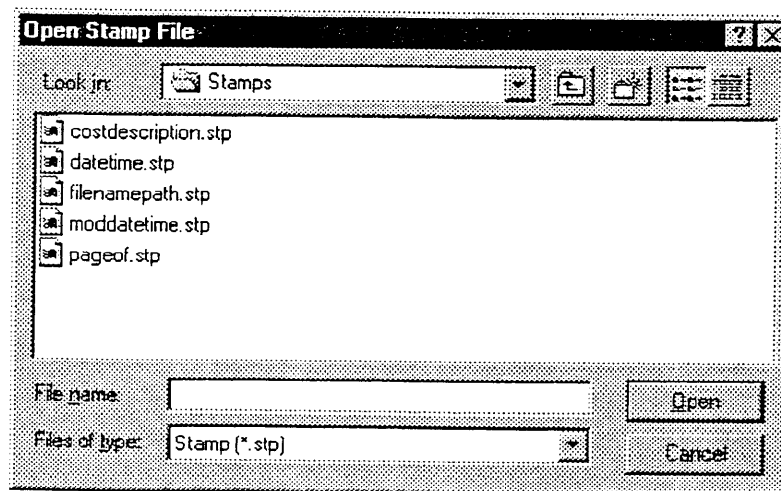
The stamp file created by the Stamp application can be inserted into a set or plot. A stamp inserted into a set can be applied to all the plots in the set. A stamp inserted in a plot can be applied to that plot only.

Perform the following steps when inserting a stamp.

1. Select the set or plot from the sets/members tree into which a stamp is to be inserted.
2. Select "Stamp" from the Insert menu or click on the  button in the toolbar. The file select dialog box is displayed.



3. Select the stamp to be inserted and click on the "Open" button.

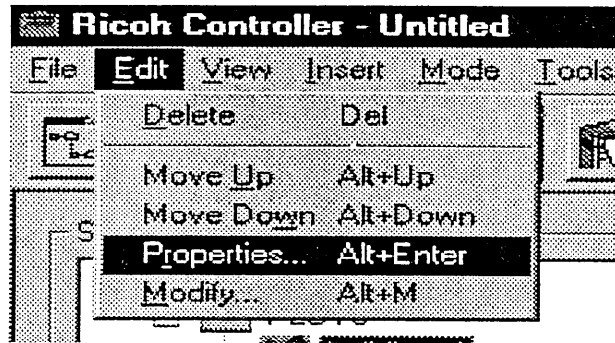



3.7.2 Deleting a stamp

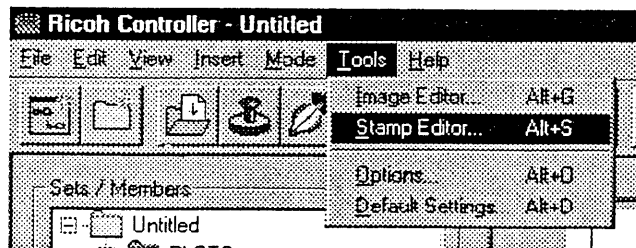
To delete a stamp, select the stamp to be deleted and press the delete key.

3.8 Editing a stamp

To change the insertion point and characteristics of a stamp in a plot for printing, select the stamp file to be changed from the sets/members tree and Properties in the Edit menu. The Stamp tab is then displayed and the setting can be changed (see 3.13.7 Stamp tab).



To edit a stamp, select the stamp file to be edited from the sets/members tree and select "Stamp Editor" in the Tools menu or click on the  button in the toolbar. The Stamp application is started and the stamp can be edited (see 5 Using Stamp). Stamp editing can also be started by clicking on the "Edit Stamp" button in the Stamp tab.




3.9 Inserting and deleting a pen set

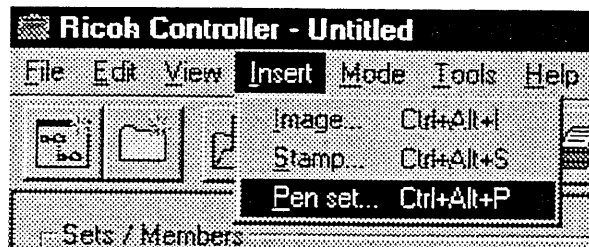
3.9.1 Inserting a pen set

A pen set that is used when a vector plot file is rasterized can be inserted in a set or plot. A pen set inserted in a set can be applied to all the plots in the set. The pen set inserted in a plot can be applied only to that plot.

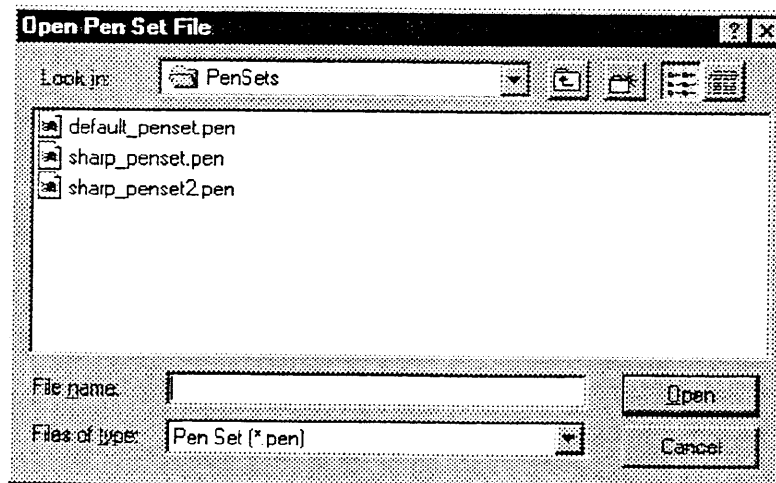
Pen sets can be created in the Pen Set tab (see 3.13.6 Pen Set tab).

Perform the following steps when inserting a pen set.

1. Select a set or plot from the sets/members tree into which a pen set is to be inserted.
2. Select "Pen set" from the Insert menu or click on the  button in the toolbar. The file select dialog box is displayed.



3. Select the pen set to be inserted and click on the "Open" button.



3.9.2 Deleting a pen set

To delete a pen set, select the pen set to be deleted and press the delete key.

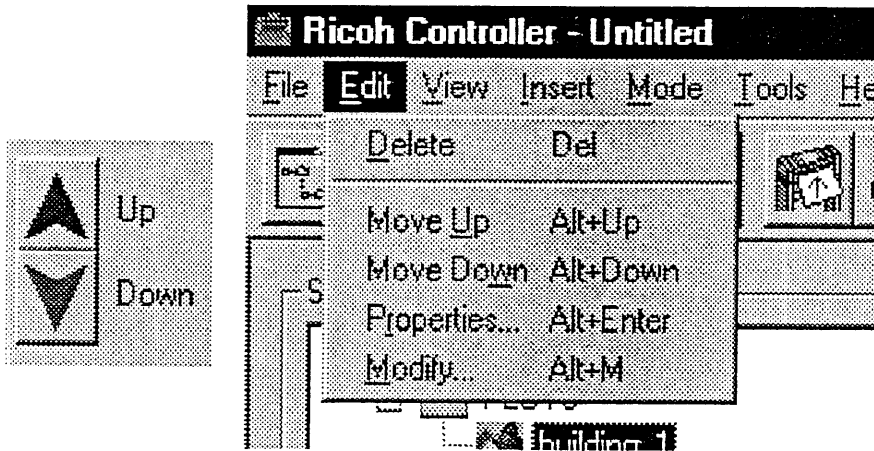
3.10 Changing the order of the sets/members tree

The printing order can be changed by moving members in a set.

Perform the following steps when moving a member.

1. Select the member to be moved from the sets/members tree.
2. Click on the “Up”/“Down” buttons on the project window to move the member. It can also be moved by selecting “Move Up”/“Move Down” in the Edit menu.

A member can also be moved by drag-and-drop.



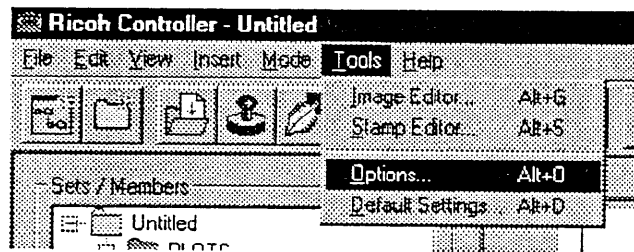
3.11 Printing

3.11.1 Printing

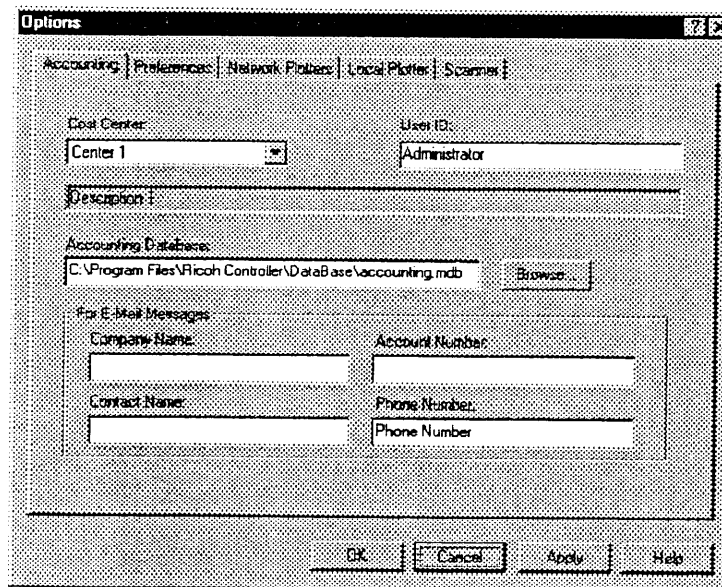
Printing is performed using the rasterized data.


Perform the following steps when printing.

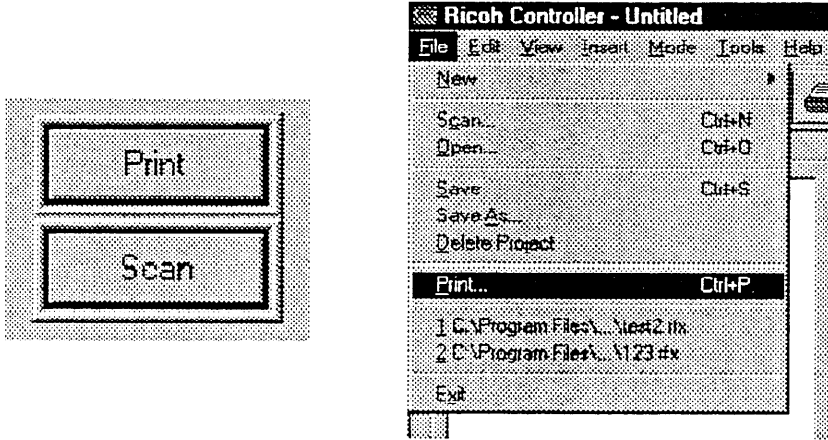
1. When using the setting and plotter for the previous print job, proceed to step 6. Select "Options" from the Tools menu and then the Accounting tab.



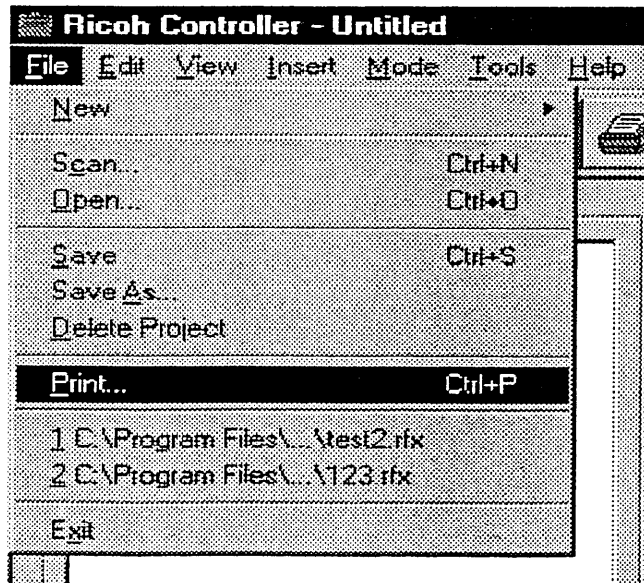
2. Assign the cost center and user ID to record the print job information (see 3.14.1 *Accounting tab*).



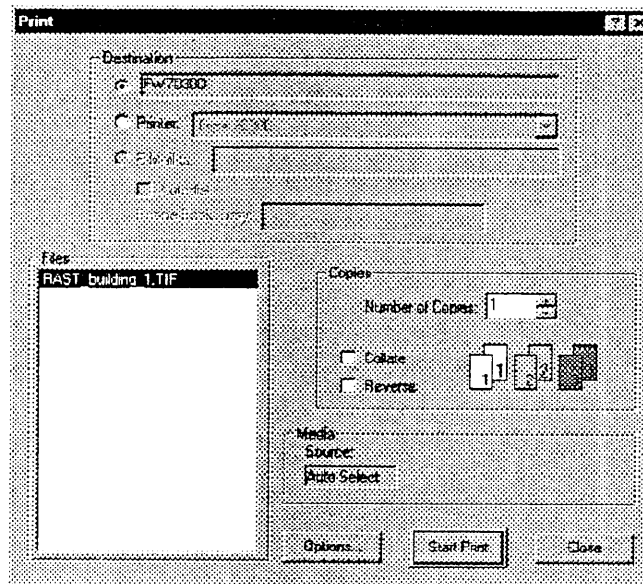
3. Select a set or plot to be printed from the sets/members tree.
4. Select "Print" from the File menu or click on the "Print" button on the project window or  button in the toolbar. The print dialog box is displayed.



5. Select the printer in "Destination".
6. Set the number of copies and copying order in "Copies".
7. Click on the "Options" button to change the option settings (see 3.14 *Setting options*).
8. Click on the "Start Print" button.



3.11.2 Print dialog box



- **Destination**

Used to select one of three printing destinations: a plotter, “Printer” and “E-Mail to”. “E-Mail to” is not supported in this software version.

The plotter connected to the Local Client is displayed in the plotter box.

The plotter box is not displayed on Remote Clients.

“Printer” displays the printer driver installed in the Windows NT Printers folder.

“E-Mail to” is selected when using a remote printer via e-mail. Enter an e-mail address to which the print job is sent in the box. When auto-dialing to the remote access server (RAS), type the location to be dialed in the Phone Book Entry box.

- **Files**

Displays the file to be printed.

- **Copies**

Used to set the number of copies.

When checking “Collate”, the set number of copies is printed page by page.

When checking “Reverse”, printing is performed from the last data in the sets/ members tree.

- **Media**

Displays the media, or paper, to be used.

Use the Media tab in Properties to define the paper to be used (see 3.13.3 Media tab).


3.12 Scanning

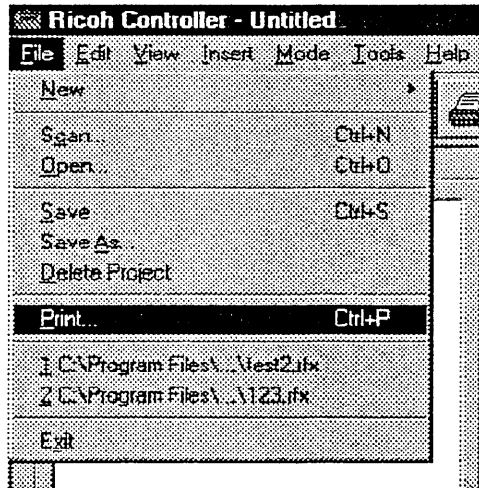
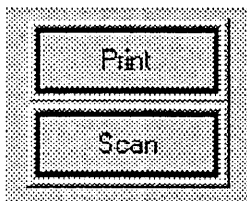
3.12.1 Scanning

Scanning is possible using a scanner. The scanned data is inserted into a set as a plot file.

