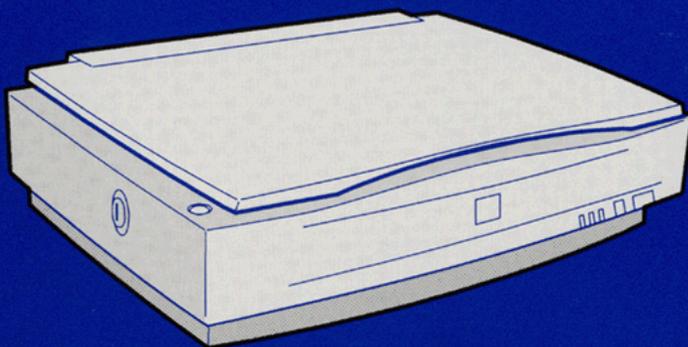


EPSON



COLOR IMAGE SCANNER

GT-10000

User's Guide

Where to Find Information

This User's Guide

This guide leads you through the scanner setup and options installation, tells you how to use the scanner, and how to make basic scans. It also offers troubleshooting tips and customer support information.

EPSON TWAIN Pro User's Guide

This guide leads you through the EPSON scanner software installation and tells you how to make basic software settings. It also offers troubleshooting tips and calibrating information.

EPSON Scan Server & EPSON TWAIN Pro Network User's Guide

This guide leads you through the software installation and tells you how to use the EPSON scanner in networked environment. It also offers troubleshooting tips.

Information on EPSON Scanner Software for Windows

Online help provides you with detailed information on EPSON TWAIN Pro. Access online help by clicking the ? button in the EPSON TWAIN Pro dialog box.

HTML Color Guide (may not be available in some countries)

Explains the basics of color imaging and shows you how to get impressive results from your scanner and other EPSON products. See Chapter 4 of this guide for information on accessing the Color Guide.

EPSON® GT-10000

Color Image Scanner

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User's Guide

Declaration of Conformity

Manufacturer: SEIKO EPSON CORPORATION
Address: 3-5, Owa 3-chome, Suwa-shi,
Nagano-ken 392-8502 Japan

Representative: EPSON EUROPE B.V.
Address: Prof. J. H. Bavincklaan 5 1183
AT Amstelveen
The Netherlands

Declares that the Product:

Product Name: Image Scanner
Model: G650B

Conforms to the following Directive(s) and Norm(s):

Directive 89/336/EEC:

EN 55022 Class B
EN 61000-3-2
EN 61000-3-3
EN 50082-1
IEC 801-2
IEC 801-3
IEC 801-4

Directive 73/23/EEC:

EN 60950

April, 1999

H. Horiuchi
President of EPSON EUROPE B.V.

Contents

Introduction

| | |
|---|---|
| Features | 1 |
| Options | 2 |
| Warnings, Cautions, and Notes | 2 |
| Important Safety Instructions | 3 |
| ENERGY STAR Compliance | 4 |
| For Users in the United Kingdom | 5 |
| Safety information | 5 |
| How to Use This Guide | 6 |
| References | 7 |

Chapter 1 Setting Up the Scanner

| | |
|---|------|
| Unpacking the Scanner | 1-2 |
| Key Components | 1-3 |
| Lights and Buttons | 1-4 |
| Choosing a Place for the Scanner | 1-5 |
| Attaching the Document Guide Strip | 1-7 |
| Installing a SCSI Interface Board | 1-8 |
| Releasing the Transportation Lock | 1-9 |
| Plugging in the Scanner | 1-10 |
| Initialization | 1-11 |
| Connecting the Scanner to Your Computer | 1-12 |
| Understanding SCSI connections | 1-13 |
| Setting the SCSI ID number | 1-14 |
| Setting the terminator switch | 1-16 |
| Connecting the scanner | 1-17 |
| Power-on sequence | 1-19 |
| Power-off sequence | 1-20 |
| Installing the Scanner Software | 1-20 |

Chapter 2 *Using Your Scanner*

| | |
|---|------|
| Scanning Procedure | 2-2 |
| Placing a Document on the Scanner | 2-4 |
| Removing the Cover for Thick or Large Documents | 2-7 |
| Sizing Up Your System | 2-9 |
| RAM and hard disk size | 2-9 |
| Video cards | 2-9 |
| Monitors | 2-9 |
| File compression software | 2-10 |

Chapter 3 *The Automatic Document Feeder Option*

| | |
|---|------|
| Introduction | 3-2 |
| Unpacking the Automatic Document Feeder | 3-2 |
| Installing the Automatic Document Feeder | 3-2 |
| Setup of EPSON TWAIN Pro or EPSON TWAIN Pro Network | 3-8 |
| Installing PageManager | 3-8 |
| Loading paper in the Automatic Document Feeder | 3-8 |
| Loading documents manually | 3-10 |
| Scanning from the Automatic Document Feeder | 3-11 |
| Scanning the full document area | 3-11 |
| Scanning only part of the document area | 3-12 |
| Changing Orientation of Scanned Images | 3-13 |
| Images Produced by One-sided Scanning | 3-13 |
| Images Produced by Double-sided Scanning | 3-15 |
| Fixing paper jams in the Automatic Document Feeder | 3-17 |
| If paper jams at the feeder position: | 3-18 |
| If paper jams at the paper eject position: | 3-19 |
| Document specifications | 3-20 |

Chapter 4 *Maintenance and Troubleshooting*

| | |
|--|-----|
| Maintenance | 4-2 |
| Cleaning the scanner | 4-2 |
| Replacing the fluorescent lamp | 4-3 |
| Transporting the Scanner | 4-4 |

| | |
|--|------|
| Troubleshooting..... | 4-5 |
| Error indicators..... | 4-5 |
| Operating problems..... | 4-6 |
| Quality problems..... | 4-9 |
| Viewing the Color Guide..... | 4-16 |
| Changing the SCSI ID Number or SCSI Board..... | 4-17 |

Appendix A Technical Specifications

| | |
|-----------------------------|-----|
| Scanning..... | A-2 |
| Electrical..... | A-4 |
| Environmental..... | A-4 |
| Safety Approvals..... | A-5 |
| CE Marking..... | A-5 |
| ENERGY STAR Program..... | A-5 |
| SCSI Interface..... | A-6 |
| Initialization Methods..... | A-7 |

Appendix B Contacting Customer Support

| | |
|---|-----|
| For United Kingdom and the Republic of Ireland Users..... | B-3 |
| For Australia Users..... | B-5 |
| For Singapore Users..... | B-6 |
| For Hong Kong Users..... | B-7 |
| For Philippines Users..... | B-8 |

Glossary

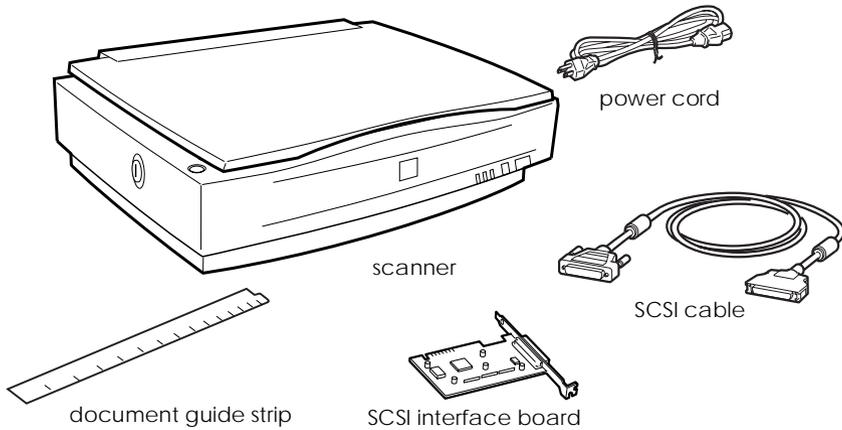
Index

Setting Up the Scanner

| | |
|---|------|
| Unpacking the Scanner | 1-2 |
| Key Components | 1-3 |
| Lights and Buttons | 1-4 |
| Choosing a Place for the Scanner | 1-5 |
| Attaching the Document Guide Strip | 1-7 |
| Installing a SCSI Interface Board | 1-8 |
| Releasing the Transportation Lock | 1-9 |
| Plugging in the Scanner | 1-10 |
| Initialization | 1-11 |
| Connecting the Scanner to Your Computer | 1-12 |
| Understanding SCSI connections | 1-13 |
| Setting the SCSI ID number | 1-14 |
| Setting the terminator switch | 1-16 |
| Connecting the scanner | 1-17 |
| Power-on sequence | 1-19 |
| Power-off sequence | 1-20 |
| Installing the Scanner Software | 1-20 |

Unpacking the Scanner

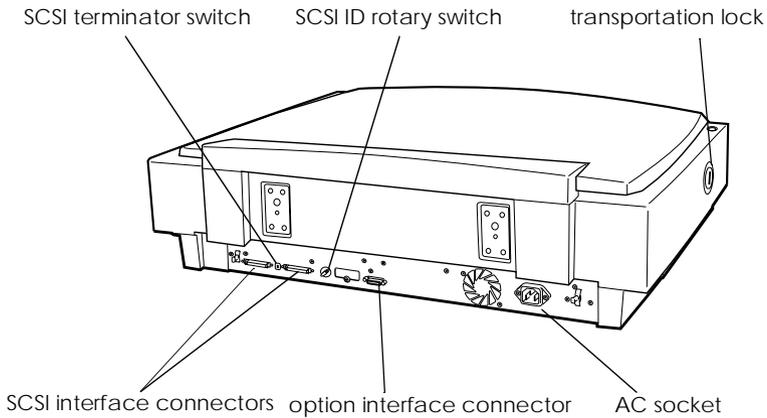
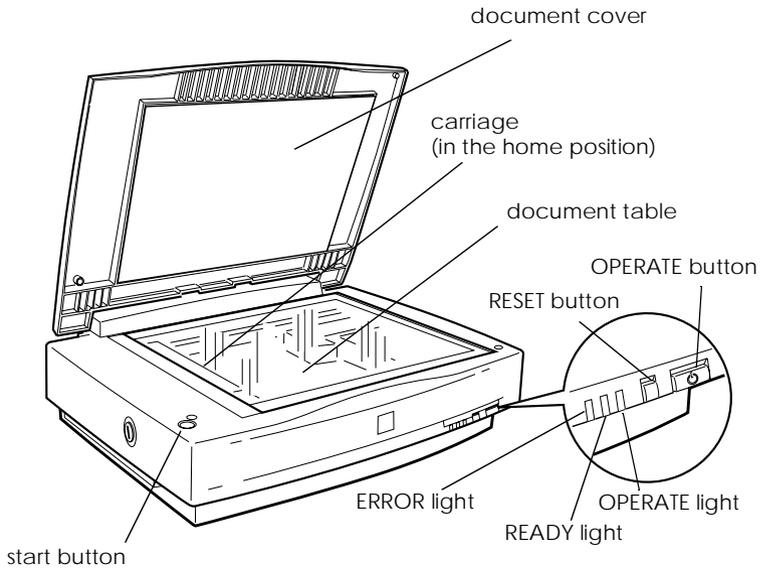
Your scanner comes shipped with CD-ROMs (and/or floppy disks) that contain the driver software to run your scanner, along with other items necessary to use the scanner.



Depending on the country of purchase, the power cord may come attached to the scanner. The shape of the AC plug also varies, so make sure the plug included is the correct shape for the electrical outlet in your country.

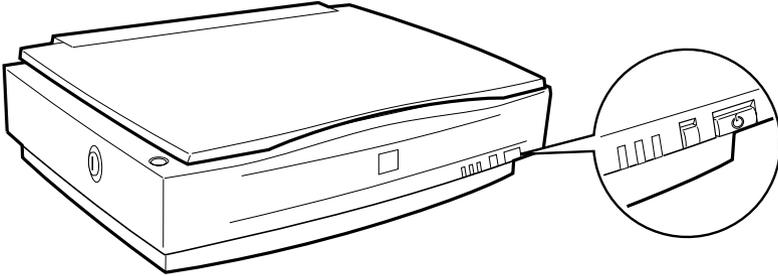
If your computer is already equipped with SCSI board, you can use it for allowing the computer to communicate with the scanner. Otherwise, install the SCSI board which comes with the scanner in the computer. For setup of the SCSI board, refer to the manual which comes with it.

Key Components



Lights and Buttons

The scanner has three indicator lights and three buttons.



