EPSON STYLUS™ SCAN 2500

All in One Product

User's Guide

Declaration of Conformity

According to ISO/IEC Guide 22 and EN 45014

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Declares that the Product:

        Product Name: Multi Function Printer
        Model: C130A

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

        Directive 89/336/EEC:
                      EN 55022 Class B
                      EN 61000-3-2
                      EN 61000-3-3
                      EN 50082-1
                          IEC 801-2
                          IEC 801-3
                          IEC 801-4

        Directive 73/23/EEC:
                      EN 60950

H. Horiuchi
President of EPSON EUROPE B.V.
August 1999

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Chapter 1

Stylus Scan Parts and Functions

Stylus Scan Parts and Control Panel Functions

edge guide   sheet feeder   paper support

document cover

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maintenance cover   document table

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adjust lever

option cover   control par
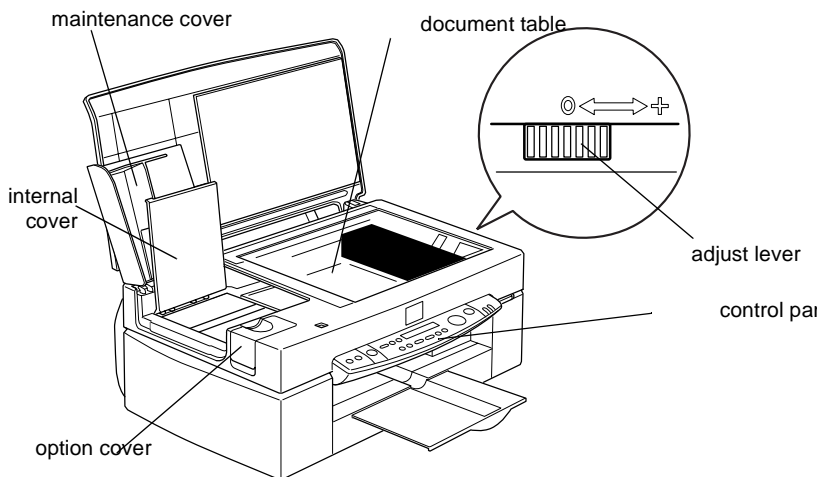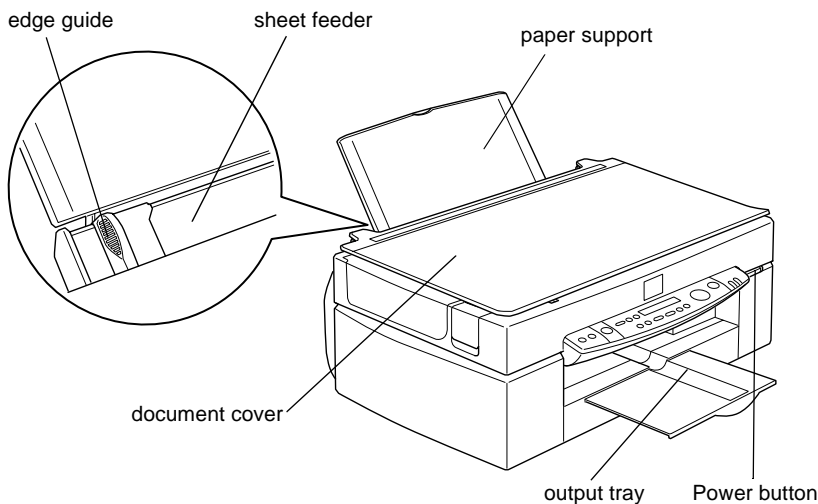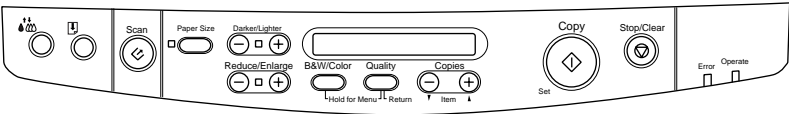
Control panel

You can control copy, print and scan functions with the control panel, and also check device status.

There are four control panel operation modes. LCD panel messages and operation vary by mode.

Copy Mode	This is the normal mode, and in this mode the system is ready to make a copy. The LCD will display the following items: Reduce/Enlarge, B&W/Color, Quality, Copies
Set-up Mode	This mode is used to change Copy settings. Use this mode to change settings with the panel buttons.
Status Mode	The system switches to this mode when the Stylus Scan is performing an action (print, scan or copy). Error and status messages are displayed.
Menu Mode	Hold down the Quality and B&W/Color buttons for 3 seconds to enter this mode. It is used to set the following items: Status sheet, bottom margin and Metric/US select Panel language select, Restore defaults

The control panel is composed of four major parts.

Status indicators: The status of the Stylus Scan is indicated with these two lights.

Light	Status
Operate	Comes on when the Stylus Scan is on.
	Flashes when warming up, receiving data, copying, printing, scanning, replacing an ink cartridge, charging ink, or cleaning the print head.
Error	Comes on when the Stylus Scan has an error.
	Check the message on the LCD panel for details.

Printer: The printer is controlled with these two buttons.

Button	Function
Load/Eject	If released quickly: Feeds or ejects paper loaded at sheet feeder. If print head is at ink cartridge change location, it returns to home position.
	If held for 3 seconds: Moves the print head to the color or black ink cartridge change position.
Cleaning	If released quickly: No action unless the print head is at the cartridge change position. If the head is at the change position, it returns to the home position.
	If held for 3 seconds: Starts cleaning the print head; or, if a cartridge is low or if a cartridge is missing, the print head moves to the cartridge-replacement position.

Scanner: The Scan button controls scanner operation.

Button	Function
Scan	The hardware switch to execute scanning and transfer the scanned image to assigned application software. To use this feature, you need to set up the software.

Copy: This button controls the copy function.

Button	Function
◇ Copy	Starts copying.
	The default copy settings are: Reduce/Enlarge 100% B&W/Color B&W Quality Normal Copies 1
▽ Stop/Clear	Changes the copy status:
	Cancels the copy, and ejects the paper. In the Copy Mode, returns the Copies setting to one. In the Set-up Mode, returns the selected set-up item to default.
Paper Size	Sets the paper size to be used for copying.
	Depending on the Metric/US selection made in the Menu Mode, the following paper sizes will be selected:
	Metric: A4, B5, A6
	US: Letter, Half L, 5x8"
B&W/Color	Selects color or black-and-white copy.
	Hold down the Quality button and B&W/Color button for 3 seconds to enter the Menu Mode. In the Menu Mode you can control several items.
Quality	Sets the copy quality.
	B&W: Normal, Fine Color: Normal, Fine, Photo
	When Photo is selected for a color copy, be sure to use EPSON Photo Paper.
	Hold down the Quality button and B&W/Color button for 3 seconds to enter the Menu Mode. In the Menu Mode you can control several items.
Copies	Sets the number of copies, from 1 to 20.
	Use the + button to increase the number, and the - button to decrease it.
Darker/ Lighter	Sets the copy density.
	Press the + or - buttons to access the density setting screen, and set the desired density.
Reduce/ Enlarge	Sets the magnification ratio.
	Press the + or - buttons to access the Reduce/Enlarge screen, and set the desired magnification ratio.

Chapter 2

Safety Instructions

Important Safety Instructions

Read all of these instructions before starting to use your Stylus Scan. Also be sure to follow all warnings and instructions marked on the Stylus Scan.

❏ Unplug the Stylus Scan before cleaning. Clean with a damp cloth only. Do not use cleaning fluid or detergents on the Stylus Scan.

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

❏ Do not block or cover the openings in the Stylus Scan's cabinet.

❏ Do not insert objects through the slots. Do not spill liquid on the Stylus Scan.

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

❏ Connect all equipment to properly grounded power outlets. Avoid using outlets on the same circuit as air control systems or other high-load office devices that regularly switch on and off.

❏ Avoid electrical outlets controlled by wall switches or automatic timers.

❏ Keep the entire computer system away from potential sources of electromagnetic interference, such as loudspeakers and the base units of cordless telephones.

❏ Do not use a damaged or frayed power cord.

❏ If you use an extension cord with the Stylus Scan, make sure the total amperage 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.

❏ Do not attempt to service the Stylus Scan yourself.

Unplug the Stylus Scan and refer servicing to qualified service personnel under any of the following conditions:

❏ The power cord or plug is damaged; liquid has entered the Stylus Scan; the Stylus Scan has been dropped or the cabinet damaged; the Stylus Scan does not operate normally or exhibits a distinct change in performance.

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

A Few Precautions

When using the Stylus Scan

❏ Do not put your hand inside the Stylus Scan or touch the ink cartridges during operation.

❏ Do not move the print head by hand. Doing so may damage the Stylus Scan.

❏ Always use the ⏻ power button to turn off the Stylus Scan. When this button is pressed, the **Operate** light flashes briefly then goes off. Do not unplug the Stylus Scan or turn off the power to the outlet until the **Operate** light stops flashing. The scanner carriage must be secured with the Transportation Lock.