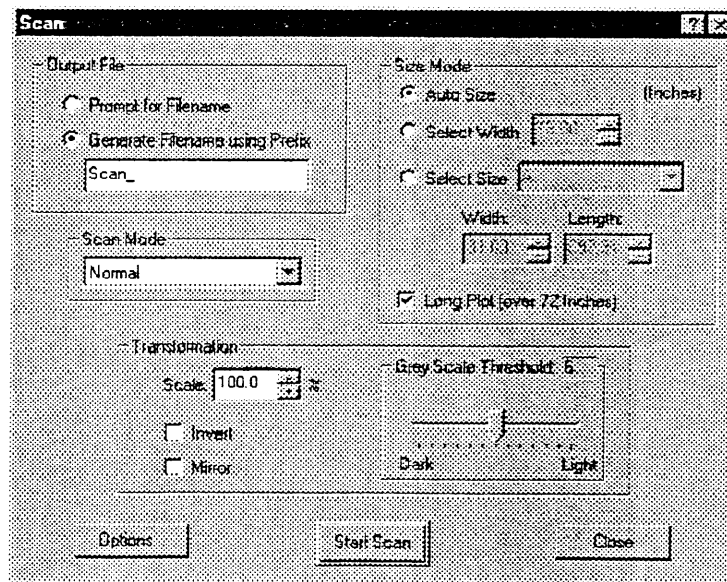
Scanning is not possible from Remote Clients.

Perform the following steps when scanning.

1. Select the set into which the scan data is inserted in the sets/members tree.
2. Select "Scan" from the File menu or click on the "Scan" button on the project window or the  button in the toolbar. The scan dialog box is displayed.

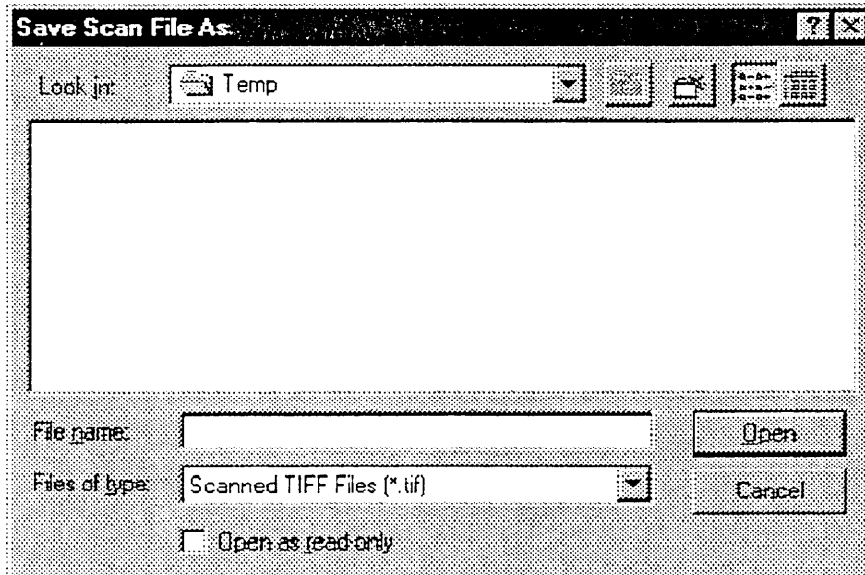


3. Select if the image data scanned by "Output File" is to be named (see 3.12.2 *Scan dialog box*).
4. Select the mode to be used for scanning from "Scan Mode". Only normal mode can be selected in this software version.
5. Set the scanning size of the original in the "Size Mode" (see 3.12.2 *Scan dialog box*).
6. Select the conversion method for the scanned data from "Transformation".
7. Click on the "Options" button to change the option settings (see 3.14 *Setting options*).
8. Click on the "Start Scan" button. The scanning message is displayed.

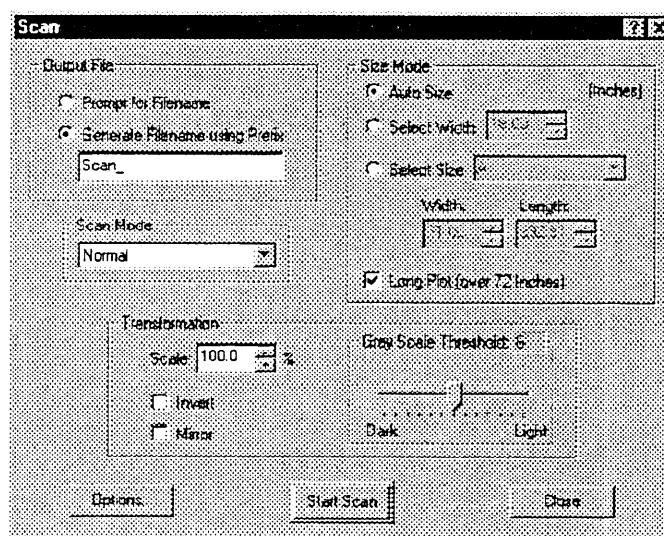


9. Place the original to be scanned on the scanner. Multiple originals can be scanned.
10. Scanning starts automatically.

11. When selecting "Prompt for Filename" in step 3, the Save Scan File As dialog box is displayed after completing scanning of each original. Enter a save location filename and click on "Save".



3.12.2 Scan dialog box



- **Output File**

Used to select how to name a file required for inserting the scanned data in a set. When “Prompt for Filename” is checked, a filename can be created by the user. When “Generate Filename using Prefix” is checked, a filename is created automatically using the prefix entered by a user in the edit box.

- **Scan Mode**

Used to select the scan mode.

- **Size Mode**

Used to define the size to be scanned from the original.

When “Auto Size” is checked, the scanned size is automatically set.

When “Select Width” is checked and the width is defined, only the selected width is scanned from the original. The length is set automatically.

When “Select Size” is checked, the area to be scanned can be selected or defined.

The selected sizes are set by Admin (see 4.4 *Scanner Sheet Size tab*). The setting range is from 1.00" to 36.00" in width and from 1.00" to 392.91" in length.

When scanning an original longer than 72" in length, check “Long Plot”.

- **Transformation**

Used to transform the data to be scanned.

A scan magnification ratio can set in “Scale”.

When “Invert” is checked, black and white data are inverted during scanning.

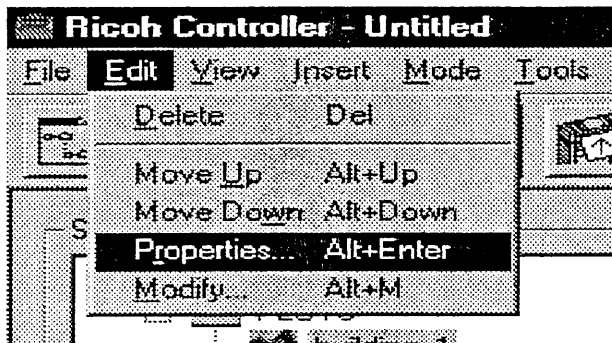
When “Mirror” is checked, the data is mirrored during scanning.

The scan density can be set in “Gray Scale Threshold”.

3.13 Setting properties

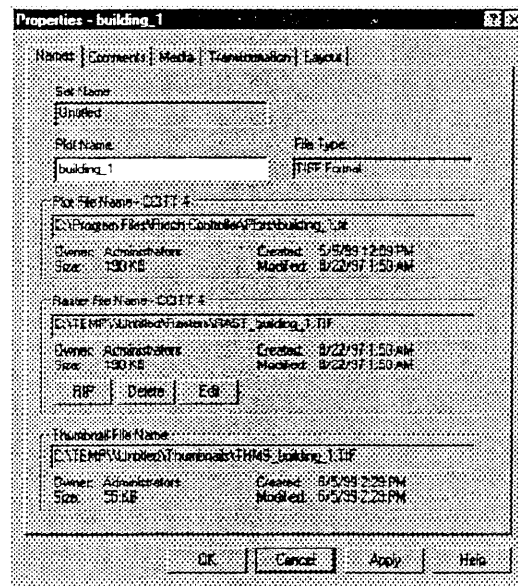
To set the properties, first select the file to be set from the sets/members tree. Then either right-click to display the pop-up menu and select “Properties” or select directly from “Edit” in the menu bar. The Properties dialog box is displayed and settings can be entered.

When the AutoCAD license is assigned (see 7. License Setup), the AutoCAD tab is added to the Properties dialog box.



3.13.1 Names tab

Information about the set or plot selected from the sets/members tree is displayed in this tab. A set name and plot name can be changed, the raster file can be edited and the pre-edited raster file can be regenerated from the plot file in this tab.



- **Set Name**

Displays the selected set name or the set name containing the selected plot. The name can be changed only when a set is selected.

- **Plot Name**

Displays the selected plot name. The name can be changed.

- **File Type**

Displays the file format of the selected plot file.

- **Plot File Name**

Displays the path, owner, size, creation date and revision date of the selected plot file.

- **Raster File Name**

Displays the path, owner, size, creation date and revision date of the selected raster file.

Clicking on the "RIP" button recreates the raster file from the plot.

Clicking on the "Delete" button deletes the raster file.

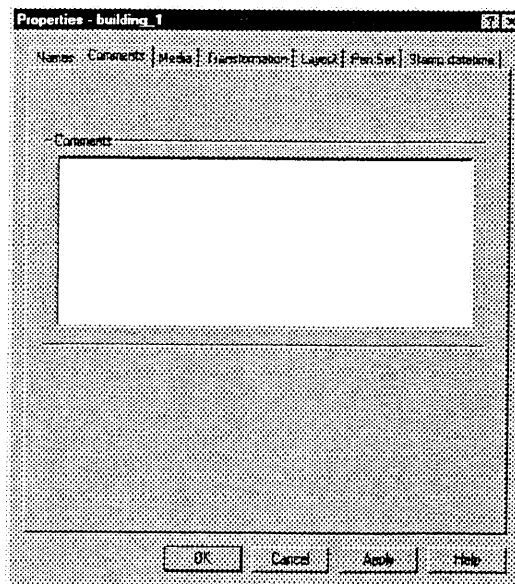
Clicking on the "Edit" button starts the image editor, the image of the raster file is displayed and editing is enabled.

- **Thumbnail File Name**

Displays the path, owner, size, creation date and revision date of the thumbnail file of the selected plot.

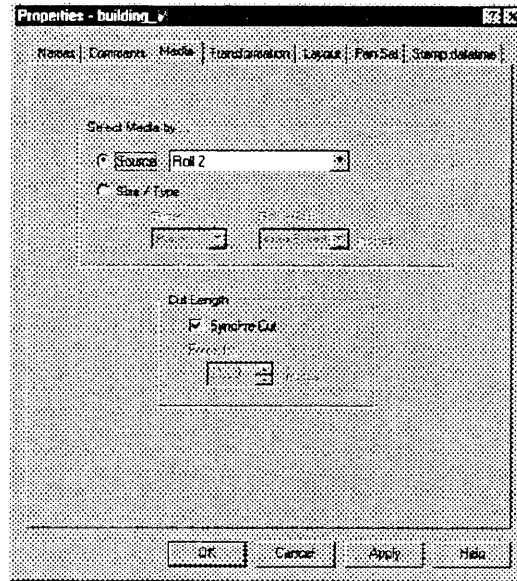
3.13.2 Comments tab

A comment on the set or plot selected from the sets/members tree can be created and edited in this tab.



3.13.3 Media tab

The media, or paper, used for printing the set or plot selected from the sets/members tree is selected and the cutting position of the paper is set in this tab.



- **Select Media by**

Two settings are provided to select the print paper.

When “Source” is checked, the roll number or paper fed from the bypass table is selected.

When “Size/Type” is checked, the type and width of the paper to be used is selected. The paper types available are normal paper, vellum and film. Auto select or sizes ranging from 8.5" to 36.0" can be selected for the paper width.

- **Cut Length**

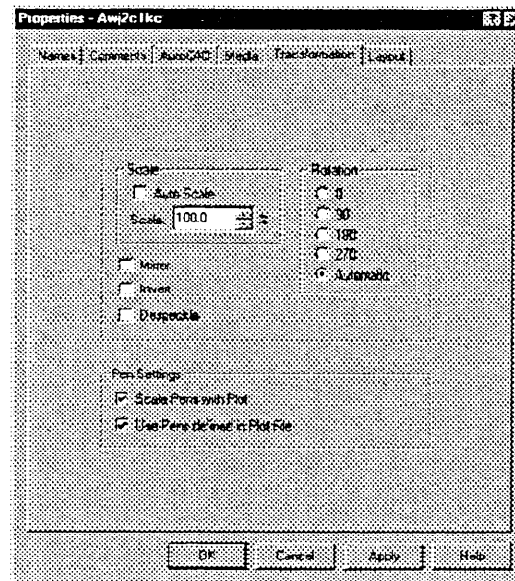
Two settings are provided to define the cutting position of the paper.

When “Synchro Cut” is checked, the paper is cut at the end of the printed image.

When “Synchro Cut” is not checked, the length can be defined in “Force to”. Any value between 11.00" and 392.91" can be set. However, paper is actually cut at 200" even if more than 200" is set. Call service when printing on paper longer than 200" is required.

3.13.4 Transformation tab

In this tab, the image of the set or plot selected from the sets/members tree is transformed before printing.



- **Scale**

Sets the print magnification ratio.

When “Auto Scale” is checked, the ratio of the image is set automatically so that the size fits on the print paper to be used.

When “Auto Scale” is not checked, a magnification ratio can be defined in “Scale” so that the image is printed at that ratio. The setting range is from 25 to 400%.

- **Rotation**

Defines the rotation angle of the image. The angle of the image can be selected from 0, 90, 180 and 270 degrees or Automatic.

When “Automatic” is selected, the image is automatically rotated according to the paper width. For example, when printing a 24" long 36" wide image file onto 24" wide paper, the image is automatically rotated 90 degrees.

- **Pen Settings**

Assigns the pen set to be used when rasterizing a vector plot file.

- **Mirror**

Mirrors the image.

- **Invert**

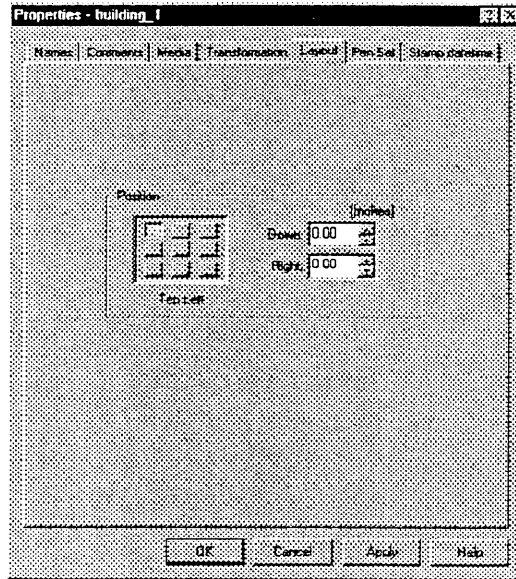
Inverts the image: swaps white and black.

- **Despeckle**

Removes small speckles (see *10.2 Technical notes*).

3.13.5 Layout tab

This tab is used to choose the placement of the image of the selected set or plot from the sets/members tree.



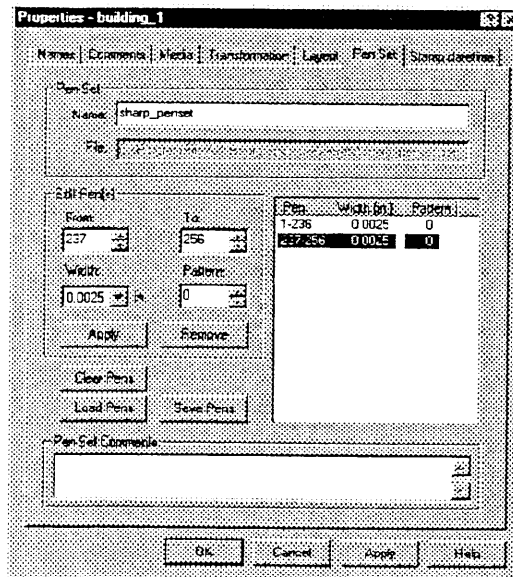
- **Position**

Select the print area from one of nine (three by three) boxes to offset the image from the top/bottom edge and left/right edge of the sheet.

When the top left area is selected, for example, use the keys in the Down box to define the length offset from the top edge and the keys in the Right box to define the width offset from the left edge. The setting range is 0.00" to 36.00" for top/bottom edges and 0.00" to 36.00" for left/right edges.

3.13.6 Pen Set tab

This tab is used to display information on the selected pen set or the pen set contained in the selected set/plot from the sets/members tree. It is also used to create a pen set.



- **Pen Set**

The Name box displays the name of the selected pen set or the pen set contained in the selected set/plot. The name can be changed.

The File box displays the file path of the selected pen set or the pen set contained in the selected set/plot.

- **Edit Pen**

Used to set line width and pattern for each pen number.

In the From and To boxes, the first and last numbers of the pen numbers to which the same line width and pattern are to be assigned are set ranging from 1 to 256.