Lights

| Lights | Color | Indicator Status | Meaning |
|---------|-------|------------------|--|
| OPERATE | Green | Lit | Scanner is turned on. |
| READY | Green | Lit | Scanner is ready to scan. |
| | | Flashing | Scanning operation is in progress. Error. See "Error indicators" on page 4-5 for more information about errors. |
| ERROR | Red | Lit | This indicator also lights when an error occurs. |
| | | Flashing | Error. See "Error indicators" on page 4-5 for more information about errors. |

Buttons

| Button | Function |
|---|---|
| OPERATE | Turns the scanner on and off. |
| RESET | Resets the scanner to its default settings after an error. Pressing this button while scanning is in progress stops the scanner and may cause an error in the scanning software. |
|  start | Starts the scanning sequence by invoking PageManager and EPSON TWAIN Pro in a stand-alone configuration. In a networked environment it starts the same operation as the Scan button in EPSON TWAIN Pro Network. |

Choosing a Place for the Scanner

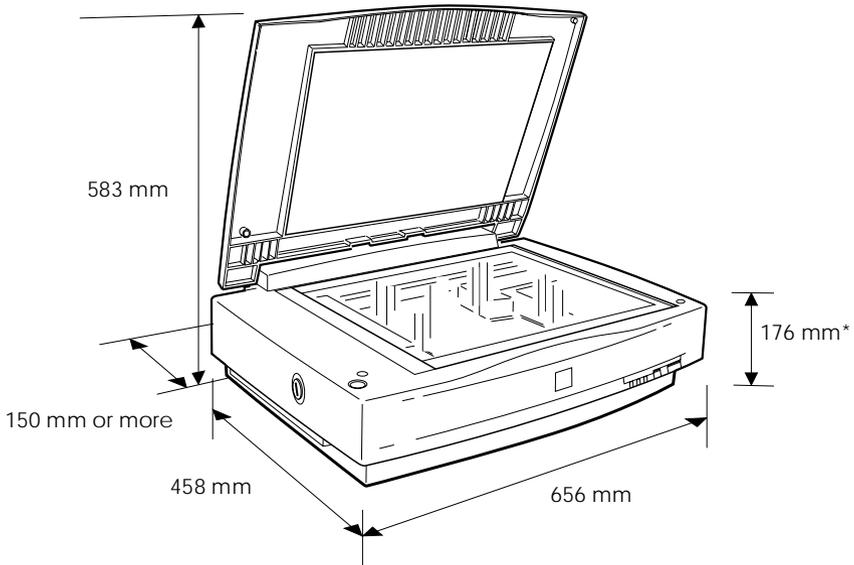
Follow the guidelines below when selecting a location for your scanner:

- Place the scanner on a flat, stable surface. The scanner will not operate properly if it is not level.
- Place the scanner close enough to the computer for the interface cable to reach it easily.
- Place the scanner near a wall outlet where the power cord can be easily unplugged.

Note for French-speaking users:

Placez le scanner près d'une prise de courant où la fiche peut-être débranchée facilement.

- ❑ Allow space behind the scanner for the cables, and space above the scanner so that you can raise the document cover fully.



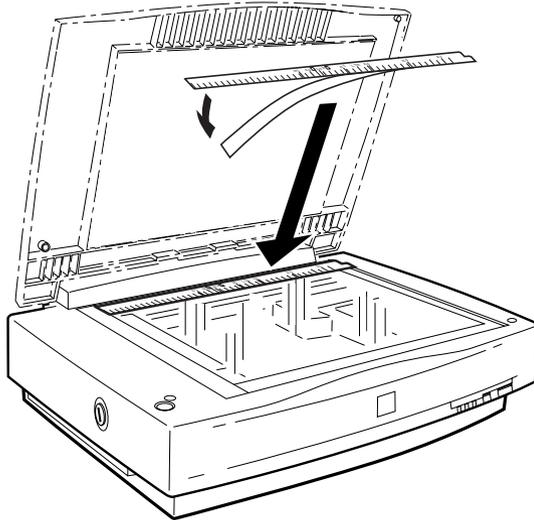
* When document cover is closed.

- ❑ Keep the scanner away from high temperatures, humidity and excessive dirt or dust. Also avoid using or storing the scanner in places subject to rapid changes of temperature or humidity.
- ❑ Keep the scanner away from direct sunlight or other strong light sources.
- ❑ Avoid locations subject to shocks and vibrations.

Attaching the Document Guide Strip

The document guide strip is used to align document's orientation when you place the document on the document table.

Peel off the backing from the document guide strip and place it on the horizontal ruler of the document table so that the notch in the right end matches the slot in the casing as shown.



When you use the Automatic Document Feeder, remove the document guide strip from the document table.

Installing a SCSI Interface Board

Unless your PC already has a SCSI board installed, you will need to install the SCSI board which comes with the scanner along with a SCSI driver software before installing the scanner driver and software applications.

If you already have a SCSI board installed in your PC, go to the next section.

Note:

For additional information, refer to the installation guide that comes with the SCSI board.

1. Turn off the computer and any peripheral devices. Unplug any power cords, then disconnect all cables from the back panel of your computer.
2. Remove the cover from your computer.



Caution:

Static electricity can damage electronic components.

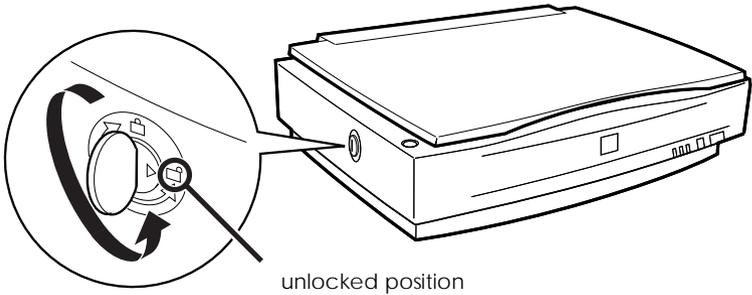
Discharge static electricity by touching the metal frame of your computer before handling the interface board or any of the computer's circuit boards.

3. Insert the interface board into an appropriate expansion slot, then secure it with the retaining screw.
4. Replace the computer cover and reconnect all cables.

Releasing the Transportation Lock

When the scanner is unpacked, the carriage is locked in the home position to prevent damage from shaking or vibration during transportation. You must release the transportation lock before you can use the scanner.

1. Place the scanner on a flat, stable surface with its left side facing you.
2. Turn the transportation lock to the unlocked position using a coin or similar disc, as shown below.



Note:

Before you transport the scanner or store it for an extended period of time, secure the carriage by turning the transportation lock back to the locked position. For more information, refer to page 4-4, "Transporting the Scanner".

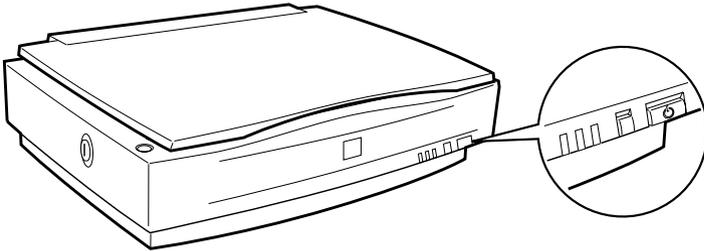
Plugging in the Scanner



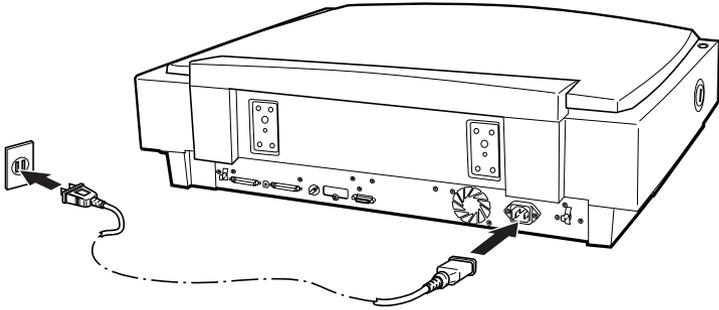
Warning:

The operating voltage of the scanner should match exactly to the voltage rating of the power source you intend to use. Make sure that both voltage ratings are equal by checking the label on the back of the scanner. If the label does not show the voltage rating, contact your dealer. Do not plug in the power cord unless you know the voltages are equal.

1. Make sure the scanner is turned off. If the scanner is turned on, press the OPERATE button to turn the scanner off. The OPERATE button is a toggle switch and when it is raised, the scanner is off. When the OPERATE button is depressed, the scanner is on.



2. Connect the power cord to the AC socket on the back of the scanner, and plug the other end into a properly-grounded electrical outlet.

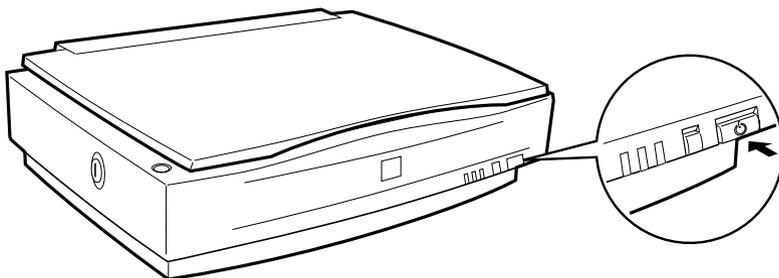


Initialization

By observing how the scanner acts during initialization, you can make sure it is operating properly before connecting it to your computer.

1. Open the document cover so you can see the operation of the scanner during initialization.
2. Turn on the scanner by pressing the OPERATE button.

At this time the carriage will move towards the right slightly and back to its original position. Next, the fluorescent lamp on the carriage will flash twice. After a while, the READY indicator lamp will turn on.



Connecting the Scanner to Your Computer

Unless your PC already has a SCSI board installed, you will need to install one, along with SCSI driver software. Install the SCSI board according to the directions included with the board. Also see "Installing a SCSI Interface Board" on page 1-8.

If your PC has a SCSI board up and running, connect the scanner as described in the next section.

Note:

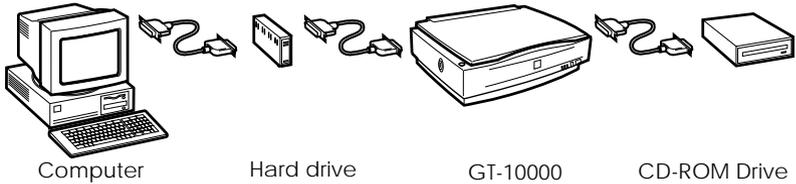
You will need to install the SCSI driver that is normally included with Windows 95/98, or Windows NT 3.51/4.0 (see your system documentation for instructions), or the driver described in the SCSI board installation documentation. If you are having errors or poor performance, an updated driver may help. The latest driver may be available for download from the Web site of the SCSI board manufacturer.

Understanding SCSI connections

Read the following sections to determine how to set up your SCSI devices and whether you need any optional SCSI cables.

Daisy chain

The SCSI interface allows you to connect up to seven devices (such as a scanner, hard drive, CD-ROM, etc.) to the computer, in what is called a “daisy chain” arrangement. Only the first SCSI device in a daisy chain is connected to the computer; each of the other devices is connected to another SCSI device.



SCSI cables

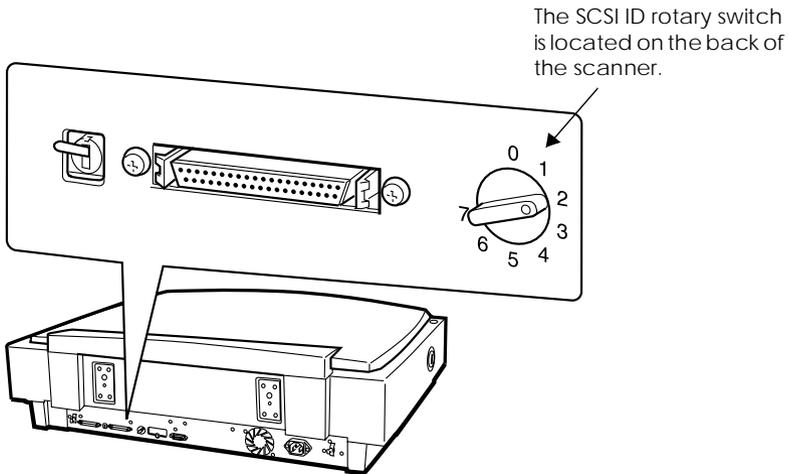
You may need to purchase SCSI cables before setting up your SCSI daisy chain. Be sure the SCSI cable connectors are suitable for your hardware, depending on the manufacturer of your SCSI device and SCSI interface board. Refer to the technical documentation or user’s guide included with the individual SCSI device.