❏ Before transporting the Stylus Scan, make sure the print head is in the home (far right) position and the ink cartridges are in place. The scanner carriage must be secured with the Transportation Lock.

When handling the ink cartridges

❏ Keep ink cartridges out of the reach of children. Do not allow children to drink the ink or otherwise handle the cartridges.

❏ If ink gets on your skin, wash it off with soap and water. If ink gets into your eyes, flush your eyes immediately with water. If a discomfort or vision problems remain after a thorough flushing, see a doctor immediately.

❏ Do not shake the ink cartridges. Cartridges may leak if shaken.

❏ Install the ink cartridge immediately after you remove it from its package. Leaving the cartridge unpacked for a long time before use may result in reduced print quality.

❏ Once you install an ink cartridge, do not open the clamp or remove the cartridge except to replace it with a new one. The cartridge becomes unusable when you open the clamp.

❏ Do not use an ink cartridge beyond the date printed on the cartridge carton. For best results, use the ink cartridges completely within six months of installing them.

❏ Do not dismantle the ink cartridges or try to refill them. Doing so may damage the print head.

When choosing a place for the Stylus Scan

❏ Place the Stylus Scan on a flat, stable surface that extends beyond the base of the machine in all directions. The Stylus Scan will not operate properly if it is tilted or at an angle.

❏ Avoid places subject to rapid changes in temperature and humidity. Also keep the Stylus Scan away from direct sunlight, strong light, and heat sources.

❏ Avoid places subject to shocks and vibrations.

❏ Leave enough room around the Stylus Scan to allow for sufficient ventilation.

❏ Place the Stylus Scan near a wall outlet where the power cord can be easily unplugged.

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, and copiers in an effort to reduce air pollution caused by power generation.

Warnings, Cautions, and Notes

Warnings
must be followed carefully to avoid bodily injury.

Cautions
must be observed to avoid damage to your equipment.

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

Chapter 3

Paper Handling

Loading Paper

This chapter explains how to load paper and other media into the sheet feeder for printing and copying, and how to handle these media properly.

Loading Plain Paper

Follow these steps to load plain paper for printing or copying.

1. Slide out the extension of the output tray. Next, slide the left edge guide to adjust the width of the loading area so that it is slightly wider than the width of your paper.

2. Fan a stack of paper; then tap it on a flat surface to even the edges.

3. Load the stack of paper with the printable side up and the right edge of the paper resting against the right side of the sheet feeder. Then slide the left edge guide against the edge of the paper.
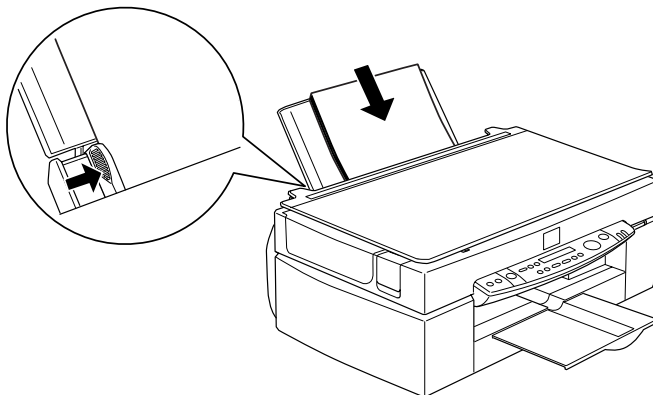
Note:
❏ *Always load plain paper into the sheet feeder short side first.*

❏ *Make sure the paper stack fits under the arrow mark inside the edge guide.*

Loading Special Paper and Other Media

You can achieve good results with most plain bond paper. However, using coated paper or glossy film gives you higher quality printouts because these media absorb smaller amounts of ink.

You can print on a wide variety of special media, including ink jet paper, photo quality glossy film, photo paper, transparencies, envelopes, index cards, and adhesive sheets.

EPSON distributes special media that are formulated for the ink used in EPSON ink jet devices. It is recommended that you use these media to ensure high-quality results. See "EPSON special media" on page 13-4 for a complete list of these products.

When loading special media distributed by EPSON, read the instructions included with the media and keep the following points in mind.

❏ Make sure the printable side of the paper is facing up when loading media into the sheet feeder. See the instructions included with the media to determine which side is the printable surface. Some media come with one corner removed to help identify the correct loading direction, as shown in the illustration.
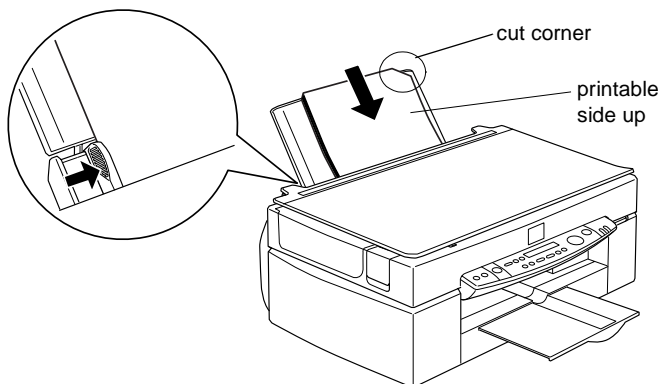
Note:
*If you expand the printable area with the **Maximum** setting in the printer driver, the cut corner on special paper may mar your printout.*

❏ Make sure the paper stack fits under the arrow mark located on the inside surface of the left edge guide.

❏ The loading capacity for envelopes and EPSON special media is explained below.

Envelopes	Up to 10 envelopes.
	Note: If the total thickness of the stack of envelopes exceeds 10 mm, press each envelope flat before loading.
EPSON Premium Plain Papier, 360 dpi Ink Jet Paper and Photo Quality Ink Jet Paper	Up to the arrow mark on the left edge guide.
Photo Quality Ink Jet Card, Ink Jet Note Card, and Ink Jet Greeting Card	Up to 30 index cards. Always place the included support sheet* under the cards.
Ink Jet Transparencies	Up to 30 transparencies. Always put a sheet of plain paper under the stack of transparencies.
Photo Quality Self Adhesive Sheets	One sheet at a time.
Photo Paper	Up to 20 sheets. 200×300 mm Photo Paper can only be loaded 1 sheet at a time. For 4×6 inch Photo Paper, always put a support sheet* under the stack of Photo Paper.
Photo Stickers 16 and Photo Stickers 4	One sheet at a time. Always put the included Support Sheets* A and B under the stack of Photo Stickers.
Panoramic Photo Paper and Iron-On Cool Peel Transfer Paper	One sheet at a time.
Matte Paper-Heavyweight	Up to 20 sheets. Always put a support sheet* under the stack of Matte Paper-Heavyweight.

* Be sure not to print on support sheets loaded under special media.

❏ If the paper is curled, make sure to flatten it or curl it slightly in the opposite direction before loading. Printing on curled paper may smear your printout, especially when printing with **Maximum** selected as the Printable Area setting.
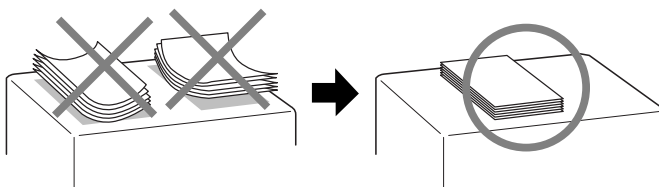
❏ If your printouts are smeared, change the adjust lever to the "+" position. To change the setting, set the lever as shown in the illustration.
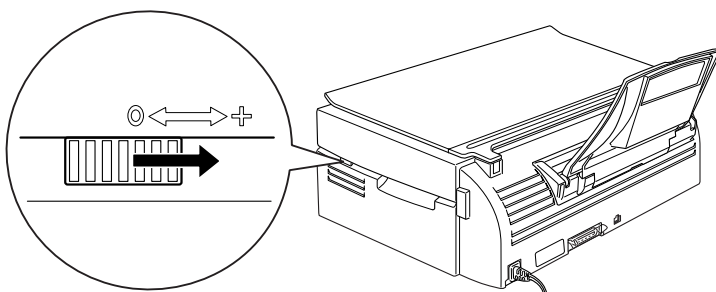
Note:
❏ *Don't forget to return the adjust lever to the "0" position before printing or copying onto media of normal thickness. Leaving the lever in the "+" position may cause gaps in the printed image.*

❏ *When the adjust lever is in the "+" position, make sure the High Speed setting in the printer driver's Advanced dialog box is off. To turn this option off, you may also need to change the Print Quality setting.*

Note that Ink Jet Cards may curl if you set the Printable Area to Maximum when printing. If you are going to print on both sides of these cards: Print the printable side first, and then flatten the cards (or bend slightly in the opposite direction) before loading again to print the second side. Set the adjust lever to the "+" position before printing on the second side.

About special media cleaning sheets

Cleaning sheets packaged with EPSON special media should not be used with the Stylus Scan. These sheets are unnecessary, and may jam in the mechanism.