In the Width box, the line width of the pen numbers defined in the From and To boxes can be set to any value from 0.0025" to 0.0750".

In the Pattern box, the line pattern of the pen numbers defined in the From and To boxes can be set to any value from 0 to 31. See the appendix for more information on the pen patterns.

Click on the "Apply" button to add the width and pattern selected in the From and To boxes to the pen list.

Click on the "Remove" button to delete the width and pattern selected in the From and To boxes from the pen list.

- **Clear Pens**

Click on this item to delete all pen settings from the pen list.

- **Load Pens**

Click on this item to open the file select dialog box and select the desired pen set. The selected pen set file is read into the pen list.

- **Save Pens**

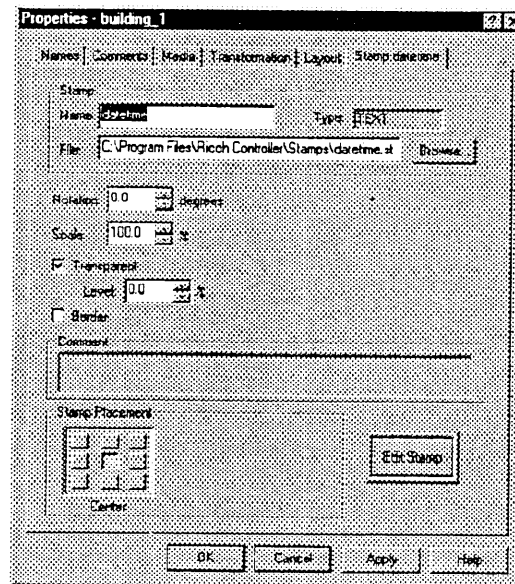
Click on this item to save the settings made in the Edit Pen box as a pen set file.

- **Pen Set Comments**

Used to create and edit a comment on the selected pen set. Up to 1000 characters can be entered.

3.13.7 Stamp tab

This tab is used to display information on the selected stamp or stamp contained in the selected set/plot from the sets/members tree. The tab is also displayed when a stamp is inserted into the set/plot.



- **Stamp**

The Name box displays the name of the selected stamp or the stamp in the selected set/plot. The name can be changed.

The Type box displays the file format of the stamp.

The File box displays the path of the selected stamp or the stamp in the selected set/plot.

The "Browse" button is used when inserting a stamp or when replacing the selected stamp or a stamp in the selected set/plot with another one. Clicking on the "Browse" button displays the file select dialog box, in which the stamp file can be selected.

- **Rotation**

The angle at which the stamp is inserted into a plot can be selected between 0 and 360 degrees.

- **Scale**

The magnification ratio of the stamp to the plot can be set in a range from 25 to 2000%.

- **Transparent**

When this item is checked, the degree to which the image can be seen through the inserted stamp can be set in the Level field to any value from 0.0 to 100.0%. When set to 0.0%, the plot image is completely invisible; when set to 100.0%, the plot image is completely visible.

- **Border**

When this item is checked, a border is drawn around the stamp.

- **Comment**

A stamp comment can be created and edited. Up to 1000 characters can be entered.

- **Stamp Placement**

One of nine (three by three) areas can be selected as the base insertion point of the stamp. An offset within the box can then be entered.

When the top left area is selected, for example, use the keys in the Down box to define the insertion point relative to the top edge and the keys in the Right box to define the insertion point relative to the left edge. The setting range is $-36.00''$ to $36.00''$ for the top and bottom edges and $-36.00''$ to $36.00''$ for the left and right edges.

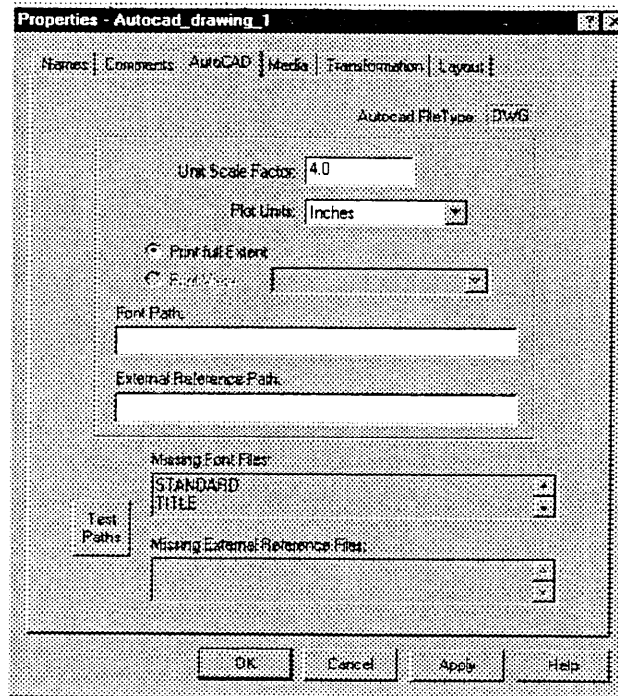
- **Edit Stamp**

Click on this item to edit the selected stamp.

3.13.8 AutoCAD tab

This tab is used to set the properties of an AutoCAD file.

To use AutoCAD files, the license setting must be performed (see 7. *License Setup*).



- **Autocad File Type**

Displays the AutoCAD file format.

The file formats available on this software version are DWG and DXF.

- **Unit Scale Factor**

Sets the magnification for rasterizing an AutoCAD file.

By default, the magnification is set so that the image width will be 36" (A0 size). The following formula is applied:

$$[\text{Image width set in AutoCAD file (inch)}] \times [\text{Unit Scale Factor (default)}] = 36 \text{ (inch).}$$

- **Plot Units**

Sets the units system for Unit Scale Factor.

- **Print full Extent**

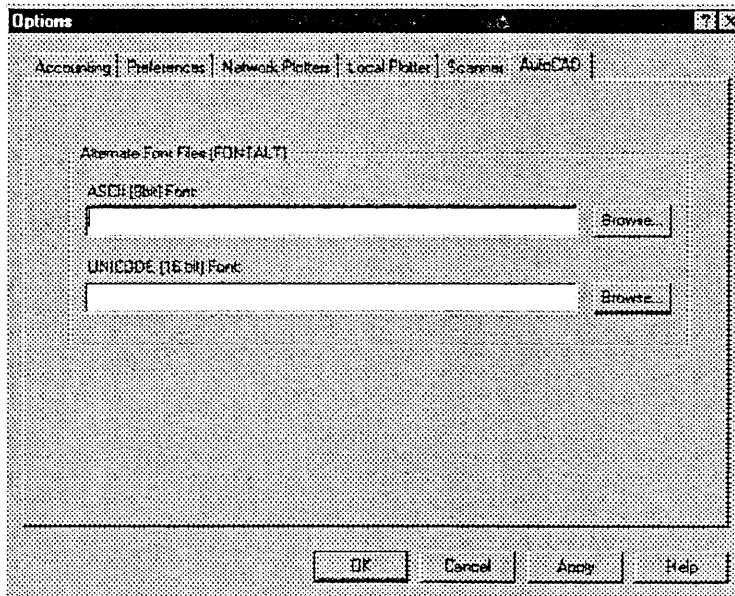
Select this item to print the whole range of an AutoCAD file.

- **Print View**

To print a view set in the AutoCAD file only, select this item and then the view to be printed from the drop-down list box.

3.14.5 AutoCAD tab

This tab is used when setting options for an AutoCAD file.



- **ASCII (8 bit) Font**

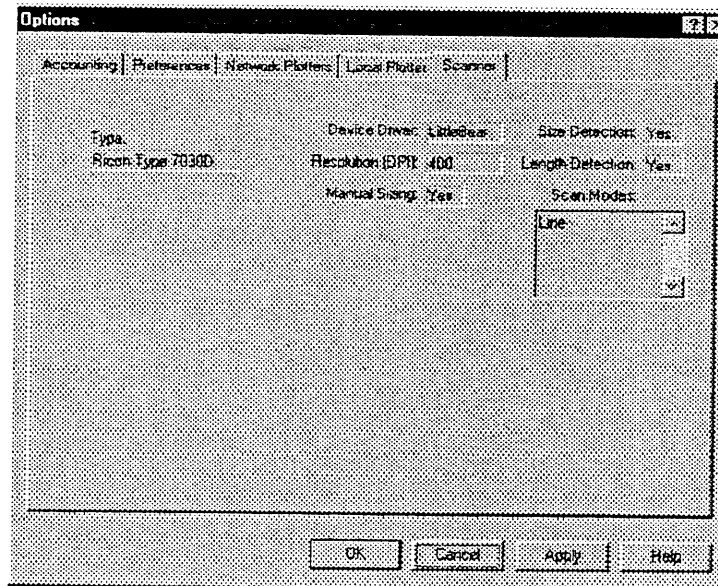
If the folder defined in the Font Path box in the AutoCAD tab in the Properties dialog box does not contain the ASCII code font file used in an AutoCAD file, the font file defined in this box will be used instead.

- **UNICODE (16 bit) font**

If the folder defined in the Font Path box in the AutoCAD tab in the Properties dialog box does not contain the UNICODE code font file used in an AutoCAD file, the font file defined in this box will be used instead.

3.14.4 Scanner tab

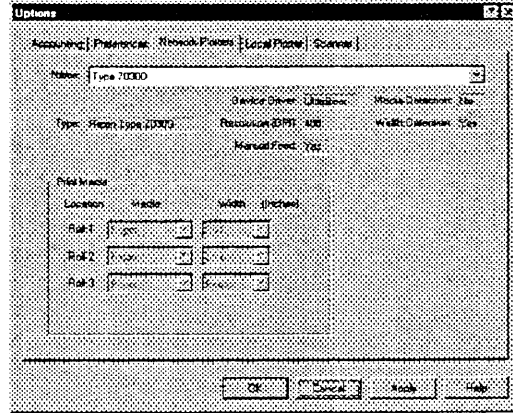
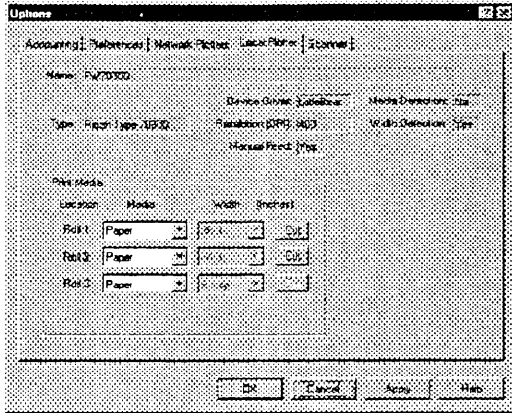
Selects the scanner and displays information about the selected scanner.



- **Scanner Type**
Displays the model name of the scanner.
- **Device Driver**
Displays the driver name of the scanner.
- **Resolution (DPI)**
Displays the scanning resolution.
- **Manual Sizing**
Indicates whether the size to be scanned is set.
- **Size Detection**
Indicates whether to detect the paper size (width and length) automatically.
- **Length Detection**
Indicates whether to detect the paper length automatically.
- **Scan Modes**
Displays the list of modes used for scanning.

3.14.3 Local Plotter/Network Plotter tab

This tab displays information about the selected plotter. The Local Plotter tab is not displayed on Remote Clients.



- **Name**

In the Local Plotter tab, the connected plotter is displayed.

In the Network Plotter tab, the printer driver installed in the Windows NT Printers folder is displayed.

- **Type**

The model name of the plotter is displayed.

- **Device Driver**

Displays the driver name of the plotter.

- **Resolution (DPI)**

Displays the print resolution.

- **Manual Feed**

Indicates whether paper feed is available.

- **Media Detection**

Indicates whether to detect the paper type automatically.

- **Width Detection**

Indicates whether to detect the paper width automatically.

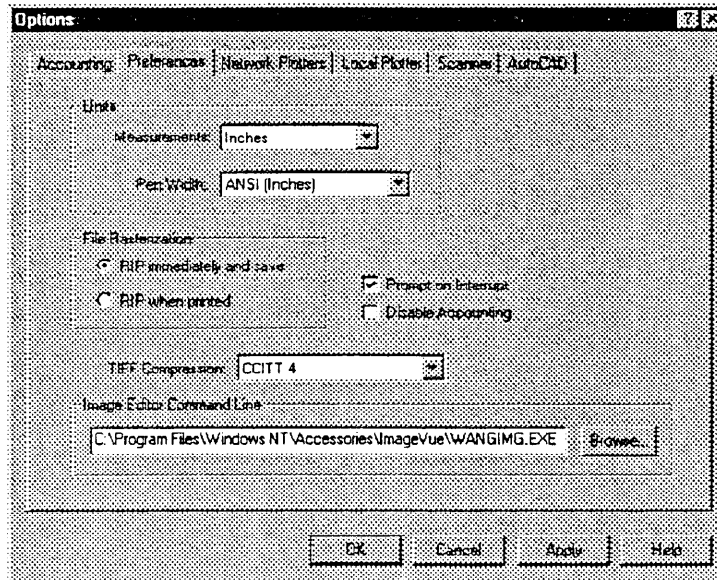
- **Print Media**

Displays information about the types and widths of the available media.

“Cut” is displayed when the plotter supports auto paper cutting. When this button is clicked, the media is cut automatically by the plotter.

3.14.2 Preferences tab

This tab is used in the settings for the Client application.



- **Units**

The Measurements box defines the units used for image size.

The Pen Width box defines the units used for the pen width in the Pen Set tab.

- **File Rasterization**

Sets the point at which a plot is rasterized.

When “RIP immediately and save” is selected, a plot is rasterized when inserted in the set.

When “RIP when printed” is selected, a plot is rasterized when printed.

- **Prompt on Interrupt**

Displays a message confirming any interruption of printing or scanning.

- **Disable Accounting**

Assigns no records in the account database.

- **TIFF Compression**

Selects the compression format of TIFF files for creating a raster file from a plot file (see 3.6.1 *Displaying a plot*).

The available compression formats are CCITT4, CCITT3, LZW and RLE.

- **Image Editor Command Line**

Displays the image editor used to edit raster files.

Click on the “Browse” button to define the image editor to be used.

- **User ID**

Used when recording the print/scan job information of plots.

- **Accounting Database**

Displays the path of an accounting database file.

Click on the "Browse" button to define the path.

- **For E-Mail Messages** (Not supported in this software version.)

Sets identification information used when sending remote print jobs via e-mail.

Enter the company name to which a user belongs in the Company Name box.

Enter the user name in the Contact Name box.

Enter the user account number in the Account Number box.

Enter the phone number in the Phone Number box.

- **Font Path**

Used to define the path(s) of the font folder(s) used to read in the text data in an AutoCAD file.

To specify two or more paths, insert a semicolon (;) between paths.

- **External Reference Path**

Used to specify the path(s) of the folder(s) containing the external reference file(s) used when reading an external reference file(s) into an AutoCAD file.

To specify two or more paths, insert a semicolon (;) between paths.

- **Test Paths**

Click on this button to search the fonts and external reference files used by AutoCAD in the folders defined in the Font Path and External Reference Path boxes. The names of the fonts and external reference files that could not be found will be shown in the Missing Font Files and Missing External Reference Files boxes.

- **Missing Font Files**

Displays the names of the fonts that were used in an AutoCAD file but could not be found in the folder defined in the Font Path box.

In this case, an alternative font defined in the AutoCAD tab in the Options dialog box will be used.

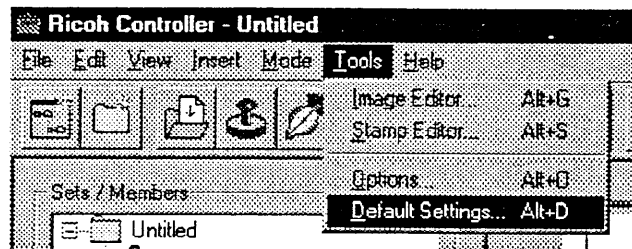
- **Missing External Reference Files**

Displays the names of the external reference files that were used in an AutoCAD file but could not be found in the folder defined in the External Reference Path box.

3.15 Default settings

Enter the default data for the plot, stamp and pen set properties in the Default Settings dialog box to insert them into a set.

To set the default data, select Default Settings from the Tools menu. The Default Settings dialog box opens and settings can be entered.

