Where to Find Information

This Setup Guide

Explains how to set up the scanner and install the scanner software and options. Also gives basic scanning instructions, including how to make scanner software settings and how to use the Start Button feature.

Online Reference Guide

Provides tips for optimizing scanning and detailed information on the settings and functions of EPSON TWAIN Pro and EPSON TWAIN Pro Network. Also explains how to modify the operation of the scanner's ⚡ Start button.

In addition, this guide explains how to install the scanner options, and provides maintenance, troubleshooting, and customer support information.

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

Explains the basics of color imaging and how to get impressive results from your scanner and other EPSON products.

Online help for EPSON TWAIN Pro and EPSON TWAIN Pro Network

Online help provides you with detailed information on EPSON TWAIN Pro and EPSON TWAIN Pro Network. To access online help, click the Help button in EPSON TWAIN Pro or EPSON TWAIN Pro Network.

Information on PageManager and other software

For more information on Presto! PageManager for EPSON and the other applications provided on the scanner software CD-ROM, see the documentation provided for that application on the CD-ROM.

EPSON EXPRESSION™ 1680
EPSON EXPRESSION™ 1680 Pro

Color Image Scanner

Setup Guide

Contents

Chapter 3 Installing the Software

Chapter 4 Using Your Scanner

Safety Instructions

Important Safety Instructions

Read all these instructions and save them for later reference.
Follow all warnings and instructions marked on the scanner.

❏ Unplug the scanner before cleaning. Clean with a damp cloth
only. Do not spill liquid on the scanner.

❏ Do not place the scanner on an unstable surface, or near a
radiator or heat source.

❏ Use only the type of power source indicated on the scanner's
label.

❏ Connect all equipment to properly grounded power outlets.
Avoid using outlets on the same circuit as photocopiers or air
control systems that regularly switch on and off.

❏ Do not let the power cord become damaged or frayed.

❏ If you use an extension cord with the scanner, make sure the
total ampere rating of the devices plugged into the extension
cord does not exceed the cord's ampere rating. Also, make
sure the total ampere rating of all devices plugged into the
wall outlet does not exceed the wall outlet's ampere rating.

❏ Except as specifically explained in this *Setup Guide*, do not
attempt to service the scanner yourself.

❏ Unplug the scanner and refer servicing to qualified service personnel under the following conditions:

If the power cord or plug is damaged; if liquid has entered the scanner; if the scanner has been dropped or the case damaged; if the scanner does not operate normally or exhibits a distinct change in performance. (Do not adjust controls that are not covered by the operating instructions.)

❏ If you plan to use the scanner in Germany, observe the following:

To provide adequate short-circuit protection and over-current protection for this scanner, the building installation must be protected by a 16 Amp circuit breaker.

Note for German-speaking users:
Bei Anschluß des Scanners an die Stromversorgung muß sichergestellt werden, daß die Gebäudeinstallation mit einem 16 A-Überstromschalter abgesichert ist.

Warnings, Cautions, and Notes

![W icon] *Warnings must be followed carefully to avoid bodily injury.*

![caution icon] *Cautions must be observed to avoid damage to your equipment.*

Notes contain important information and useful tips on the operation of your scanner.

ENERGY STAR® Compliance

As an ENERGY STAR® Partner, EPSON has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

The International ENERGY STAR® Office Equipment Program is a voluntary partnership with the computer and office equipment industry to promote the introduction of energy-efficient personal computers, monitors, printers, fax machines, copiers, and scanners, in an effort to reduce air pollution caused by power generation.

Chapter 1
Getting to Know Your Scanner

Features

The EPSON Expression 1680/Expression 1680 Pro scanner offers the following features:

❏ Optical resolution of 1600 dots per inch (dpi) for main scanning, and 3200 dpi with micro step for sub scanning (48-bit input, 48-bit output).

❏ A4/Letter size scanning area.

❏ Start Button control for one-step local and network scanning.

When the scanner is connected directly to your computer, the ⊱ Start button can automatically start a scanning sequence by invoking Presto! PageManager for EPSON and EPSON TWAIN Pro, scanning the document, launching an application, and importing the scanned image to the application.

In a network configuration, pressing the ⊱ Start button on the scanner starts the same operation as clicking the Scan button in the EPSON TWAIN Pro Network dialog box.

❏ Full color or grayscale scanning. Capture your images with up to 281,500 billion colors, or up to 65,536 shades of gray.

❏ EPSON TWAIN Pro lets you take full advantage of your scanner's advanced features.

❏ EPSON TWAIN Pro Network and EPSON Scan Server software work together to directly control all of the features of your EPSON scanner in a network environment.

❏ EPSON TWAIN Pro and TWAIN Pro Network's Unsharp Mask option automatically sharpens the image to provide crisp detail.

❏ EPSON TWAIN Pro and TWAIN Pro Network's De-screening option automatically removes unwanted moiré patterns from scanned images for higher quality output.

❏ Auto Area Segmentation (AAS) allows you to separate text from photographs on a page so that grayscale images are clearer and text recognition is more accurate.

❏ Text Enhancement Technology (TET) enhances text recognition accuracy for optical character recognition (OCR) scanning.

❏ The Expression 1680 Pro includes the Transparency Unit, which enables negative film and slide film to be scanned. The Transparency Unit is available as an option for the Expression 1680.

❏ The Automatic Document Feeder, which enables continuous sheet scanning, is available as an option.

Unpacking the Scanner

Your Expression 1680/Expression 1680 Pro comes shipped with CD-ROMs which include the driver software that runs your scanner, and some additional items, depending on your scanner model.
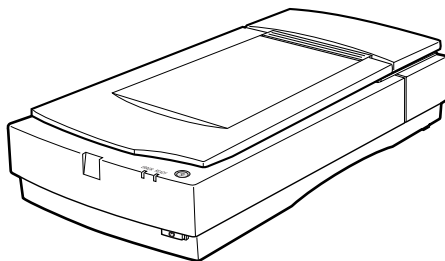
scanner
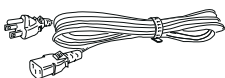
power cord
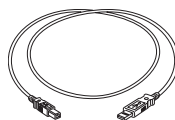
USB interface cable

For the Expression 1680 Pro

Transparency Unit   installation screws (2)   reflective document mat

film holders
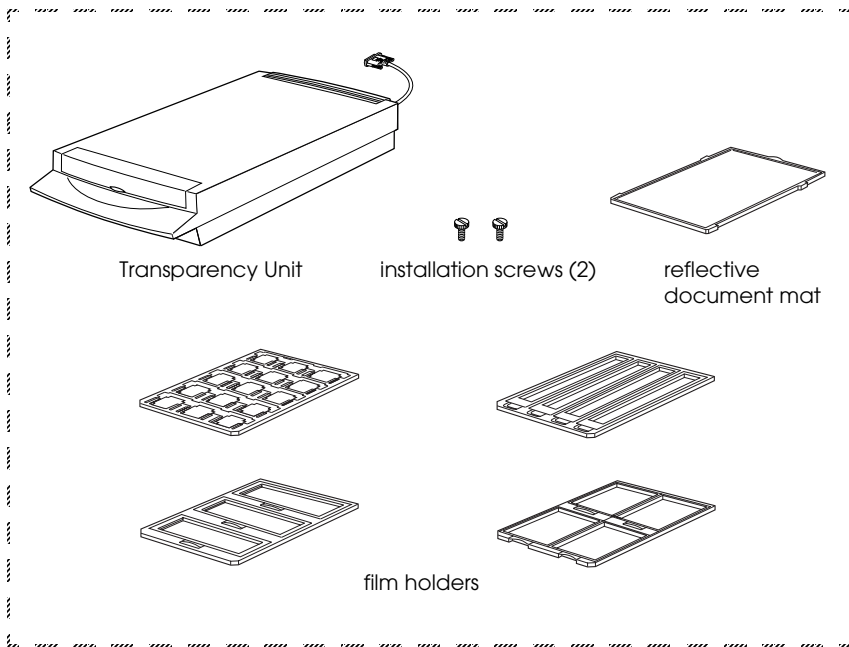
Note:
The Transparency Unit that comes standard with the Expression 1680
Pro is also available as an option for the Expression 1680.

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.

Scanner Parts

document cover

carriage
(in the home position)

document table

ERROR light

READY light

start button

operate button

option interface connector   transportation lock lever   SCSI ID rotary switch

SCSI terminator switch

AC inlet

USB interface connector   SCSI interface connectors

optional interface slot
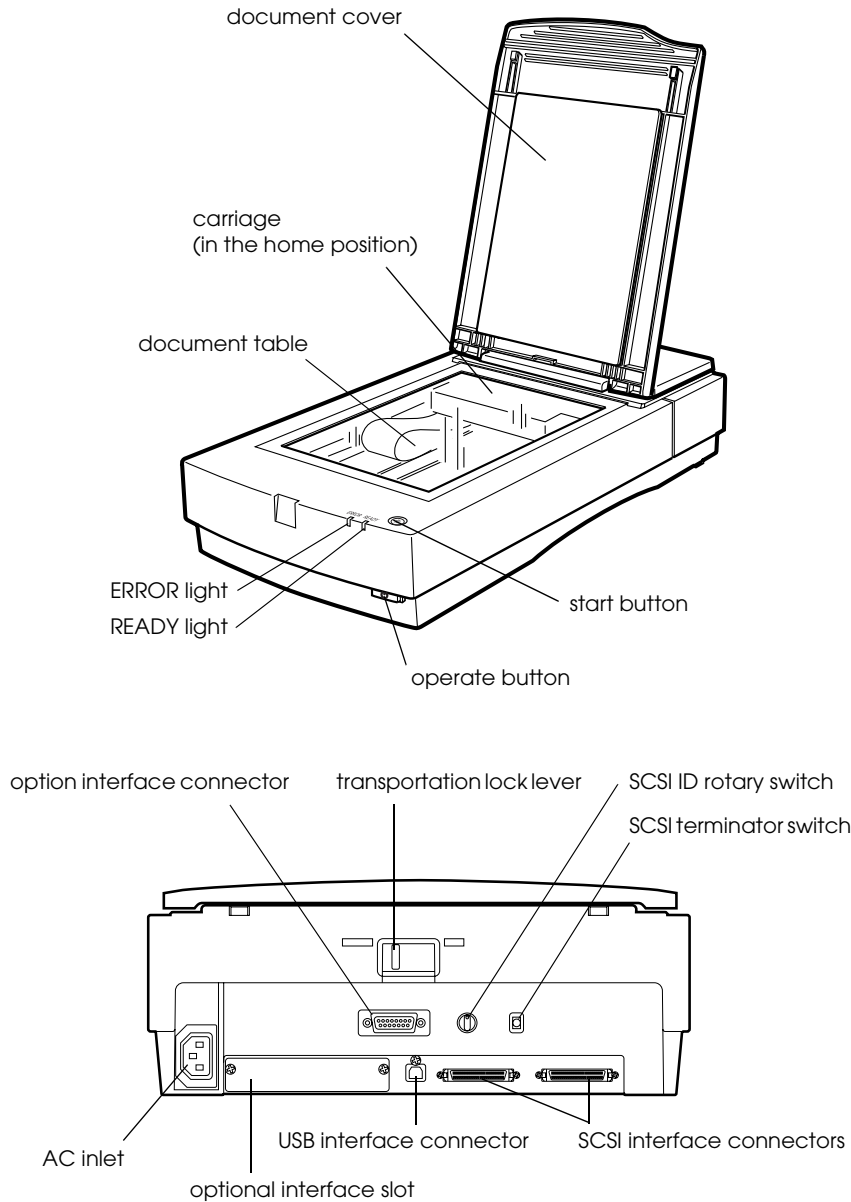
Lights and Buttons

The scanner has two indicator lights and two buttons.
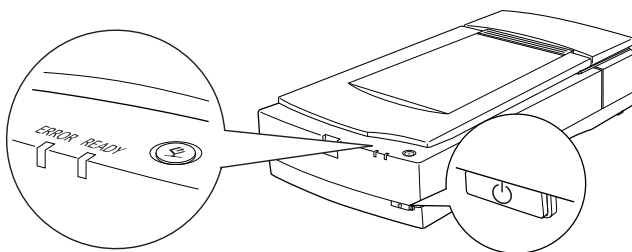
Lights

Light	Functions
READY	Turns on when the scanner is ready for scanning, and flashes when the scanner is warming up and during scanning.
	In combination with the ERROR light, turns on, flashes, or turns off to indicate a variety of error conditions.
ERROR	In combination with the READY light, turns on, flashes, or turns off to indicate a variety of error conditions.

Note:
For details on the types of errors indicated by these lights, see "Error Indicators" in the online Reference Guide.

Buttons

Button	Function
⏻ Operate	Turns the scanner on and off.
⌇ Start	When the scanner is connected directly to your computer, can open an application of your choice, or can scan and send the scanned image to a specified application, depending on your operating system and installed software. In a network environment, this button starts the same operation as the Scan button in EPSON TWAIN Pro Network.

Options

The following optional items are available to expand the versatility of your scanner. For detailed information on the use of these options, see "Options" in the online *Reference Guide*.

Automatic Document Feeder (B81316❋)
Designed primarily for optical character recognition (OCR) scanning, the Automatic Document Feeder allows you to scan up to 30 pages automatically, then use them in word processing programs, as if you had typed the text yourself.

Transparency Unit (B81318❋)
Allows you to scan transparent materials; primarily 35 mm slides and filmstrips. The Transparency Unit's reading area allows you to scan film up to 8.5×11.7 inches (216×297 mm) in size.

IEEE 1394 Scanner I/F Card (B80834❋)
Allows you to connect your computer or scanner to other devices which support the IEEE 1394 standard.

Note:
The asterisk is a substitute for the last digit of the product number, which varies by country.

Chapter 2

Setting Up the Scanner

2

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 tilted at an angle.

❏ 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 fully raise the document cover.