Loading Envelopes

When printing on envelopes, please note the following:

❏ You can load up to 10 envelopes into the sheet feeder.

Note:
The folding quality and thickness of envelopes vary widely. If the total thickness of the stack of envelopes exceeds 10 mm, press the stack flat before loading.

❏ Set the adjust lever to the "+" position.

Note:
❏ *Don't forget to return the adjust lever to the "0" position before printing or copying onto media of normal thickness. Leaving the lever in the "+" position may cause gaps in the printed image.*

❏ *When the adjust lever is in the "+" position, make sure the High Speed setting in the printer driver's Advanced dialog box is off. To turn this option off, you may also need to change the Print Quality setting.*

Load envelopes flap-edge first with the flap side down, as shown in the illustration.

Available envelopes sizes are:
No.10, DL, C6
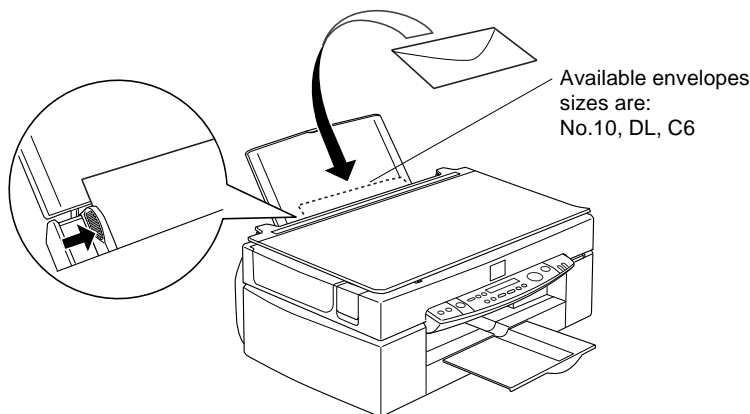
❏ Do not use envelopes that are curled or folded. Make sure to flatten the envelope flaps before loading. Also avoid using envelopes that are too thin as they may curl during printing.

❏ Select **Plain Paper** as the Media Type setting on the printer driver.

Using EPSON Photo Paper (4 x 6 inch, 200 x 300 mm)

EPSON Photo Paper (S041134, 041254) is perforated around the margins so you can trim your printed images to look like 4×6 inch (102×152 mm or 200×300 mm) photographs. Be sure to do the following when using this type of paper.

Loading

❏ Load the paper printable side up with the perforated margins positioned as shown in the illustration.
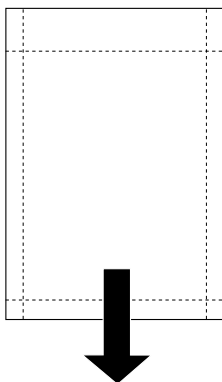
loading position

❏ Use flat, undamaged paper. If the paper or the support sheet is curled, flatten it before loading to avoid paper feeding problems.

❏ Always place the included support sheet under the stack of Photo Paper, but do not print on it.

❏ You can load up to 20 sheets of 4×6 inch Photo Paper or 1 sheet of 200×300 mm Photo Paper into the sheet feeder.

❏ Cut or tear the paper at the perforation only after printing. Do not cut, tear, or fold the paper before printing.

❏ Select **Photo Paper** as the Media Type setting and **Photo Paper 4 x 6 in** or **Photo Paper 200 x 300 mm** as the Paper Size setting in your printer driver.

Removing the perforated margins

❏ To remove the perforated margins, fold the paper back and forth a few times along the perforations, then carefully tear the margins off.
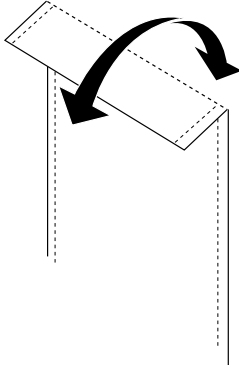
❏ You can also remove the margins by cutting along the perforations.

Note:
Keep in mind that the edges of your image might be cut off when you remove the perforated margins. See the illustration below.

4 x 6 inch

17 mm

6 mm

3 mm

trimmed size

printed image size

3 mm   6 mm

200 x 300 mm

19 mm

8 mm

5 mm

5 mm   19 mm

trimmed size

printedimage size
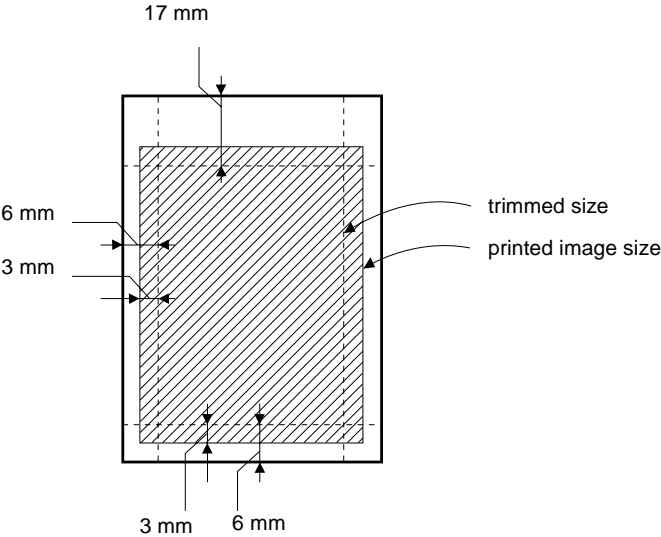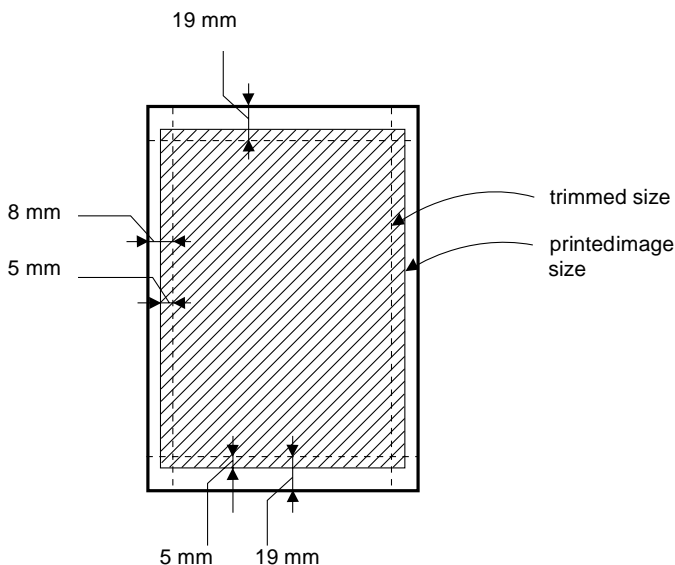
Storing EPSON Photo Paper

❏ Return unused paper to the original package as soon as you finish printing, and avoid storing it in places exposed to high temperature, humidity, or direct sunlight.

❏ EPSON recommends storing your printouts in a resealable plastic bag and keeping them away from high temperature, humidity, or direct sunlight.

Chapter 4

Using the Printer Software for Windows

Printer Software Introduction

You can use the printer driver software to control the Stylus Scan's print functions. This software lets you choose from a wide variety of settings to get the best results for the type of printout you want to make. It also includes utilities that you can use to print out test sheets and perform maintenance tasks.

Getting more information

For information on using the printer driver, see "Making Changes to Printer Driver Settings" on page 4-4.

For information on using the printer utilities, see "Using the Printer Utilities" on page 4-22.

Note:
The specific features available in the printer software vary depending on the version of Windows you are using.

Online help provides more information about the printer software. See "Getting Information With Online Help" on page 4-29 for instructions on accessing help.

Accessing the printer software

You can access the printer software from most Windows applications and from the **Start** menu.

When you access the printer software from a Windows application, the settings you make apply only to the application you are using.

When you access the printer software from the **Start** menu, the settings you make apply to all of your Windows applications.

From Windows applications

Open the **File** menu and choose **Print** or **Print Setup**. Then click either **Printer**, **Setup**, **Options**, or **Properties** to open the printer driver window. (Depending on your application, you may need to use more than one of these buttons to get to the driver window.)

From the Start menu

1. Click **Start**, point to **Settings**, then click **Printers**.

2. Select the **EPSON Stylus Scan 2500** icon, then click **Properties** from the **File** menu. The printer software window appears.

Making Changes to Printer Driver Settings

The printer driver provides the following setting menus.

Main	Media Type, Ink, Mode
Paper	Paper size, Copies, Orientation, Printable Area
Layout	Reduce/Enlarge, Multi-Page, Watermark

The settings on the **Main** menu are arranged to give you three levels of control over the printer driver, as explained below.

Automatic	The quickest and easiest way to start printing. See "Using the Automatic setting" on page 4-7.
PhotoEnhance	Lets you apply a variety of image-correction settings specially designed for photos. See "Using Photo Enhance mode" on page 4-8.
Custom	Choose from a list of ready-made settings suited to the kind of document you want to print. You can also add your own settings to this list. See "Using custom settings" on page 4-9.
Advanced	Allows you to make detailed settings to fit your individual needs. You can also add your settings to the Custom settings list.