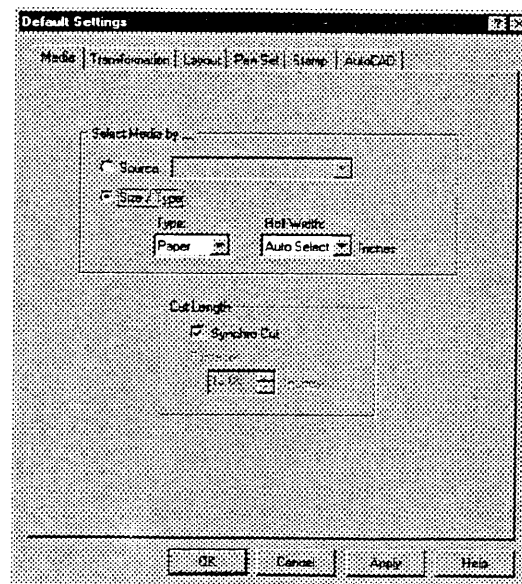


The Default Settings dialog box is almost same as the Properties dialog box: the difference is only that it does not have a Names tab or Comments tab.

If the license is assigned (see 7. License Setup), the AutoCAD tab is displayed in the Default Settings dialog box.

See 3.13 Setting properties for the description of each tab.

See 7.3 Default Settings for the description of the AutoCAD tab.



4. *Using Admin*

This section describes how to use Admin.

- 4.1 Starting and closing the application
- 4.2 Cost Center tab
- 4.3 Report tab
- 4.4 Scanner Sheet Size tab
- 4.5 About Box Edit tab
- 4.6 Device Data tab
- 4.7 Printer tab
- 4.8 Scanner tab
- 4.9 Licenses tab

4. Using Admin

The Admin application allows device settings to be configured and system usage status reports to be viewed. There are seven tabs in the Administrator window. This chapter describes how to use each of these tabs.

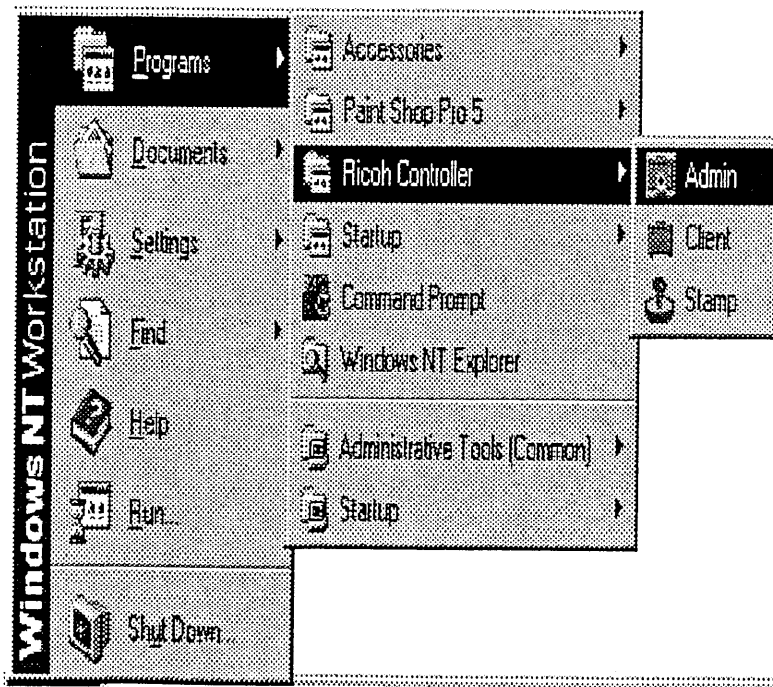
4.1 Starting and closing the application

4.1.1 Starting the application

Perform the following steps to start the application.

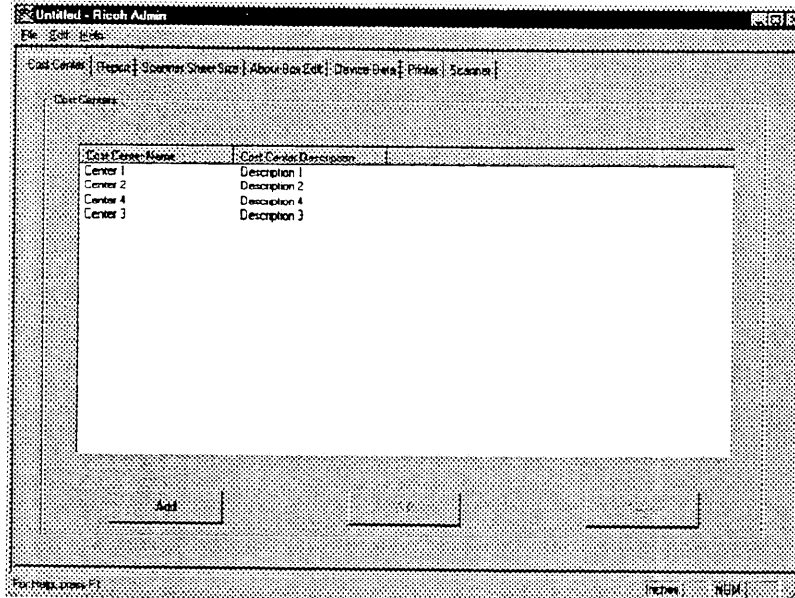
1. Click on "Start" in the task bar to open the start menu.
2. Select "Programs" and then "Ricoh Controller".
3. Click on "Admin".

The application starts and the Administrator window appears.



4.1.2 About the Administrator window

This section describes the Administrator window which appears when the application starts.

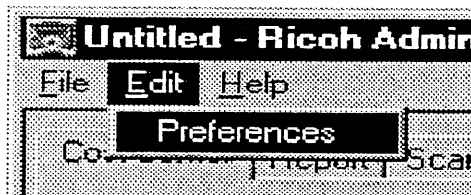


- ① Menu bar. Used when closing the Admin application, changing the units system used in Admin or viewing Help.
- ② Status bar. Displays information about the menu item indicated by the mouse.

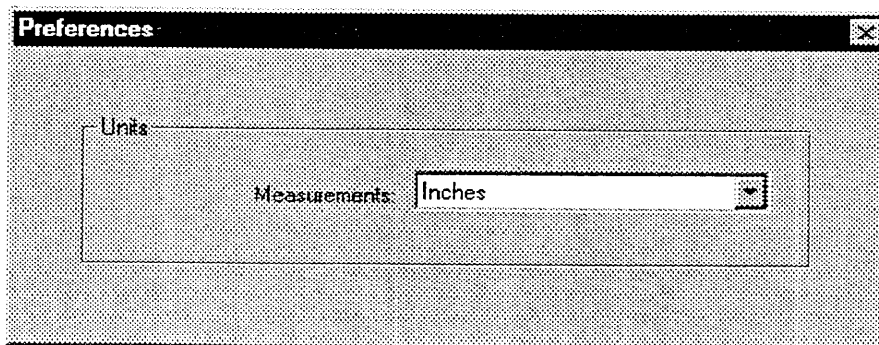
4.1.3 Selecting the units system

Perform the following steps to select the units system.

1. Click on "Edit" in the menu bar to open the Edit menu.
2. Click on "Preferences".



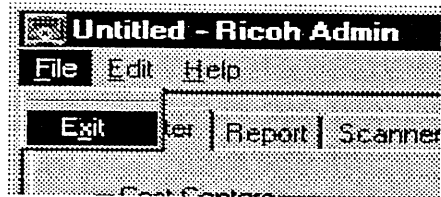
3. Select the units system to be used in "Measurements".



4.1.4 Closing the application

Perform the following steps to close the application.

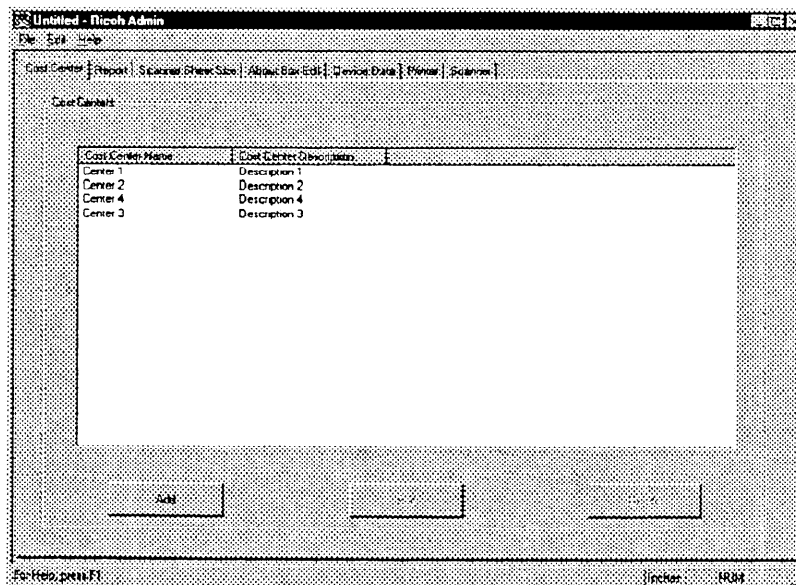
1. Click on "File" in the menu bar to open the File menu.
2. Click on "Exit".



4.2 Cost Center tab

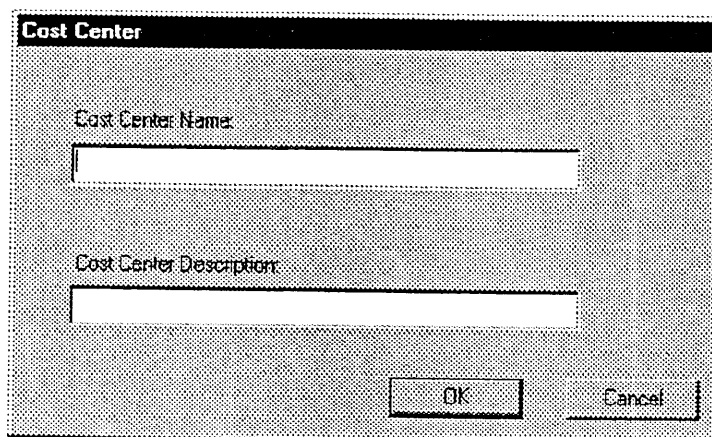
The Cost Center tab displays a list of cost center information. This tab also allows cost centers to be added, edited or deleted.

Cost centers are used to record the usage status of plotter/scanner devices. The cost center to be used for recording is specified from the Client application. Only the cost centers defined under the Cost Center tab will be available for selection in the Client application.



4.2.1 Adding a cost center

To add a new cost center, click on the “Add” button. This displays the Cost Center dialog box. Enter in the dialog box the name and description of the cost center, then click on the “OK” button. A cost center name must have 20 characters or less and a cost center description must have 80 characters or less.



The image shows a screenshot of a software dialog box titled "Cost Center". The dialog box has a dark title bar with the text "Cost Center" in white. Below the title bar, there are two text input fields. The first field is labeled "Cost Center Name" and the second field is labeled "Cost Center Description". At the bottom right of the dialog box, there are two buttons: "OK" and "Cancel". The background of the dialog box is a light gray with a halftone pattern.

4.2.2 Editing a cost center

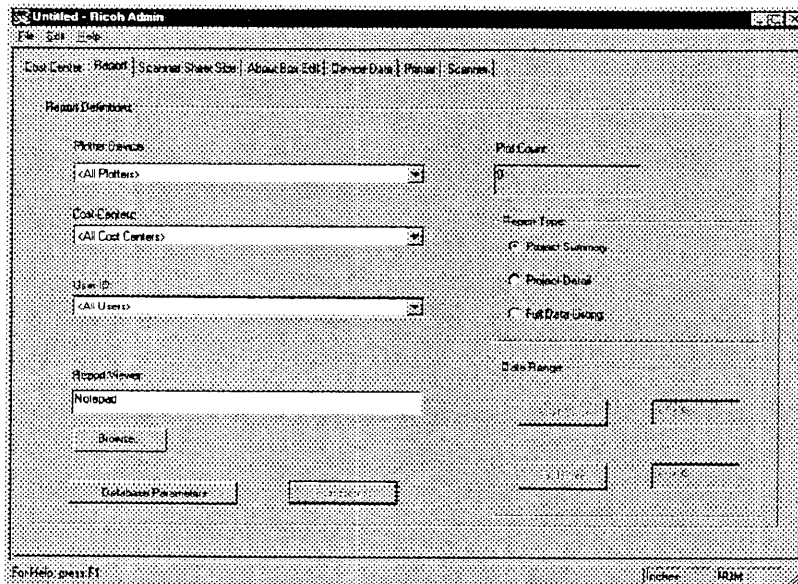
Select the cost center to be edited from the list of cost centers and click on the “Edit” button. The Cost Center dialog box is displayed. Edit the cost center and click on the “OK” button.

4.2.3 Deleting a cost center

Select the cost center to be deleted from the list of cost centers and click on the “Delete” button.

4.3 Report tab

The Report tab displays a report on the selected plotter device, cost center and user-ID. A text editor is used to display the report.



- **Plotter Device**

Select the plotter device whose usage status is to be reported.

- **Cost Center**

Select the cost center whose usage status record is to be reported. Cost centers available for selection are defined under the Cost Center tab.

- **User-ID**

Select the user-ID whose usage status is to be reported. User-IDs available for selection are defined under the Accounting tab in the Options menu of the Client application.

- **Plot Count**

The number of print jobs in the database record. The database records the number of print jobs executed during the period defined by Database Parameters.

- **Report Type**

Select on of three types.

- **Date Range**

Define the period to be covered by the system usage status report within the period defined by Database Parameters.

Click on the "Start Date" button to enter the starting date.

Click on the "End Date" button to enter the end date.

- **Report Viewer**

The text editor program to be used for viewing the report. The text editor can be selected by clicking on the "Browse" button.

- **Database Parameters**

Clicking on this button displays the Database Parameters dialog box. Specify the directory containing the database to record report information and the period for which it is retained. The directory containing the database can be specified by clicking on the "Browse" button. The retaining period may be 30 days, 60 days, 120 days, 6 months, 12 months or indefinite. The record is automatically purged after this period.

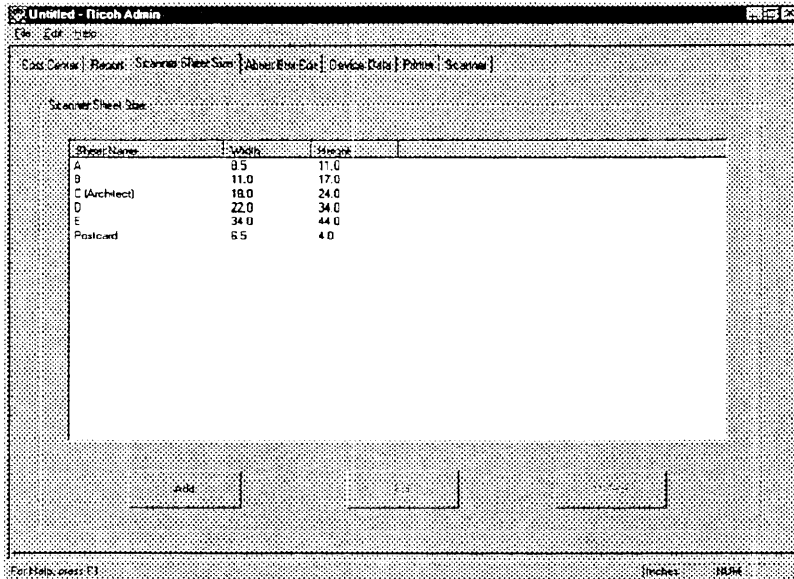
- **Run Report**

Clicking on this button starts the designated text editor program and displays the report.

4.4 Scanner Sheet Size tab

This tab displays information on the available scanning area size options (called “scanner sheet sizes”). This tab also allows scanner sheet sizes to be added, edited or deleted.

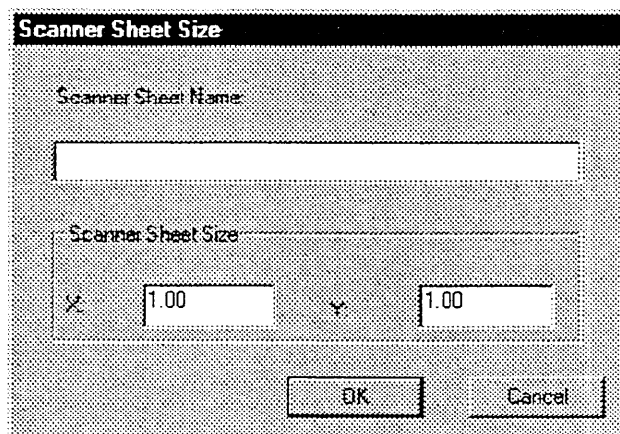
The sheet names defined under this tab are used in the Scan dialog of the Client application.