550 mm

133 mm*

150 mm or more

562 mm

332 mm
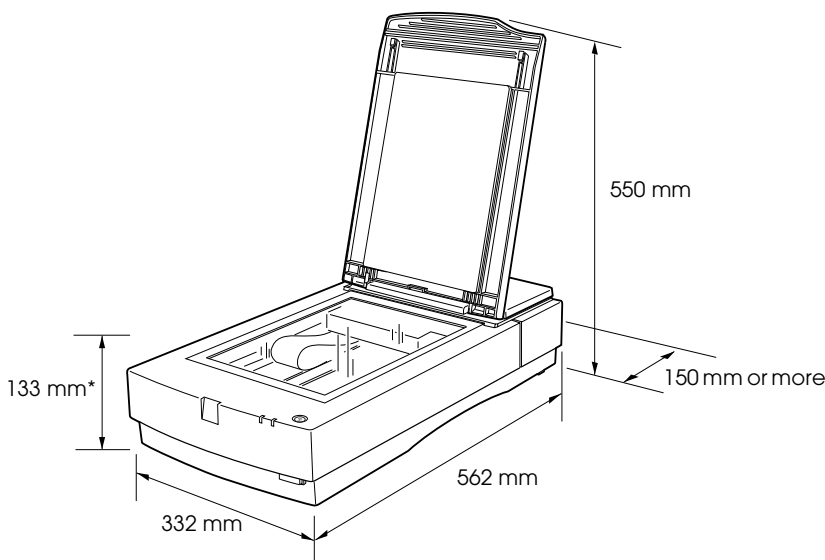
* When document cover is closed.

❏ 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 and humidity.

❏ Keep the scanner away from direct sunlight and strong light sources.

❏ Avoid places subject to shocks and vibrations.

Releasing the Transportation Lock

Before connecting the scanner to a power source, you must release the transportation lock.

1. Place the scanner on a flat, stable surface with the back facing you.

2. Slide the transportation lock lever on the back of the scanner to the UNLOCK position, as shown below.
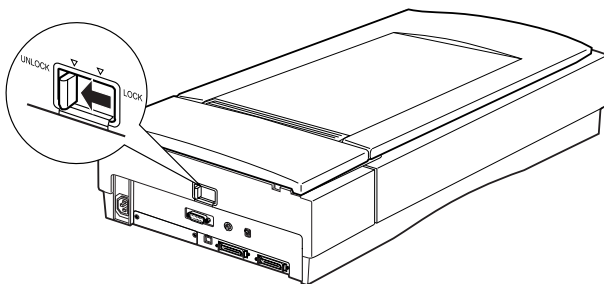
Note:
Simply sliding the transportation lock to the LOCK *position does not fully lock the carriage. Before moving or transporting the scanner, be sure to perform the procedure under "Transporting the Scanner and the Transparency Unit" in the online Reference Guide.*

Plugging in the Scanner

1. Make sure that the scanner is turned off. The scanner is off when the ⏻ operate button is raised (not depressed).
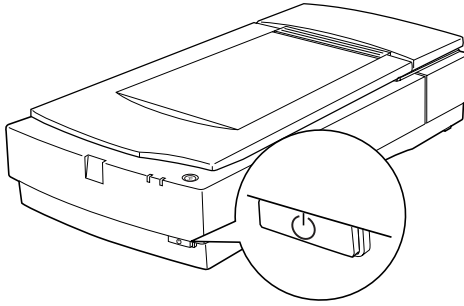
2. If the power cord is not attached to the scanner, connect it to the AC inlet on the back of the scanner, and plug the other end into a properly grounded electrical outlet.
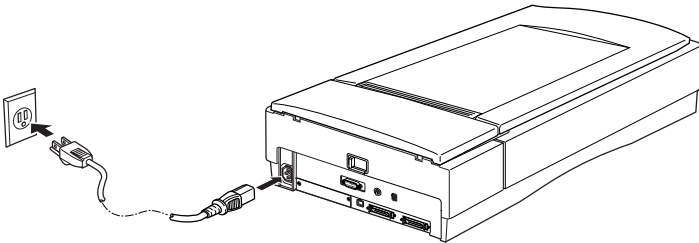
> **⚠ Caution:**
> *It is not possible to change the scanner's voltage. If the label on the back of the scanner does not show the correct voltage for your country, contact your dealer. Do not plug in the power cord.*

Checking Initialization

Before connecting the scanner to your computer, follow the steps below to make sure that the scanner initializes, or starts up, properly.

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.

3. Make sure the fluorescent lamp on the carriage and the READY light flash, and the carriage moves slightly.
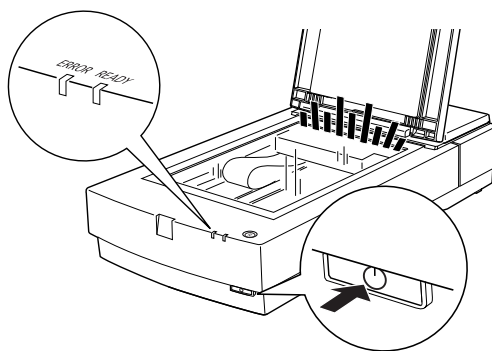
4. When READY light stops flashing and stays on, it means the scanner has completed initialization.

5. Turn off the scanner.

If the scanner does not work as described, make sure the power cord is firmly plugged in and that you have released the transportation lock, then try again.

> **⚠ Caution:**
> *Whenever you turn off the scanner, wait at least 10 seconds before turning it back on. Rapidly turning the scanner on and off can damage it.*

Connecting the Scanner Using the SCSI Interface

For instructions on connecting the scanner to your computer using the SCSI interface, read this section.

Note for Macintosh® users:
You need to install the scanner software before connecting the scanner to your computer. Follow the instructions in Chapter 3 to install your software, then connect your scanner as described in this chapter.

For PC users:

Unless your PC already has a SCSI board installed, you need to install one, along with SCSI driver software. Install the SCSI board according to the directions included with it. Also see "Installing a SCSI interface board" on page 2-8.

Note:
You will also need to install the SCSI driver that is normally included with Windows (see your Windows documentation for instructions), or the driver described in your SCSI board installation documentation.

If your PC has a SCSI board up and running, connect the scanner as described in "Connecting the scanner" on page 2-13.

For Macintosh users:

Your Macintosh may or may not have SCSI ports, depending on which model you own. See the next section if you need to install a SCSI board in your Macintosh. If your Macintosh already has a SCSI port, install the scanner software as described in Chapter 3, then connect the scanner to your Macintosh as described in "Connecting the scanner" on page 2-13.

Note:
The latest driver may be available for download from the Web site of the SCSI board manufacturer.

Installing a SCSI interface board

Follow the instructions in this section to install a SCSI board and SCSI software in your computer. You should do this before installing the scanner driver and software applications.

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

Note:
For additional information, see the installation guide that comes with your SCSI board.

1. Turn off the computer and any peripheral devices. Unplug any power cords, then disconnect all cables from 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.

Understanding SCSI connections

Read this section 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 disk, CD-ROM, and so on) 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.
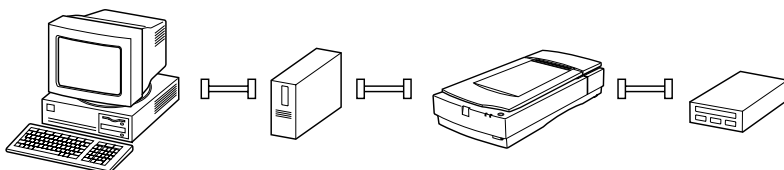
SCSI cables

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 maker of your SCSI device and SCSI interface board.

SCSI ID and terminator

Each device has a SCSI ID number: the computer is usually number 7, and each of the other devices must have a different number between 0 and 6. Also, the first device and the last device in the chain (not including the computer) must have a terminator. No other device can have a terminator, or if a terminator does exist, it must be turned off or removed.

Setting the SCSI ID number

The scanner's SCSI ID switch is set to number 2 at the factory.

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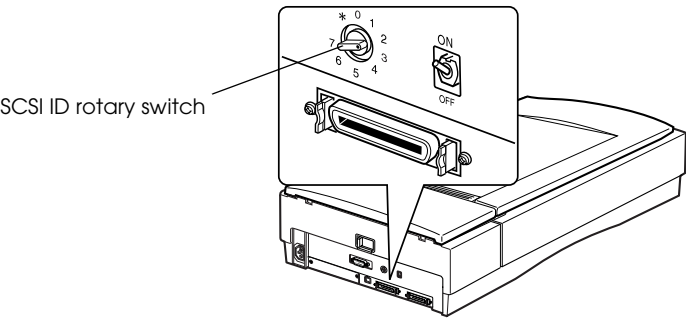
If you add the scanner to a system in which one of your SCSI devices already has a SCSI ID of 2, change the ID number to an unused number using the rotary switch. See the table below as a guide.

ID	Availability	Description
0	Not available for Macintosh	Used for hard disks
	Not recommended for PCs	Usually used for hard disks
1	Not recommended	Usually used for hard disks
2	Available	Factory setting of the scanner
3	Available	Not available if your Macintosh has a built-in CD-ROM
4	Available	
5	Available	
6	Available	

ID	Availability	Description
7	Not available for Macintosh	Always used for the Macintosh itself
	May not be available for PCs.	Usually used for the PC's SCSI board
＊	Not available	For transportation purposes.＊ See "Transporting the Scanner and the Transparency Unit" in the Maintenance and Troubleshooting section of the online *Reference Guide*.

* Scanner will not work if selected.

> **!** *Caution:*
> *Do not set the SCSI ID to an ID number that is already assigned to another device. 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. Depending on your computer system, you may need to change the terminator switch setting.

Note:
Do not use an external terminator.
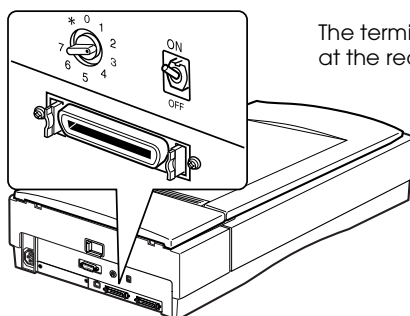
The terminator switch is located at the rear of the scanner.

Only the scanner is connected

terminator on
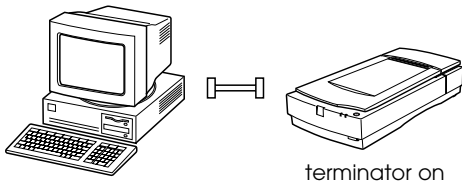
The scanner is the last device in the daisy chain

(other SCSI device)

terminator on
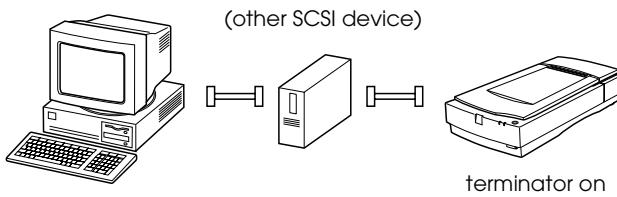
The scanner is in the middle of the daisy chain

(other SCSI device)

terminator off
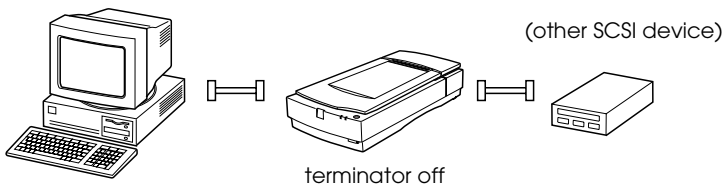
Connecting the scanner

Connect the scanner to your computer or to another SCSI device as described below.

Note:
The types of connectors needed on the SCSI interface cable varies depending on the maker 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. Connect one end of the interface cable to one of the scanner SCSI connectors until the locks on both sides snap in.
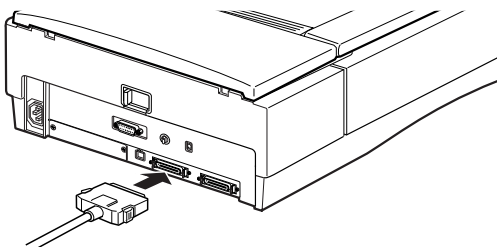
Note:
❏ *To connect the scanner to a SCSI device other than the computer, the length of cable in the daisy chain must not exceed 6 meters; otherwise the system may not work properly.*

❏ *To connect the scanner to a PC using SCSI-2, the length of the cable must not exceed 3 meters.*

❏ *Make sure no other interface is used.*

3. Connect the other end of the cable to the SCSI port of your computer or another SCSI device.

   Note:
   The SCSI port on the Macintosh is the larger port with the SCSI icon over it.

4. Plug in the power cords of your computer, scanner, and other external SCSI devices.

When all devices are connected and plugged in, take note of the information in "Power-on sequence" on page 2-14 and "Power-off sequence" on page 2-15, then install the scanner software as described in Chapter 3.

Power-on sequence

Always turn on your scanner or other SCSI devices before turning on the computer. If your scanner is connected to a daisy chain, turn on the SCSI device which is connected at the farthest end of the chain first, then proceed to the second farthest device and so on before turning on your computer. If you attempt to use a SCSI device that has been turned on after the computer, it may not work properly, or the computer may not work properly.

Note:
If the scanner software is not yet installed, a dialog box or message prompting you to set up the device and install the scanner software may appear when you turn on the computer when the scanner is on. In this case, see the scanner software installation instructions in Chapter 3, "Installing the Software," to complete the setup procedure.

Power-off sequence

Keep the following in mind every time you turn off your computer, scanner, and other 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 on.

❏ Do not turn the scanner off and back on while using your computer; otherwise the scanner may not work properly.