In addition to making groups of settings that affect overall print quality, you can also modify individual aspects of the print style and layout using the **Paper and Layout** menus. See "Modifying the printout style" on page 4-14.

Making the Media Type setting

The Media Type setting determines what other settings are available, so you should always make this setting first.

On the **Main** menu, select the Media Type setting that matches the paper loaded into the Stylus Scan. Find your paper in the list below, then select a corresponding Media Type setting (shown in bold). For some kinds of paper, you have several Media Type settings to choose from.

Plain Paper

Plain paper	
Envelopes	
EPSON Premium Ink Jet Plain Paper (A4)	S041214

360 dpi Ink Jet Paper

EPSON 360 dpi Ink Jet Paper (A4)	S041059
EPSON Iron-On Cool Peel Transfer Paper (A4)	S041154

Photo Quality Ink Jet Paper

EPSON Photo Quality Ink Jet Paper (A4)	S041061
EPSON Photo Quality Ink Jet Card (A6)	S041054
EPSON Photo Quality Ink Jet Card (5 × 8")	S041121
EPSON Photo Quality Ink Jet Card (8 × 10")	S041122
EPSON Photo Quality Self Adhesive Sheet (A4)	S041106
EPSON Ink Jet Note Cards A6 (with envelopes)	S041147
EPSON Ink Jet Greeting Cards 5 x 8" (with envelopes)	S041148
EPSON Ink Jet Greeting Cards 8 x 10" (with envelopes)	S041149

Matte Paper-Heavyweight

EPSON Matte Paper-Heavyweight (A4)	S041256

Photo Paper

EPSON Photo Paper (A4)	S041140
EPSON Photo Paper (4 × 6")	S041134
EPSON Photo Paper (100 × 150 mm)	S041255
EPSON Photo Paper (200 × 300 mm)	S041254
EPSON Panoramic Photo Paper (210 × 594 mm)	S041145
EPSON Photo Paper Cards (A4)	S041177

Photo Quality Glossy Film

EPSON Photo Quality Glossy Film (A4)	S041071
EPSON Photo Quality Glossy Film (A6)	S041107
EPSON Photo Stickers 16 (A6)	S041144
EPSON Photo Stickers 4 (A6)	S041176

Ink Jet Transparencies

EPSON Ink Jet Transparencies (A4)	S041063

Using the Automatic setting

When **Automatic** is selected from the **Main** menu, the printer driver takes care of all detailed settings based on the current Media Type and Ink settings. To make the Ink setting, click **Color** to print in color, or **Black** to print in black-and-white or grayscale. To make the Media Type setting, see "Making the Media Type setting" on page 4-5.

Note:

❏ *Depending on the media you choose in the* **Media Type** *list (while* **Automatic** *is selected), a slide bar appears in the* **Mode** *box that lets you choose* **Quality** *or* **Speed**. *Select* **Quality** *when print quality is more important than speed.*

❏ *Most Windows applications feature paper size and page layout settings that override similar settings on the printer driver. However, if your application does not have these settings, verify the settings on the printer driver's* **Paper** *menu.*

Using Photo Enhance mode

The Photo Enhance option provides a variety of image-correction settings that you can apply to your photo images before printing. Photo Enhance does not affect your original data.

If you are printing photos taken with a digital camera, you can also select the **Digital Camera Correction** check box to give your printed images the smooth, natural appearance of photographs taken with a film camera.

Note:
❏ *This mode is available only when you are printing in color.*

❏ *Printing with Photo Enhance selected may increase print time depending on your computer system and the amount of data contained your image.*

The Photo Enhance mode provides the following settings.

Standard	Standard image correction for most photos. Try this setting first.
People	Best for photos of people.
Nature	Best for outdoor scenery such as mountains, skies, and oceans.
Soft Focus	Makes your photos look as if they were taken with a soft-focus lens.
Sepia	Applies a sepia tone to your photos.

Using custom settings

 Custom settings let you make a wide range of changes. In the **Custom settings** list, you'll find ready-made settings provided by EPSON designed to match a particular kind of printout, such as graphs and charts used in a presentation, or images taken by a digital camera.

You can also create your own settings and add them to this list.

The **Custom settings** list includes the following ready-made settings.

Text/Graph	Good for printing presentation documents such as graphs and charts.
Economy	Good for printing drafts of text
ICM	ICM means Image Color Matching. This feature automatically adjusts printout colors to match colors on your screen.
sRGB	Best for color matching with other sRGB devices.

Follow the steps below to select a Custom setting.

1. Click the **Custom** button on the **Main** menu.

2. From the **Custom settings** list, select the most appropriate setting for the type of document or image you will print.

3. When you choose a setting, other settings such as **Print Quality**, **Halftoning**, and **Color Adjustment** are set automatically. Changes are shown in the Current Settings display at the bottom of the **Main** menu.

4. Before printing, be sure to verify the Media Type and Ink settings, as they may be affected by the Custom setting you select. See "Making the Media Type setting" on page 4-5.

Using the Advanced settings

The Advanced settings give you complete control over your printing environment. Use these settings to experiment with new printing ideas, or to fine-tune a range of print settings to meet your individual needs. Once you are satisfied with your new settings, you can give them a name and add them to the **Custom settings** list.

Follow the instructions below to make and save Advanced settings.

1. Click the **Custom** button on the **Main** menu and then click **Advanced**. The following dialog box appears.
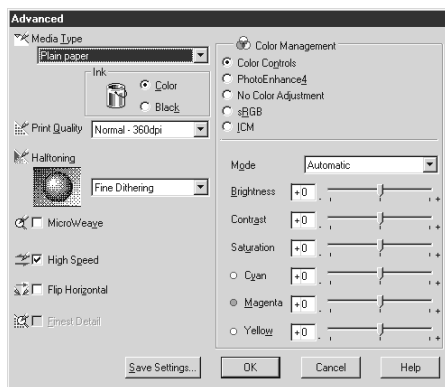
2. Select the Media Type you loaded in the Stylus Scan. For details, see "Making the Media Type setting" on page 4-5.

3. Choose **Color** or **Black** in the Ink option.

4. Select the Print Quality setting.

5. Make other settings as needed. For details, see online help.

Note:

❏ *The Photo Enhance 4 setting under the* **Color Management** *option only affects images, not text or graphs. If Monochrome is selected from the* **Tone** *list, for example, only the images in a document will be printed in monochrome. Any colored text and graphs in the same document will be printed in color.*

❏ *Some settings may be disabled depending on the Media Type, Ink, and Print Quality settings you make.*

6. Click **OK** to apply your settings and return to the **Main** menu. If you want to return to the **Main** menu without applying your settings, click **Cancel**.

To save your Advanced settings, click **Save Settings** in the Advanced dialog box. The **Custom Settings** dialog box appears.
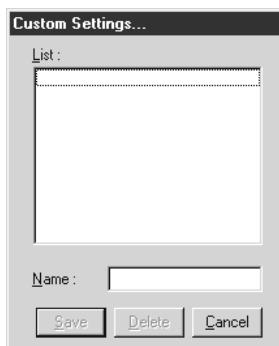
Type a unique name for your settings in the **Name** box, and click the **Save** button. Your settings will be added to the **Custom settings** list.

Note:

❏ *You cannot use the names of settings provided by EPSON for your custom settings.*

❏ *To delete a setting, select the setting in the* **Custom Settings** *dialog box and click* **Delete***.*

❏ *You cannot delete ready-made settings from the* **Custom Settings** *list.*

When you select your saved settings in the **Custom settings** list, be aware that making new settings (for example Media Type and Ink settings) may change your custom settings. This may cause unexpected results in your printout. If this happens, reselect your saved settings and try printing again.

Previewing your printout

To see a preview of your document before printing it, select the **Print Preview** check box on the **Main** menu. When you print your document, the Print Preview window appears:
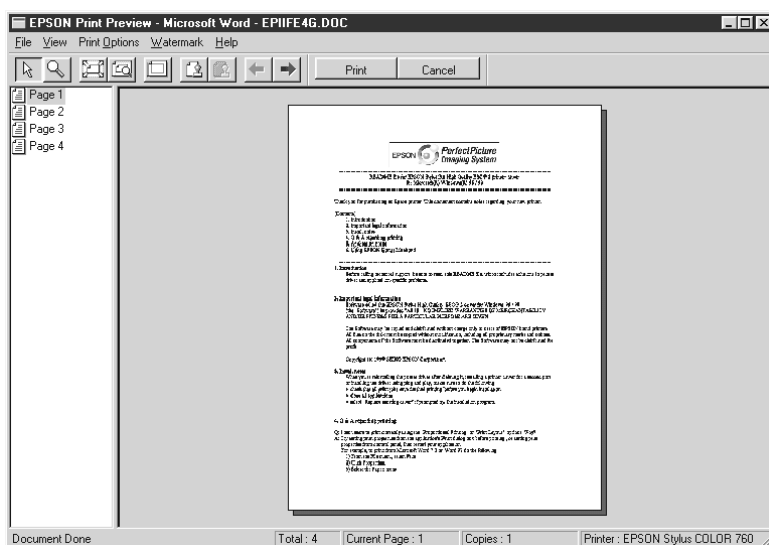
The **Preview** dialog box contains several icon buttons you can use to perform the following functions.