- **Sheet Name**
The sheet name that identifies the scanner sheet size.
- **Width**
The width of the scanner sheet size.
- **Height**
The height of the scanner sheet size.

4.4.1 Adding a scanner sheet size

To add a new scanner sheet size, click on “Add Sheet Size”. The Scanner Sheet Size dialog box appears. Define the scanner sheet name and scanner sheet size parameters, then click on “OK”.



- A Sheet Name may have up to 25 characters.
- X (width) may be set to any value between 1.00" and 36.00".
- Y (height) may be set to any value between 1.00" and 392.91".

4.4.2 Editing a scanner sheet size

Select the scanner sheet size to be edited from the scanner sheet size list and click on “Edit Sheet Size”. The Edit Sheet Size dialog box appears. Edit in the dialog box, then click on “OK”.

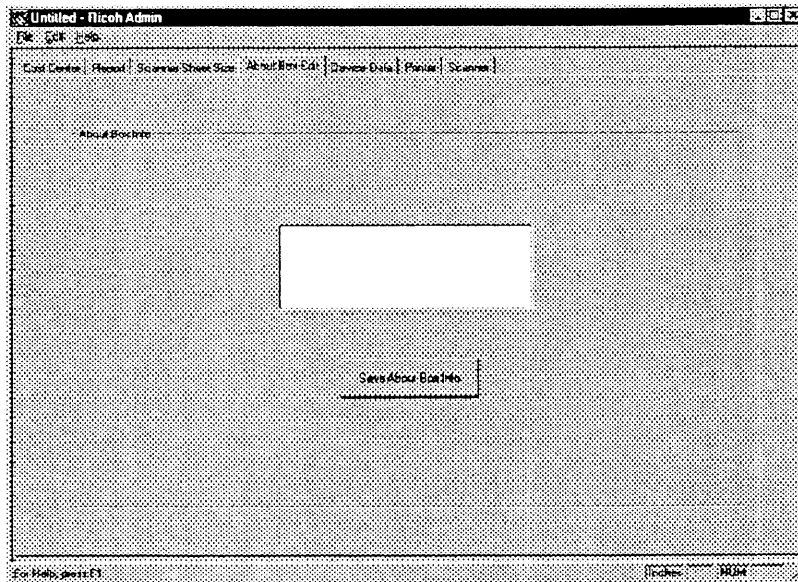
4.4.3 Deleting a scanner sheet size

Select the scanner sheet size to be deleted from the scanner sheet size list and click on “Delete Sheet Size”.

4.5 About Box Edit tab

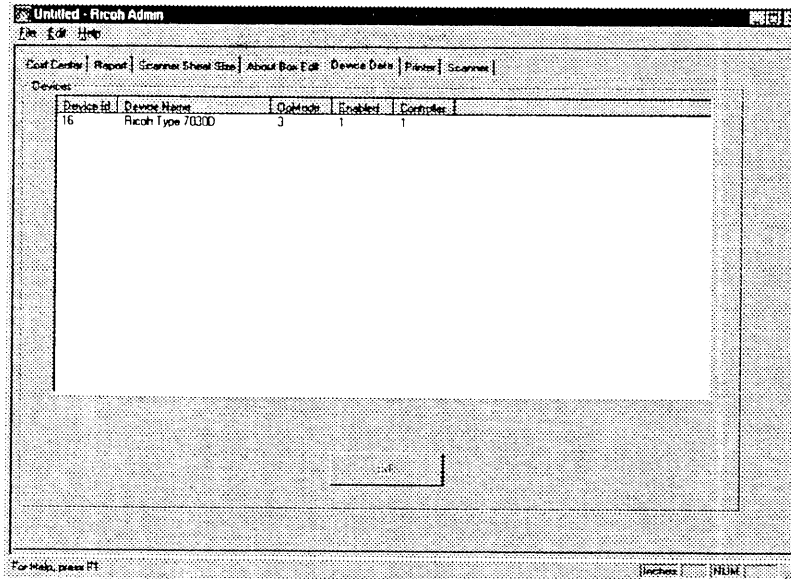
This tab allows creation and editing of the text displayed when “About” is selected from the Help menu of the Admin, Client or Stamp applications.

The text created or edited under this tab is saved in the database by clicking on the “Save About Box Info” button.



4.6 Device Data tab

The Device Data tab displays information about the plotter/scanner devices used with Repro System. It also allows devices to be edited.

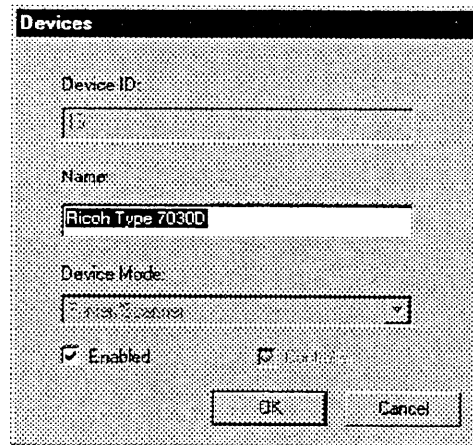


- **Device ID**
Displays the Device IDs to identify the devices. These IDs are also displayed under the Printer tab and Scanner tab.
- **Device Name**
Displays the model names of the devices.
- **OpMode**
Indicates whether a device is to be used only as a printer, only as a scanner or as both. The code “1” means it is used only as a printer, “2” means only as a scanner and “3” means it is used both as a printer and scanner.
- **Enabled**
Indicates whether the device is available for use by Client. The code “1” means it is available (enabled) and “0” means not available (disabled).
- **Controller**
Indicates whether an interface card is used. The code “1” means an interface card is used and “0” means not used.

4.6.1 Editing a device

Select the device to be edited from the device list and click on the “Edit Device” button. The Device dialog box appears. Edit the device in the box, then click on the “OK” button.

The Name and Enabled boxes are available in this software version. In other versions, they are unavailable and displayed only.



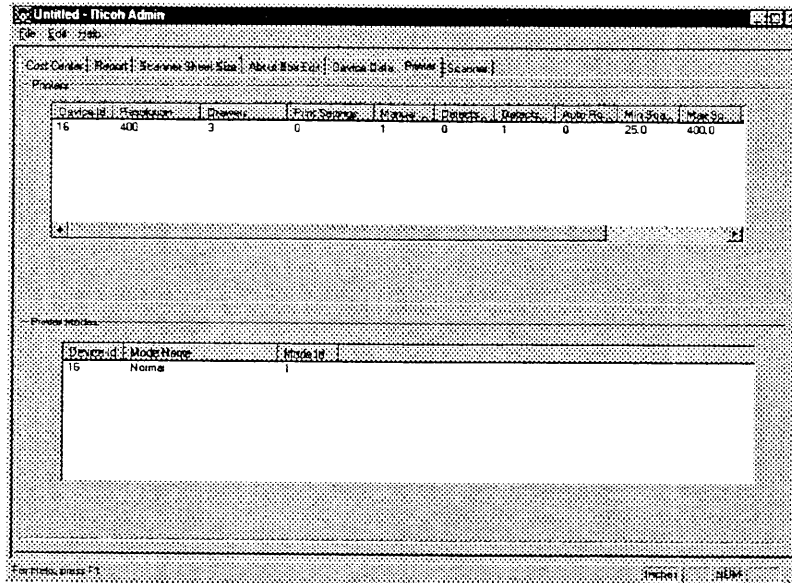
The screenshot shows a dialog box titled "Devices". It contains the following fields and controls:

- Device ID:** A text box containing the number "6".
- Name:** A text box containing the text "Ricoh Type 70300".
- Device Mode:** A dropdown menu with "Ricoh Type 70300" selected.
- Enabled:** A checked checkbox.
- Controller:** A checked checkbox.
- Buttons:** "OK" and "Cancel" buttons at the bottom right.

- A Device ID may be set to 6, 7 or 8.
- A Name may have up to 20 characters.
- Select a Device Mode from the drop-down list box.
- Check “Enabled” when using the device from Client.
- Check “Controller” if an interface card is used.

4.7 Printer tab

The Printer tab displays a list of printers and printer modes.



Printers

- **Device ID**

Lists the device IDs of all devices that have been defined as printers. The Device IDs displayed here are the same as the Device IDs defined under the Device Data tab.

- **Resolution**

Shows the printer resolution in dots per inch (dpi).

- **Drawers**

Shows how many paper drawers each printer has.

- **Print Settings**

Shows print density.

- **Manual Feed**

Shows if manual feed is enabled; “1” when enabled or “0” when disabled.

- **Detects Media**

Shows if automatic paper type detection is enabled; “1” when enabled or “0” when disabled.

- **Detects Width**

Shows if automatic paper width detection is enabled; “1” when enabled or “0” when disabled.

- **Auto Rollover**

Shows whether the printer automatically switches over to a new paper roll when it has run out of paper. Shows “1” when Auto Rollover is enabled or “0” when disabled.

- **Min Scale Factor**

Shows the minimum scale factor available for printing.

- **Max Scale Factor**

Shows the maximum scale factor available for printing.

- **Drivers**

Shows the name of the driver used for the printer interface card.

Printer Modes

- **Device ID**

Lists the device IDs of the printers.

- **Mode Name**

A name representing the printer operation mode.

- **Mode ID**

An ID that identifies the printer mode.

- **Specify Width**

Indicates if the width of the scanning area can be specified from the Client application; “1” when it is enabled or “0” when disabled.

- **Fixed Sizes**

Indicates if the size of the scanning area can be specified from the Client application; “1” when it is enabled or “0” when disabled.

- **Auto Exposure**

Indicates if automatic exposure is enabled; “1” when enabled or “0” when disabled.

- **Min Scale Factor**

Shows the minimum scale factor available for scanning.

- **Max Scale Factor**

Shows the maximum scale factor available for scanning.

- **Drivers**

Shows the name of the driver used for the scanner interface card.

Scan Modes

- **Device ID**

Lists the device IDs of the scanners.

- **Mode Name**

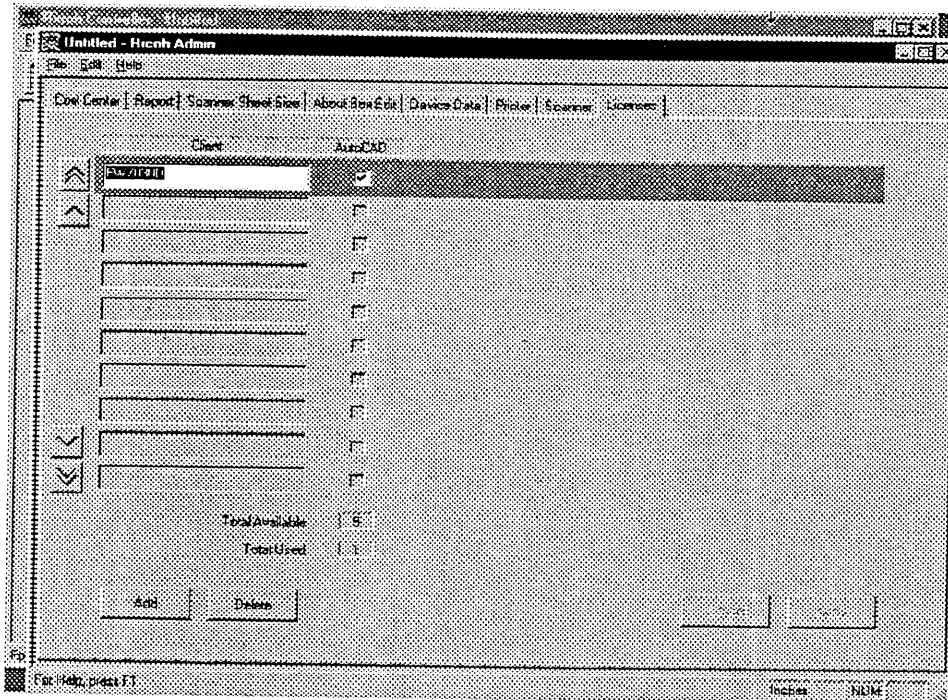
A name representing the scanning operation mode.

- **Mode ID**

An ID that identifies the scanning mode.

4.9 Licenses tab

The Licenses tab is used to assign the license to Clients. This tab is displayed on the Local Client only.



- **Client**

Displays the computer names of the Local Client and Remote Clients.

- **AutoCAD**

Check this item to assign the AutoCAD file license.

- **Total Available**

Displays total number of Clients that can be assigned the license.

- **Total Used**

Displays the number of Clients to which the license has been assigned.



Scrolls the list up and down one line at a time.

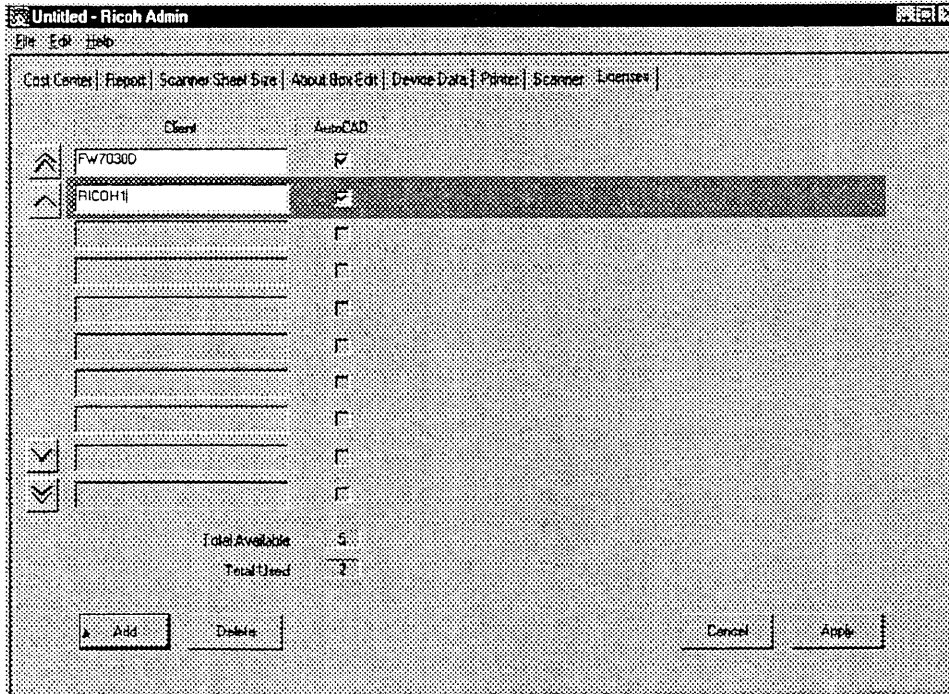


Scrolls the list up and down one page at a time.

4.9.1 Assigning the license

To newly assign the license to a Client, click on the “Add” button. A line becomes unshaded enabling entry. Enter the computer name of the Remote Client to which the license is newly assigned and check the check box. Click on the “Apply” button (see 7.2 Assigning the license).

Use the computer name set by selecting “Control Panel”, “Network”, “Identification” and then “Computer Name”.



4.9.2 Removing the license

Remove the check mark from the check box. Alternatively, select the Remote Client to be deleted from the Client list and click on the “Delete” button. Note that the computer name of the Remote Client is also deleted from the Client list by the latter method.

5. *Using Stamp*

This section describes how to use Stamp.

- 5.1 Starting and closing the application
- 5.2 Creating and saving a stamp
- 5.3 Editing a stamp
- 5.4 Checking the stamp

5. Using Stamp

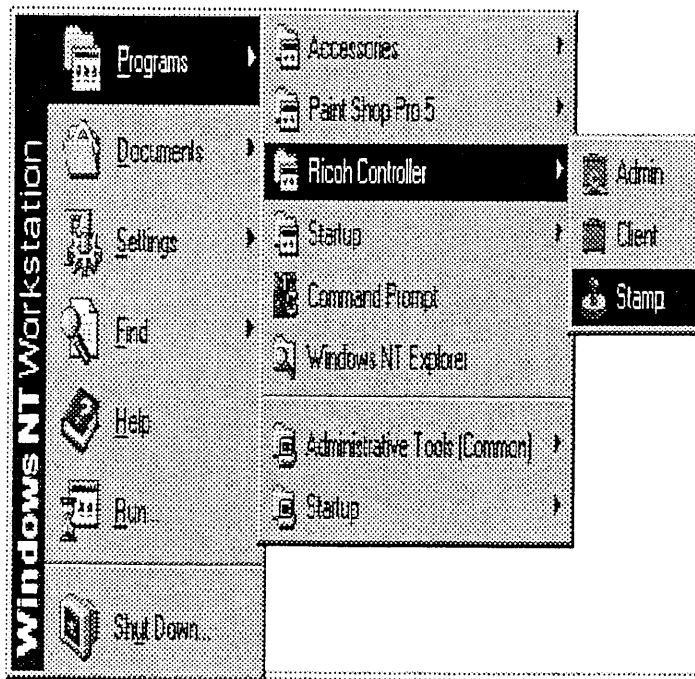
5.1 Starting and closing the application

5.1.1 Starting the application

Perform the following steps to start the application.