When changing the ID number or replacing the SCSI board in Windows 98

If you want to change the SCSI ID number of your scanner, or replace your computer's SCSI board, you may need to remove your scanner from your system first, depending on the version of Windows 98 installed on your computer. If Windows 98 Second Edition is installed on your computer, you can make these changes without removing the scanner from the system. If your version of Windows 98 is not the Second Edition, you need to remove and then reinstall the scanner software in your computer as described in "Changing the ID number or SCSI board" on page 2-16. See the next section for instructions on checking your Windows 98 version.

Checking your Windows 98 version

Follow the steps below to check your Windows 98 version.

1. Right-click the My Computer icon on your desktop, and select Properties.

2. In the General menu, read the description under System.

   If you see 4.10.1998, your version of Windows 98 is not the Second Edition, and you must follow the steps in the next section when changing the SCSI board or ID number.

   If the description does not include 4.10.1998, you can change the ID number or SCSI board without following the steps below.

Changing the ID number or SCSI board

1. Connect the scanner to your computer.

   Note:
   If you have cameras or scanners other than the EPSON Expression 1680 listed in the Control Panel's Scanner and Cameras Properties dialog box, you must also connect them to your computer or USB hub.

2. Turn on the scanner and any other devices listed in the Scanner and Cameras Properties dialog box, then turn on your computer.

3. Click the Start menu, point to Settings and click Control Panel.

4. Double-click the Scanners and Cameras icon.

5. Select EPSON Expression1680 and click Remove.

Note:
If other devices listed in the Scanners and Cameras Properties dialog box are not connected to the computer when you click Remove, *those devices may also be removed. Be sure to connect and turn on all the devices listed in the Scanners and Cameras Properties dialog box before turning on your computer and removing the scanner.*

6. Click OK to close the dialog box, then close the Control Panel.

7. Shut down Windows and turn off your computer.

8. Turn off the scanner.

9. Change the scanner's SCSI ID number, or if you are changing the SCSI board, disconnect the SCSI cable and replace the board. Then reconnect the SCSI cable.

10. Turn on the scanner, then turn on your computer.

11. When the dialog box below appears, insert your scanner software CD into your CD-ROM drive, then click OK to reinstall EPSON TWAIN Pro.

Insert Disk	✕
✕ Please insert the disk labeled 'EPSON Scanners Driver Disk 1', and then click OK.	
[OK]	
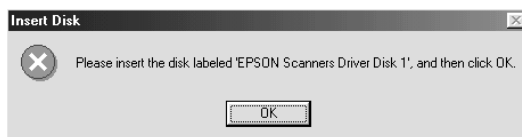
Note:
If the following dialog box appears, browse the CD-ROM for EPSON\(your preferred language)\Win98, *then click* OK.

New Hardware Found	✕
The file 'epcomdd.dll' on EPSON Scanners Driver Disk 1 cannot be found.	OK
	Cancel
Insert EPSON Scanners Driver Disk 1 in the selected drive, and click OK.	
	Skip File
Copy files from:	Details...
D:\EPSON\English\WIN98 ▼	Browse...
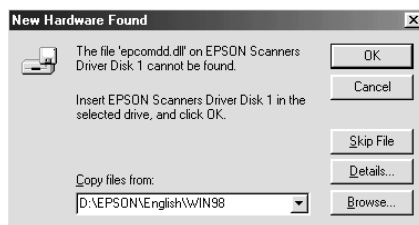
Connecting the Scanner Using the USB Interface

To connect your scanner to your computer with the USB cable, your PC must be pre-installed with Windows Millennium Edition, 98, or 2000, and have a working USB port.

Your Apple Macintosh must be equipped with a PowerPC processor running Mac OS 8.5 or later, and have a working USB port.

Note for Macintosh users:
Be sure to install the scanner software before connecting the scanner to your computer. For details, see Chapter 3, "Installing the Software."

Note for Windows users:
If you want to connect the scanner to a different USB port on your computer or hub after installing the scanner software, you must uninstall the scanner software before switching ports, then reinstall the software once the scanner is connected to the new port. Follow the instructions in "When changing the USB port in Windows 98" on page 2-21.

Understanding USB connections

Read this section for a general understanding of USB cables and USB hubs.

USB cables

USB cables enable you to connect or remove peripherals to and from your computer easily, without having to shut down and restart the system each time a peripheral is plugged in or unplugged. You do not have to set an ID number or a terminator.

Note:
Do not connect or disconnect USB cables when the scanner is in use.

The connectors at each end of USB cables are different. The end that connects to your computer has a "Type A" connector, shown below:
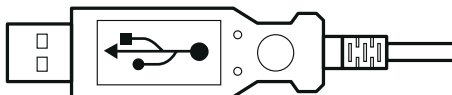
The end that connects to your scanner has a "Type B" connector, shown below:
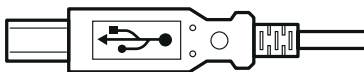
USB hubs

You can also use a USB hub, allowing you to increase the number of USB ports and therefore connect several devices to your computer at the same time.

Note:
If you connect your scanner through more than one hub, your system may not work properly. In this case, try connecting the scanner directly to the computer's USB port. Also, your system may not work properly if you use a USB cable other than that supplied by EPSON.

Connecting the scanner

Follow these steps to connect the scanner to your computer or USB hub.

Note for Windows 98 users:
If you want to connect the scanner to a different USB port on your computer or hub after installing the scanner software, you must uninstall the scanner software before switching ports, then reinstall the software once the scanner is connected to the new port. Follow the instructions in "When changing the USB port in Windows 98" on page 2-21.

1. Connect the end of the cable shown below to the USB port on the back of the scanner.
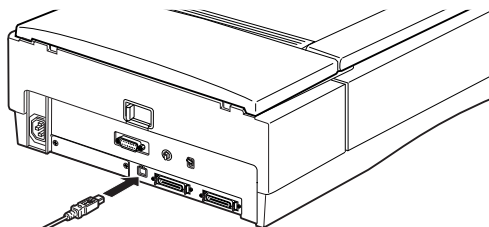
2. Connect the other end of the cable shown below to the USB port on your computer, or USB hub.
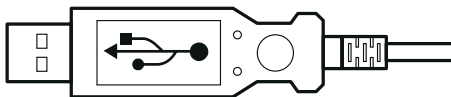
Note:
❏ *USB cables enable you to connect the scanner whether your computer is on or off. If you connect the scanner and turn it on while your computer is on and the scanner software is not yet installed, a dialog box or message prompting you to set up the device may appear on your screen. In this case, see the EPSON TWAIN Pro installation instructions in Chapter 3 to complete the setup procedure.*

❏ *Connect the USB cable to your computer before installing or starting the scanner software. Do not connect or disconnect the USB cable while the scanner software is open.*

❏ *Make sure no other interface is used.*

When changing the USB port in Windows 98

If you want to connect the scanner to a different USB port on your computer or hub, you may need to remove your scanner from your system first, depending on the version of Windows 98 installed on your computer. If Windows 98 Second Edition is installed on your computer, you can change the USB port without removing the scanner from the system. If your version of Windows 98 is not the Second Edition, you need to remove and then reinstall the scanner software in your computer as described in "Changing the USB port" on page 2-22. For instructions on checking your Windows 98 version, see the next section.

Checking your Windows 98 version

Follow the steps below to check your Windows 98 version.

1. Right-click the My Computer icon on your desktop, and select Properties.

2. In the General menu, read the description under System.

   If you see 4.10.1998, your version of Windows 98 is not the Second Edition, and you must follow the steps in the next section when changing the USB port.

   If the description does not include 4.10.1998, you can change the USB port without following the steps below.

Changing the USB port

1. Connect the scanner to your computer.

   Note:
   If you have cameras or scanners other than the EPSON Expression 1680 listed in the Control Panel's Scanner and Cameras Properties dialog box, you must also connect them to your computer or USB hub.

2. Turn on the scanner and any other devices listed in the Scanner and Cameras Properties dialog box, then turn on your computer.

3. Click the Start menu, point to Settings and click Control Panel.

4. Double-click the Scanners and Cameras icon.

5. Select EPSON Expression 1680 and click Remove.

    Note:
    If other devices listed in the Scanners and Cameras Properties dialog box are not connected to the computer when you click Remove, *those devices may also be removed. Be sure to connect and turn on all the devices listed in the Scanners and Cameras Properties dialog box before turning on your computer and removing the scanner.*

6. Click OK to close the dialog box, then close the Control Panel.

7. Shut down Windows and turn off your computer, but leave the scanner on.

8. Connect the USB cable to the new USB port.

9. Turn on your computer.

10. When the dialog box below appears, insert your scanner software CD into your CD-ROM drive, then click OK to reinstall EPSON TWAIN Pro.

Insert Disk	
Please insert the disk labeled 'EPSON Scanners Driver Disk 1', and then click OK.	
OK	
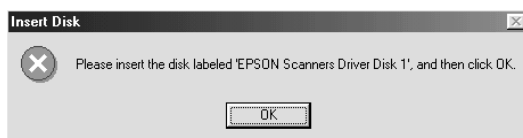
    Note:
    If the following dialog box appears, browse the CD-ROM for EPSON\language\Win98, *then click* OK.

New Hardware Found	
The file 'epcomdd.dll' on EPSON Scanners Driver Disk 1 cannot be found.	OK
	Cancel
Insert EPSON Scanners Driver Disk 1 in the selected drive, and click OK.	
	Skip File
	Details...
Copy files from:	
D:\EPSON\English\WIN98	Browse...

Installing the Software

3

System Requirements

Before installing the scanner software, make sure that your system meets the following requirements.
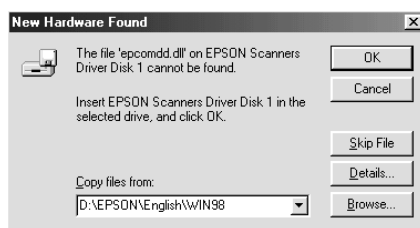
When connecting the scanner directly to your computer

To use your scanner when it is directly connected to your computer through a SCSI or USB connection, make sure your system meets the requirements in the appropriate section below.

Note:
For requirements when using your scanner over a network, see "When scanning over a network" on page 3-5.

For Windows

SCSI users

Scanner:	EPSON Expression 1680/Expression 1680 Pro
System:	Microsoft® Windows Millennium Edition, Windows 98, Windows 95, Windows 2000, or Windows NT 4.0
Interface:	Adaptec® SCSI adapter
Display:	VGA or higher resolution monitor 640×480 screen resolution (800×600 or higher recommended), and 65,000 colors (or higher)

Note:
Color and tone reproduction are subject to the display capability of your computer system, including the video card, display monitor, and software. See the product documentation for details.

USB users

Scanner: EPSON Expression 1680/Expression 1680 Pro

System: Microsoft Windows Millennium Edition,
Windows 98, or Windows 2000 pre-installed

Interface: USB port (Type A receptacle)

3

Display: VGA or higher resolution monitor 640×480 screen
resolution (800×600 or higher recommended), and
65,000 colors (or higher)

Note:
*Color and tone reproduction are subject to the display
capability of your computer system, including the video
card, display monitor, and software. See the product
documentation for details.*

For Macintosh

SCSI users

Scanner:	EPSON Expression 1680/Expression 1680 Pro
System:	Apple® Macintosh with a PowerPC processor running system 8.0 or later
Interface:	SCSI adapter

Note:
You cannot use a serial interface.

Display:	Color Monitor, 640×480 screen resolution (or higher recommended), and 32,000 colors (or higher)

Note:
Color and tone reproduction are subject to the display capability of your computer system, including the video card, display monitor, and software. See the product documentation for details.

USB users

Scanner:	EPSON Expression 1680/Expression 1680 Pro
System:	Apple Macintosh PowerPC with built-in USB ports and running Mac OS 8.5 or later
	iMac running Mac OS 8.5 or later
Interface:	USB port

Note:
You cannot use a serial interface.

Display: Color Monitor, 640×480 screen resolution (or higher recommended), and 32,000 colors (or higher)

Note:
Color and tone reproduction are subject to the display capability of your computer system, including the video card, display monitor, and software. See the product documentation for details.

3

When scanning over a network

Computer: for EPSON Scan Server
                    IBM PC/AT compatible computer
                    (Intel Pentium or faster processor is
                    recommended)

                    for EPSON TWAIN Pro Network
                    IBM PC/AT compatible computer
                    (Intel Pentium or faster processor is
                    recommended), or Apple Power
                    Macintosh

Operating system: for EPSON Scan Server
                    Windows Millennium Edition, 98, 95,
                    2000 Server or Professional,
                    or NT 4.0 Server or Workstation

                    for EPSON TWAIN Pro Network
                    Windows Millennium Edition, 98, 95,
                    2000 Professional, NT 4.0 Workstation,
                    or Apple System 8.0 or later

System   Minimum two computers in a network.
configuration:

Scanner: EPSON Expression 1680/1680 Pro

Interface for scanner:	SCSI, USB, IEEE 1394
Interface for network:	10BaseT/100BaseTX, 10Base5, 10Base2
Ethernet communication protocol:	TCP/IP

Installing EPSON TWAIN Pro for Windows

After connecting the scanner to your computer, you need to install the scanner software from the CD-ROM. If the scanner is connected directly to your computer, follow the instructions for your version of Windows in this section. If the scanner is connected through a network, follow the instructions in "Installing Software for Scanning Over a Network" on page 3-27.

Note:
❏ *If you are planning to upgrade your Windows operating system, you should do so before installing the scanner software.*

❏ *If you have already installed the scanner software in Windows 98, 95, or NT 4.0 and you plan to upgrade your Windows operating system, you need to uninstall the scanner software before upgrading Windows. See "When Updating Your Windows Operating System" on page 3-48 for more information.*

For Windows Millennium Edition users

Follow the steps below to install EPSON TWAIN Pro using the Plug and Play feature.

1. Connect your scanner to your computer and turn on the scanner and then your computer.

   Note:
   It is important to follow this power on sequence if you are using a SCSI interface. Otherwise the Plug and Play feature will not work.