SCSI ID and terminator

Each device has a SCSI ID number: the computer (SCSI interface board) is usually set to number 7, and each of the other devices must have a unique number between 0 and 6. Both ends of daisy chain should be terminated. This can be done by connecting an external terminator to the SCSI device at the end of the chain, or enabling on internal termination of the SCSI device at the end of the chain. If the PC is at the end of the daisy chain, its internal terminator should be switched on. Otherwise, its terminator should be off. An external terminator on a SCSI device in the middle of the chain should be removed, or its internal terminator should be switched off.

Setting the SCSI ID number

The scanner's default SCSI ID number is 2.



If you add the scanner to a system in which one of your SCSI devices already has a SCSI ID of 2, change the scanner ID number to an unused number using the rotary switch. See the table below as a guide.

| ID | Availability | Description |
|----|----------------------|---------------------------------|
| 0 | Not recommended | Usually used for hard drive |
| 1 | Not recommended | Usually used for hard drive |
| 2 | | Factory setting of the scanner |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | May not be available | Usually used for the SCSI board |



Caution:

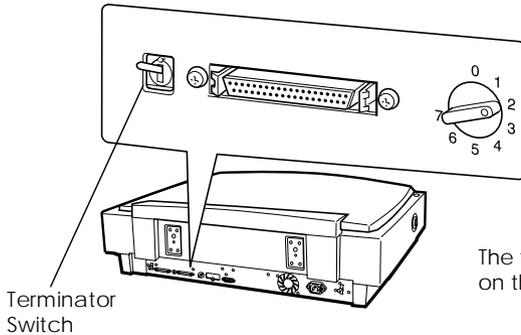
The SCSI ID of each SCSI device should be unique. Do not set the scanner's SCSI ID to a number already in use by another device on the daisy chain; otherwise the computer, scanner, and other devices will not operate properly.

Setting the terminator switch

The scanner has a built-in terminator, which allows SCSI devices to communicate properly with each other. You may need to change the terminator switch setting according to your computer system.

Note:

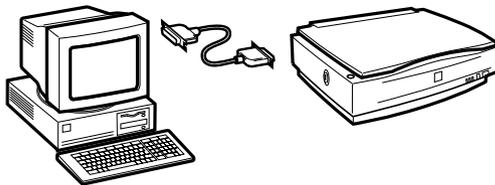
Do not use an external terminator on the scanner.



The terminator switch is located on the back of the scanner.

Only the scanner is connected

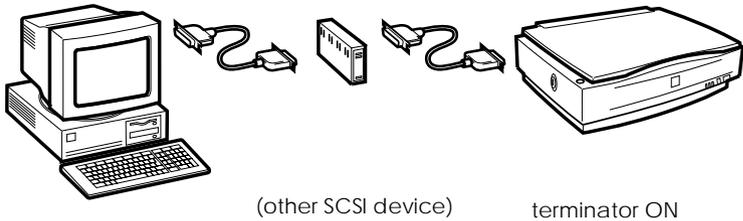
Set the terminator switch to ON.



terminator ON

The scanner is the last device in the daisy chain

Set the terminator switch to ON.



The scanner is in the middle of the daisy chain

Set the terminator switch to OFF.



Connecting the scanner

Connect the scanner to your computer or to another SCSI device as follows:

Note:

The combination of connectors on the SCSI cable you need varies depending on the manufacturer of your SCSI device and SCSI interface board.

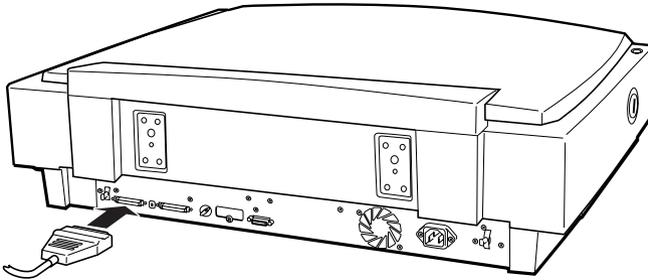
1. Make sure the scanner, computer, and all other SCSI devices are turned off and unplugged from the power source.



Caution:

Do not connect the scanner to the computer or other devices while they are turned on as damage may occur.

2. Insert one end of the interface cable into the scanner SCSI sockets and press until the locks on both sides snap in.



Note:

When connecting the scanner to a PC or any other SCSI device, the total length of the cable must not exceed 3 meters.

3. Connect the other end of the cable to the SCSI port of your computer or another SCSI device.
4. Plug in the power cords of your computer, scanner, and other external SCSI devices.

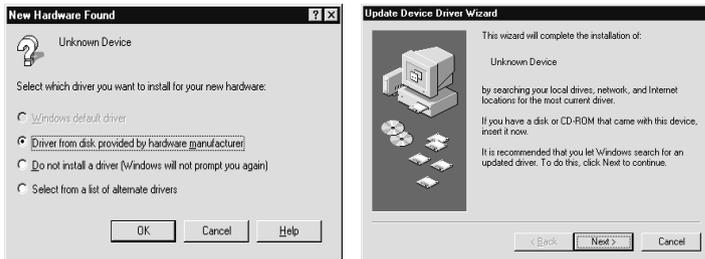
Note:

Before turning on your system, be sure to first read the next section of this guide, "Power-on sequence."

Power-on sequence

Keep the following instructions in mind every time you turn on your computer and SCSI devices, including the scanner.

- ❑ Be sure to turn on the SCSI device which is connected at the farthest end of the daisy chain first, then the second farthest and so on, until finally your computer. If you attempt to use a SCSI device which has been turned on after the computer, it may not work properly, or the computer may not work properly.
- ❑ The first time you turn on the computer after turning on the scanner, one of the following dialog boxes may appear.



Windows 95



Windows 98

If you see one of these, follow the installation instructions in Chapter 1, "Installing the Software" of the *EPSON TWAIN Pro User's Guide*, then read the "Power-off sequence," section below.

Power-off sequence

Keep the following instructions in mind every time you turn off your computer and SCSI devices:

- ❑ When you are finished using your system, turn off your computer first, then the scanner and other SCSI devices in reverse order of the power-on sequence.
- ❑ While using your computer, do not turn off any SCSI device which has a terminator that is active (on).
- ❑ Do not turn the scanner off and back on while using your computer, otherwise the scanner may not work properly.

Now the hardware connection is complete.

Installing the Scanner Software

To use the scanner, you will need to install the scanner software. Refer to Chapter 1, "Installing the Software" of the *EPSON TWAIN Pro User's Guide*. If you want to use your scanner over a network, refer also *EPSON Scan Server & EPSON TWAIN Pro Network User's Guide*.

To use the ⚙ start button on the scanner in a stand-alone configuration, remember to install PageManager for EPSON (hereafter, referred to as "PageManager"). Using PageManager, you can also change the orientation and the order of scanned images.

For PageManager installation, refer to the *EPSON TWAIN Pro User's Guide*.

Chapter 2

Using Your Scanner

| | |
|--|------|
| Scanning Procedure..... | 2-2 |
| Placing a Document on the Scanner..... | 2-4 |
| Removing the Cover for Thick or Large Documents..... | 2-7 |
| Sizing Up Your System..... | 2-9 |
| RAM and hard disk size..... | 2-9 |
| Video cards..... | 2-9 |
| Monitors..... | 2-9 |
| File compression software..... | 2-10 |

Scanning Procedure

To scan an image into a graphics software application, the general procedure is as follows.

1. Turn on the scanner and computer. In a networked configuration, also turn on the scanner server and start EPSON Scan Server.
2. Start the TWAIN-compliant graphics application.
3. In a stand-alone configuration, start EPSON TWAIN Pro from the TWAIN-compliant application by selecting a command such as Acquire. In a networked configuration, start EPSON TWAIN Pro Network from the TWAIN-compliant application. Then choose appropriate settings for the image to be scanned.
4. Put a document on the document table or a stack of documents in the Automatic Document Feeder.
5. Start scanning by clicking Scan in the EPSON TWAIN Pro or EPSON TWAIN Pro Network dialog box. Or you can start scanning by clicking Start in the EPSON Scan Server dialog box.

Scanning starts and the scanned image is sent to the destination software.

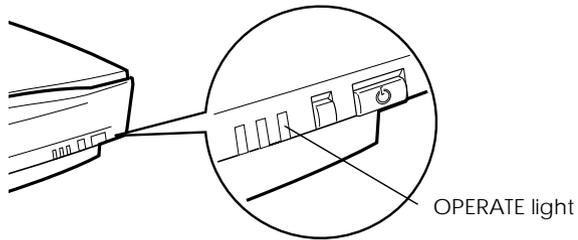
When scanning is finished, you can process the image in the target application.

- ❑ You can start scanning by pressing the start button on the scanner in both stand-alone configuration and the networked configuration instead of clicking the Scan button. To enable the start button on the scanner, you need to install PageManager in a stand-alone configuration. In a networked configuration, the installation of PageManager is not needed. For installation of PageManager and detailed instruction, refer to the *EPSON TWAIN Pro User's Guide*.
- ❑ For details of the scanning procedure using the Automatic Document Feeder, refer to Chapter 3, "The Automatic Document Feeder Option" of this guide.

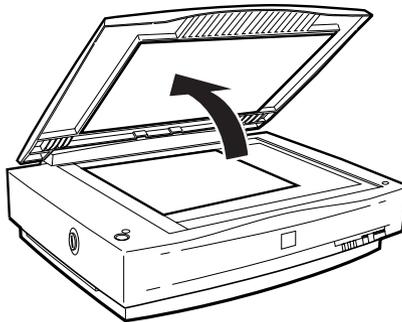
Placing a Document on the Scanner

Before scanning a document, remember to respect the rights of copyright owners. Do not scan published text or images without first checking the copyright status.

1. Turn on the scanner by pressing the OPERATE button. The OPERATE light comes on.

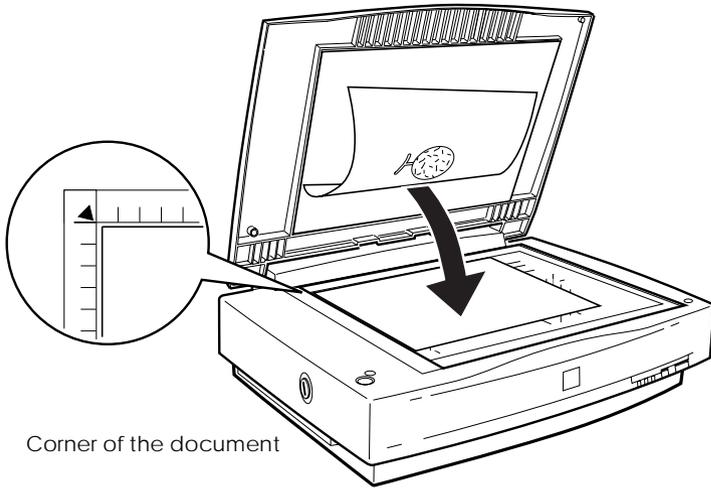


2. Turn on the computer and make sure that the scanner's READY light is on. Open the document cover.



3. Place the document face down on the document table. Make sure that the horizontal and vertical edges of the document are aligned with the document guides.

Use the document guide strip to align the horizontal edge of the document.

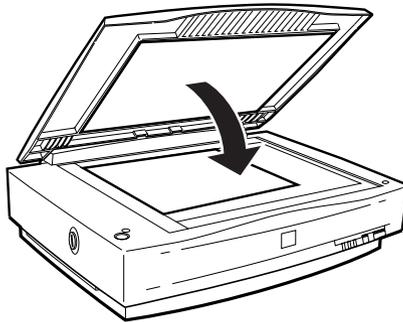


Corner of the document

Note:

An area 3 mm in from both horizontal and vertical rulers will not be scanned.

4. Close the document cover gently so that the document does not move.



Note:

- Make sure the document is flat against the glass surface, otherwise the image will appear fuzzy and out of focus. Also be sure to close the document cover to prevent interference from external light.*
- Always keep the document table clean. See "Cleaning the Scanner" in Chapter 4.*
- Do not leave photographs on the document table for an extended period of time as they may stick to the glass.*
- Do not place heavy objects on top of the scanner.*

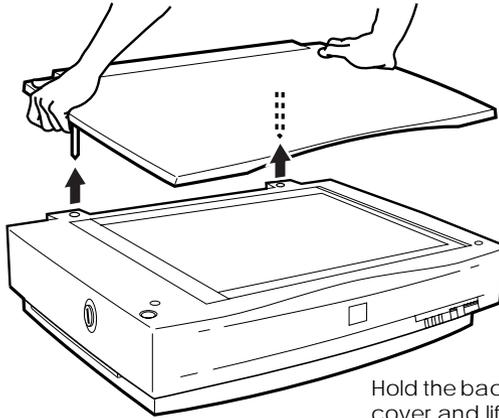
Now you are ready to start scanning from the target application.