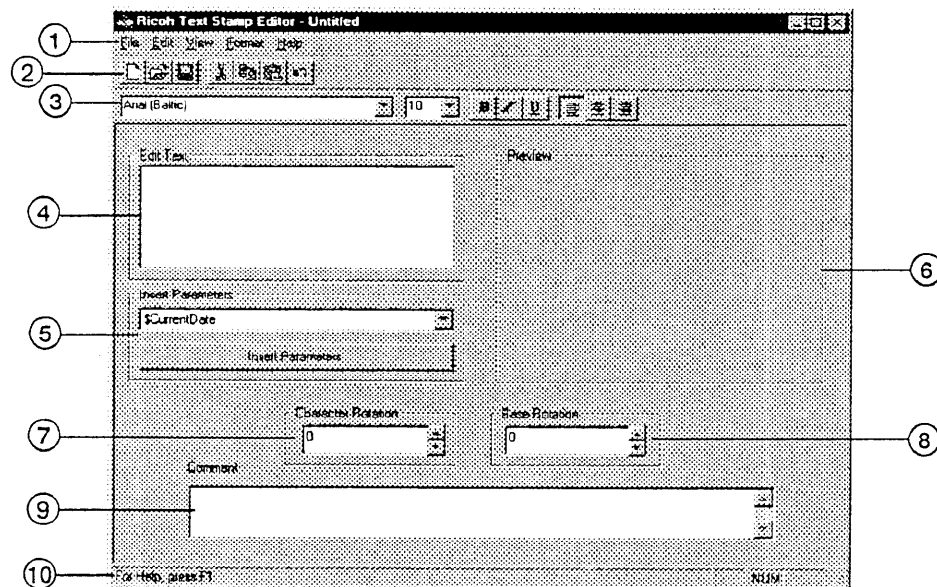
1. Click on "Start" in the task bar to open the Start menu.
2. Select "Programs" and then "Ricoh Controller".
3. Click on "Stamp".

The application starts and the Text Stamp Editor window appears.



5.1.2 Text Stamp Editor window

The Text Stamp Editor window is described in this section.

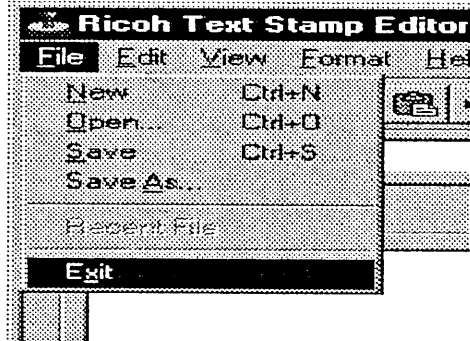


- ① Menu bar.
- ② Toolbar.
- ③ Font selection bar.
- ④ Edit Text box.
- ⑤ Insert Parameters box.
- ⑥ Preview box.
- ⑦ Sets the rotation angle of a character.
- ⑧ Sets the rotation angle of the entire text.
- ⑨ Comment box.
- ⑩ Status bar. Displays information about the menu item indicated by the mouse.

5.1.3 Closing the application

Perform the following steps to close the application.

1. Click on "File" in the menu bar to open the File menu.
2. Click on "Exit".




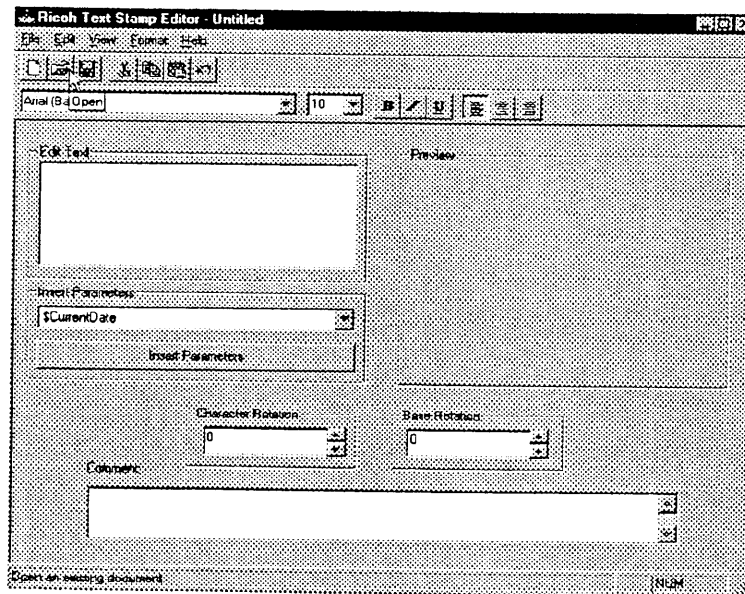
5.2 Creating and saving a stamp

5.2.1 Creating a new stamp


When Stamp is started, it creates a new stamp called “Untitled”.

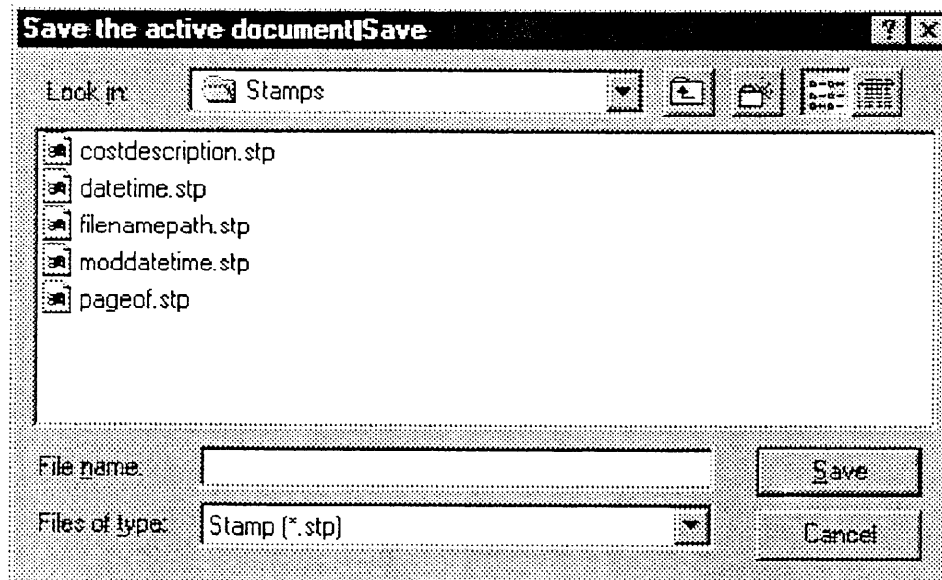
A new stamp can also be created by either of the following methods:

- Click on “New” from “File” in the menu bar.
- Click on the  button in the toolbar.




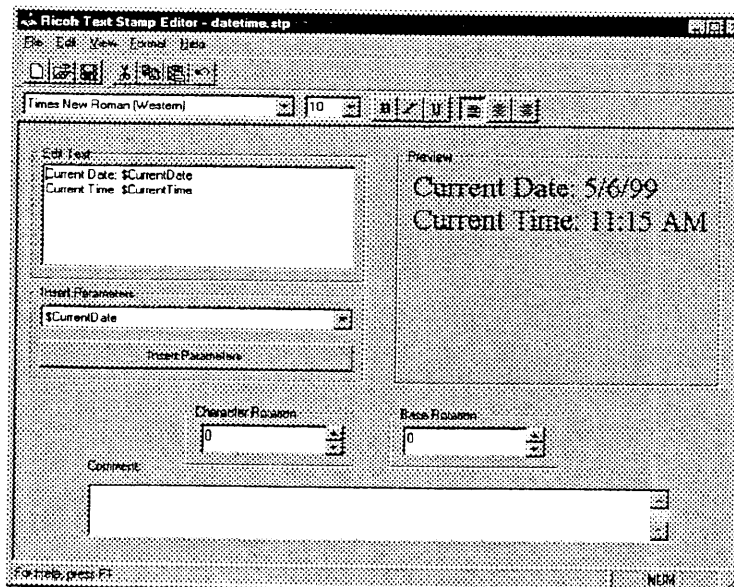
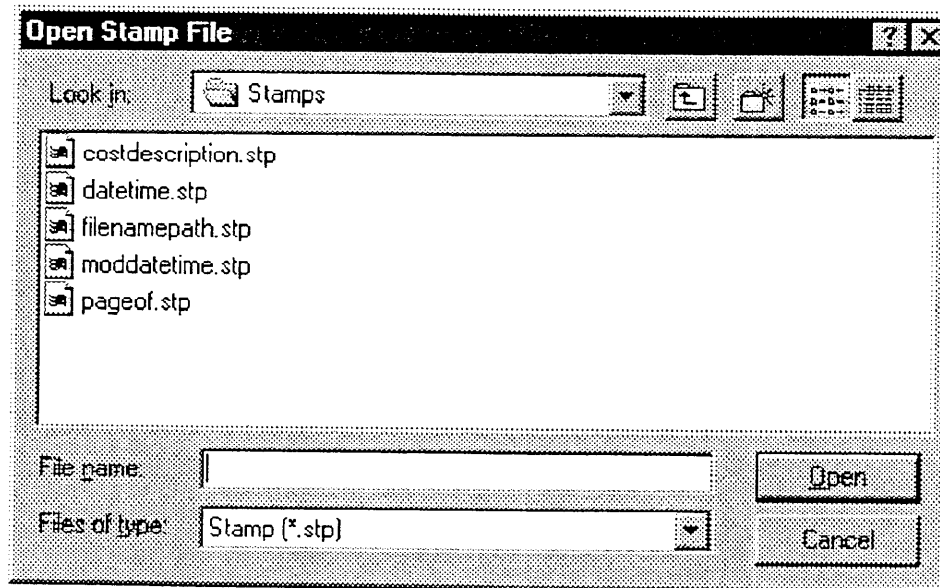
5.2.2 Saving a stamp

1. Click on "Save" from "File" in the menu bar or the  button in the toolbar.
2. Specify the directory, enter the filename and then click on the "Save" button. A stamp is saved as a stamp file with the ".stp" extension.



5.2.3 Opening an existing stamp

1. Click on "Open" from "File" in the menu bar or the  button in the toolbar.
2. Select the stamp to be opened and click on the "Open" button. The Text Stamp Editor window appears.



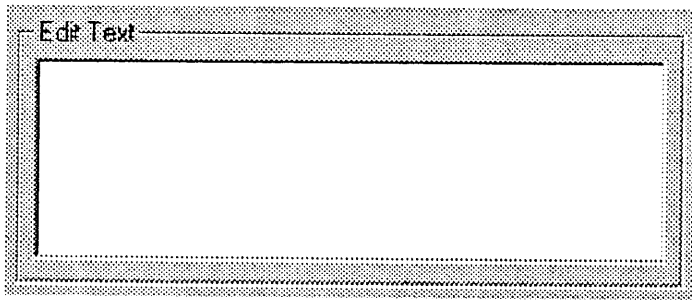
5.3 Editing a stamp

5.3.1 Editing text

Type or edit the text in the Edit Text box to insert it as a stamp. Click the mouse at the desired position and type the text.

Right clicking in the Edit Text box shows the edit menu enabling cutting, pasting or copying of the text.

When parameters are inserted into a stamp, the Edit Text box shows "\$xxx". The character string indicating the parameter cannot be edited.



5.3.2 Inserting a parameter

Click on the desired parameter in the drop-down list box of the Insert Parameters box and then click on the "Insert Parameters" button. The parameters listed in Table 5-1 can be inserted.

Parameters are inserted at the cursor location in the Edit Text box.

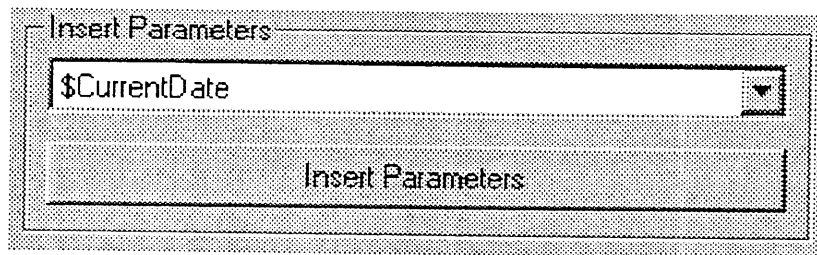
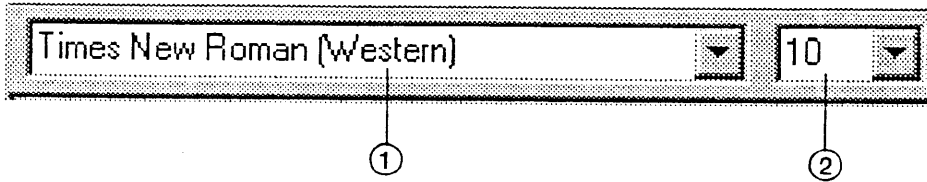


Table 5-1 Types of parameters

Parameter	Description
\$ModificationDate	The date when the file was modified
\$ModificationTime	The time when the file was modified
\$CurrentDate	The date when the plot file was printed
\$CurrentTime	The time when the plot file was printed
\$Filename	The name of the original file
\$FilePathName	The name of the file path
\$MemberName	The member name of the file
\$CostCenter	A cost center that records printing and scanning jobs
\$Description	The description of the Cost Center
\$SheetNumber	Printing order for continuous printing
\$TotalSheetNumber	Total number of sheets in continuous printing

5.3.3 Changing the font

Change the font in the font selection bar.



① Font selection drop-down list box


The fonts registered in the computer are available.


② Font size drop-down list box


The font size can be selected from the fixed sizes (between 8 and 72 points) or specified by typing a number (between 1 and 1638 points).

5.3.4 Changing the letter style

Change the style by using “Format” in the menu bar or the buttons on the font selection bar.

 **B** Bold
Boldfaces the text.

 *I* Italic
Italicizes the text.

 U Underline
Underlines the text.

 Align Left

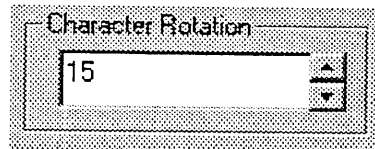
 Centered

 Align Right

5.3.5 Rotation

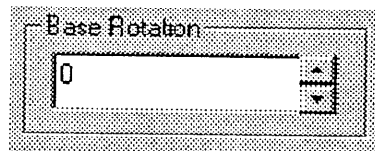
Character rotation

Rotates a character to the specified angle. The character can be rotated anticlockwise to any angle between 0 and 360 degrees. Specify the angle by clicking on ▲ or ▼ or typing a number.



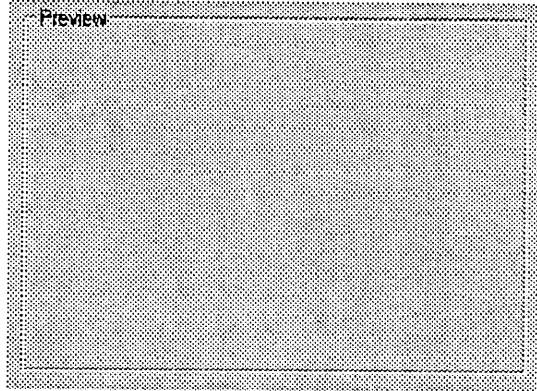
Base rotation

Rotates the entire text to the specified angle. The line can be rotated anticlockwise to any angle between 0 and 360 degrees pivoting around the top left corner of the text. Specify the angle by clicking on ▲ or ▼ or typing a number.



5.4 Checking the stamp

Check the printing status of the edited stamp in the Preview box.



6. *Network Plotting*

This section describes plotter setting for network use.

- 6.1 Setting the Remote Client
- 6.2 Setting the Local Client
- 6.3 Checking Remote Client operation
- 6.4 Returning to local mode

6. Network Plotting

In this section, for convenience the Client application running on the Local Client is called the Local Client application and the Client application running on a Remote Client the Remote Client application.