2. The first time you turn on the computer after connecting the scanner, the dialog box shown below appears. Select Specify the location of the driver, then click Next.
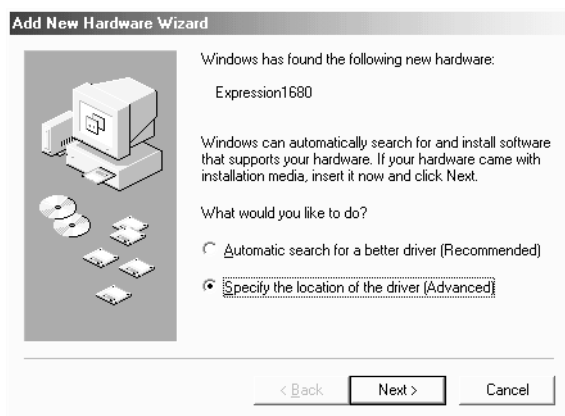
3. Insert your scanner software CD in the CD-ROM drive.

4. Make sure the Search for the best driver for your device option and the Specify a location check box are selected, then browse the CD-ROM for EPSON\(your preferred language)\WINME, then click Next.

5. When a dialog box similar to the one shown below appears, click Next.
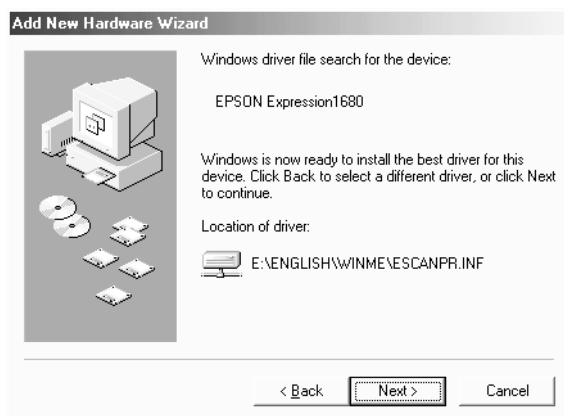
6. When the dialog box shown below appears, click Finish.

7. This completes the EPSON TWAIN Pro installation. Restart your computer.

   Note:
   It is important to restart your computer before using the scanner.

You are now ready to install the other software from your scanner software CD-ROM. See "Installing other scanner software for Windows Millennium Edition, 98, and 2000" on page 3-17.

For Windows 2000 users

Follow the steps below to install EPSON TWAIN using the Plug and Play feature.

1. Connect your scanner to your computer and turn on the scanner and then your computer.

    Note:
    It is important to follow this power on sequence if you are using a SCSI interface. Otherwise the Plug and Play feature will not work.

2. The first time you turn on the computer after turning on the scanner, the dialog box shown below appears. Insert your scanner software CD in the CD-ROM drive, then click Next.

3. Make sure that the Search for a suitable driver for my
   device option is selected, then click Next.

Found New Hardware Wizard

Install Hardware Device Drivers
A device driver is a software program that enables a hardware device to work with
an operating system.

This wizard will complete the installation for this device:

Expression1680

A device driver is a software program that makes a hardware device work. Windows
needs driver files for your new device. To locate driver files and complete the
installation click Next.

What do you want the wizard to do?

○ Search for a suitable driver for my device (recommended)

○ Display a list of the known drivers for this device so that I can choose a specific
driver

< Back   Next >   Cancel

4. Make sure only Specify a location is selected, and click
   Next.

Found New Hardware Wizard

Locate Driver Files
Where do you want Windows to search for driver files?

Search for driver files for the following hardware device:

Expression1680

The wizard searches for suitable drivers in its driver database on your computer and in
any of the following optional search locations that you specify.

To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive,
insert the floppy disk or CD before clicking Next.

Optional search locations:

☐ Floppy disk drives

☐ CD-ROM drives

☑ Specify a location

☐ Microsoft Windows Update

< Back   Next >   Cancel

5. Browse the CD-ROM for EPSON\(your preferred language)\WIN2000, then click OK.

6. Follow the instructions on the screen. When the dialog box shown below appears, click Yes to continue.
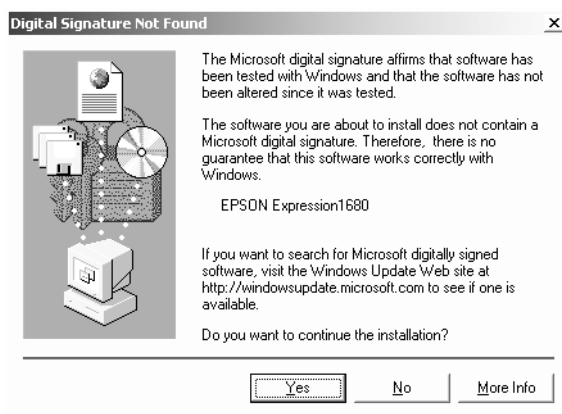
Note:
If you click No *and stop installation, your scanner will appear under* Other Devices *with a* ? *mark in the Device Manager menu. To reinstall EPSON TWAIN, you must first uninstall the software. Follow the instructions in "Recovering from Scanner Software Installation Problems on Windows 98, 2000, and Millennium Edition" in the online Reference Guide to uninstall your scanner before installing EPSON TWAIN again.*

7. When the dialog box shown below appears, click Finish.

Note:
If a message appears instructing you to restart your computer, click Yes *to restart your computer.*

You are now ready to install the other software from your scanner software CD-ROM. See "Installing other scanner software for Windows Millennium Edition, 98, and 2000" on page 3-17.

For Windows 98 users

Follow the instructions below to install the scanner software on your Windows 98 system.

Note:
If you plan to upgrade from Windows 98 to a newer Windows operating system, do not install the scanner software until you have finished upgrading your system.

1. Connect your scanner to your computer and turn on the scanner and then your computer.

   Note:
   It is important to follow this power on sequence if you are using a SCSI interface. Otherwise the Plug and Play feature will not work.

2. When the dialog box below or similar appears, insert the scanner software CD in the CD-ROM drive, then click Next.

3. Select the Search for the best driver for your device option, then click Next.

4. Make sure the Specify a location check box is selected, then browse the CD-ROM for EPSON\(your preferred language)\WIN98, as shown below, and click Next.
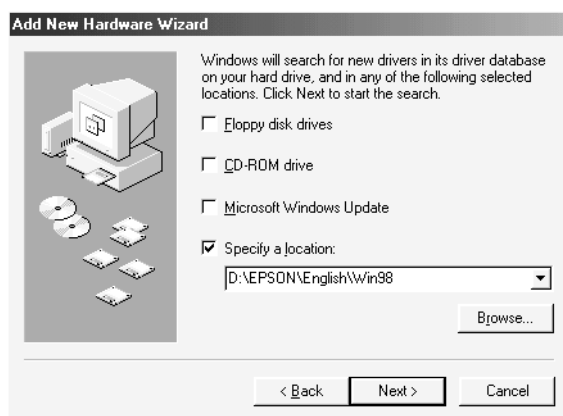
5. Follow the instructions on the screen. Depending on your system, you may be asked to insert the Windows 98 CD-ROM.

Make sure that the correct CD-ROM drive letter and the Win98 folder are specified in the Copy files from box as shown below.
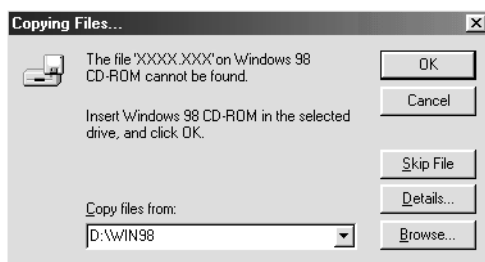
6. When the following dialog box is displayed, click Finish.

Note:
If a message appears instructing you to restart your computer, click
Yes *to restart your computer.*

This completes the EPSON TWAIN Pro installation. See the next section to install additional software from the CD-ROM.

Installing other scanner software for Windows Millennium Edition, 98, and 2000

Follow the steps below to install Presto! PageManager for EPSON and other scanner software in your computer.

Note:
To take advantage of all the functions of your scanner's ⚡ Start button, be sure to install Presto! PageManager for EPSON following the instructions below.

1. Double-click the My Computer icon.

2. Double-click the CD-ROM drive icon. A dialog box asking for your preferred language appears on your screen. If no dialog box appears, double-click the Cdsetup.exe icon.

3. Select your preferred language and click OK.

4. The following dialog box appears. Click Add Software.

5. A list of software appears. Click to select the names of the software you want to install in your PC. Make sure Presto! PageManager for EPSON Ver.4.2 is selected.

6. Click OK, then follow the on-screen instructions to finish installing the software.

Note:
If folders for the applications on the CD-ROM contain README files, double-click and read them as they contain up-to-date information regarding the software.

For Windows 95 and Windows NT 4.0 users

Follow the steps below to install the scanner software in your
Windows 95 or Windows NT 4.0 system.

Note:
*If you plan to upgrade from Windows 95 or Windows NT 4.0 to a newer
Windows operating system, do not install the scanner software until you
have finished upgrading your system.*

1. Connect your scanner to your computer and turn on the
    scanner and then your computer.

    Note:
    *It is important to follow this power on sequence if you are using a
   SCSI interface. Otherwise the Plug and Play feature will not work.*

    If you are using Windows NT 4.0, insert the scanner software
    CD in the CD-ROM drive, then proceed to step 3.

    If you are using Windows 95, one of the following dialog
    boxes will appear.

❏ If the dialog box below appears, insert the scanner software CD in the CD-ROM drive.

Select Driver from disk provided by hardware manufacturer, then click OK. Browse the CD-ROM for EPSON\(your preferred language)\WIN95, then click OK. Go to step 3.
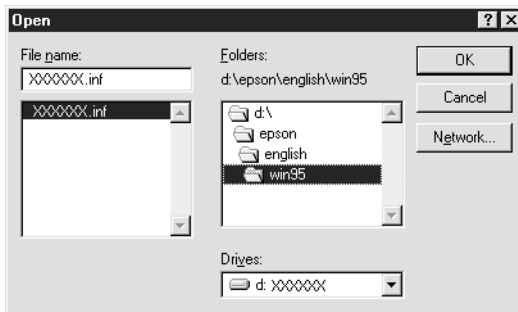
❏ If the dialog box below appears, insert the scanner software CD in the CD-ROM drive, then click Next.

When the following dialog box appears, click the Other Location button.

The Select Other Location dialog box appears. Browse the CD-ROM for EPSON\(your preferred language)\WIN95, then click OK.

Select Other Location

Type the name of the folder that contains the driver you want. To search for a folder, click Browse.

Location

`D:\EPSON\English\Win95`   Browse...

OK   Cancel

When the following dialog box or similar appears, click Finish.

Update Device Driver Wizard

Windows found the following updated driver for this device:

EPSON Expression1680

If you want to use this driver, click Finish. If this is not the correct driver and you want to search for a different driver manually, click Other Locations.

Location of Driver

Winme

Other Locations...

< Back   Finish   Cancel

2. Double-click the My Computer icon.

3. Double-click the CD-ROM drive icon. A dialog box asking your preferred language appears on your monitor. If no dialog box appears, double-click the Cdsetup.exe icon.

4. Select your preferred language, then click OK.

---

5. The following dialog box appears. Click Add Software.

6. A list of software appears. Click to select the names of the software you want to install in your PC. Make sure Presto! PageManager for EPSON Ver.4.2 is selected.

7. Click OK. Then follow the instructions on the screen.

The setup program installs EPSON TWAIN Pro, EPSON Scanner Monitor and Presto! PageManager for EPSON.

8. After EPSON TWAIN Pro is installed, the following dialog box appears.
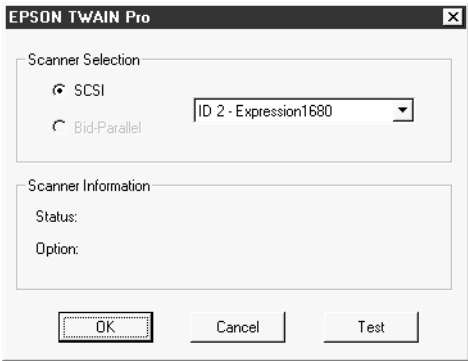
9. Make sure that SCSI is selected and your EPSON scanner appears in the Scanner Selection list. If not, see "Software Setup Problems" in the Maintenance and Troubleshooting section of the online *Reference Guide*.

10. Click Test to check the connection. If everything is properly installed and connected, Status: Device Ready appears under Scanner Information in the dialog box.
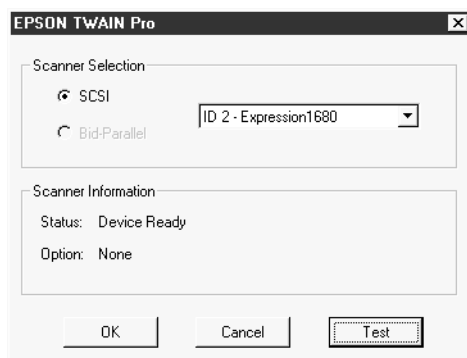
If Device Ready does not appear, see "Software Setup Problems" in the Maintenance and Troubleshooting section of the online *Reference Guide*.

11. Click OK to close the EPSON TWAIN Pro dialog box.

Installing EPSON TWAIN Pro for Macintosh

Before connecting the scanner to your Macintosh computer, you must first install the EPSON scanner software from the CD-ROM.

Note:
If you are using an EPSON scanner or EPSON Stylus Scan series product that has a USB port and you have installed EPSON TWAIN or EPSON Stylus Scan FB/SF TWAIN on your Macintosh, do the following before you install the software:

1) Go to Control Panels *in the Apple Menu.*

2) Open Extensions Manager.

3) Clear the check box next to EPSON Scanner Monitor USB Extension.

4) Restart your Macintosh.

Follow the steps below to install the ESPON scanner software.