[Zoom icon]	Zoom	This option enlarges the size of the previewed page by a factor of 2.
[Fit-to-screen icon]	Fit-to-screen	This option scales the previewed page sot that it just fits the size of the page display window. Select this option if you want to see the entire page at one time.
[Maximum zoom icon]	Maximum zoom	This option displays the previewed page at the maximum possible zoom ratio.
[Printable area icon]	Printable area on/off	Selecting this option will display a rectangle on the page being previewed. This rectangle is the printable area for the page. The printer cannot print anything which exceeds this rectangle.
[Watermark icon]	Watermark	This option displays the watermark settings dialog. This dialog allows you to change any of the current watermark settings.
[Reset watermark icon]	Reset watermark settings	This option returns all watermark settings to what they were when the Preview was first opened. If nothing has been changed, this option appears grayed out.
[Previous page icon]	Previous page	This option displays the page previous to the page currently being previewed. (If there is no previous page then this option is grayed out)
[Next page icon]	Next page	This option displays the next page in the document. (If there is no next page then this option is grayed out)

You can also manipulate the previewed document in the following ways:

❏ Select and preview individual pages.

❏ Reduce or enlarge the size of the preview.

❏ Select and print any or all pages.

❏ Apply watermarks. The watermark you select will appear in the previewed image. For detailed information on customizing watermarks, see "Printing a watermark on your document" on page 4-20.

❏ The Add and Remove options allow you to specify which pages in the document you wish to be printed. To add or remove page, you must first highlight the page in the list of page icons appearing on the left side of the preview window. Highlight the page by clicking once on the page icon. Then select or deselect from the **Print Options** menu.

▤	Add page	The highlighted pages will be added to the list of pages to be printed.
▨	Remove page	The highlighted pages will be removed from the list of pages to be printed.

After you have previewed the document, click **Print** to print, or click **Cancel** to cancel printing.

Modifying the printout style

You can modify your printout style using a variety of printer driver settings located on the **Paper** and **Layout** menus.

On the **Paper** menu, you can make settings for the paper size, number of copies, the orientation of your printout, and the printable area. On the **Layout** menu you can automatically match the document size to the paper size, print 2 or 4 pages on a single sheet, print poster-size images by enlarging one page to cover several sheets, or place watermarks on documents.

Using the Paper menu settings

Use the **Paper** menu to change the paper size, set the number of copies and other copy parameters, specify the paper orientation, or adjust the printable area.

You can make the following settings:

Paper Size	Select the paper size you want to use. You can also add a custom paper size.
Copies	You can determine the order in which you print multiple copies of your document: Collated (printing a set at a time). or in Reverse order.
Orientation	To change the orientation of your printout, select **Portrait** (tall) or **Landscape** (wide). If you need to print close to the bottom of the page, select the **Rotate by 180°** check box.
Printable Area	Use the options in the **Printable Area** box to adjust the total area available for printing. If you want to center the printout, click **Center**. If you need to increase the printable area, click **Maximum**. **Note:** When Maximum is selected, the print quality may decline at the edges of the printout. Before printing large jobs using this setting, print a single sheet to confirm quality. When **Maximum** is selected, make sure the paper loaded in the sheet feeder is not curled.

Fitting your document to the paper size

To fit the size of your document to the size of the paper you will print on, use the Reduce/Enlarge options on the **Layout** menu.
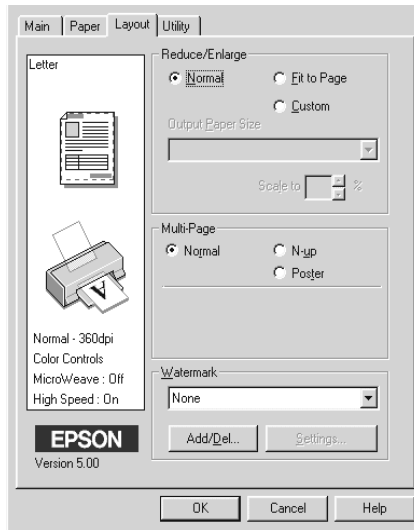
You can select the following.

Normal	Prints your document at its normal size.
Fit to Page	Proportionally enlarges or reduces the size of your document to make it fit the paper size you select in the **Paper Size** list on the **Paper** menu.
Custom	Allows you to manually define the percentage you want to enlarge or reduce an image. Click the arrows next to the **Proportion** box to select from 10% to 400%.

Printing 2 or 4 pages on one sheet

To print 2 or 4 pages of your document on one sheet of paper, use the Multi-Page option on the **Layout** menu.
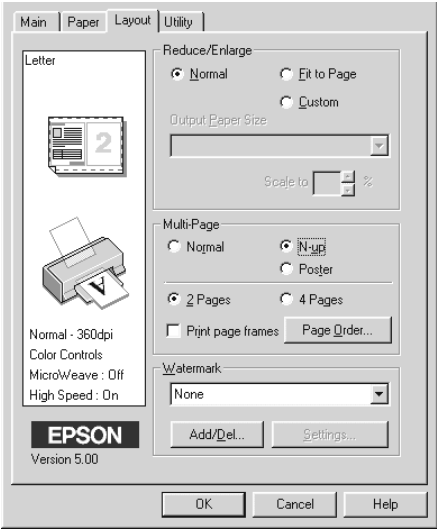
Select **N-up** as the **Multi-Page** option, then make the following settings.

2 Pages **4 Pages**	Prints 2 or 4 pages of your document on a single piece of paper.
Page Order	Allows you to specify the order of the pages you want to print.
Print page frames	Allows you to print a frame around each page on the sheet of paper.

Printing posters

You can use the Poster setting in the Multi-Page option to print a poster-size image. A single document page can be enlarged to cover 4, 9, or 16 printed pages.

To adjust the way your poster will print, click the **Settings** button. The **Poster Setting** dialog box appears.
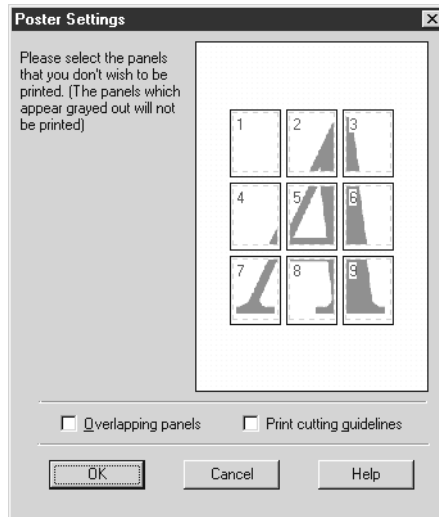
You can make the following settings.

Overlapped Panels	Slightly overlaps the images so that they can be aligned more precisely.
Print cutting guidelines	Prints border lines on the images to guide you when trimming the pages.

If you only want to print a few of the panels without printing the entire poster, click the panels you don't need, then click **OK** to close the **Poster Settings** dialog box.

Printing a watermark on your document

To print a watermark on your document, use the **Watermark** option on the **Layout** menu, and select from a list of predefined watermarks.

You can also add your own text-based or image-based watermarks to the **Watermark Name** list. Follow these steps.

1. Click the **Add/Del** button. The following dialog appears.
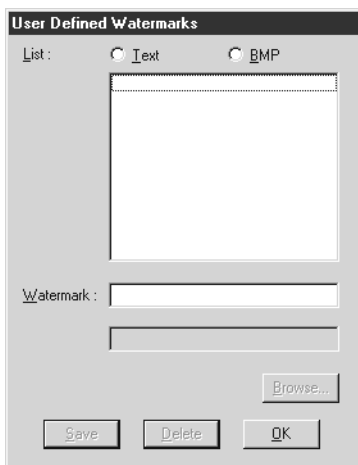
2. To use an image file as a watermark, select **BMP**. Click the **Browse** button to select the bitmap file you want to use, then click **OK**. To create a text-based watermark, enter your text in the **Text** box.