The Local Client application operates in two modes: local mode and network mode. In local mode, the Local Client can use the connected plotter/scanner to both print and scan. In network mode, the Local Client serves as a plotter server to receive print jobs from other network Clients, namely Remote Clients, and prints them on the connected plotter.

In the network mode, the Local Client application provides plotter server facilities only.

Even though the Local Client application is closed in the network mode, it still serves as a plotter server. However, no Print Problem messages (indicating print errors) are displayed. When a print error occurs, restart the Client application and then solve the problem.

For information on how to operate on the Remote Client, see *3. Using Client*, *4. Using Admin* and *5. Using Stamp*.

6.1 Setting the Remote Client

6.1.1 Installing the Repro System

Install the Repro System on a Remote Client as follows:

1. Start Windows NT and close any unnecessary applications.
2. Insert the supplied CD-ROM into the CD-ROM drive.
3. The **Setup** screen appears followed by the **Welcome** screen. Click on the "Next" button.
4. The **Choose Destination Location** screen appears. Click on the "Next" button.
5. The **Setup Type** screen appears. Select "Client Software" and click on the "Next" button.
6. The **Select Components** screen appears. Select all the components for normal operation and click on the "Next" button.
7. The **Select Program Folder** screen appears. Click on the "Next" button. The program group name can be changed to another name if so desired.
8. The **Start Copying Files** screen appears. Click on the "Next" button.
9. The **Setup Complete** screen appears after installation is complete. Remove the CD-ROM from the CD-ROM drive and click on the "Finish" button to automatically restart the computer.

The installation program creates a program item in the Start menu. The program group name is "Repro System". It contains three program items, called Client, Admin and Stamp.

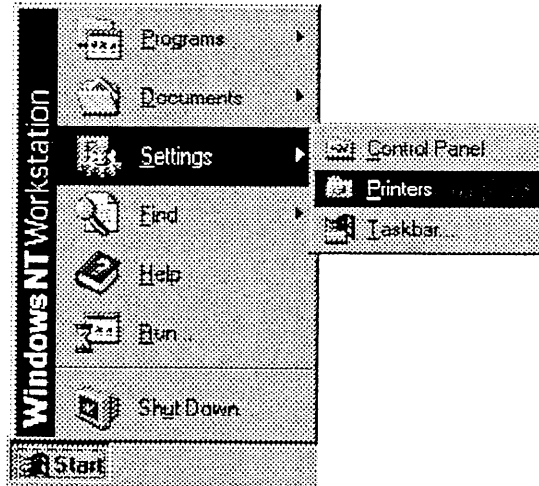
On uninstalling the Repro System, files in the **C:\Program Files\Repro System** directory may be deleted. Move any image files before uninstalling the Repro System.

6.1.2 Setting the printer

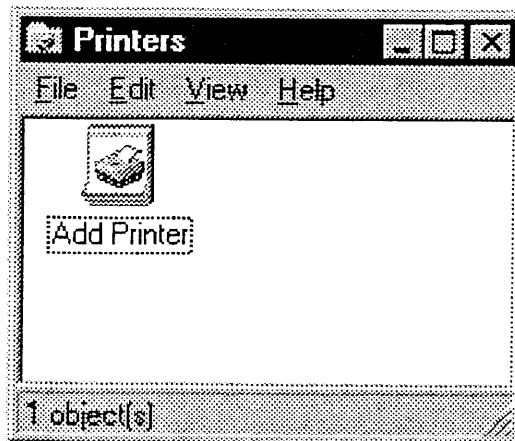
To use the plotter on the network at a Remote Client, printer configuration must be performed.

Configure the printer as follows:

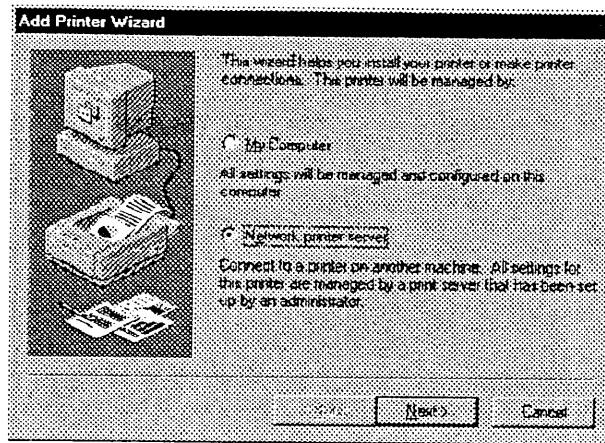
1. Click "Start" in the task bar to open the Start menu.
2. Click "Printers" in "Settings".



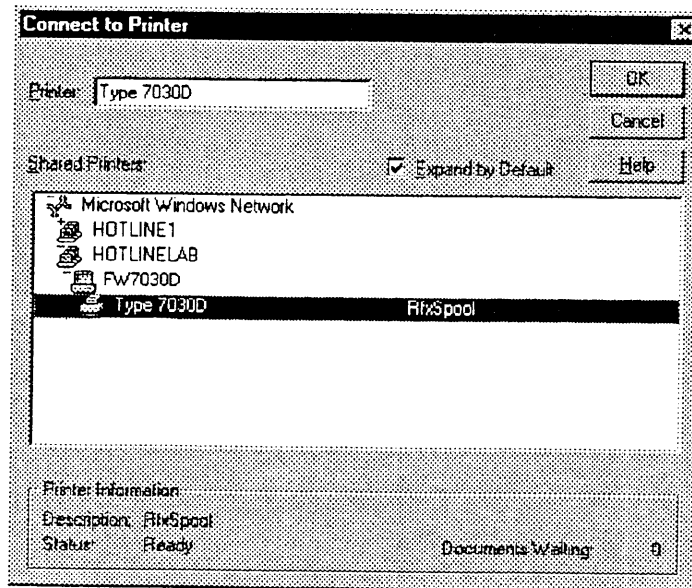
3. Double-click "Add Printer".



4. Select "Network printer server" and click "Next".

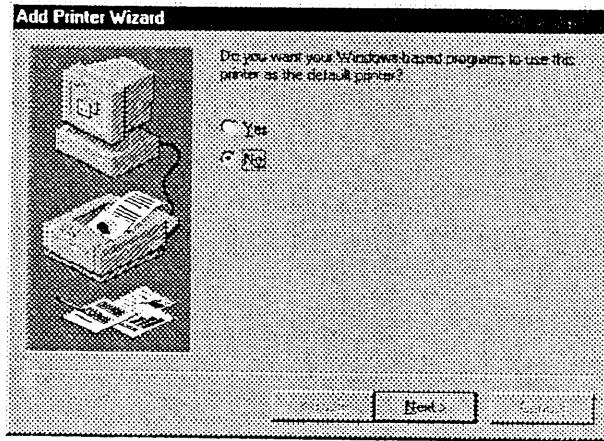


5. The Connect to Printer dialog box opens. Select the plotter connected to the server and click "OK".

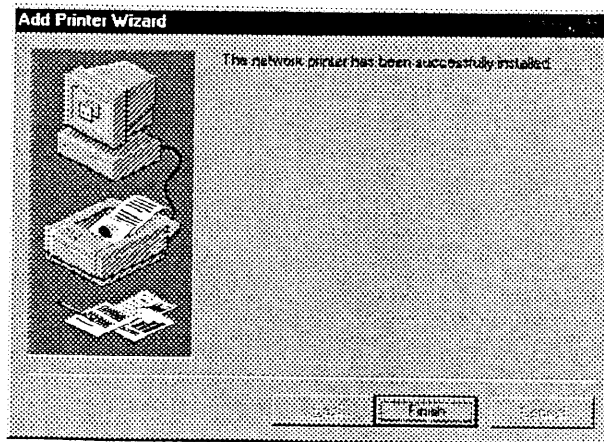


Network Plotting

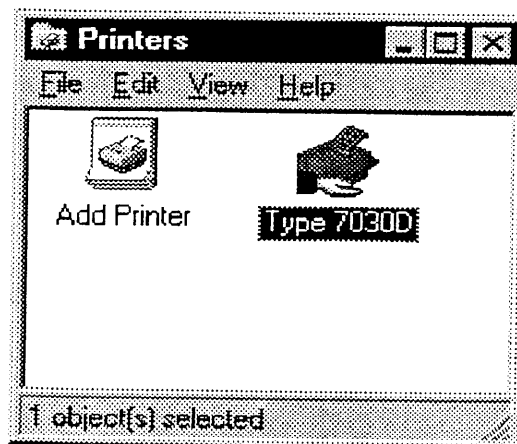
6. Select whether to configure the plotter as the default printer and click "Next".



7. Click "Finish".




8. An icon for the configured plotter appears in the Printers folder.

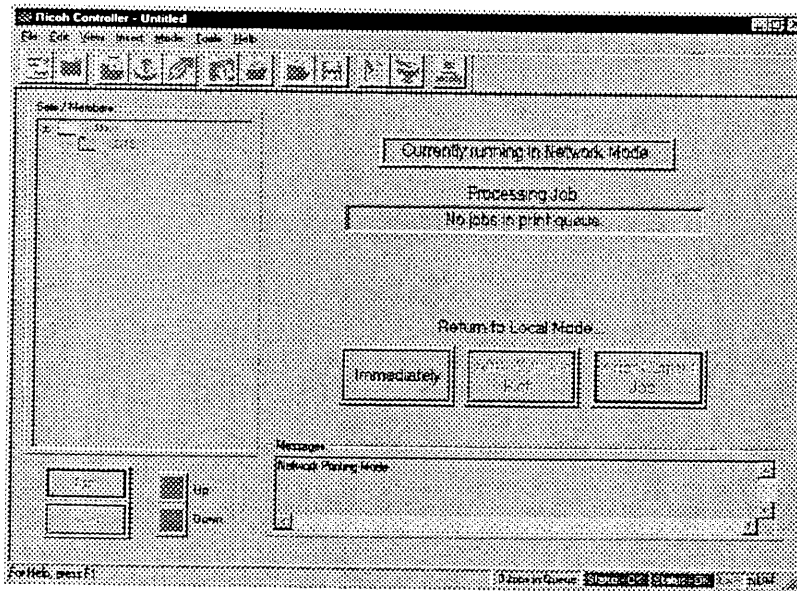
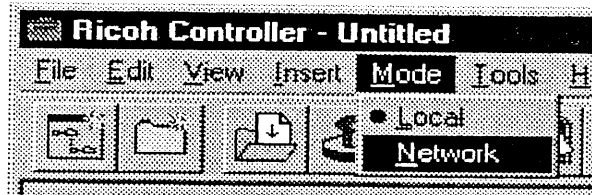


6.2 Setting the Local Client

To use the Local Client as the plotter server, the Local Client must be in the network mode.

To enter network mode, perform the following steps.

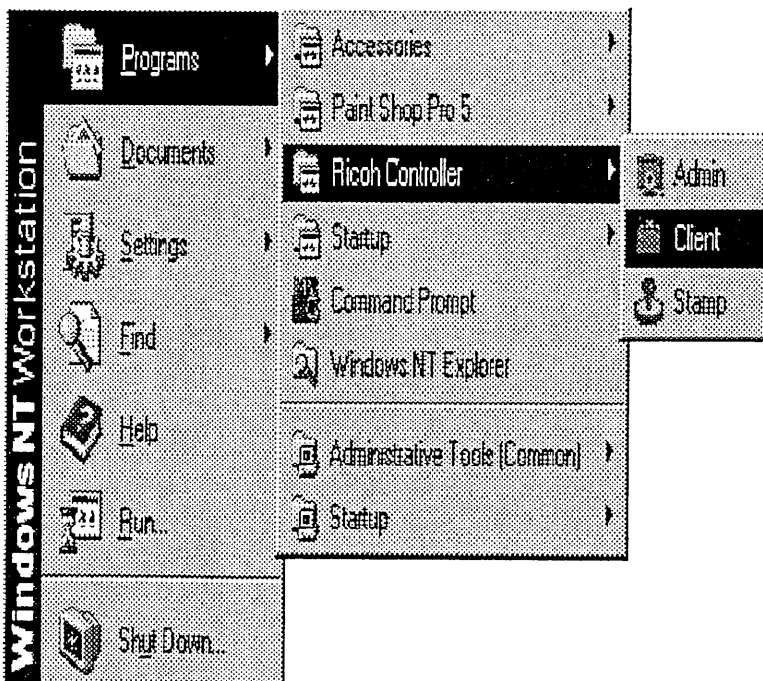
1. Start the Local Client application.
2. Select "Network" from the Mode menu or click on the  button. The network mode dialog is displayed at the right of the project window.



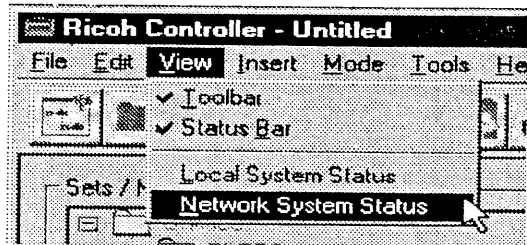
6.3 Checking Remote Client operation

Check for correct communication between a Remote Client and the plotter server by performing the following steps after making the Remote Client and Local Client settings.

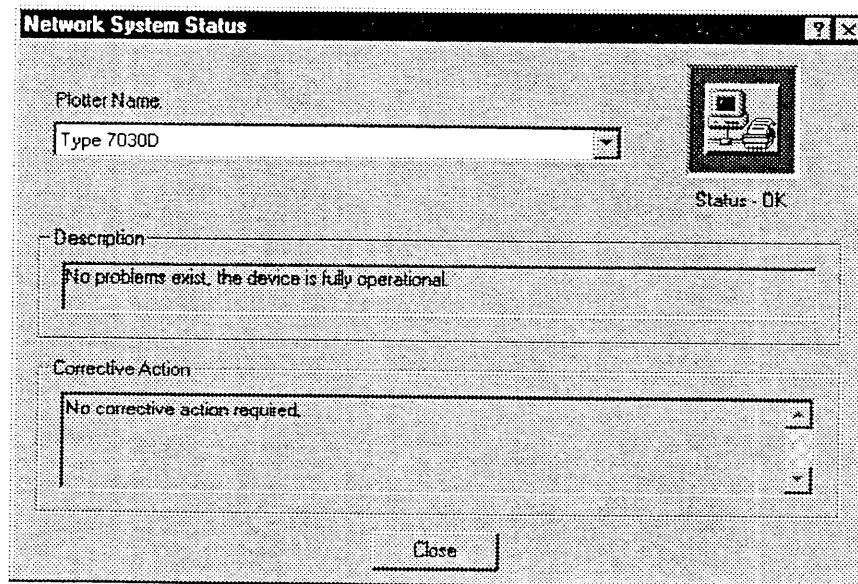
1. Start Windows NT.
2. Open the Start menu by clicking on "Start" in the task bar.
3. Select "Programs" and "Ricoh Controller".
4. Click on "Client". The Remote Client application starts and the project window appears.



5. Select "Network System Status" in the View menu.



6. The **Network System Status** screen appears. If communication is good, the "Status-OK" message is displayed at the top right of the screen.



7. Click on the "Close" button to close the screen.

If the "Status-OK" message is not displayed in the **Network System Status** screen, check whether the designated printer and the plotter server are configured correctly (see 2.4 *Checking operation*).

6.4 Returning to local mode

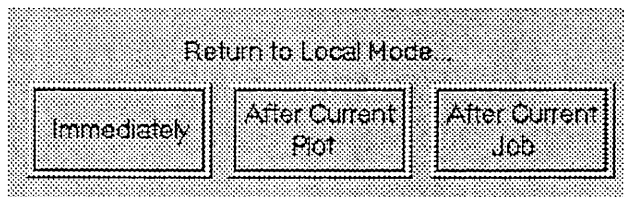
In network mode, the Local Client application only provides plotter server facilities. In order to use other Client facilities, it is necessary to return to local mode.

There are three ways to return to local mode:

“Immediately”: Click on this button to return to local mode, even in the middle of the current plot.

“After Current Plot”: Click on this button to return to local mode after the current plot. Even if there are other plots remaining in the print job, only the current plot will be printed.

“After Current Job”: Click on this button to return to local mode after the current job. All the plots in the print job will be printed.



7. License Setup

This section describes how to set the license required to use AutoCAD files.