1. Turn on the computer.

2. Insert the CD in the CD-ROM drive.

3. Double-click the EPSON TWAIN Pro folder, then double-click the folder of your preferred language.

4. Double-click the EPSON TWAIN Pro Installer icon.

EPSON TWAIN Pro Installer

5. In the Installer dialog box, click Install and follow the instructions on the screen.

```
┌─────────────────────────────────────────────────────────┐
│═══════════════ EPSON TWAIN Pro Installer ═══════════════▣│
│ ┌──────────────────┐                                     │
│ │ Easy Install   ▼ │                                     │
│ └──────────────────┘                                     │
│ ┌─────────────────────────────────────────────────────┐ │
│ │ Click the "Install" button to install               │ │
│ │ • EPSON TWAIN Pro                                   │ │
│ │ • EPSON Scanner Monitor                             │ │
│ │                                                     │ │
│ │                                                     │ │
│ │                                                     │ │
│ └─────────────────────────────────────────────────────┘ │
│   Disk space available: 2,097,144   Approximate disk space needed: 6,804K │
│ ┌─ Install Location ──────────────┐    ┌───────────┐    │
│ │        ┌──────────────────┐     │    │   Quit    │    │
│ │        │  Macintosh HD  ▼ │     │    └───────────┘    │
│ │  [  ]  └──────────────────┘     │    ┌───────────┐    │
│ │  on the disk "Macintosh HD"  ┌──────────────┐ │ Install │ │
│ │                              │ Switch Disk  │ └───────────┘ │
│ └──────────────────────────────┴──────────────┘──────────┘│
└─────────────────────────────────────────────────────────┘
```

6. When installation is finished, click Restart to restart your computer, then proceed to step 7 to install other software.

7. Double-click the folder that contains the software you want to install, then double-click the folder of your preferred language.

    Note:
    To take advantage of all the functions of your scanner's ⍟ Start button, be sure to install Presto! PageManager for EPSON.

8. Double-click the installer icon to start the installation program. Then follow the instructions on the screen.

9. After installing the software, connect the scanner to your computer as described in Chapter 2. (Keep in mind the "Power-on sequence" on page 2-14 if you are using a SCSI interface.)

Installing Software for Scanning Over a Network

To use your scanner over a network, you need to install EPSON Scan Server on the computer that will act as the scanner server, and you need to install EPSON TWAIN Pro Network on each computer that will use the scanner on the network. Follow the instructions in this section.

Installing EPSON Scan Server

Note:
EPSON Scan Server cannot be installed on a Macintosh.

Follow these steps to install EPSON Scan Server:

1. Connect your scanner to the PC that will function as the scanner server.

2. Turn on the scanner, then turn on the scanner server PC.

3. Insert your scanner software CD in the CD-ROM drive.

   In Windows Millennium Edition, 98, 95, or 2000, a setup wizard starts. Follow the on-screen instructions to install necessary driver files in your system, then proceed to step 4 to continue installing EPSON Scan Server.

   If a message appears prompting you to specify a location for the driver, you must browse the CD-ROM for the appropriate folder listed below.

   For Windows Millennium Edition users:
   EPSON\(your preferred language)\WinMe

   For Windows 98 users:
   EPSON\(your preferred language)\Win98

For Windows 95 users:
EPSON\(your preferred language)\Win95

For Windows 2000 users:
EPSON\(your preferred language)\Win2000

After specifying the appropriate folder, follow the on-screen instructions to finish installation and close the wizard. In Windows 95, an INF (information) file is installed. In Windows Millennium Edition, 98, and 2000, EPSON TWAIN Pro is installed.

4. Start Windows Explorer and double-click Cdsetup.exe in the CD-ROM drive.

5. Select the language that you want to use in the Select Language dialog box and click OK.

   The EPSON Software Setup dialog box appears.

6. Click Add Software in the EPSON Software Setup dialog box.
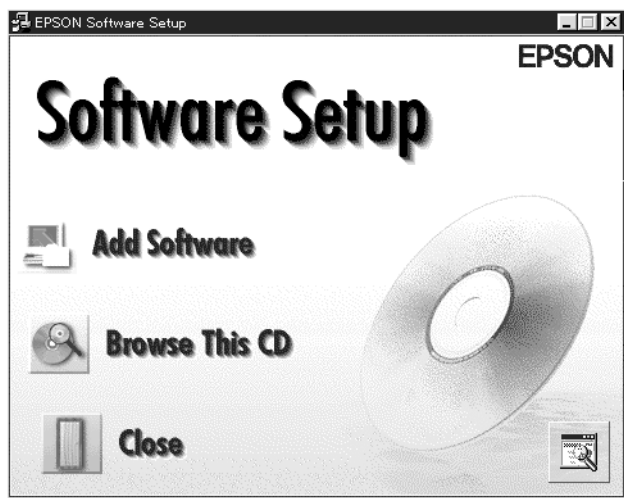
7. Select EPSON Scan Server. Make sure to remove check marks from any software that is already installed on the scanner server PC.

Note:
You must also select EPSON TWAIN Pro Network if you want to scan using the scanner server PC.

```
EPSON Software Setup                                          ×
Software:                                        ┌──────────────┐
EPSON TWAIN Pro Rev.X.XX                    ▲    │      OK      │
EPSON TWAIN Pro Network Rev.X.XX                 └──────────────┘
✓ EPSON Scan Server Rev.X.XX                     ┌──────────────┐
Presto! PageManager for EPSON Ver.X.XX           │    Cancel    │
Adobe Acrobat Reader Ver.X.XX               ▼    └──────────────┘

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```
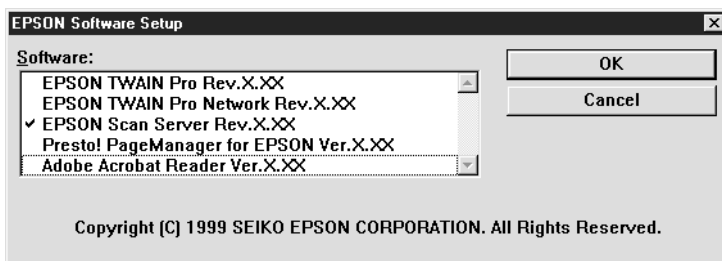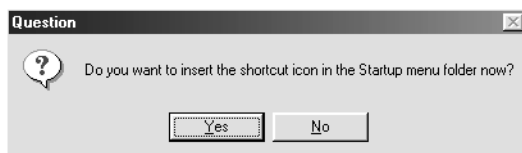
8. Click OK to start installation.

9. Click Next to begin copying the program files.

```
Welcome                                                        ×

                    Welcome to the EPSON Scan Server Setup program.
                    This program will install EPSON Scan Server on your
                    computer.

                    It is strongly recommended that you exit all Windows programs
                    before running this Setup program.

                    Click Cancel to quit Setup and then close any programs you
                    have running.  Click Next to continue with the Setup program.

                    WARNING: This program is protected by copyright law and
                    international treaties.

                    Unauthorized reproduction or distribution of this program, or any
                    portion of it, may result in severe civil and criminal penalties, and
                    will be prosecuted to the maximum extent possible under law.

                              ┌──────────┐  ┌──────────┐
                              │  Next >  │  │  Cancel  │
                              └──────────┘  └──────────┘
```

10. When all files are copied, the following message appears. Click Yes or No.

```
┌─ Question ───────────────────────────────────── ⊠ ┐
│  ⧼?⧽  Do you want to insert the shortcut icon in the Startup menu folder now?  │
│                                                    │
│              ┌─────────┐   ┌─────────┐             │
│              │   Yes   │   │   No    │             │
│              └─────────┘   └─────────┘             │
└────────────────────────────────────────────────────┘
```

11. Find your version of Windows below and follow the instructions.

   For Windows Millennium Edition, 98, and 2000 users:
   The information dialog box appears. Click OK, then go to step 12 to finish the setup procedure.