3. Name your watermark in the **Watermark** box, then click **Save**. Click **OK** to return to the **Layout** menu.

4. To make settings for your watermark, click the **Settings** button. The following dialog appears.
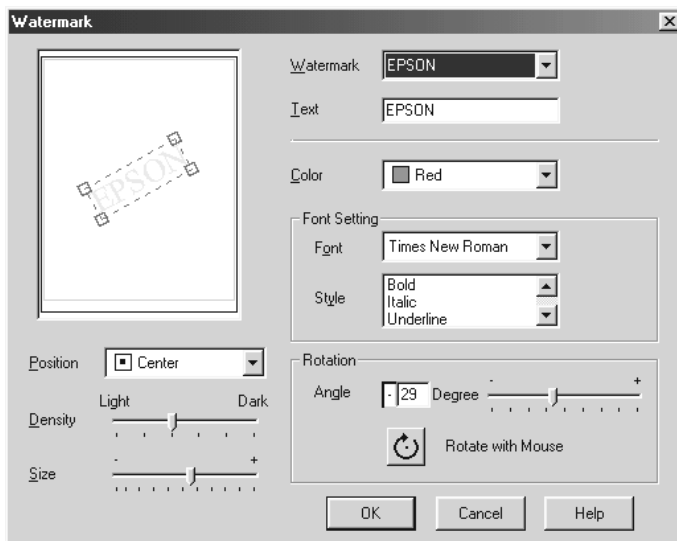
5. Select the name of watermark for which you want to make settings from the **Watermark** list, and make color, position, intensity, and size settings. The settings you make appear on the left side of the dialog box. After you finish making settings, click **OK**.

Using the Printer Utilities

EPSON printer utilities allow you to monitor printing status and to perform various printer maintenance tasks from your screen.

To use the utilities, click the **Utility** tab in the printer software window, then click the button for the utility you want to use. For information on how to access the printer software, see "Accessing the printer software" on page 4-2.
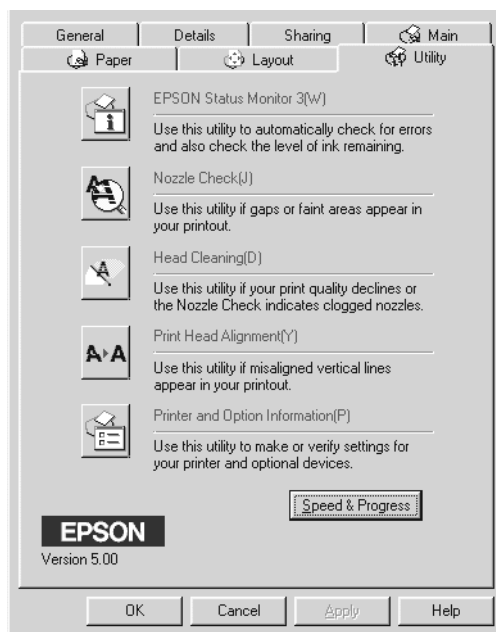
Note:
❏ *The letter in parentheses after the utility name indicates the shortcut key for that utility. Press **Alt** and the letter on the keyboard to open that utility.*

❏ *Do not use the Nozzle Check, Head Cleaning, or Print Head Alignment utility if your Stylus Scan is connected to your computer through a network.*

❏ *Do not use the Nozzle Check, Head Cleaning, or Print Head Alignment utility while printing is in progress, as doing so may mar the printout*

Status Monitor 3

Provides you with printer status information, such as the amount of ink remaining, and checks for printer errors.

This utility is available only if:

❏ The Stylus Scan is connected directly to the host computer via the parallel port [LPT1], or USB.

❏ Your system is configured to support bidirectional communication.

Nozzle Check

Checks the print head nozzles for clogging. Check the nozzles if you notice print or copy quality has declined and after cleaning to confirm that the print head nozzles have been cleaned. If the nozzle check indicates the print head needs cleaning, you can access the Head Cleaning utility directly from the Nozzle Check utility. See "Checking the Print Head Nozzles" on page 11-2.

Head Cleaning

Cleans the print head. You may need to clean the head when you notice print quality has declined. Use the Nozzle Check utility first to confirm that the head needs to be cleaned. You can access the Nozzle Check utility directly from the Head Cleaning utility. See "Cleaning the Print Head" on page 11-4.

Print Head Alignment

Aligns the print head. Use this utility if you notice a misalignment of vertical lines.

Printer and Option Information

This utility allows the printer driver to confirm the Stylus Scan's printer configuration. It also provides specific information regarding certain characteristics of the Stylus Scan, such as its Printer ID.
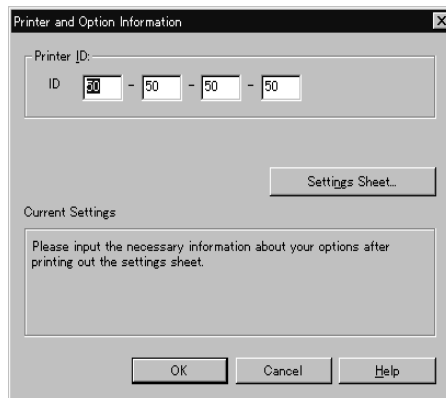
Depending on the configuration of your system, the information displayed in the **Printer and Option Information** dialog box may be updated automatically, or may need to be entered manually.

If a message appears in the Current Settings window prompting you to enter settings, or if you change the Stylus Scan configuration, follow the steps below to make the necessary settings manually.

1. Click the **Settings Sheet** button in the **Printer and Option Information** dialog box to print out information about the Stylus Scan and its options. This requires A4 or Letter size paper. You will see a printout similar to the one below.

```
Printer ID
 50- 50- 50- 50
```

2. Make sure the settings in the utility match the information on the printed Settings Sheet. If they do not match, correct the settings on the screen to match the information on the settings sheet.

3. Click **OK** to exit this menu and save your settings.

Speed & Progress

You can make settings related to print speed and progress with
this feature.
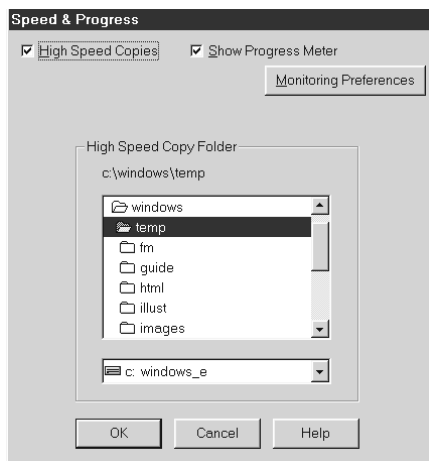
High Speed Copies

To print multiple copies of your document faster, turn on **High
Speed Copies**.

Show Progress Meter

To monitor the progress of your print job, turn on **Show Progress
Meter**.

Monitoring Preferences

Click this button to open the **Monitoring Preferences** dialog box
where you can make settings for EPSON Status Monitor 3. The
available settings are explained in the next section.

Monitoring Preferences

When you click the **Monitoring Preferences** button, the following dialog appears.
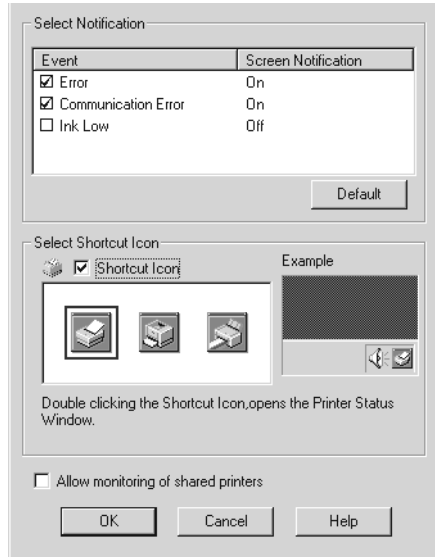
You can change the following settings:

Select Notification

Select Notification	Displays the error item check box ON/OFF status. Turn on this checkbox to display the selected error notification
Select Shortcut Icon	The selected icons are displayed in the task tray on the PC screen. A preview is shown on the right window. By clicking the shortcut icon, you can access the Monitoring Preferences dialog easily.
Allow monitoring of shared printer	When this checkbox is turned on, a shared printer can be monitored by other PCs.

Note:
Click the **Default** *button to restore the settings in the* **Select Notification** *area to their default values.*

Getting Information With Online Help

The Stylus Scan offers extensive online help. You can access help either from the application you are working in or directly from the operating system.

Accessing help from your application

Each printer-driver menu includes a **Help** button that provides information about all of the settings offered by that menu. Simply go the appropriate menu (**Main**, **Paper**, **Layout**, or **Utility**) and then click **Help**.

To get help about a single item on any of the device driver menus, right-click the item and then click the **What's This?** prompt.

Accessing help from the start menu

Click the **Start** button, point to **Programs** and then to **Epson Stylus Scan**. Then click **EPSON Stylus Scan 2500 Help**. The help contents window appears.

Increasing the Print Speed

General tips

Just as printing at a high resolution requires more processing time, printing in color takes longer than printing in black because the volume of data in a color document is much greater. For this reason, it is important to be selective in your use of color if you also require a faster print speed.

Even if your document requires the highest resolution and extensive use of color, for example when printing a camera-ready composite that includes color photographs, it may still be possible to optimize the print speed by adjusting other printing conditions. Keep in mind that changing some conditions to increase the print speed may also lower print quality.

The following table shows the factors that inversely affect print speed and print quality (increasing one will decrease the other).