Removing the Cover for Thick or Large Documents

When you want to scan a document larger than the document table or a thick book which makes difficult to close the document cover, you can remove the document cover to make it easier to align the document.

2

Carefully lift straight up on the back of the document cover.

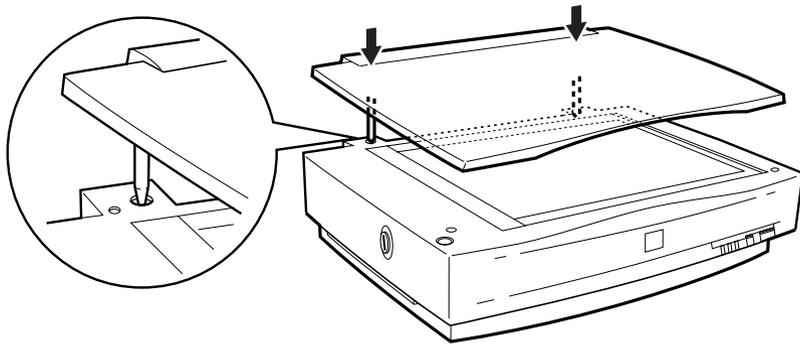


Hold the back of the document cover and lift straight up.

Note:

When scanning with the cover removed, do not leave any area of the document table exposed to prevent interference from external light.

When you are finished scanning, reattach the document cover by inserting the prongs back into the hole.



Sizing Up Your System

Your scanner is sufficient for most scanning needs, but if you are not satisfied with the quality of the images on your monitor or with the speed of image processing, read this section. While it does not contain specific recommendations, it describes various options for improving your scanning system. For further information, consult your dealer or an experienced scanner user.

RAM and hard disk size

Scanned images use much more memory than text files, so you may need more RAM (Random Access Memory) in your computer and a larger hard disk than you are currently using.

Video cards

A video card that is sufficient for text may not be good enough for displaying graphics, especially in color. If all your scanned images look grainy on your monitor, you may want to upgrade your video card. You will need 24-bit color, also called "true color" or "millions of colors", to make the highest quality image reproductions.

Monitors

The resolution of your monitor affects the quality of the image you see. Consider a high resolution monitor if you do precise color work, but also be sure you have a high quality video card.

File compression software

Many programs are available to make image files smaller for storage or transmission. For example, some compression software can store a 3MB image file on a 1.44MB floppy disk, and compress images and restore them with no loss of data or quality; others compress images more, but the restored file is not exactly the same as the original. The difference between the original and restored files is, however, almost unnoticeable.

Chapter 3

The Automatic Document Feeder Option

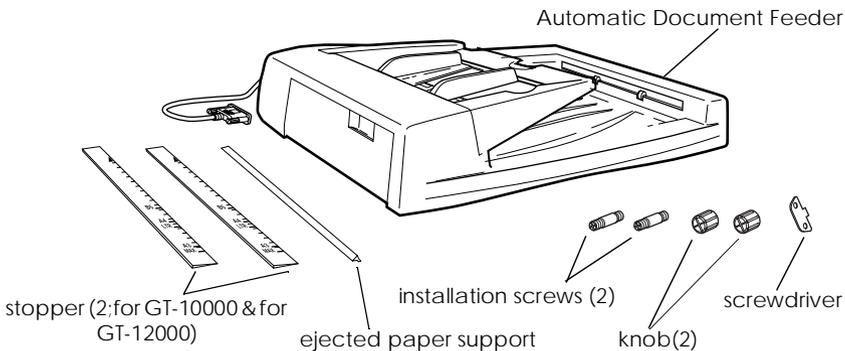
| | |
|---|------|
| Introduction | 3-2 |
| Unpacking the Automatic Document Feeder | 3-2 |
| Installing the Automatic Document Feeder | 3-2 |
| Setup of EPSON TWAIN Pro or EPSON TWAIN Pro Network . | 3-8 |
| Installing PageManager | 3-8 |
| Loading paper in the Automatic Document Feeder..... | 3-8 |
| Loading documents manually | 3-10 |
| Scanning from the Automatic Document Feeder..... | 3-11 |
| Scanning the full document area | 3-11 |
| Scanning only part of the document area..... | 3-12 |
| Changing Orientation of Scanned Images..... | 3-13 |
| Images Produced by One-sided Scanning | 3-13 |
| Images Produced by Double-sided Scanning | 3-15 |
| Fixing paper jams in the Automatic Document Feeder..... | 3-17 |
| If paper jams at the feeder position: | 3-18 |
| If paper jams at the paper eject position: | 3-19 |
| Document specifications..... | 3-20 |

Introduction

The Automatic Document Feeder (B81311*) allows you to automatically load multiple-page documents into your scanner. This document feeder is particularly useful for OCR (optical character recognition) scanning, or for creating an image database.

Unpacking the Automatic Document Feeder

When you first open the package, make sure that the following items are included. Contact your EPSON dealer if anything is missing or damaged.



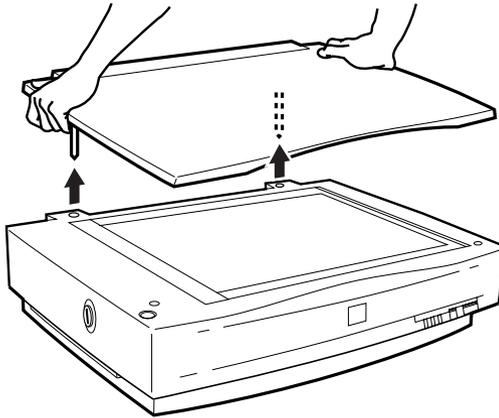
Installing the Automatic Document Feeder

Before installing the Automatic Document Feeder, be aware that:

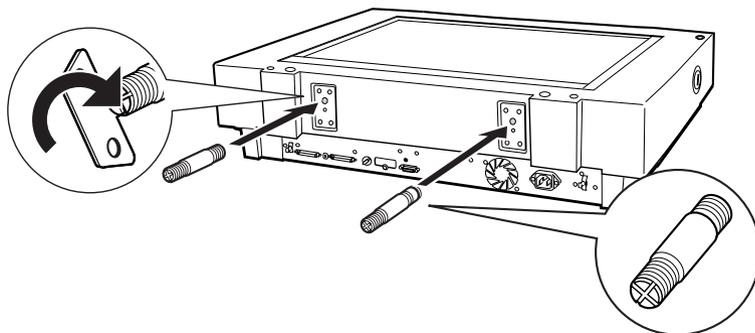
- The Automatic Document Feeder is heavy, so you may need to have someone help you lift it.
- The Automatic Document Feeder is large, so you should clear sufficient space around the scanner.

Follow the steps below to install the Automatic Document Feeder on your EPSON scanner:

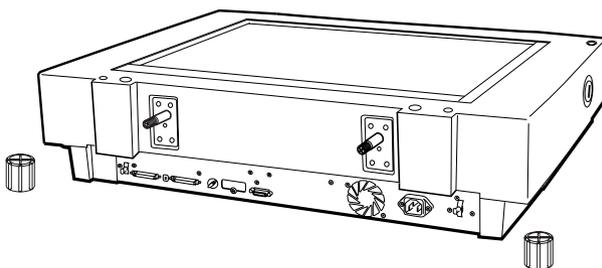
1. Make sure your scanner is turned off, and unplug the power cord.
2. Remove the scanner's document cover by holding the cover behind the hinge and lifting the back of the cover straight up.



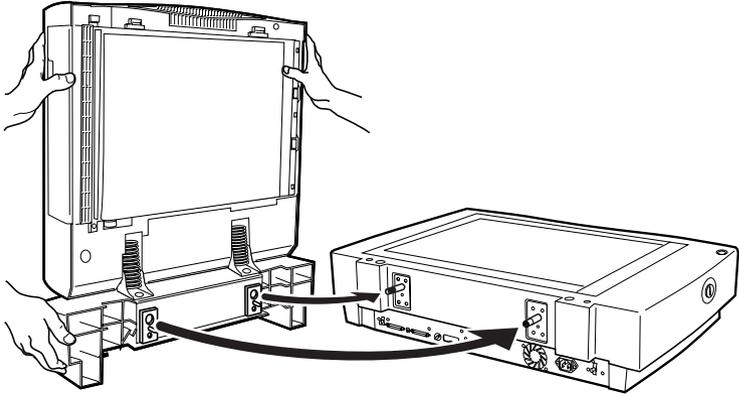
3. Remove the document guide strip from the document table.
4. Insert the installation screws that come with the Automatic Document Feeder into the holes in the back of the scanner and secure them using the screwdriver as shown below.



5. Place the two knobs that are enclosed with the Automatic Document Feeder beside the scanner.

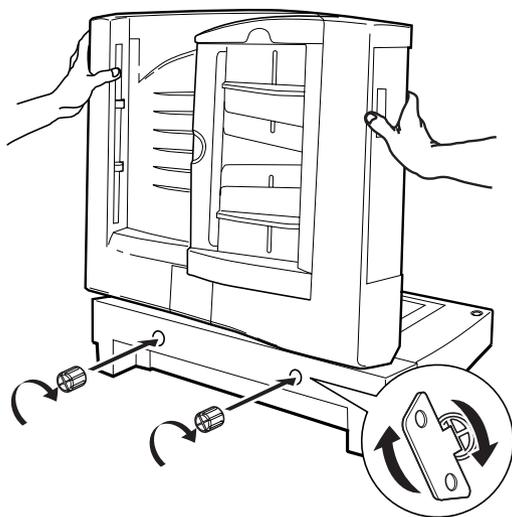


6. Align the screws with the holes of the Automatic Document Feeder. Slide the holes of the Automatic Document Feeder over the screws.

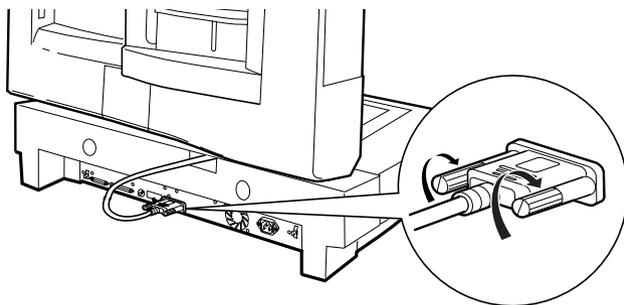


Note:
The Automatic Document Feeder is heavy, so you may need to have someone help you lift it.

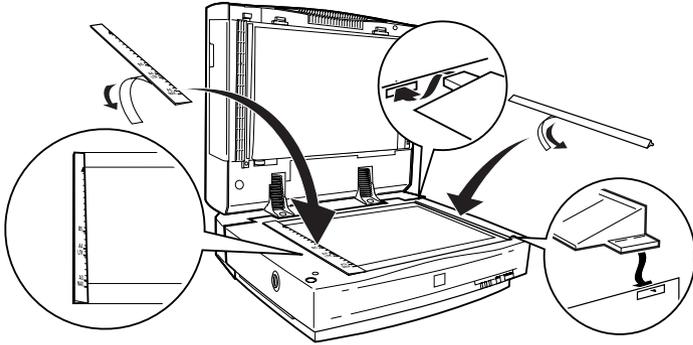
7. Secure the knobs to the ends of the screws using the screwdriver.



8. Attach the Automatic Document Feeder's connector to the scanner's option interface.



9. Peel off the backing from the dark gray stopper and from the ejected paper support, which are provided with the Automatic Document Feeder. Note that there are two stoppers included with the scanner and the dark gray one is for your scanner, GT-10000. Then attach the stopper and ejected paper support to the scanner as shown below.



10. Close the Automatic Document Feeder.
11. Connect the power cord to the scanner and turn on the scanner.

Setup of EPSON TWAIN Pro or EPSON TWAIN Pro Network

Depending on your document type, one-sided or two-sided, you need to set Document Source in the dialog box in EPSON TWAIN Pro or EPSON TWAIN Pro Network. For detailed procedures, refer to the *EPSON TWAIN Pro User's Guide*.

Installing PageManager

PageManager offers you many processing options for scanned images, such as changing the orientations of documents after scanning with the Automatic Document Feeder. For PageManager installation, refer to the *EPSON TWAIN Pro User's Guide*.