```
┌─ Information ──────────────────────────────────── ⊠ ┐
│  ⧼i⧽  After the setup, please use the Control Panel – Scanners and Cameras settings  │
│       to confirm that the connected EPSON Scanner works.  │
│                                                     │
│                 ┌──────────────┐                    │
│                 │      OK      │                    │
│                 └──────────────┘                    │
└─────────────────────────────────────────────────────┘
```
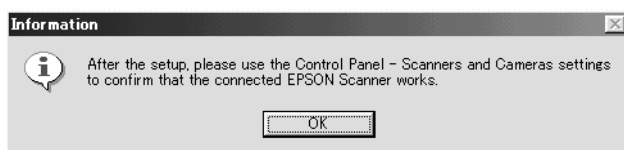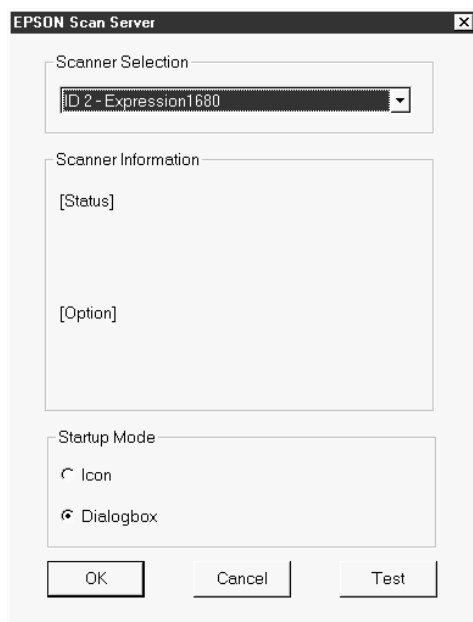
For Windows 95 and Windows NT 4.0 users:
The EPSON Scan Server dialog box appears.
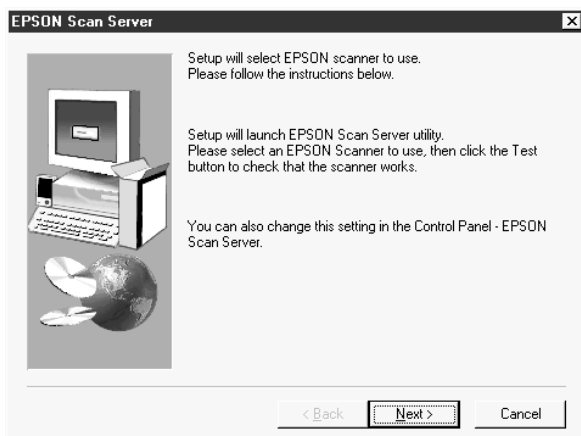
Click Next. The EPSON Scan Server setup dialog box appears.

Select the scanner to be used from the Scanner Selection list.

Note:
If the EPSON TWAIN Pro software or device information file is not already installed on the scanner server PC using Windows 95, no available scanners will appear on the list at this point. In this case, skip selection of the scanner name and continue the installation. Then proceed with the installation of the EPSON TWAIN Pro software. After the installation, select EPSON Scan Server *from the Control Panel. Now the scanner name is on the list and can be selected.*

To display the Scanner Information, click the Test button.

Select either Icon or Dialog box as the start up mode. If you select Icon, the EPSON Scan Server icon appears in the Taskbar tray when Scan Server starts. If you select Dialog, the EPSON Scan Server dialog box appears when Scan Server starts.
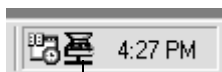
EPSON Scan Server icon
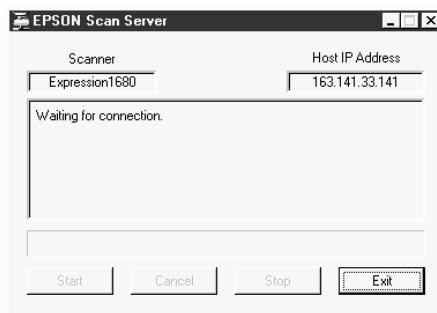
EPSON Scan Server dialog box

12. Click OK, then follow the on-screen instructions to finish installing the software.

Windows 95 and NT 4.0 users should proceed to "Installing EPSON TWAIN Pro Network" on page 3-37. Windows Millennium Edition, 98, and 2000 users need to specify the default scanner as explained in the section below.

Specifying the default scanner in Windows Millennium Edition, 98, and 2000

After installing EPSON Scan Server in Windows Millennium Edition, 98, or 2000, you need to specify the default scanner as described below.

1. Make sure you have completed installation of EPSON Scan Server as described in "Installing EPSON Scan Server" on page 3-27.

2. Double-click the Scanners and Cameras icon in the Control Panel.
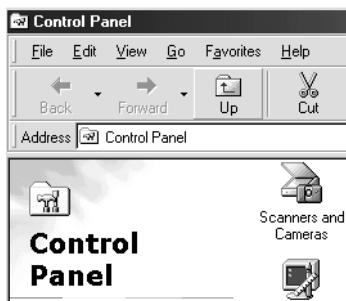
The Scanners and Cameras Properties dialog box appears showing a list of scanners and cameras installed in your computer system.

3. Select EPSON Expression 1680 and click the Properties button.
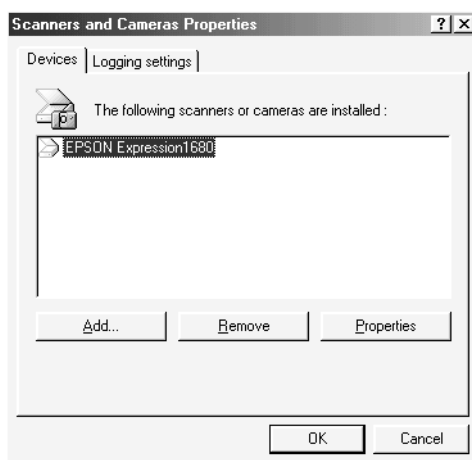
The EPSON Expression 1680 Properties dialog box appears.

4. Click the Utility tab, make sure Select as default scanner for EPSON Scan Server is checked and then click OK.

5. Click OK.

Changing the start up mode

Dialog box to Taskbar icon:

To change from the dialog box start up mode to the Taskbar icon start up mode, click the scanner icon in the upper left corner of the EPSON Scan Server dialog box and select Taskbar Icon from the drop down menu. A check mark will appear next to Taskbar Icon.

Taskbar icon to dialog box:

To change from the Taskbar icon start up mode to the dialog box start up mode, right-click the Scan Server icon in the Taskbar tray and click Taskbar Icon to remove the check mark.

Your settings will take effect the next time you start EPSON Scan Server.

Setting the Scanner Server PC's IP Address

To use EPSON scanners in a network environment, you need to assign IP addresses to the scanner server PC and client PCs.

If EPSON scanners are installed in an internal LAN (Local Area Network), that is, isolated from the Internet, the following IP addresses can be assigned to the scanner server PC.

Note:
If you use IP addresses from these ranges, you will not be able to connect this LAN to the Internet in the future, otherwise there will be IP address conflicts.

10.0.0.0 - 10.255.255.255
172.16.0.0 - 172.31.255.255
192.168.0.0 - 192.168.255.255

If you plan to use a scanner server PC in a network connected to the Internet, you should acquire a formal IP address for the scanner server PC from the Internet organization of your country.

Installing EPSON TWAIN Pro Network

EPSON TWAIN Pro Network supports Windows Millennium Edition, 98, 95, 2000, Windows NT 4.0, and Power Macintosh computers. Install and use EPSON TWAIN Pro Network on each computer that will use the scanner on the network. Make sure you know the IP address or host name of the host computer on which you installed EPSON Scan Server as you will need it while installing EPSON TWAIN Pro Network. For instructions on setting the host computer's IP address, see "Setting the Scanner Server PC's IP Address" on page 3-36.

For Windows

Note:
❏ *If you are planning to upgrade Windows 98, 95, or NT 4.0 to Windows Millennium Edition or Windows 2000, you should do so before installing the scanner software.*

❏ *If you have already installed the scanner software in Windows 98, 95, or NT 4.0 and you plan to upgrade to Windows Millennium Edition or Windows 2000, you need to uninstall the scanner software before upgrading Windows. See "Uninstalling the Scanner Software for Windows" on page 3-49 for more information.*

1. Insert your scanner software CD in the CD-ROM drive.

   The installer automatically starts and the Select Language dialog box appears. If the dialog box doesn't appear, start Windows Explorer and double-click Cdsetup.exe in the CD-ROM drive.

2. Select the language that you want to use in the Select Language dialog box and click OK.
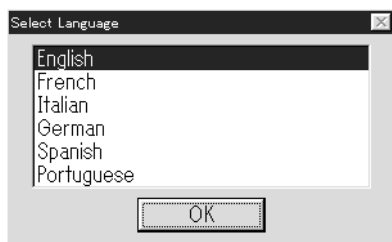
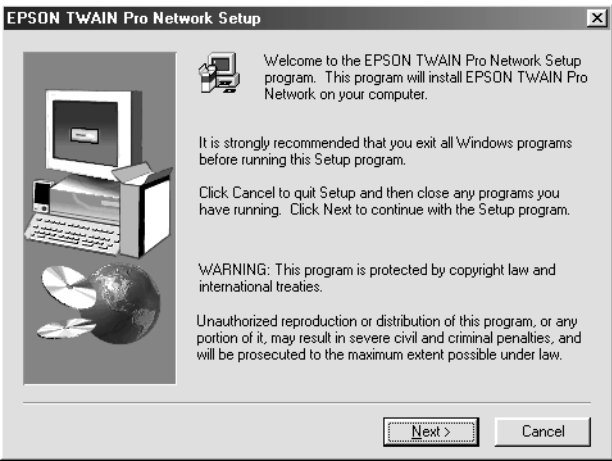The EPSON Software Setup dialog box appears.

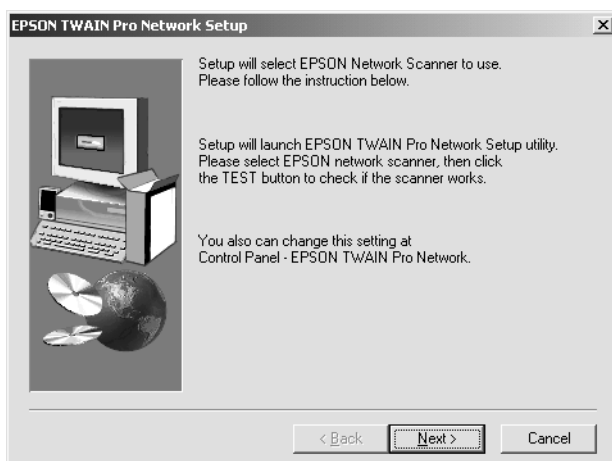3. Click Add Software in the EPSON Software Setup dialog box.
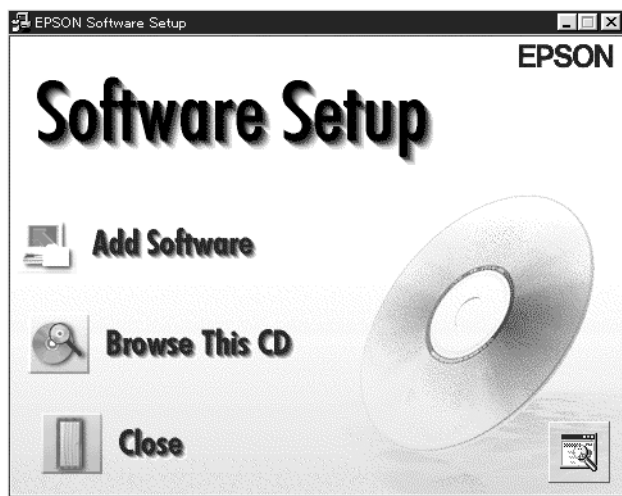
4. Select EPSON TWAIN Pro Network and any other software you want to install. Be careful not to select EPSON TWAIN Pro if it appears in the list, and remove check marks from any software that is already installed on the scanner server PC.
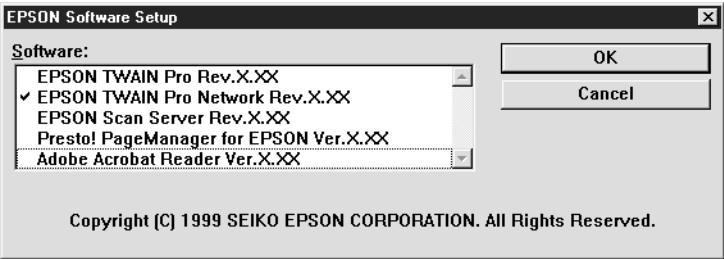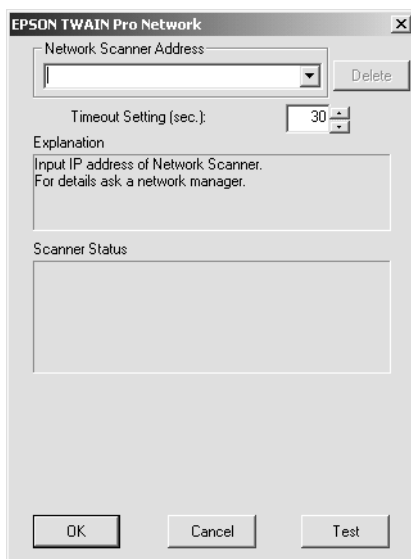

5. Click OK to start installation.

6. Click Next.

7. Click Next.

The EPSON TWAIN Pro Network setup dialog box appears.

Note:
If you need to change any settings in the EPSON TWAIN Pro Network setup dialog box after setup is complete, double-click the EPSON TWAIN Pro Network *icon in the Control Panel.*

8. Specify the IP address or Host name of the scanner server PC in the Network Scanner Address box.

   Note:
   ❏ *For details on specifying the IP address, see "Setting the Scanner Server PC's IP Address" on page 3-36.*

   ❏ *A host name can be used on networks that use the DNS, WINS, or LMHOSTS naming services.*

9. Specify a Timeout Setting between 30 and 300 seconds. Normally you do not need to change this value.

10. To test the status of the scanner, click Test.

    After the test is complete, information about the scanner's status is displayed below the heading Scanner Status.

11. After setting this dialog box, click OK.

Installation of EPSON TWAIN Pro Network is complete.

For Macintosh

1. Insert your scanner software CD in the CD-ROM drive.

2. Double-click the EPSON TWAIN Pro Network folder, then double-click the folder of your preferred language.

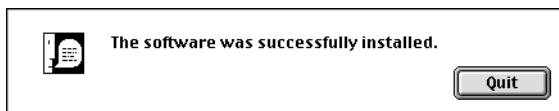3. Double-click the EPSON TWAIN Pro NET Installer icon.
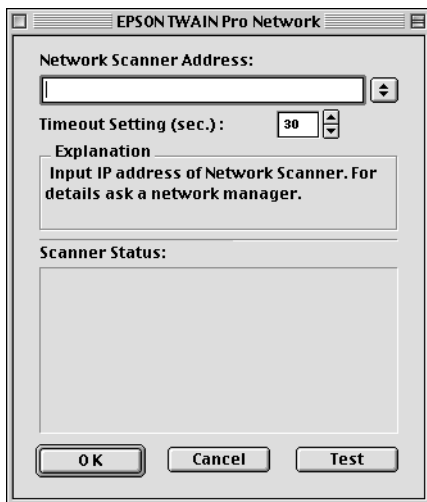
EPSON TWAIN Pro NET Installer

4. In the Installer dialog box, click Install and follow the instructions on the screen.

5. When you finish installation, the following message appears on the screen. Click Quit.

The software was successfully installed.

Quit

6. The EPSON TWAIN Pro Network setup dialog box appears.