Print quality Print speed	Lower Faster	Higher Slower
Printer driver settings		
Print Quality	Economy, Normal	Super fine
High Speed	On	Off
Halftoning	No Halftoning	Error Diffusion
Finest Detail	Off	On
Data characteristics		
Image size	Small	Large
Resolution	Low	High

The table below shows the factors related to print speed only.

	Print speed	
	Faster	**Slower**
Printer driver settings		
Ink	Black	Color
Collate*	Off	On
Reverse Order*	Off	On
Flip Horizontal*	Off	On
Data characteristics		
Variety of colors	Grayscale**	Full color
Hardware resources		
System speed	Fast	Slow
HDD free space	Large	Small
Memory free space	Large	Small
Software status		
Running applications	One	Many
Virtual memory	Not in use	In use

* Varies depending on the printer driver and application software you are using.

** Grayscale means using black ink only to print varying shades of gray, from pure black to pure white.

Using the High Speed Copies feature

To access this feature, click the **Speed & Progress** button on your printer software's **Utility** menu. The following dialog box appears.
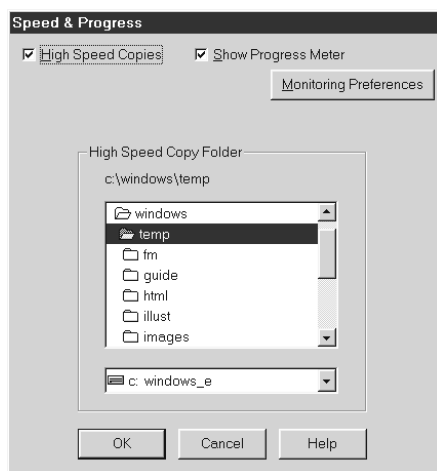
Select the **High Speed Copies** to make copies faster. This speeds up printing by using your hard disk space as a cache when printing multiple copies of your document.

Chapter 5

Checking Printer Status and Managing Print Jobs for Windows

Using the Progress Meter

When you send a print job to the Stylus Scan, the Progress Meter shown below appears on your computer screen.
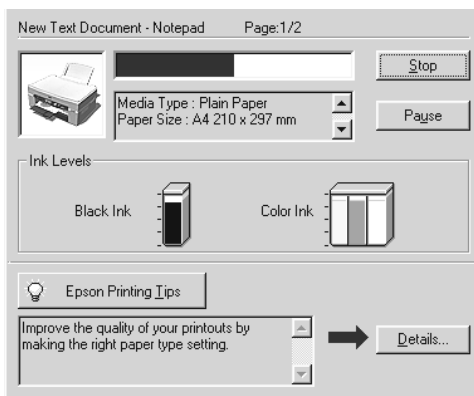
The Progress Meter indicates the progress of the current print job and provides printer status information when bidirectional communication between the Stylus Scan and the computer is established. This meter also displays helpful tips for better printing, as explained below.

Note:
The Progress Meter does not appear when **Show Progress** *is turned off in the* **Speed & Progress** *dialog box. See "Speed & Progress" on page 4-26 for information.*

EPSON Printing Tips

Tips for getting the most out of your EPSON printer driver appear at the bottom of the Progress Meter window. A new tip appears every 30 seconds. For more details on a displayed tip, click the **Details** button.
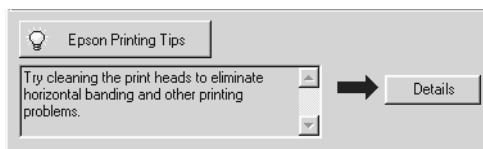
Error messages

If a problem occurs while printing, an error message appears in the Progress Meter window. When ink is low or out, the **How to** button appears in the Printer Status window. Click the **How To** button and the Status Monitor will lead you step-by-step through the cartridge replacement procedure.
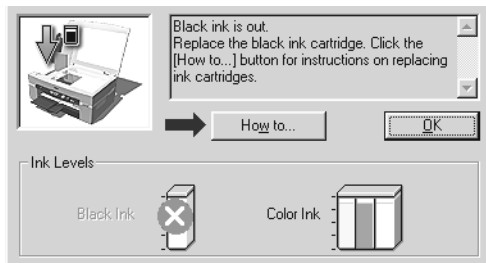
Using EPSON Spool Manager

The EPSON Spool Manager is similar to Windows Print Manager. If it receives two or more print jobs at one time, it stores them temporarily (with printers on a network this may be called a print queue) in the order received. When a print job reaches the top of the order, the EPSON Spool Manager sends the job to the Stylus Scan.

After you send a print job, the **EPSON Stylus Scan 2500** button appears on the taskbar. Click this button to view print status information about print jobs sent to that Stylus Scan. You can also cancel, pause and resume, or restart selected print jobs from the Spool Manager.

Document Name	Paper Size	Status	Progress	Started At
Microsoft Word - EPIIFE4...	Letter Plain paper	Printing	0 of 1 Page	2:55:46 PM 3/30...

| EPSON | Cancel | Pause/Resume | Restart | Help... |
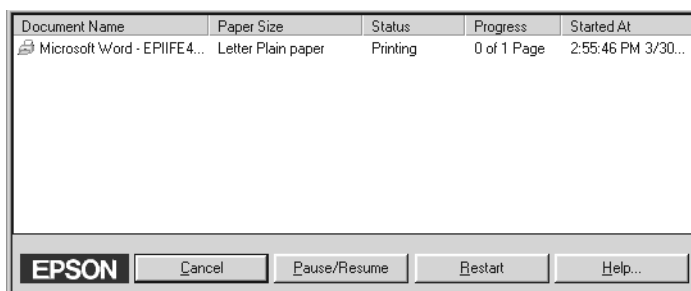
Using EPSON Status Monitor 3

The Status Monitor utility displays detailed information on the printer status.

Note:
Before using the Status Monitor, be sure to read the README file. To open this file, Click **Start***, point to* **Programs***, click* **Epson***, and then click* **EPSON Stylus Scan 2500 Readme***.*

Accessing EPSON Status Monitor 3

There are two ways to access EPSON Status Monitor 3.

❏ Double-click the printer-shaped shortcut icon on the taskbar at the bottom of your computer screen. To add a shortcut icon on the task bar, see "Monitoring Preferences" on page 4-27.

❏ Open the printer software window, click the **Utility** tab, then click the **EPSON Status Monitor 3** button.

Printer Status window

To get more detailed information, you can access the Printer Status window from the printer software window. Click the **Utility** tab, then click the **EPSON Status Monitor 3** button.

When you access the Printer Status window, the following window appears.
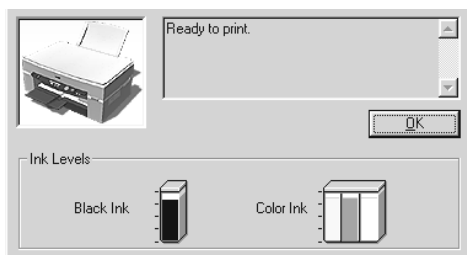
You can view the following information in the Printer Status window.

❏ Current Status
Provides you with detailed printer status information, a graphic display, and status messages. If ink runs low or out, How To appears in the lower message box. Clicking the **How to** button displays cartridge replacement instructions and moves the print head to the cartridge replacement position.

❏ Ink levels
Provides a graphic display of the amount of ink remaining.

Chapter 6

Using the Printer Software for Macintosh

Printer Software Introduction

The printer software includes a printer driver and printer utilities. The printer driver lets you choose from a wide variety of settings to get the best results from your printer. The printer utilities help you check the Stylus Scan and keep it in top condition.

For information on using the printer utilities, see "Using the Printer Software for Macintosh" on page 6-1.

You can get more information about the printer software by clicking the **Help** button in the printer software dialog boxes.

Making Changes to Printer Driver Settings

You will find the printer driver settings in the following dialog boxes.

❏ **Print** dialog box (click **Print** on the **File** menu of your application or click **Options** in the **Page Setup** dialog box)

❏ **Page Setup** dialog box (click **Page Setup** on the **File** menu of your application)

❏ **Layout** dialog box (click the 🔳 Layout button in the **Print** dialog box)

❏ **Background Printing** dialog box (click the 🔳 Background Printing button located in the **Print** dialog box)

❏ **Preview** dialog box (click the 🔳 Preview button and then click **Preview** in the **Print** dialog box)

Note:
The driver settings are not saved from one application to the next. However, the settings are saved with each document and are restored if the settings are made from the **Page Setup** *dialog box. Whenever you exit one application and start up a new one, check that the printer settings are still appropriate. For example, if you choose* **Photo Quality Ink Jet Paper** *in one application, you will need to re-select it if you exit the application and open a new application.*

The settings are arranged to give you three levels of control over the printer driver, as explained below.

Automatic	The quickest and easiest way to start printing. See "Using the Automatic setting" on page 6-5.
PhotoEnhance	Lets you apply a variety of image-correction settings specially designed for photos. See "Using Photo Enhance Mode" on page 6-6.
Custom	Choose from a list of ready-made settings suited to the kind of document you want to print. You can also add your own settings to this list. See "Using the Custom Mode" on page 6-7.
Advanced	Allows you to make detailed settings to fit your individual needs. You can also add your settings to the **Custom settings** list. See "Using the Advanced settings" on page 6-8.