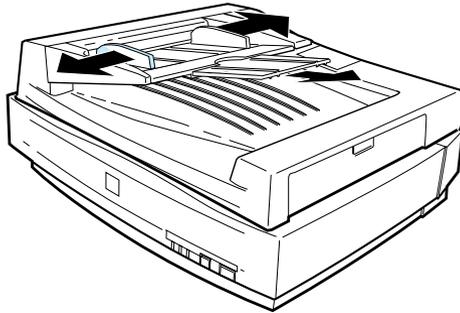
Loading paper in the Automatic Document Feeder

Your Automatic Document Feeder can automatically load up to 50 sheets of the following paper sizes (based on a paper weight of 17 lbs and a stack thickness of 6.0 mm or less):

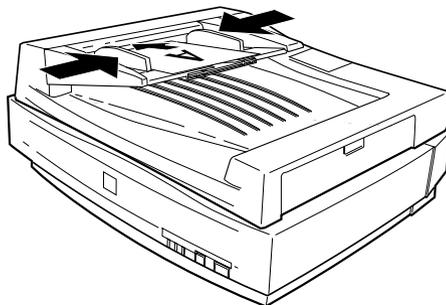
| Paper size | Direction |
|--|-----------|
| A3, LD, B4, Legal, A4, Letter, B5, Executive, A5, 140 × 148 mm | Portrait |
| A4, Letter, B5, Executive, A5 | Landscape |

Follow the steps below to load paper in the Automatic Document Feeder.

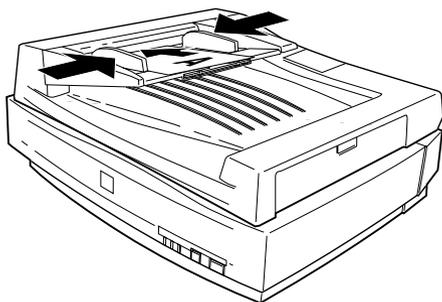
1. Slide the edge guides all the way to the outside.



2. Insert the paper stack face up into the Automatic Document Feeder until it meets resistance. Then adjust the edge guides to match the size of your paper.
 - If your document is in portrait orientation (the top and bottom edges are shorter than the sides), insert the document with the bottom edge closest to the document feed path.



- ❑ If your document is in landscape orientation (the top and bottom edges are longer than the sides), insert the document with the left edge closest to the document feed path.



Note:

- ❑ *Make sure to insert the documents face up.*
- ❑ *If you load multiple pages in the Automatic Document Feeder, the pages will feed from the bottom.*
- ❑ *To automatically scan both sides of a document, choose the Double-side setting in EPSON TWAIN Pro.*

Loading documents manually

You can load documents manually even when the Automatic Document Feeder is installed.

To load a document manually, lift the Automatic Document Feeder and place the document on the document table. Then lower the Automatic Document Feeder and scan the document as described on page 2-4.

Note:

- ❑ *Opening the Automatic Document Feeder while scanning is in progress will result in an option error and may result in a paper feeding error.*
- ❑ *Always close the Automatic Document Feeder before scanning or using the feeder.*

Scanning from the Automatic Document Feeder

The scanning instructions are divided into two sections; read "Scanning the full document area" to scan an entire document or image, or read "Scanning only part of the document area" to scan only a certain part of an image or document.

Scanning the full document area

You do not need to use the preview feature when scanning a full document or image. The scanner automatically finds and scans the whole image. Follow the steps below to scan an image or document.

1. Load paper in the Automatic Document Feeder as described on page 3-8.
2. Start the PageManager software.
3. Select EPSON TWAIN Pro or EPSON TWAIN Pro Network from Select Source of PageManager's File menu depending on your scanner configuration.
4. Select Acquire from File menu.
5. In the dialog box of EPSON TWAIN Pro or EPSON TWAIN Pro Network, make sure that ADF-Single-sided or ADF-Double-sided is selected from the Document Source list. Also choose appropriate settings for the scanning.

6. Click Scan.

After scanning the entire stack of documents, a window with thumb-nail images will appear. In this window you can select and change the orientation of the scanned images.

Scanning only part of the document area

To scan just a part of an image, follow the steps below.

1. Load the first page of the document in the Automatic Document Feeder as described on page 3-8.

Note:

Do not set more than one page of documents at this time. If you set multiple pages at this time, the second page will be fed right after the first page is scanned and may become stuck in the middle of document path as if the paper is jammed. In this case, you have to remove the second page from the document path and load it again.

2. Start the PageManager software and select Acquire from the File menu.
3. In the dialog box of EPSON TWAIN Pro or EPSON TWAIN Pro Network, Click Preview. The document is ejected after previewing.
4. Draw a marquee (frame around a certain area) to define the part of the image you want to scan by dragging the mouse pointer over that area. Refer to Chapter 4 of the *EPSON TWAIN Pro User's Guide* for information on making marquees and settings in EPSON TWAIN Pro.
5. Set document(s) to be scanned in the Automatic Document Feeder including the ejected document.

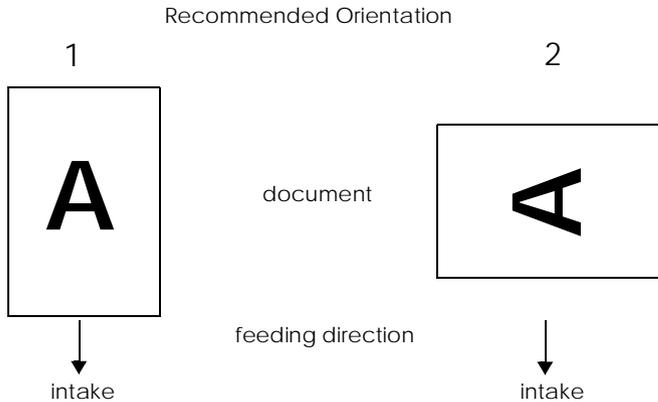
6. Choose your settings in EPSON TWAIN Pro and click the Scan button. Refer to Chapter 4 of the *EPSON TWAIN Pro User's Guide* for details on choosing EPSON TWAIN Pro settings.

After scanning the entire stack of documents, a window with thumb-nail images appears. In this window you can select and change the orientation of the scanned images.

Changing Orientation of Scanned Images

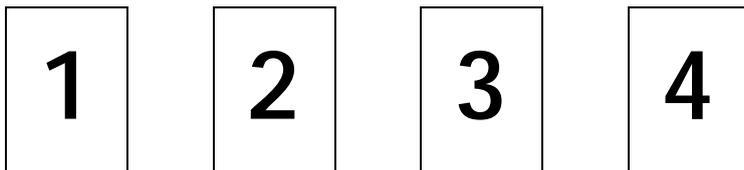
PageManager allows you to correct any misorientation of scanned images caused by the Automatic Document Feeder.

Images Produced by One-sided Scanning



When you set a stack of document in direction 1

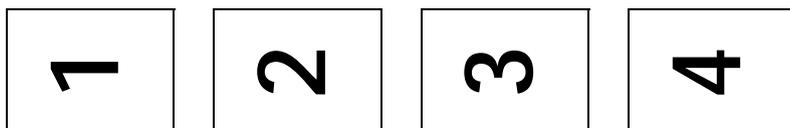
In the PageManager dialog box, scanned images are shown as below.



You do not need to correct the orientation of images. Click the OK button to close the window.

When you set a stack of document in direction 2

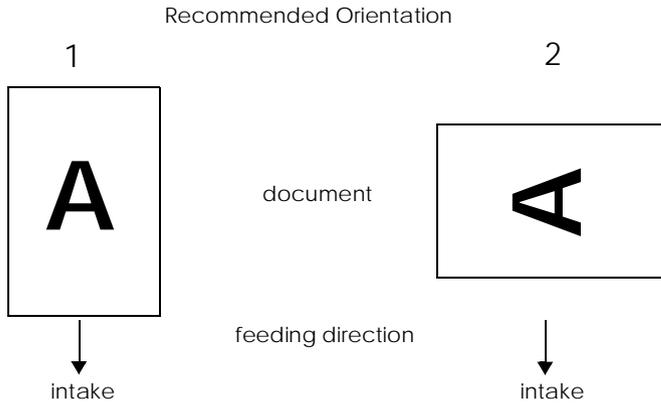
In the PageManager dialog box, the scanned images are shown as below.



1. In the PageManager dialog box, check the All check box from Select Images. This highlights the border of all images in red.
2. Select 90° from Rotate Images.
3. Click OK.

If you want to reset the rotation, click Back to Original.

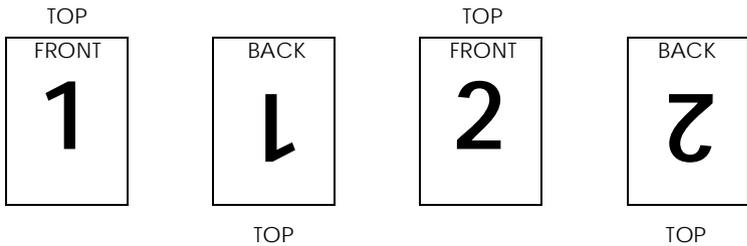
Images Produced by Double-sided Scanning



3

When you set a stack of document in direction 1

In the PageManager dialog box, the scanned images are shown as below.

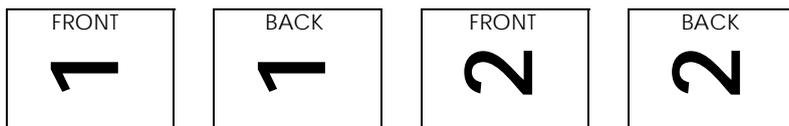


1. In the PageManager dialog box, check the Even Pages check box from Select Images. This highlights the border of the selected images in red.
2. Select Rotate 180° from Rotate Images.
3. Click Done.

If you want to reset the rotation, click Back to Original.

When you set a stack of document in direction 2

In the PageManager dialog box, the scanned images are shown as below.

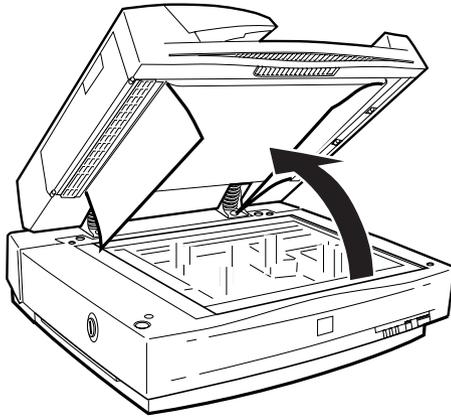


1. In the PageManager dialog box, check the All check box of Select Images. This highlights the border of all images in red.
2. Select 90° from Rotate Images.
3. Click Done.

If you want to reset the rotation, click Back to Original.

Fixing paper jams in the Automatic Document Feeder

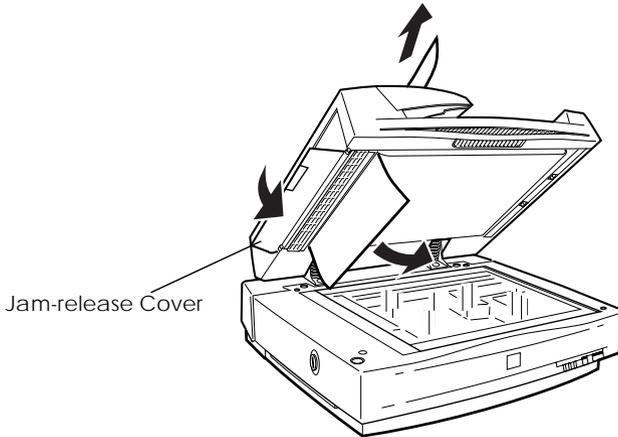
If a paper jam occurs, first open the Automatic Document Feeder's cover, then determine where the paper jam occurred.



3

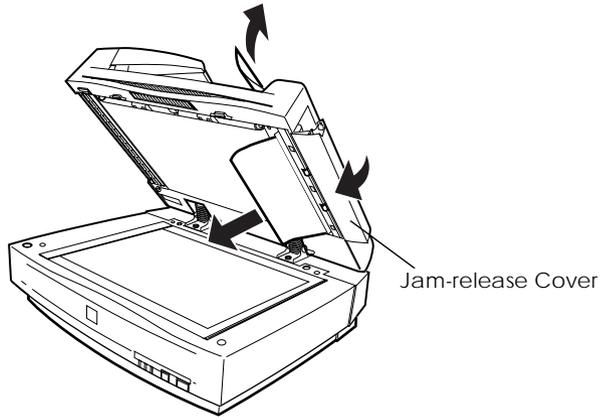
If paper jams at the feeder position:

Open the jam-release cover and slowly pull the jammed paper out of the feeder mechanism. (Be careful not to pull too hard, otherwise the paper may tear, making it more difficult to remove.)



If paper jams at the paper eject position:

Open the jam-release cover and slowly pull the jammed paper out of the feeder mechanism. (Be careful not to pull too hard, otherwise the paper may tear, making it more difficult to remove.)