```
┌──────────────────────────────────────────┐
│ □ ══════ EPSON TWAIN Pro Network ══════ ▤ │
│                                            │
│  Network Scanner Address:                  │
│  ┌──────────────────────────────────┐ ┌─┐ │
│  │ │                                │ │◆│ │
│  └──────────────────────────────────┘ └─┘ │
│  Timeout Setting (sec.) :    30   ▲▼       │
│  ┌ Explanation ─────────────────────────┐ │
│  │ Input IP address of Network Scanner. For│
│  │ details ask a network manager.        │ │
│  └──────────────────────────────────────┘ │
│                                            │
│  Scanner Status:                           │
│  ┌──────────────────────────────────────┐ │
│  │                                      │ │
│  │                                      │ │
│  │                                      │ │
│  │                                      │ │
│  │                                      │ │
│  └──────────────────────────────────────┘ │
│                                            │
│  ┌─────────┐  ┌─────────┐  ┌─────────┐    │
│  │  O K    │  │ Cancel  │  │  Test   │    │
│  └─────────┘  └─────────┘  └─────────┘    │
└──────────────────────────────────────────┘
```

Enter the IP address or Host name of the scanner server PC in the Network Scanner Address box.

Note:
❏ *For details on specifying the IP address, see "Setting the Scanner Server PC's IP Address" on page 3-36.*

❏ *A host name can be used on networks that use the DNS naming service.*

❏ *If you need to change any settings in the EPSON TWAIN Pro Network setup dialog box after setup is complete, select* EPSON TWAIN Pro NET *in the Apple Menu Control Panels.*

7. Specify a Timeout Setting between 30 and 300 seconds. Normally you do not need to change this value.

8. To test the status of the scanner, click Test.

   After the test is complete, information about the scanner's status is displayed below the heading Scanner Status.

9. After setting this dialog box, click OK.

Installation of EPSON TWAIN Pro Network is complete.

Selecting Scanners

If you connect several scanners that are supported by EPSON TWAIN Pro to your computer, follow the instructions below to select which scanner to use.
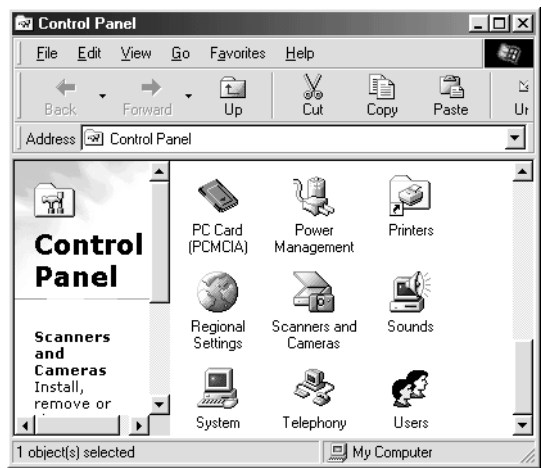
Note:
You can only use more than one scanner of the same model if you connect them using a different type of interface.

For Windows Millennium Edition, 98, and 2000 users

Note:
The illustrations in this section are of Windows 98. The screens in other versions of Windows may vary slightly.

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

2. Select the scanner you want to use from the installed scanners and cameras list in the Scanners and Cameras Properties dialog box. Click Properties, and then click the Utility tab.
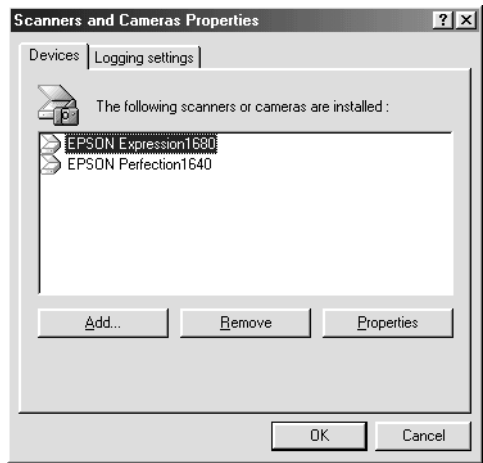
3. Make sure Select as default scanner for EPSON TWAIN Pro is selected and then click OK.

EPSON Expression1680 Properties

General | Events | Utility | Color Management |

Scanner Information

Interface: USB

Option: NONE

☑ Select as default scanner for EPSON TWAIN Pro.

☐ Select as default scanner for EPSON Scan Server.

OK   Cancel   Apply
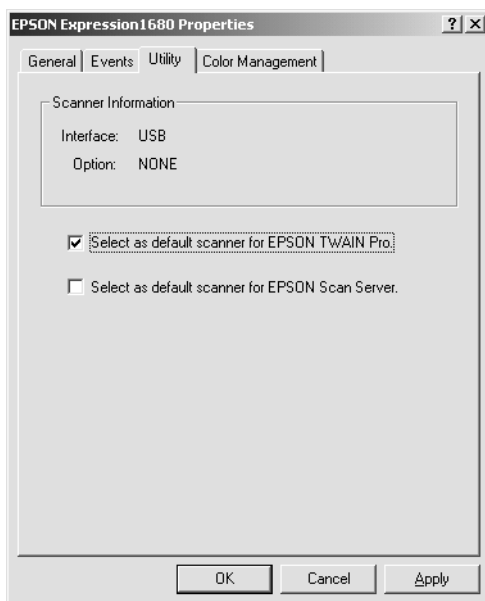
Note:
If you have installed EPSON Scan Server, you can setup your scanner to be used over the network by selecting the Select as default scanner for EPSON Scan Server *check box.*

For Macintosh users

1. Choose Control Panels from the Apple menu. Then click the EPSON ScannerSelector icon.
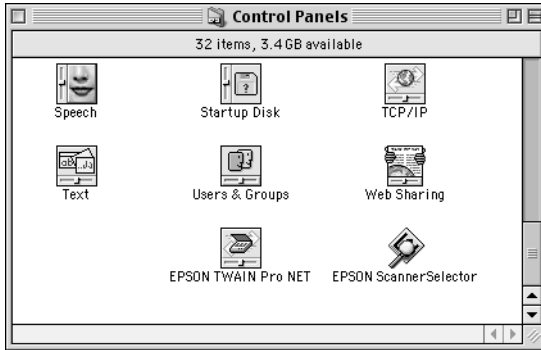
2. Select the scanner you want to use from the list in the EPSON ScannerSelector dialog box and click OK.
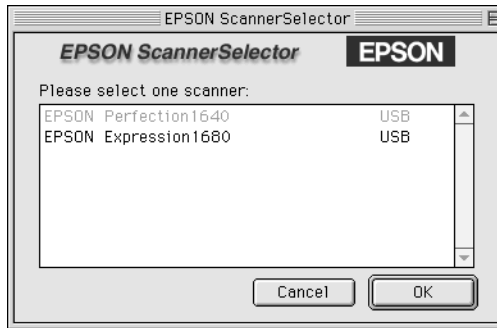
When Updating Your Windows Operating System

If you are using your EPSON scanner with a PC running Windows 98 or 95 and are planning to update your system to Windows Millennium Edition or Windows 2000, you need to uninstall EPSON TWAIN Pro or EPSON TWAIN Pro Network before updating your operating system, as described below.

1. Uninstall EPSON TWAIN Pro or EPSON TWAIN Pro Network. For detailed instructions, see "Uninstalling the Scanner Software for Windows" on page 3-49.

2. Turn off your PC and scanner and disconnect your scanner from your PC.

3. Turn on your PC and install Windows Millennium Edition or Windows 2000.

4. Make sure that the Windows Millennium Edition or Windows 2000 operating system was installed correctly, then shut down your computer.

5. Connect your scanner and start your computer to install the scanner software. Follow the instructions in "Installing EPSON TWAIN Pro for Windows" on page 3-6.

Uninstalling the Scanner Software for Windows

You need to uninstall the EPSON scanner software before upgrading your Windows operating system or if the software was not properly installed on your system. To uninstall EPSON TWAIN Pro or EPSON TWAIN Pro Network, follow the steps in the appropriate section below.
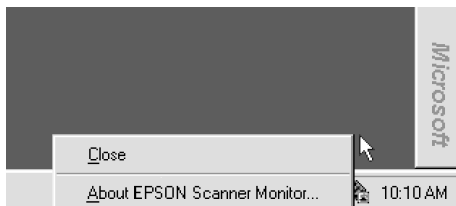
Note:
To reinstall the scanner software, follow the appropriate installation steps in this chapter.

Uninstalling EPSON TWAIN Pro

Follow the instructions for your Windows version below.

For Windows 95 or NT 4.0 users

1. Click the EPSON Scanner Monitor icon in the task bar and select Close to close EPSON Scanner Monitor.

2. Click Start and select Programs, then EPSON Scanner or EPSON Network Scanner. Then click EPSON TWAIN Pro Uninstall.

3. Click Yes to uninstall.

4. After the uninstall program finishes, click OK.

For Windows Millennium Edition, 98, and 2000 users

1. Connect the scanner to your computer.

   Note:
   If you have cameras or scanners other than the EPSON Expression 1680 listed in the Control Panel's Scanner and Cameras Properties dialog box, you must also connect them to your computer or USB hub.

2. Turn on the scanner and any other devices listed in the Scanner and Cameras Properties dialog box, then turn on your computer.

3. Click the Start menu, point to Settings and click Control Panel.

4. Double-click the Scanners and Cameras icon.

5. Select your scanner from the list of installed devices, then click Remove.

6. Click OK to close the dialog box.

7. Insert your scanner software CD in the CD-ROM drive.

8. When the Select Language dialog box appears, select English, then click OK. In the EPSON Software Setup screen, click the Browse This CD icon.

   Note:
   If the Select Language dialog box does not appear, double-click the icon for your CD-ROM drive.

9. Double-click the EPSON folder.

10. Double-click the folder of your preferred language, then double-click the Uninst folder.

11. To uninstall the EPSON TWAIN Pro software, double-click the Esuninst.exe icon, then follow the on-screen instructions.

12. After EPSON TWAIN Pro has been uninstalled, click OK, then restart your computer.

Uninstalling EPSON TWAIN Pro Network

1. Click Start and select Programs, then EPSON Scanner or EPSON Network Scanner. Then click EPSON TWAIN Pro Network Uninstall.

2. Click Yes to uninstall.

3. After the uninstall program finishes, click OK.

Chapter 4

Using Your Scanner

4

Scanning Procedure

The basic scanning process explained in this chapter involves the following procedures:

1. Placing the document on the scanner.

2. Starting EPSON TWAIN Pro or EPSON TWAIN Pro Network.

3. Making basic settings.

4. Scanning and saving the document.

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 READY light comes on.
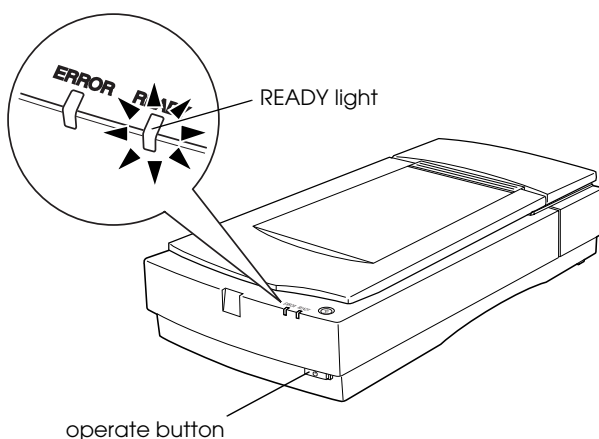
2. Turn on the computer and make sure that the scanner's READY light is on.
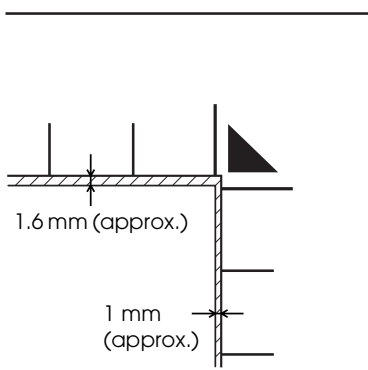
3. Open the document cover.
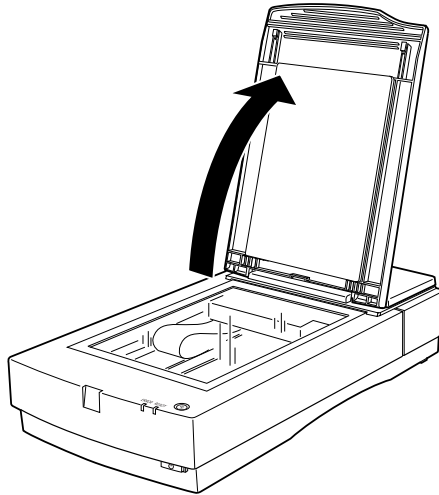
Note:
If you are scanning a very large or thick document, you may need to remove the document cover. See "Removing the cover for thick or large documents" on page 4-6 for instructions.

4. Place the document on the document table, with the side to be scanned facing down. Make sure that the document is carefully aligned in the corner of the document table as shown below.
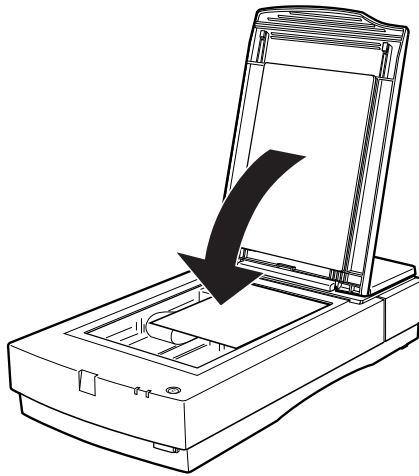

corner of the document
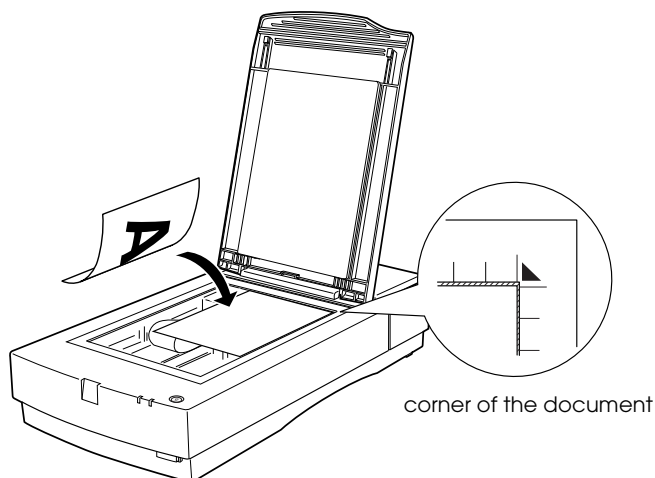
Note:
An area approximately 1.6 mm from the horizontal and 1 mm from the vertical edges of the document table glass will not be scanned.

1.6 mm (approx.)

1 mm
(approx.)

5. 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 the online Reference Guide.*

❏ *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 scan. Follow the instructions in the rest of this chapter, or see the online *Reference Guide* for more details on using your scanner.

Removing the cover for thick or large documents

Carefully lift straight up on the back of the document cover.
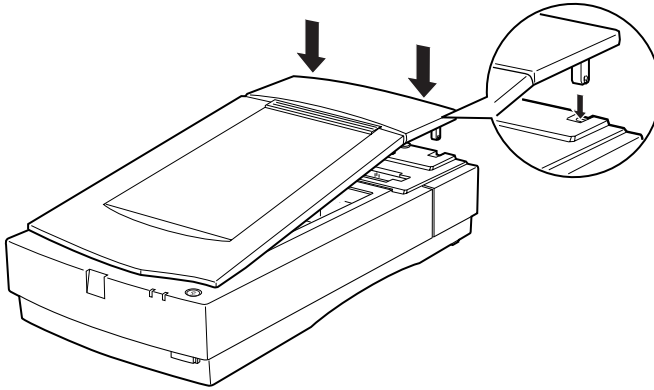
Hold the back of the document cover
and lift straight up.
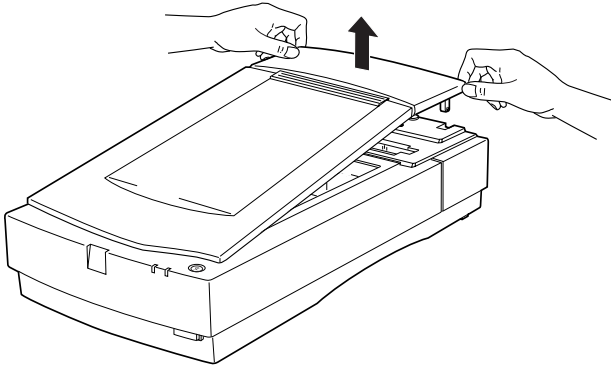
Note:
When scanning with the cover removed, do not leave any area of the
document table exposed to prevent interference from external light.

When you are finished scanning, reattach the document cover by pushing straight down on the back until it clicks into place.


> **Caution:**
> *Make sure both of the notches in the cover's hinges are directly above the clips on the scanner before pushing the cover down into place. Improperly aligned notches can damage the cover.*

Starting EPSON TWAIN Pro or EPSON TWAIN Pro Network

To scan when the scanner is directly connected to your computer, you must start EPSON TWAIN Pro. When scanning over a network, you must first start up the scanner server PC containing EPSON Scan Server, then start TWAIN Pro Network on the computer from which you want to scan.

You can start EPSON TWAIN Pro and EPSON TWAIN Pro Network from a TWAIN-compliant application on your computer. Or, if the scanner is connected directly to your computer, you can start EPSON TWAIN Pro by pressing your scanner's ♀ Start button. This section explains how to do both.

Note:
❏ *You cannot start EPSON TWAIN Pro Network by pressing the scanner's ♀ Start button.*

❏ *Even if your application supports TWAIN, some features of EPSON TWAIN Pro may not be available depending on the application.*