- 7.1 Installing the license
- 7.2 Assigning the license
- 7.3 Default settings

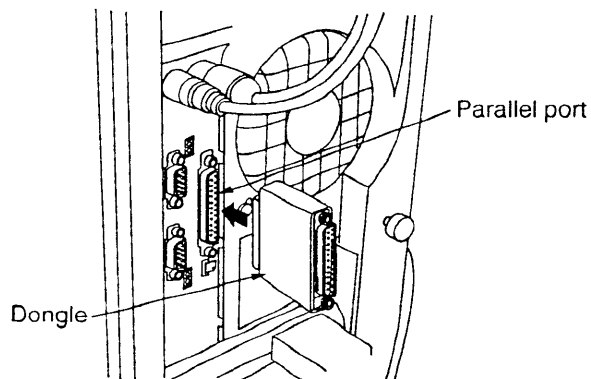
7. License Setup

7.1 Installing the license

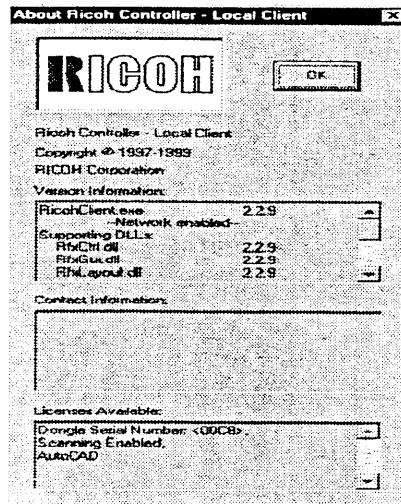
To use AutoCAD files, the license must be installed on the Local Client.

Perform the following steps to install the license.

1. Connect the dongle to the parallel port on the Local Client. Do not connect more than one dongle.



2. Restart the computer.
3. Start the Client application. Select "About Repro System" from the Help menu. The About Repro System dialog box is displayed.
4. In the Licenses Available box in the About Repro System dialog box, check that the license is installed.

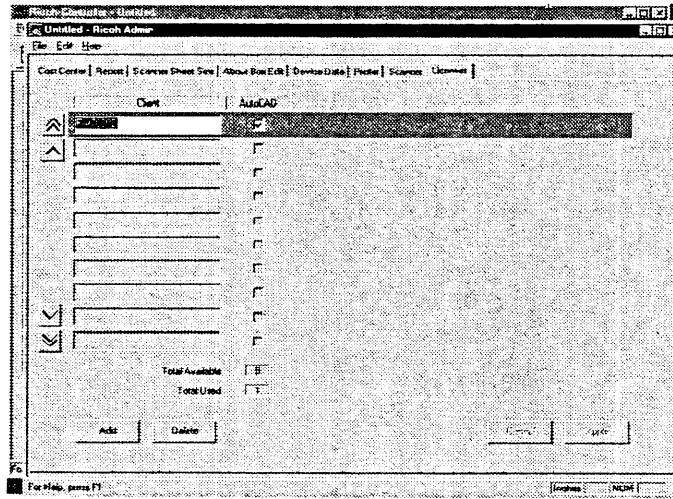


7.2 Assigning the license

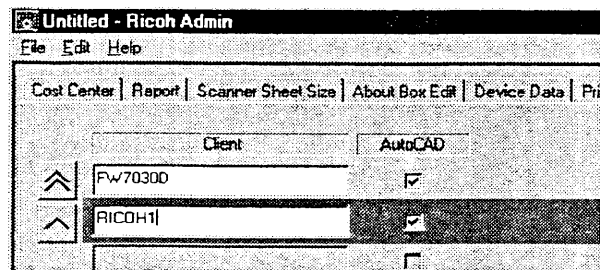
To use AutoCAD files, the license installed on the Local Client must be assigned to the Local Client or Remote Clients.

Perform the following steps to assign the license to Clients.

1. Start the Admin application on the Local Client and select the Licenses tab. The computer name of the Local Client is displayed in the Client box.



2. Click on the “Add” button. A line becomes unshaded enabling entry.
3. Enter the computer name of the Remote Client to which the license is to be assigned in the Client box.
Use the computer name set by selecting “Control Panel”, “Network”, “Identification” and then “Computer Name”.



8. *Troubleshooting*

This section describes troubleshooting procedures.

8.1 Troubleshooting

8. Troubleshooting

8.1 Troubleshooting

Trouble	Check procedure/corrective measures	Reference page
The Repro System cannot be operated.	Check if the copier power is turned on.	
	Check if the copier is offline. If it is, reset it.	2-5
	Check if the on-line indicator of the copier is on. If not, turn it on by pressing the on-line key.	2-7
	Check if the machines are connected correctly.	2-3
The copier cannot be controlled via the copier operation panel.	Check if the on-line indicator of the copier is on. If it is, turn it off by pressing the on-line key.	
Printing from the Repro System is disabled.	If the Print Problems dialog box is displayed, follow the instructions to remove the cause.	2-7
	Check if the Windows NT network is configured correctly.	
Tail of the scanned image is not printed.	Check "Long Plot" when scanning originals 72" or longer.	3-27

9. *Specifications*

This section describes the specifications of the Repro System.

- 9.1 Basic specifications
- 9.2 Hardware specifications
- 9.3 Software specifications
- 9.4 Interface specifications

9. Specifications

9.1 Basic specifications

Item		Specifications	Remarks
Product name		Repro System	
Functions		Rasterizes and prints the image file (plot file) specified in Client.	
Attachment method		By connecting the PCI controller interface card in the computer and the video terminal on the relay PCB in the copier with the interface cable.	The relay PCB shall be installed by a serviceperson.
System requirements	Model	IBM PC/AT compatible and PCI controller interface card	
	CPU	Pentium Pro 200 MHz or faster	
	Memory	128 MB	
	Hard disk	2 GB or more	
	OS	Windows NT 4.0 and Service Pack 3	
Applications		CAD/graphics software that can store files in HPGL, HPGL/2, TIFF, Calcomp, BMP, WMF, DWG and DXF formats is required to create plot files.	License setting is required to use DWG or DXF format on Repro System.
Image processing size	Scanner input	Width: 1.00" – 36.00" Length: 1.00" – 392.91"	
	Printer output	Width: 1.00" – 36.00" Length: 1.00" – 392.91"	

Item		Specifications	Remarks
Resolution	Scanning	400 × 400 dpi	
	Printing	400 × 400 dpi	
File formats	Source plot file	HPGL, HPGL/2, TIFF, Calcomp, BMP, WMF, DWG and DXF	License setting is required to use DWG or DXF format on Repro System.
	Raster file	TIFF	
System units		Inches, feet, mm, cm and m are available. Setting values are converted to the corresponding values in other units based on the inch sizes.	Client: Specified in the Preferences tab Admin: Specified by "Preferences" in the menu bar
Application configurations	Client	Core application containing plot file print setting and scan functions.	
	Admin	An application that registers and edits the values set by Client and administers the printing and scanning job history.	
	Stamp	An application that creates stamp files that can be inserted into plot files.	
	Server	An application that controls the plotter/scanner.	Installed on the Local Client only
Operating environment	Temperature	10°C/50°F – 35°C/95°F	
	Humidity	15 – 85%RH	
	Illumination intensity	Less than 3000 lux	

Specifications

9.2 Hardware specifications

Item		Specifications	Remarks
PCI controller interface card		PCI card	
Rated	Voltage	5 V DC \pm 5%	
	Current	Less than 0.85 A	
	Power consumption	Depends on the computer power source.	

9.3 Software specifications

9.3.1 Printing

Item		Specifications	Remarks
Printable file formats		TIFF, HPGL, HPGL/2, Calcomp, BMP, WMF, DWG and DXF	License setting is required to use DWG or DXF format on Repro System.
Sizes		Width: 1.00" – 36.00" Length: 1.00" – 392.91"	
Printing quantity		1 – 99	
Printing order		Sorting order and reverse order available	
Printing magnifications		25 – 400%	
Paper source setting		Without optional drawer: 2 drawers and bypass With optional drawer: 3 drawers and bypass	
Media type		Paper, vellum and film	
Automatic roll exchange		Available	
Printing position	Reference	Selected between 9 areas (3 long × 3 wide)	
	Longitudinal direction	Offset from leading or trailing edge: 0.00" – 36.00"	
	Lateral direction	Offset from right or left edge: 0.00" – 36.00"	

Specifications

9.3.2 Scanning (Local Client only)

Item	Specifications	Remarks
Sizes	Width: 1.00" – 36.00" Length: 1.00" – 392.91"	
Length specification	Set when using originals 72" or longer	
Scanning density	13 steps	
Continuous scanning	Available	Not available when specifying the names of scan files.
Scanning magnifications	25 – 400%	
Mirror	Setting available	
Invert	Setting available	
Rotation	0°, 90°, 180° and 270°	
Image display	Thumbnail view after scanning	
Data saving format	TIFF	

9.3.3 Stamping

Item		Specifications	Remarks
Stamping angle		0° – 360°	
Stamping magnification		25 – 2000%	
Transparency		0 – 100% (0.1% increments)	
Border line		Setting available	
Stamping position	Reference	Selected between 9 areas (3 long x 3 wide)	
	Longitudinal direction	Offset from the leading or trailing edge: -36.00" – +36.00"	
	Lateral direction	Offset from the right or left edge: -36.00" – +36.00"	

Specifications

9.4 Interface specifications

Item	Specifications	Remarks
PCI controller interface card	Installed in a PCI slot of a computer	
Video terminal	Installed on the back of the copier by connecting the internal copier relay cable to the relay PCB	The relay PCB and internal copier relay cable shall be installed by a serviceperson.
Interface cable	118", shielded	
Interface cable connector	Interface card: Video 80-pin Copier: Video 100-pin	

10. Appendices

Useful information is listed in this section.

- 10.1 The LittleBear driver
- 10.2 Technical notes
- 10.3 Pen patterns
- 10.4 Plot file formats

10. Appendices

10.1 The LittleBear driver

The Repro System is designed to communicate with the copier through an interface card. This card is designed specially for communication with digital copiers.

When using the Windows NT operating system to communicate with a copier through an interface card, a device driver application (the LittleBear driver) must be loaded onto the computer beforehand. This device driver works as the mediator between the higher level software (Repro System) and the hardware (interface card). The Repro System never talks directly to the interface card. All signals are relayed through the LittleBear driver running as part of the operating system.

The LittleBear driver (LittleBear.sys) should be installed in the **WinNT\System32\drivers** directory. The LittleBear driver is automatically installed by the installation program.

To check if the LittleBear driver is running, select "Devices" from the Windows NT control panel.

10.2 Technical notes

Deskew

The Deskew function used in the **Modify Plot** screen automatically corrects skewed plot images. There is no need to tag two points along a line on an image: the deskew function automatically detects the angle of the document and rotates it so that it is straight. An image can be deskewed more than once.

For more control over deskewing an image, any suitable third-party raster editor may be used.

Despeckle

The Despeckle function used in the **Modify Plot** and **Properties** screens is used to help reduce noise in 1-bit images. Single pixels and pixel spurs on letters and graphics are removed while leaving the solid areas intact. The despeckle operation performs a 3×3 median filter on the image. For each 3×3 neighborhood of pixels in the original image, a single pixel is produced in the output image. In this case the output is the median of the 9 values in the 3×3 neighborhood.

Selecting Despeckle in the **Modify Plot** screen causes the Repro System to replace the original file with the despeckled version of the file. An image can be despeckled more than once.

Selecting Despeckle in the **Properties** screen causes the Repro System to generate a temporary despeckled copy of the image and the temporary copy is printed during the current print job. The original image is not replaced.

For more control over despeckling an image, any suitable third-party raster editor may be used.

10.3 Pen patterns

Figure 10-1 shows the pen patterns that are used by the Repro System when rasterizing HPGL/2 plot files. The patterns are defined in the patterns.dat file as 16 × 16 pixel blocks. The pattern file can be modified to add additional patterns.

In general, patterns 0 through 15 are designed to be used for line work. Patterns 16 through 29 are designed for filled areas. Patterns 30 and 31 are special dotted line patterns.

The lines shown in this manual may not accurately represent what the Repro System will produce on a copier.

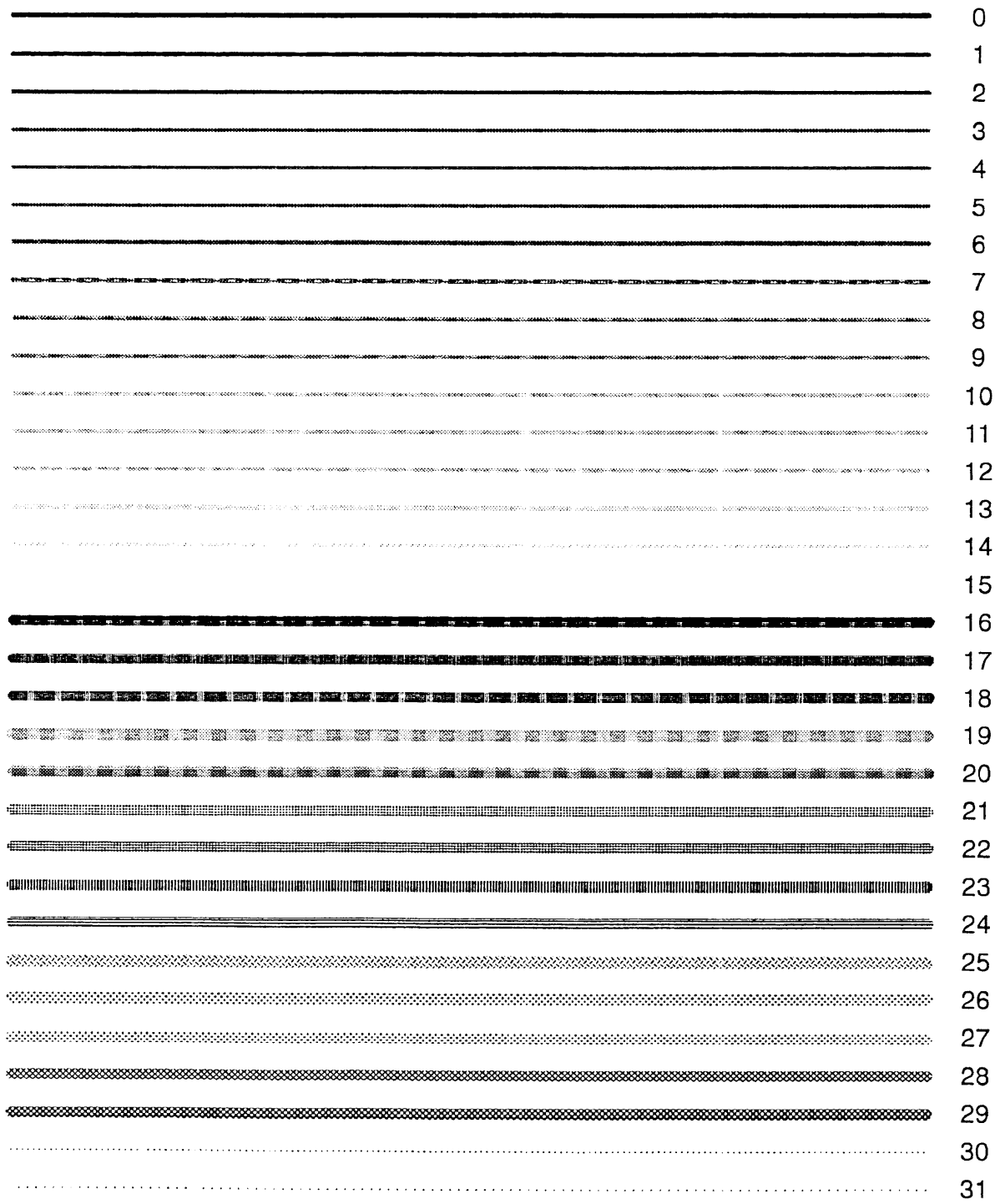


Figure 10-1 Pen patterns

10.4 Plot file formats

The following is a list of file formats accepted for plotting by the Repro System. Only monochrome images (1 bit per pixel) can be printed.

BMP (BMP)

Calcomp

HPGL (HP, HPGL, PLT)

HPGL/2 (HP, HPGL, PLT)

TIFF (TIF)

Windows Metafile (WMF)

AutoCAD (DWG, DXF)

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.

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

*The above warning is valid only in the United States of America.

WARNING

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

*The above warning is valid only in the United States of America.

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

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

DO NOT touch electrical parts, such as connectors or printed circuit boards. They could be damaged by static electricity.