After removing the jammed paper, close the Automatic Document Feeder cover and reset the scanner by turning it off and on again.

Document specifications

| Paper size | Direction |
|--|-----------|
| A3, LD, B4, Legal, A4, Letter, B5, Executive, A5, 140 × 148 mm | Portrait |
| A4, Letter, B5, Executive, A5 | Landscape |

Operating condition: 5 to 35° C, 10 to 80% relative humidity

Weight: 50 to 127 g/m² (over 110 g/m², operating conditions are 15 to 25° C, 40 to 70% RH)

Paper quality: High-quality bond or thermal paper

Document type: Documents printed with impact printers, laser printers, or facsimile machines

Document conditions

Make sure of the following before feeding a document:

- Ink on the document is dry.
- The document has no holes, is not ripped or wrinkled, and has no articles attached to it.
- The document has no staples or other objects attached that may damage the feeder mechanism.
- The document has no folds closer than 8 mm to its edges.
- The document is not a multi-part form or a bound document.
- The document has no rear carbon coating.

- ❑ The document has no cut-out areas.

Other precautions

Do not feed photographic sheets or particularly valuable original artwork into this automatic document feeder; misfeeding a document may result in accidental wrinkling or damage.

When you are scanning high-quality color or halftone documents, it is recommended that you open the automatic document sheet feeder, place documents manually and scan them one by one.

Chapter 4

Maintenance and Troubleshooting

| | |
|---|------|
| Maintenance | 4-2 |
| Cleaning the scanner | 4-2 |
| Replacing the fluorescent lamp | 4-3 |
| Transporting the Scanner | 4-4 |
| Troubleshooting | 4-5 |
| Error indicators | 4-5 |
| Operating problems | 4-6 |
| Quality problems | 4-9 |
| Viewing the Color Guide | 4-16 |
| Changing the SCSI ID Number or SCSI Board | 4-17 |

Maintenance

Cleaning the scanner

To keep your scanner operating at its best, you should clean it periodically, as described below:

1. Turn the scanner off and unplug the power cord.
2. Clean the outer case with a cloth dampened with mild detergent and water. Remove any remaining moisture with a soft dry cloth.
3. If the document table glass becomes dirty, clean it with a soft dry cloth. If the glass is stained with grease or does not come clean with a dry cloth, use a small amount of glass cleaner and a soft cloth to remove it. Wipe off any remaining liquid.

Always be sure that there is no dust on the document table glass. Dust can cause white spots in your scanned image.



Caution:

- Be careful not to scratch or damage the document table glass, and do not use a hard or abrasive brush to clean it. A damaged glass surface can permanently reduce scanning quality.*
- Never use alcohol, paint thinner, or corrosive solvents to clean the scanner. These chemicals can damage the scanner components as well as the case.*
- Be careful not to spill liquid into the scanner mechanism or electronic components. This could permanently damage the mechanism and circuitry.*
- Do not spray lubricants inside the scanner.*
- Never open the scanner case.*

Replacing the fluorescent lamp

The brightness of the fluorescent lamp declines over time. If the lamp burns out or becomes too dim, the scanner will not operate and the READY and ERROR lights will flash rapidly. If this happens, the lamp assembly must be replaced. For details, contact your dealer.



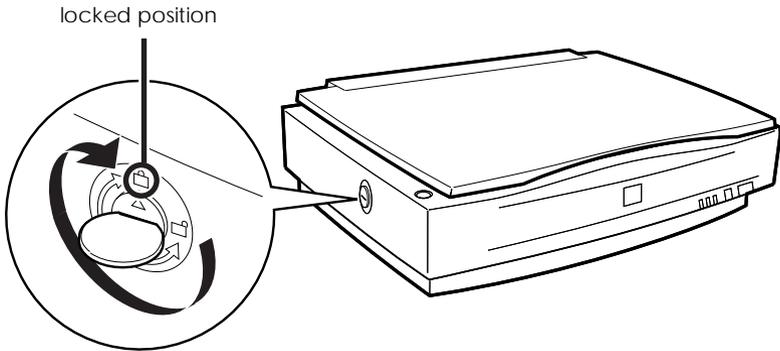
Caution:

Never open the scanner case. If you think repairs or adjustments are necessary, consult your dealer.

Transporting the Scanner

When transporting the scanner over a long distance, or storing it for an extended period, you need to lock the scanner's carriage to prevent damage. Follow the procedures below:

1. Turn on the scanner and wait until the carriage moves left to the home position. Then turn off the scanner.
2. Turn the transportation lock to the locked position by using a coin or similar disc and secure the carriage.



Note:

If the scanner is broken, the carriage may not automatically return to the home position. In this case, lift the right side of the scanner and hold it up until the carriage comes to rest on the left side of the scanner. Then turn the transportation lock to the locked position.

Troubleshooting

This section deals with three types of problems:

| | |
|------------------------------|----------|
| Error indicators | page 4-5 |
| Operating problems | page 4-6 |
| Quality problems | page 4-9 |

See the table in "Error indicator" first. If this does not help you solve your problem, refer to the section for the type of problem you have, then look for the problem description.

The online Color Guide also provides various tips and other information helpful for troubleshooting.

Error indicators

When an error occurs, the scanner stops operating and the ERROR and READY lights indicate the error type as described below.

| ERROR Light | READY Light | Error Type |
|-------------|-------------|-----------------|
| On | On | Command error |
| Flashing | Off | Interface error |
| Flashing | Flashing | Fatal error |
| Off | Off | Option error |

Command errors

The scanner has received incorrect commands from your scanning software.

When this error occurs, try to rescan the document. The scanner returns to normal when it receives the correct commands. Normally you do not need to reset the scanner when this type of error occurs.

Interface errors

The interface setup is wrong or the scanner is not properly connected to the computer.

When this error occurs, check the interface connection and cables and then push the RESET button or turn the scanner off and then back on again to reset it.

Fatal errors

This type of error indicates one of the following problems:

- The fluorescent lamp needs to be replaced.
- The transportation lock has not been released.
- The scanner is malfunctioning.

Check that the transportation lock has been released and check any installed options for problems. Next, turn the scanner off and then back on again. If this does not correct the problem, consult your dealer.

Option errors

This indicates a problem with installed optional equipment such as a paper jam in the Automatic Document Feeder, an empty document feeder, or an open cover.

Check the equipment and correct the cause of the problem.

Operating problems

Problems you may have while using the scanner often involve the operation of your software and computer. Operation problems usually occur because of:

- Incorrect setup of the interface or cables (see Chapter 1).

- ❑ Inappropriate selection of the scanner functions (see your software manual).
- ❑ Incorrect setup of your computer or software (see Chapter 1 in this guide or the software manual).
- ❑ Incorrect operation of your software (see your software manual).

Also see the documentation that came with your computer and printer for possible solutions.

The OPERATE light does not light.

| Cause | What to do |
|--|---|
| Scanner is off | Press the OPERATE button to turn on the scanner. |
| Scanner is not connected correctly to a power source | Make sure the power cord is connected to the scanner and plugged into a power source. |

The scanner does not scan.

| Cause | What to do |
|---------------------------------------|---|
| The scanner is not ready to scan | Wait until the READY light is green (ready for scanning). |
| Interface or software setting problem | Make sure your interface port and software settings are correct. Also make sure that your computer's interface board is installed properly. |
| SCSI problem | Make sure the scanner's SCSI ID and terminator are set correctly. |

| | |
|--------------------|--|
| Interrupt conflict | If you have other expansion boards in your computer, make sure that their interrupt settings are not interfering with your SCSI board. Refer to your computer's documentation for details. |
|--------------------|--|

The scanner software does not work properly.

| Cause | What to do |
|-------------------------------------|--|
| Software installation problem | Make sure your software is installed correctly. |
| Computer system requirement problem | Make sure your computer meets the memory and other system requirements specified for the software you are using. |

Pushing the start button does not start scanning.

| Cause | What to do |
|----------------|---|
| Scanner is off | Check that the power cord is connected and press the OPERATE button to turn on the scanner. |

Target application is not assigned to the  start button

If you are using Windows 95, NT 4.0, or NT 3.51, make sure that the Scanner Monitor software is running and check that the Scanner Monitor's Launch Application path setting is correct.

If you are using Windows 98, click the Events tab in your scanner's Properties dialog box and make sure that the Disable device events check box is clear, that the Start button is selected as the Scanner events, and that at least one scanner event recognizable application in the Send to this application box is selected.

Quality problems

The entire image is distorted or blurred.

| Cause | What to do |
|---|--|
| Improper placement of document | Make sure the document is flat against the document table. |
| Document movement | Make sure you do not accidentally move the document during scanning. |
| Scanner is tilted or affected by vibrations | Make sure the scanner is on a flat, stable surface. |

Part of the image is distorted or blurred.

| Cause | What to do |
|---------------------------------|--|
| Document condition or placement | Make sure the document is uniformly flat against the document table. A document that is wrinkled or warped can cause problems. |

Edges of the document are not scanned.

| Cause | What to do |
|---|--|
| Document larger than scanning area | If the document is too large, position it so the area you want to scan is within the limit marks on the edge guides of the document table. |
| Unscanned area of document is positioned out of scanning area | Adjust position of the document guide strip so the area you want to scan is within the limit marks on the edge guides of the document table. |

Colors are patchy or distorted at the edges of the image.

| Cause | What to do |
|--------------------------------|--|
| Document condition | A document that is very thick or warped at the edges can cause discoloration. Cover the edges of the document with paper to block outside light. |
| Improper placement of document | Make sure the document is flat against the document table. |

The scanned image is faint or out of focus.

| Cause | What to do |
|--------------------------------|--|
| Improper placement of document | Make sure the document is flat against the document table. |
| Gamma setting | Check your software's Gamma setting. Refer to <i>EPSON TWAIN Pro User's Guide</i> for more details. |
| Exposure setting | Check your software's Exposure setting. Refer to <i>EPSON TWAIN Pro User's Guide</i> for more details. |

The image is too dark.

| Cause | What to do |
|--------------------|---|
| Brightness setting | Check your software's Brightness setting. Check the Brightness and Contrast settings of your computer monitor. |

Straight lines in the image come out jagged.

| Cause | What to do |
|--------------------|---|
| Document placement | Make sure the document is oriented perfectly straight on the document table. Align vertical and horizontal lines with the scales at the top and side of the document table. |

The image does not look the same as the original.

| Cause | What to do |
|---|---|
| Image settings | Try different image setting combinations on your scanner software. |
| Color matching and color management problem | Your software may not have sufficient color matching and color management features, or these components may not be installed correctly. Refer to the documentation that came with your software and computer. |
| File format problem | If you are importing a scanned image as an image file, make sure the file format is one your software can read. Also, make sure the image settings of your software are appropriate for the type of image you want to scan. |

A line always appears to be missing from scanned images.

| Cause | What to do |
|----------------------------|--|
| Print head malfunction | Print head malfunction is indicated when a line is missing on printouts only. Consult your printer manual. |
| Scanner sensor malfunction | Scanner sensor malfunction is indicated when the line is missing on both screen images and printouts. Contact your dealer. |

When using halftoning, textured patterns of dots appear inside particular areas of the image.

| Cause | What to do |
|-----------------|--|
| Normal scanning | This condition is normal. The scanner automatically minimizes the problem if De-screening is set to on in the Image Type dialog box. |

Colors in the image look odd.

| Cause | What to do |
|-------------------------------------|--|
| Image Type and Destination settings | Make sure the EPSON TWAIN Pro Image Type and Destination settings are correct. |

Colors on your monitor are different from those in the original image.

| Cause | What to do |
|--|---|
| Software image setting problem | Check the image settings of your scanner software, especially data format (bits, pixel, color), gamma correction, and color correction. Try different combinations of these settings. |
| Color matching and color management capabilities | Check the color matching and color management capabilities of your computer, display adapter, and software. Some computers can change the color palette to adjust the colors on your screen. Refer to your software and hardware manuals for details. |

| | |
|-----------------------|--|
| Normal color matching | Exact color matching is very difficult. Check your software and monitor manuals for information on color matching and calibration. |
|-----------------------|--|

Printed colors are different from those in the original image.

| Cause | What to do |
|-----------------------|--|
| Normal color matching | Exact color matching is very difficult. Check your software or contact your printer company for information on color matching and calibration. |

The printed image is larger or smaller than the original.

| Cause | What to do |
|--|---|
| Incorrect setting for size of printed image in your software application | The image size settings of your software determine the size of the printed image. Do not use the size of the monitor image to judge the printed size. |

Scanned images cannot be printed or come out garbled when printed.

| Cause | What to do |
|-------------------------------|--|
| Printer connection or setup | Make sure your printer is properly connected to the computer and correctly set up. Refer to your printer manual for details. |
| Software installation problem | Check that your software is properly installed and set up for your printer. Refer to your software manual. |

Paper is jammed in document path

| Cause | What to do |
|--|--|
| Inappropriate loading of documents Difficult paper type to be fed | Remove jammed paper from the document path. Refer to "Fixing paper jams in the Automatic Document Feeder" in Chapter 3 |

Viewing the Color Guide

You can view the Color Guide using an HTML browser on your computer. The Color Guide contains tips for handling color imaging data, using several color imaging products, and other general information about color imaging.