❏ *When your scanner is connected directly to your computer, you can also set up the Start Button feature to start the scanner software, scan, and send the scanned document to a preselected application or output device with one press of the ♀ Start button. For instructions on setting up your system to do this, see "Setting Up the Start Button" in the online Reference Guide.*

Using a TWAIN-compliant application

You can use any software that is TWAIN compliant, such as
Presto! PageManager for EPSON, to start EPSON TWAIN Pro or
TWAIN Pro Network. To verify whether your application is
compatible with TWAIN, see the documentation for your
application.

Note:
The following explanation is an example. The method for starting the
scanner software may vary slightly depending on the TWAIN-
compliant application you use.

1. To start EPSON TWAIN Pro, open the TWAIN-compliant
   application you want to use. To start EPSON TWAIN Pro
   Network, make sure the computer containing EPSON Scan
   Server is running, then open a TWAIN-compliant application
   on the computer from which you want to scan.

2. Choose Select Source from the File menu, and then select
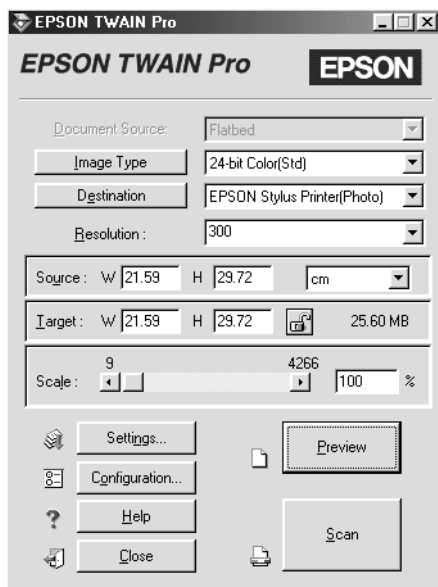   EPSON TWAIN Pro or EPSON TWAIN Pro Network.

   Note for Windows Millennium Edition users:
   Do not select WIA - Expression 1680; *doing so will cause software*
   other than EPSON TWAIN Pro or EPSON TWAIN Pro Network
   to appear in the next step.

   Note:
   You usually need to perform this step only the first time you use the
   scanner with your application.

3. Choose Acquire from the File menu. EPSON TWAIN Pro's main dialog box appears.

EPSON TWAIN Pro	_ □ ×
EPSON TWAIN Pro	**EPSON**

Document Source:	Flatbed
Image Type	24-bit Color(Std)
Destination	EPSON Stylus Printer(Photo)
Resolution:	300

Source :	W 21.59	H 29.72	cm

Target :	W 21.59	H 29.72	🔓	25.60 MB

	9	4266	
Scale :	◀	▶	100 %

🗎	Settings...		🗋	Preview
8≡	Configuration...			
?	Help			Scan
⬗	Close		🖨	

You are now ready to make settings and scan. See "Scanning Your Document" on page 4-14.

Using the scanner's Start button

If the scanner is connected directly to your computer, you can use the ⚡ Start button on the scanner to open Presto! PageManager for EPSON, then start EPSON TWAIN Pro. Make sure that Presto! PageManager for EPSON is installed in your computer, and follow the steps in the appropriate section below.

Note:
❏ *When using the scanner over a network, you cannot use the scanner's ⚡ Start button to start EPSON TWAIN Pro Network.*

❏ *When your scanner is connected directly to your computer, you can also set up the Start Button feature to start the scanner software, scan, and send the scanned document to a preselected application or output device with one press of the ⚡ Start button. For instructions on setting up your system to do this, see "Setting Up the Start Button" in the online Reference Guide.*

For Windows Millennium, 98, and 2000

1. Press the scanner's ⚡ Start button. The EPSON Expression1680 event window featuring a list of Registered Applications appears on your computer screen.

    Note:
    You can make settings to specify which applications appear in the list. You can also make settings to specify an application to automatically open without this list appearing when you press the scanner's ⚡ Start button. See "Setting Up the Start Button" in the online Reference Guide for details.

2. Select Presto! PageManager for EPSON from the Registered Applications list, then click OK.

Presto! PageManager for EPSON starts, then EPSON TWAIN Pro automatically opens and the main dialog box appears.
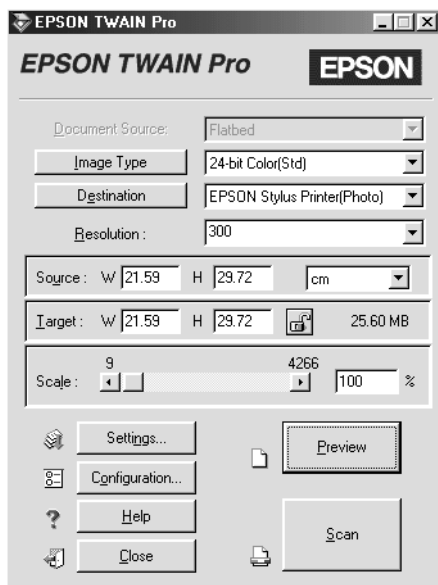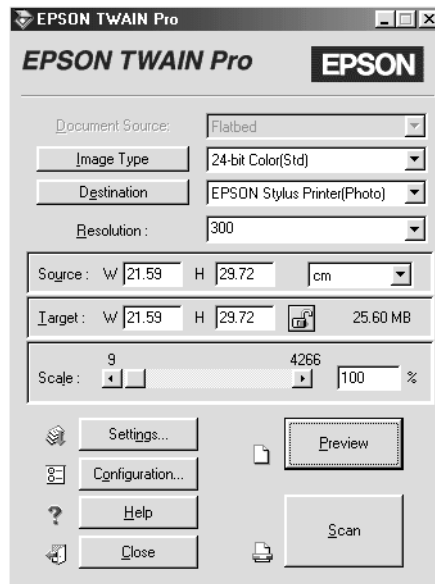

You are now ready to make settings in EPSON TWAIN Pro and scan your document. Go to "Scanning Your Document" on page 4-14.

For Windows 95, Windows NT 4.0, and Macintosh

1. Make sure your scanner is connected to your computer and that both your scanner and computer are turned on.

2. Press the scanner's ✢ Start button.

   Presto! PageManager for EPSON opens, then EPSON TWAIN Pro automatically starts and the main dialog box appears.


You are now ready to make settings and scan your document. Go to the next section.

Scanning Your Document

Once EPSON TWAIN Pro or EPSON TWAIN Pro Network is started, you are ready to make basic scanning settings and scan your document. Follow the instructions in this section.

Making settings

Follow the instructions in this section to make necessary settings in the main dialog box. This section also tells you how to preview your document in the Preview window before scanning. For detailed information on using EPSON TWAIN Pro to optimize scanning, see your online *Reference Guide*. EPSON TWAIN Pro's online help also provides more details on settings. Click Help to access help.
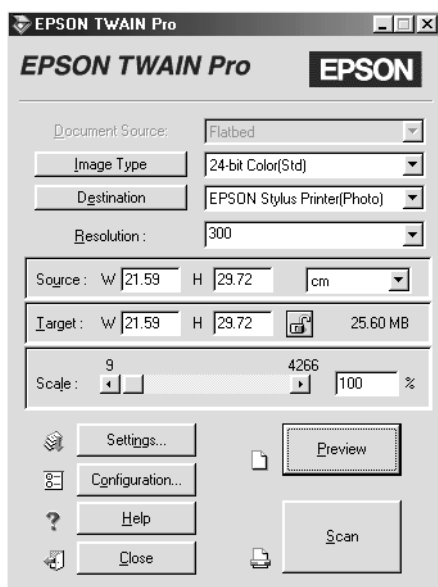
Note for Macintosh users:
Most illustrations shown in this chapter are for Windows, so they may vary from the actual dialog boxes that appear on your screen. You can use them for reference however, as almost all the settings and functions are the same.

Making the Document Source setting

Before scanning, you need to make sure the Document Source setting is appropriate. Refer to the following chart.

Flatbed	When placing a document on the scanner document table.
Auto Document Feeder	When using the optional Automatic Document Feeder. Available only when this option has been installed.
TPU for Neg. Film	When scanning negative film with the optional Transparency Unit. Available only when this option has been installed.
TPU for Pos. Film	Select when scanning positive film with the optional Transparency Unit. Available only when this option has been installed.

Making the Image Type setting

Select the type of image to be scanned from the predefined setting in the Image Type list.
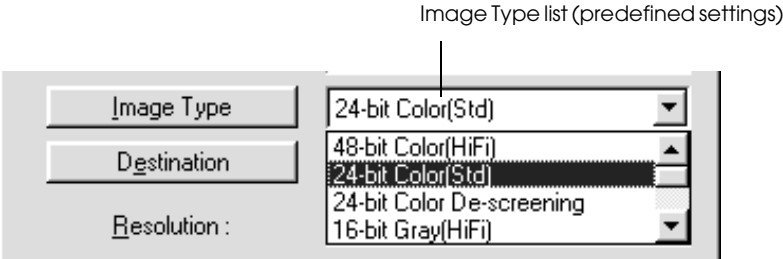
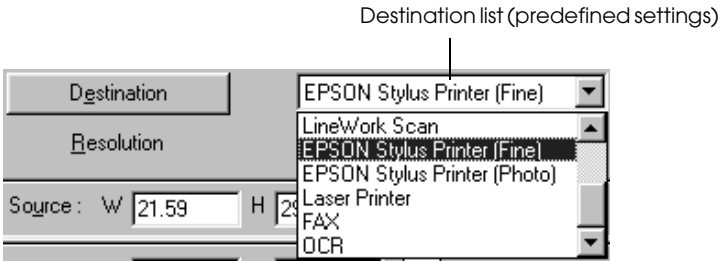Image Type list (predefined settings)

Refer to the following chart to help choose a suitable predefined setting for your document.

48-bit Color (HiFi)	48-bit colors, high quality **Note:** *This setting is available only in certain applications, such as Adobe® Photoshop®.*
24-bit Color (Std)	24-bit colors, high quality
24-bit Color De-screening	24-bit colors, high quality, and de-screening
16-bit Gray (HiFi)	16-bit gray, high quality **Note:** *This setting is available only in certain applications, such as Adobe Photoshop.*
8-bit Gray (Std)	256 grays, high quality, with de-screening available
Line Art	Black-and-white, draft quality, high speed
OCR	Black-and-white, high quality, and Text Enhancement Technology
Copy & Fax	Black-and-white, draft quality, high speed, and Auto Area Segmentation

Making the Destination setting

Use the Destination list to select a predefined destination, or output device, where the scanned image is to be printed or displayed.

Destination list (predefined settings)

Refer to the following chart to help choose a suitable predefined setting for your document.

Screen/Web	Suitable for displaying on screen
Prepress (175, 150, 133, 120 lpi)	Optimize for prepress printing at 175, 150, 133, or 120 lines per inch
LineWork scan	Optimize for LineWork scanning
EPSON Stylus Printer (Fine or Photo)	When using an EPSON Stylus printer and printing scanned images with the Economy, Normal, or Fine Print Quality settings in your printer software, select EPSON Stylus Printer (Fine). When printing with the SuperFine or Photo Print Quality settings, select EPSON Stylus Printer (Photo).
Laser Printer	Optimize for printing on a laser printer
Fax	When scanning a facsimile
OCR	For optical character recognition scanning

Once you make the settings explained above, you can preview your document and make further settings to adjust the image quality, or you can scan your document without previewing it. To preview the document, see the next section. To scan your document, see "Scanning and saving" on page 4-19.

Previewing images

To preview an image, click the Preview button in the EPSON
TWAIN Pro main dialog. The Preview window appears.
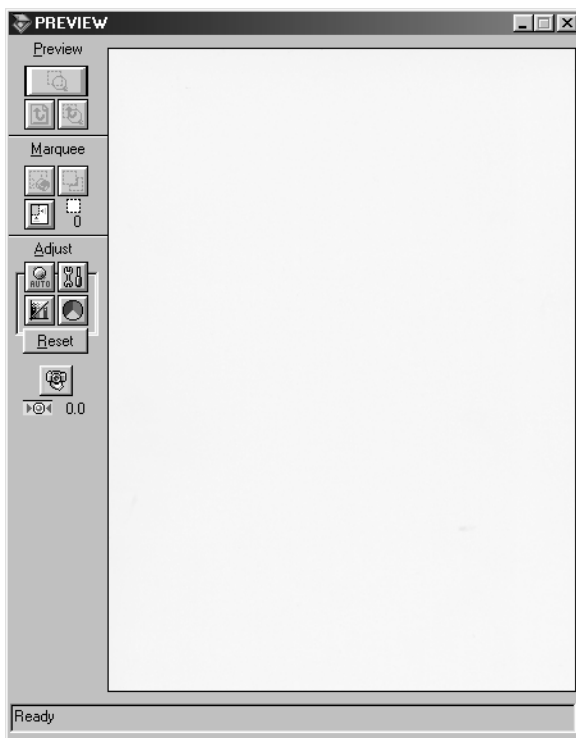
Use the Preview tools to change the size of the previewed image.
Use the Marquees tools to select one or a number of areas of the
image. Use the Adjust tools to adjust the image quality. For details
on using the Preview window to optimize scanning, see the online
Reference Guide, or EPSON TWAIN Pro's online help.

Note:
Although the image in the Preview window changes as you make
settings, the settings do not affect the actual image until you scan or
rescan the image.

Scanning and saving

After you finish making EPSON TWAIN Pro settings, you can scan your document by clicking the Scan button in the main dialog box.

During scanning, a window appears indicating the progress of the scan. You can cancel scanning by clicking the Cancel button.

After the scanning finishes, you can save your scanned document as a file in your computer. First, you may need to close EPSON TWAIN Pro's main dialog box. Then, choose Save or Save As from your application's File menu. For details, see your application documentation.

4

Glossary

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

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.

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 has left the factory.

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.

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

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

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

laser printer
A printer that uses a laser and the electrophotographic method to print a full page at a time. The laser is used to "paint" a charged drum with light, to which toner is applied and then transferred onto paper.

marquee
A moveable and adjustable frame that marks the area of an image that will be previewed or scanned.

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.

pixel

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

port

An interface channel through which data is transmitted between devices.

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.

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.

USB

Universal Serial Bus. A hardware interface for connecting low-speed peripherals such as a keyboard, mouse, scanner, or printer to the computer.

USB hub

A device that normally provides four Type A sockets to increase the number of USB ports on a PC.