You will need one of the following browsers, or an equivalent, to view the Color Guide:

- Netscape Navigator 3.0 or later
- Microsoft Internet Explorer 3.0 or later

If a browser is not installed on your computer, you will need to obtain one and install it, or you can install the browser that comes with your Color Guide CD-ROM. For further details, double-click `Readme.txt`, and follow the instructions.

To view the Color Guide, double-click on `color.htm`, and follow the instructions on the screen.

Changing the SCSI ID Number or SCSI Board

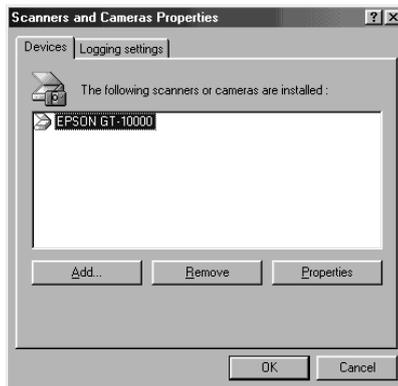
If you are using your scanner with Windows 98 and you want to change the scanner's SCSI ID number or replace the SCSI board with a new one, follow the steps below:

1. Double-click the Scanners and Cameras icon in the Control Panel.



4

2. Select your scanner in the installed devices list, then click Remove.



3. Click OK and close the dialog box.
4. Shut down Windows 98 and turn off your PC and scanner.
5. Change the SCSI ID number of the scanner by rotating the SCSI ID rotary switch at the rear of the scanner, or replace the SCSI board.
6. Turn on your scanner and then your PC.
7. Follow the instructions on the screen.

Appendix A

Technical Specifications

| | |
|------------------------------|-----|
| Scanning | A-2 |
| Electrical | A-4 |
| Environmental | A-4 |
| Safety Approvals | A-5 |
| CE Marking | A-5 |
| ENERGY STAR Program | A-5 |
| SCSI Interface | A-6 |
| Initialization Methods | A-7 |

A

Scanning

| | |
|-----------------------|---|
| Scanner type: | Flatbed, color |
| Photoelectric device: | Color CCD line sensor |
| Effective pixels: | 7020 × 10200 pixels at 600 dpi, 100% |
| Document size: | 297 mm × 432 mm (11.7 inches × 17.0 inches A3 or US B size (The reading area can be specified from your software.) |
| Scanning resolution: | 600 dpi optical (main scan) 2400 dpi with micro-step (sub-scan) |
| Output resolution: | 50 dpi to 4800 dpi (1 dpi steps) |
| Color separation: | RGB color filters on CCD |
| Reading sequence: | |
| Monochrome | One-pass scanning |
| Color page sequence | Three-pass scanning (R, G, B) (This sequence is not supported by EPSON TWAIN Pro.) |
| Color byte sequence | One-pass scanning (R, G, B) |
| Color line sequence | One-pass scanning (R, G, B) |
| Zoom: | 50% to 200% in 1% steps |
| Image data: | 12 bits per pixel per color internal 1 to 8 bits per pixel per color external |
| Brightness: | 7 levels (In EPSON TWAIN Pro, Gamma correction controls brightness.) |
| Line Art settings: | Fixed threshold Text Enhancement Technology (can be turned off) |

| | |
|---------------------|--|
| Halftoning process: | AAS (Auto Area Segmentation) Enable/disable selectable 3 halftoning modes (A, B, and C) and 4 dither patterns (A, B, C, and D) for bi-level and quad-level data (2 downloadable dither patterns) |
| Gamma correction: | 2 types for CRT display 3 types for printer 1 type for user-defined (Only user-defined Gamma correction is available in EPSON TWAIN Pro.) |
| Color correction: | 1 type for CRT display 3 types for printer output (available in color byte sequence mode and color line sequence mode) 1 type for user-defined (Only user-defined Color correction is available in EPSON TWAIN Pro.) |
| Interface: | SCSI (50-pin half pitch connectors) |
| Light source: | Xenon fluorescent lamp |
| Reliability: | 100,000 cycles of carriage movements (main unit MCBF) |
| Dimensions: | Width: 656 mm (25.9 inches) Depth: 458 mm (18.0 inches) Height: 176 mm (6.93 inches) |
| Weight: | Approx. 20 kg (44.2 lb) |

Electrical

| | 100 to 120 V AC | 220 to 240 V AC |
|---------------------|-----------------------------|-----------------|
| Input voltage range | AC 90 to 132 V | AC 198 to 264 V |
| Rated frequency | 50 to 60 Hz | |
| Input frequency | 49.5 to 60.5 Hz | |
| Rated current | 1.2 A | 0.7 A |
| Power consumption | Approx. 50 W without option | |
| | Approx. 55 W with option | |

Note:

Check the label on the back of the scanner for voltage information.

Environmental

Temperature:

Operation 5° C to 35° C (41° F to 95° F)

Storage -25° C to 60° C (-13° F to 140° F)

Humidity:

Operation 10% to 80%, without condensation

Storage 10% to 85%, without condensation

Operating conditions:

Ordinary office or home conditions.

Extreme dust should be avoided.

Operation under direct sunlight or near a strong light source should be avoided.

Note:

Specifications are subject to change without notice.

Safety Approvals

| | |
|------------------|---|
| Safety standards | UL 1950 with D3 CSA C22.2 No. 950 EN60950 (VDE) IEC950 (ROSTEST, PSB) EN 60950 |
| EMC | FCC part 15 subpart B class B CSA C108.8 class B AS/NZS3548 class B CISPR Pub22 class B CNS13438 class B EN 55022 (CISPR Pub 22) class B |

A

CE Marking

| | |
|---------------------------------|---|
| Low Voltage Directive 73/23/EEC | EN 60950 |
| EMC Directive 89/336/EEC | EN 55022 Class B EN 61000-3-2 EN 61000-3-3 EN 50082-1 IEC 801-2 IEC 801-3 IEC 801-4 |

ENERGY STAR Program

EPSON has determined that GT-10000 meets the ENERGY STAR guidelines for energy efficiency.

SCSI Interface

Interface type: ANSI X3T9.2/375R Revision 10L (SCSI 2)
Functions: BUS FREE phase
ARBITRATION phase
SELECTION/RESELECTION phase
COMMAND phase
(Logical Unit Number is fixed to 0 and
command link function is not supported.)
DATA phase
Data in phase
Data out phase
STATUS phase
MESSAGE phase
MESSAGE IN phase
MESSAGE OUT phase
ATTENTION condition
RESET condition

Logic level: TTL compatible

Electrical standard: ANSI X3T9.2/375R Revision 10L (SCSI 2)

ID Setting: Selectable from 0 to 7

Terminator: Internal terminator selectable (enable/disable)

Connector type: Two half-pitch 50-pin connectors

Connector pin arrangement:



Initialization Methods

The scanner can be initialized (returned to its default settings) in the following ways:

| | When |
|-------------------------|--|
| Hardware initialization | <ul style="list-style-type: none">* The scanner is turned on.* The scanner receives a SCSI Reset signal from the SCSI interface. |
| Software initialization | <ul style="list-style-type: none">* Software sends the ESC @ (initialize the scanner) command.* The scanner receives a SCSI Bus Device Message. |



A

Appendix B

Contacting Customer Support

For United Kingdom and the Republic of Ireland Users B-3
For Australia Users B-5
For Singapore Users B-6
For Hong Kong Users B-7
For Philippines Users B-8



If your scanner is not operating properly and you cannot solve the problem using the troubleshooting information in this guide or online help, contact customer support services for assistance.

We will be able to help you more quickly if you are able to give the exact information indicated below:

Serial number of your scanner.

(The serial number is printed on a label on the back of the scanner.)

Brand and model of your computer.

Scanner software version.

(Click the About button on the Help menu in your application for the version number.)

Version of Windows (95, 98, NT 3.51, 4.0).

Names and version numbers of software application(s) you normally use with your scanner.

For United Kingdom and the Republic of Ireland Users

If you purchased your printer in the UK or the Republic of Ireland, EPSON (UK) Limited provides a range of customer services and technical support:

- World Wide Web
- Faxon EPSON Faxback
- Bulletin Board Service
- Customer and Warranty Support
- Pre-Sales Enquiry Desk

See the following sections for details.

World Wide Web

If you can connect to the Internet and have a Web browser, you can access our Web site at <http://www.epson.co.uk>. Here you will find information on the latest EPSON products, software drivers, on-line user guides, and answers to frequently asked questions.

B

Faxon EPSON

Contact Faxon EPSON Faxback Service for support information including troubleshooting tips, switch settings, and driver information.

To use Faxon EPSON, call 01442 227332 in the UK or 0044 1442 227332 from the Republic of Ireland using a touch-tone phone. You will be asked to follow a simple routine to register your document request. Once you have entered your telephone and fax numbers, Faxon EPSON will fax a copy of the document catalogue to your fax machine.

When you have found the documents that you need in the catalogue, call Faxon EPSON again and enter the document ID numbers. The documents will be faxed to you automatically.

Bulletin Board Service for latest drivers and utilities

You can call the EPSON Bulletin Board Service on 01442 227479 in the UK or 0044 1442 227479 from the Republic of Ireland. No membership is required. Make sure that your communications software is set to 8 data bits, 1 stop bit, no parity bit, ANSI terminal mode emulation, and a modem speed of up to 28.8 Kbps. Downloading protocols supported include Xmodem, Ymodem and Zmodem. See the documentation that came with your communications software and modem for more information.

When you first connect to the Bulletin Board Service, you will be asked for your name, company name, phone number and a password (which you can invent yourself).

Customer and Warranty Support

Our Customer and Warranty Support teams can be contacted by calling 0870 163 7766 in the UK or 0044 0870 163 7766 from the Republic of Ireland. They can provide the following services:

- Technical information on installing, configuring, and operating your EPSON products
- Arranging for faulty EPSON products to be repaired within the warranty period

A full list of EPSON Customer and Warranty Support services is available on the technical support section of our World Wide Web pages at <http://www.epson.co.uk/support/> and on Faxon EPSON Faxback service in document number 5085.

Pre-Sales Enquiry Desk

The Enquiry Desk team can be contacted by calling 0800 220546 in the UK or 1 800 409132 from the Republic of Ireland, by faxing 01442 227271 in the UK or 0044 1442 227271 from the Republic of Ireland, and via E-mail at info@epson.co.uk. They can provide the following information:

- Pre-sales information and literature on new EPSON products (also available via our World Wide Web site at <http://www.epson.co.uk>)
- Where to purchase genuine EPSON consumables, accessories, and options

For Australia Users

EPSON Australia wishes to provide you with a high level of Customer Service. As well as this *User's Guide*, we provide the following sources for obtaining information:

EPSON FAXBACK

EPSON FAXBACK will fax you the latest specifications and pricing for most EPSON products offered in Australia. There is also technical information including details of the latest software and drivers available. Phone (02) 9903 9075 and the system will guide you through a number of choices before faxing the information to your fax machine.

EPSON Bulletin Board System

This is where you can download the latest software and drivers. Visit the BBS to check out the latest versions. If you have a modem, phone (02) 9417 5090.

Internet URL <http://www.epson.com.au>

Access the EPSON Australia World Wide Web pages. Worth taking your modem here for the occasional surf! You can get the same information as offered on the EPSON FAXBACK and the EPSON Bulletin Board plus more.

Your dealer

Don't forget that your dealer can often help identify and resolve problems. The dealer should always be the first call for advice on problems. They can often solve problems quickly and easily as well as give you advice on the next step to take.

B

EPSON Helpdesk

EPSON Helpdesk is provided as a final backup to make sure our clients have access to advice. Operators on the Helpdesk can aid you in diagnosing hardware and software problems. They can also advise you on the latest EPSON products and where the nearest dealer or service agent is located. Many types of queries are answered here.

The Helpdesk numbers are:

Phone: (02) 9903 9040
Fax: (02) 9903 9189

We encourage you to have all the relevant information on hand when you ring. The more information you prepare, the faster we can help solve the problem. This information includes the *User's Guide* for your EPSON product, type of computer, operating system, application programs, and any other information you feel is required.

For Singapore Users

Contact the telephone and fax numbers below:

Phone: (065) 337-7911
Fax: (065) 334-1185

For Hong Kong Users

To obtain technical support as well as other after-sales services, users are welcome to contact EPSON Hong Kong Limited.

Internet home page

EPSON Hong Kong has established a local home page in both Chinese and English on the Internet to provide users with the following information:

- Product information
- Answers to Frequently Asked Questions (FAQs)
- Latest versions of EPSON printer drivers

Users can access our World Wide Web home page at:
<http://www.epson.com.hk>

Electronic bulletin board system

An electronic bulletin board system (BBS) is also available to obtain printer information and the latest versions of printer drivers. You can log on to the following number for the BBS service:

BBS: (852) 2827-4244

Technical Support Hotline

You can also contact our technical staff at the following telephone and fax numbers:

Phone: (852) 2585-4399
Fax: (852) 2827-4383

B

For Philippines Users

To obtain technical support as well as other after sales services, users are welcome to contact the EPSON Philippines Representative Office at the telephone and fax numbers below:

Phone: (632) 813-6552

Fax: (632) 813-6545

BBS: (632) 814-0595

Glossary

additive primary colors

The colors of red, green and blue (RGB) - which give the perception of white when fully added. These are the colors of the color system used with monitors and scanners.

bi-level data

Image data that is composed of 1 bit per pixel. A pixel is represented by a single bit of digital data that can be expressed as only 1 (light) or 0 (dark).

bit

Short for binary digit. The smallest unit of data in computer processing. A bit can represent two values: on and off, or 1 and 0.

bit/pixel

The unit that indicates the number of bits allocated for a pixel. The larger the bit value, the more detail of a pixel will be reproduced.

brightness

A scanner function to lighten or darken the output image data.

byte

A unit of information consisting of eight bits. A byte can represent a control code or character.

carriage

A component of the scanner that contains the optical sensor and light source for scanning.

color correction

A method of adjusting the color image data for a particular type of device so that the reproduction results are as close as possible to the original colors.

color separation

A process of converting full-color images into a limited number of primary colors. Additive primary colors (red, green, and blue) are used by the scanner, and the subtractive primary colors (cyan, magenta, and yellow) plus black are used for printing press separation.

daisy chain

A SCSI bus arrangement that allows several devices to be connected simultaneously in a line to a single computer. See *SCSI*.

default

A set of values used when no other selections have been made. These are sometimes called factory defaults if the original values have not been changed since the scanner left the factory.

dithering

A process in which software or an output device simulates continuous tones with groups of dots.

document

The item, such as a sheet of paper or a book, that is placed on the document table for the scanner to read.

dpi

Short for dots per inch. A unit of measurement for resolution. The higher the value, the higher the resolution.

dropout color

A color the scanner does not recognize and ignores. You can select and deselect dropout colors in the scanner software.

ESC/I

Abbreviation for EPSON Standard Code for Image scanners. A system of commands that allows you to control image scanners from your software.

ESC/P

Abbreviation for EPSON Standard Code for Printers. A system of commands that allows you to control printers from your software.

grayscale

Images represented with various shades of gray in addition to black and white.

halftoning

A method of reproducing images with patterns of dots to improve the quality of the output.

home position

The position at the rear (nearest the cover hinge position) of the scanner where the carriage rests before a scanning operation.

imagesetter

A device that uses computer files to produce high-resolution text and graphics output on film or paper. These are usually found in service bureaus and printing companies.

impact dot printer

A printer that transfers ink onto the paper by striking an ink ribbon with a number of small pins.

ink jet printer

A printer that transfers ink onto the paper by spraying the ink through a number of small nozzles.

interface

A piece of hardware, a method, or a standard used for connection between or among computer devices.

line sequence

A type of color scanning that separates primary colors line by line. The carriage makes only one pass.

monochrome

Black and white images, or images represented only by the intensity of luminosity.

OCR

Optical Character Recognition. The technology that allows computers to "read" text from physical objects. OCR requires a graphical representation of text to interpret, which usually comes from a scanned image.

page sequence

The type of color scanning in which the entire image is scanned once for each separate color.

pixel

Short for picture element. Each image is composed of a number of pixels. Pixels are also counted in units of dots.

plain bi-level

Bi-level image data without the halftoning process.

port

An interface channel through which data is transmitted between devices.

primary colors

Basic colors. See *additive primary colors* and *subtractive primary colors*.

resolution

Indication of how finely an image is resolved into pixels. Can be measured in dots per inch (dpi), pixels per inch (ppi), or samples per inch (spi).

scan

An operation performed by the sensor and the carriage. The image is divided into pixels by scanning.

scanning area

The physical size of the image that can be scanned by the scanner.

SCSI

Small Computer System Interface. This is one method used to connect your computer to peripherals such as scanners, hard disk drives, CD-ROM drives, and others.

SCSI ID

The numbers that all devices in a SCSI connection (see *daisy chain*) use to identify each other. If the same ID number is used by two devices in the same daisy chain, the devices cannot operate properly.

subtractive primary colors

The colors of cyan, magenta, and yellow (CMY) which produce black when mixed in certain amounts. In printing, black is often added to give more definition as mixing of actual inks cannot produce pure black.

terminator

A device that stops electronic signals, and prevents them from proceeding or returning to other devices. This is necessary to stop a signal from continuously reflecting between devices.

threshold

A reference point that is used to determine whether data will be processed as “on” or “off”. In the case of color image data, “on” means that a certain color will appear in a pixel or dot, and “off” means that color will not appear there.

tone correction

A method of adjusting the tone curve so that the reproduction results on different types of output devices have gradations similar to the original image.

tone curve

The graph that shows the contrast ratio between the input (original image) and output (image data) in image processing.

Index

A

attaching the document guide strip,
1-7

Auto Area Segmentation (AAS), 1

Automatic Document Feeder, 2, 1-7,
3-2

edge guides, 3-9

ejected paper support, 3-2

installation screws, 3-2

installing, 3-2

knob, 3-2

loading paper, 3-8

paper type, 3-8

stopper, 3-2

unpacking, 3-2

B

blurred image, 4-10

buttons, 1-5

C

cable length, 1-18

CE marking, A-5

changing

orientation of scanned images, 3-13

SCSI ID number or SCSI board,
4-17

choosing a place, 1-5

cleaning the scanner, 4-2

color guide, 4-16

command errors, 4-5

computer connection, 1-12

computer system

file compression software, 2-10

hard disk size, 2-9

monitors, 2-9

RAM, 2-9

video cards, 2-9

connecting the scanner, 1-17

connecting the scanner to computer,
1-12

customer support, B-1

D

daisy chain, 1-13, 1-17

dark image, 4-11

direction, 3-20

distorted image patchy colors, 4-10

document conditions, 3-20

document cover, 1-11, 2-4

document guide scale, 2-5

document guide strip, 1-2

document orientation

landscape, 3-10

portrait, 3-9

document specifications, 3-20

document table, 1-7

dots in some areas, 4-13

double-sided scanning, 3-15

E

edge guides

Automatic Document Feeder, 3-9

ejected paper support, 3-2

installing, 3-7

electrical specification, A-4

ENERGY STAR program, A-5

environmental specification, A-4

EPSON TWAIN Pro, 1

EPSON TWAIN Pro Network, 1

ERROR light, 1-4

F

faint image, 4-11

fatal errors, 4-6

features, 1

fixing paper jams, 3-17
function, 1-5

G

grayscale scanning, 1

H

HTML browser, 4-16

I

indicator status, 1-4

initialization, 1-11
 hardware, A-7
 software, A-7

installing

 Automatic Document Feeder, 3-2
 ejected paper support, 3-7
 PageManager software, 1-20
 SCSI interface board, 1-8
 stopper, 3-7

interface errors, 4-6

J

jagged lines, 4-11

jam-release cover, 3-18

K

key components, 1-3

L

lights, 1-4

loading paper in Automatic Document
 Feeder, 3-8

M

maintenance, 4-2

manual document loading, 3-10

marquee, 3-12

Microsoft Internet Explorer, 4-16

N

Netscape Navigator, 4-16

O

one-sided scanning, 3-13

only part of the document area
 scanning, 3-12

OPERATE button, 1-5

OPERATE light, 1-4

operating problems, 4-6

option errors, 4-6

orientation of scanned images, 3-13

P

PageManager, 3-13
 installing, 1-20

paper jam

 feeder position, 3-18

 paper eject position, 3-19

paper jams, 4-15

paper size, 3-20

placing a document, 2-4

plugging in

 scanner, 1-10

poor coloring, 4-13, 4-14

power cord, 1-2, 1-11

power-off sequence, 1-20

power-on sequence, 1-19

Q

quality problems, 4-9

R

READY light, 1-4

releasing transportation lock, 1-9

removing the document cover, 2-7

replacing the fluorescent lamp, 4-3

RESET button, 1-5

Rotate Images, 3-14, 3-15

S

- safety approvals, A-5
- safety instructions, 3
- scanner
 - plugging in, 1-10
 - unpacking, 1-2
- scanner parts, 1-2
- scanning
 - full document area, 3-11
 - only part of the document area, 3-12
 - procedure, 2-2
- SCSI board, 1-12
- SCSI cable, 1-2
- SCSI cables, 1-13
- SCSI driver, 1-12
- SCSI ID, 1-15
- SCSI ID rotary switch, 1-14
- SCSI interface, A-6
- SCSI interface board, 1-2
 - installing, 1-8
- setting
 - SCSI ID number, 1-14
 - terminator switch, 1-16
- specification
 - CE marking, A-5
 - document, 3-20
 - ENERGY STAR program, A-5
 - environmental, A-4
 - safety approvals, A-5
- start button, 1-5
- stopper, 1-2
 - installing, 3-7

T

- technical specifications, A-1
- terminator, 1-14
- terminator switch
 - position, 1-16
 - setting, 1-16
- Text Enhancement Technology (TET), 2
- thumb-nail images, 3-12

transportation lock, 1-9

U

- unpacking
 - Automatic Document Feeder, 3-2
 - scanner, 1-2

| |
|---|
| EPSON OVERSEAS MARKETING LOCATIONS |
|---|

EPSON AMERICA, INC.

20770 Madrona Ave.
P.O. Box 2842
Torrance, CA 90509-2842
Phone: (800) 922-8911
Fax: (310) 782-5220

EPSON UK LTD.

Campus 100, Maylands Avenue,
Hemel Hempstead, Herts,
HP2 7TJ, U.K.
Phone: (+44) 01442 261144
Fax: (+44) 01442 227227

EPSON DEUTSCHLAND GmbH

Zülpicher Straße 6,
40549 Düsseldorf Germany
Phone: (0211) 56030
Fax: (0211) 5047787

EPSON FRANCE S.A.

68 bis, rue Marjolin
92300, Levallois-Perret, France
Phone: 33.1.40.87.37.37
Telex: 610657

EPSON AUSTRALIA PTY. LTD.

70 GIBBES STREET, CHATSWOOD 2067 NSW.
Phone: 2-9903-9000
Fax: 2-9903-9177

EPSON SINGAPORE PTE. LTD.

No. 1 Temasek Avenue #36-00
Millenia Tower, Singapore 039192
Phone: (065) 33 77 911
Fax: (065) 33 41 185

EPSON HONG KONG LTD.

Rooms 4706-10, 47/F,
China Resources Bldg.,
26 Harbour Road, Wanchai, Hong Kong
Phone: 2585-4300
Fax: 2827-7083

EPSON TAIWAN TECHNOLOGY & TRADING LTD.

10F, No. 287 Nanking E. Road, Sec. 3,
Taipei, Taiwan, R.O.C.
Phone: (02) 717-7360
Fax: (02) 712-9164

EPSON ITALIA S.p.A.

V.le F.lli Casiraghi 427
20099 Sesto S.Giovanni
MI, Italy
Phone: 2-262331
Fax: 2-2440750

EPSON IBERICA S.A.

Av. de Roma, 18-26
08290 Cerdanyola del Valles
Barcelona, Spain
Phone: 582. 15.00
Fax: 582. 15.55

**SEIKO EPSON CORPORATION
(Hirooka Office)**

80 Harashinden, Hirooka
Shiojiri-shi, Nagano-ken
399-0785 Japan

EPSON PORTUGAL, S.A.

R. do Progresso, 471, 1° Perafita
4460 Matosinhos, Portugal
Phone: (02) 996 14 02
Fax: (02) 996 14 11

COLOR IMAGE SCANNER

GT-10000

User's Guide