In addition to making groups of settings that affect overall print quality, you can also change page setup and layout using the Page **Setup** and the **Layout** dialog boxes. For information on page setup options, see "Changing the page setup" on page 6-10. For information on page layout options, see "Modifying the layout" on page 6-13.

Making the Media Type settings

The Media Type settings determines what other settings are available, so you should always make this setting first.

In the **Print** dialog box, select the Media Type setting that matches the paper you loaded in the Stylus Scan. Find your paper in the list below, then select a corresponding Media Type setting (shown in bold). For some kinds of paper, there are several Media Type settings to choose from.

Plain Paper

Plain paper	
Envelopes	
EPSON Premium Ink Jet Plain Paper (A4)	S041214

360 dpi Ink Jet Paper

EPSON 360 dpi Ink Jet Paper (A4)	S041059
EPSON Iron-On Cool Peel Transfer Paper (A4)	S041154

Photo Quality Ink Jet Paper

EPSON Photo Quality Ink Jet Paper (A4)	S041061
EPSON Photo Quality Ink Jet Card (A6)	S041054
EPSON Photo Quality Ink Jet Card (5 $\times$ 8")	S041121
EPSON Photo Quality Ink Jet Card (8 $\times$ 10")	S041122
EPSON Photo Quality Self Adhesive Sheet (A4)	S041106
EPSON Ink Jet Note Cards A6 (with envelopes)	S041147
EPSON Ink Jet Greeting Cards 5 x 8" (with envelopes)	S041148
EPSON Ink Jet Greeting Cards 8 x 10" (with envelopes)	S041149

Matte Paper-Heavyweight

EPSON Matte Paper-Heavyweight (A4)	S041256

Photo Paper

EPSON Photo Paper (A4)	S041140
EPSON Photo Paper (4 × 6")	S041134
EPSON Photo Paper (100 × 150 mm)	S041255
EPSON Photo Paper (200 × 300 mm)	S041254
EPSON Panoramic Photo Paper (210 × 594 mm)	S041145
EPSON Photo Paper Cards (A4)	S041177

Photo Quality Glossy Film

EPSON Photo Quality Glossy Film (A4)	S041071
EPSON Photo Quality Glossy Film (A6)	S041107
EPSON Photo Stickers 16 (A6)	S041144
EPSON Photo Stickers 4 (A6)	S041176

Ink Jet Transparencies

EPSON Ink Jet Transparencies (A4)	S041063

Using the Automatic setting

When **Automatic** is selected as the **Mode** setting in the **Print** dialog box, the printer driver takes care of all detailed settings based on the current Media Type and Ink settings. To make the Ink setting, click **Color** to print in color, or **Black** to print in black-and-white or grayscale. To make the Media Type setting, see "Making the Media Type settings" on page 6-4.
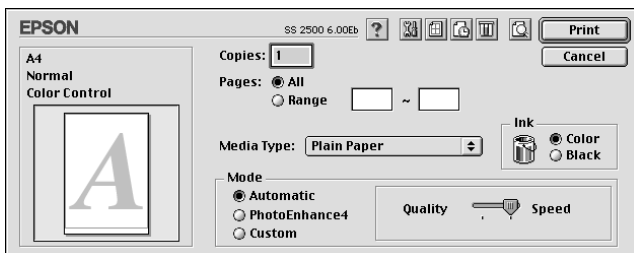
Note:
Depending on the media you choose in the **Media Type** *list while*
Automatic *is selected, a slide bar appears in the* **Mode** *box that lets*
you choose **Quality** *or* **Speed**. *Select* **Quality** *when print quality is*
more important than speed.

Using Photo Enhance Mode

The Photo Enhance option provides a variety of image-correction
settings that you can apply to your photo images before printing.
Photo Enhance does not affect your original data.

If you are printing photos taken with a digital camera, you can
also select the **Digital Camera Correction** check box to give your
printed images the smooth, natural appearance of photographs
taken with a film camera.

Note:
❑ *This mode is available only when you are printing in color.*

❑ *Printing with Photo Enhance may increase print time depending on*
   your computer system and the amount of data contained in your
   image.

The Photo Enhance mode provides the following settings.

Standard	Standard image correction for most photos. Try this setting first.
People	Best for photos of people.
Nature	Best for outdoor scenery such as mountains, skies, and oceans.
Soft Focus	Makes your photos look as if they were taken with a soft-focus lens.
Sepia	Applies a sepia tone to your photos.

Using the Custom Mode

The **Custom Settings** list lets you make a wide range of changes. In this list, you'll find ready-made settings provided by EPSON designed to match a particular kind of printout, such as graphs and charts for a presentation or images taken by a digital camera.

You can also create your own settings and add them to this list. See "Using the Advanced settings" on page 6-8.

The **Custom Settings** list includes the following ready-made settings.

Text/Graph	Good for printing presentation documents such as graphs and charts.
Economy	Good for printing drafts of text.
ColorSync	This feature automatically adjusts printout colors to match colors on your screen.

Follow these steps to select a custom setting.

1. First, verify the Media Type and Ink settings in the **Print** dialog box. For details, see "Making the Media Type settings" on page 6-4.

2. Click the **Custom** button in the **Print** dialog box. This activates the **Custom Settings** list, located below and to the right of the **Custom** radio button.

3. From the **Custom Settings** list, select the most appropriate setting for the type of document or image you will print.

4. When you choose a custom setting, other settings such as **Print Quality**, **Halftoning**, and **Color** are set automatically. Changes are shown in the Current Settings display on the right side of the **Print** dialog box.

Using the Advanced settings

The Advanced settings give you complete control over your printing environment. Use this setting to experiment with new printing ideas, or to fine-tune a range of print settings to meet your individual needs. Once you are satisfied with your new settings, you can give them a name and add them to the **Custom Settings** list.

1. Click the **Custom** button in the **Print** dialog box, then click the **Advanced** button. The Advanced dialog box appears.
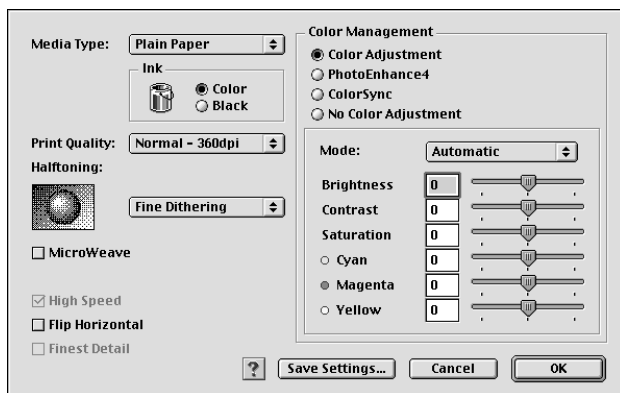
2. Select the Media Type that you loaded in the EPSON Stylus Scan. For details, see "Making the Media Type settings" on page 6-4.

3. Choose **Color** or **Black** as the Ink option.

4. Select the Print Quality setting.

5. Make other settings. For details, see online help.

    Note:
    Some settings are enabled or disabled depending on the Print Quality, Media Type, and Ink settings you make.

6. Click **OK** to apply your settings and return to the **Print** dialog box. Click **Cancel** to return to the **Print** dialog box without applying your settings. To save your Advanced settings, see the next section.

Saving and deleting your settings

To save your Advanced settings as a group, click **Save Settings** in the Advanced dialog box. The **Custom Settings** dialog box appears.
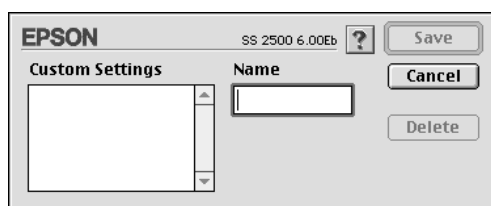
Type a unique name (up to 16 characters) for your settings in the **Name** box, and click **Save**.

Note:
The names of the ready-made settings provided by EPSON cannot be applied to your new settings.

You can save up to 10 groups of settings. You can select your saved group of settings from the settings list in the **Print** dialog box.

To delete a setting, select the setting in the **Custom Settings** dialog box and click **Delete**.

Note:
You cannot delete the ready-made settings from the **Custom Settings** *list.*

Using your saved settings

To select your settings, click the **Custom** button in the **Print** dialog box, then select your setting in the **Custom Settings** list, located below and to the right of the **Custom** button.

If you change the Media Type or Ink option when one of your customized settings is selected in the settings list, the selection shown in the list returns to **Custom Settings**. The customized setting that was previously selected is not affected by this change. To return to your customized setting, simply reselect it in the list.

Changing the page setup

In the **Page Setup** dialog box, you can change the paper size, specify the orientation of your printout, and adjust the printable area.

Choose **Page Setup** on the **File** menu of your application. The **Page Setup** dialog box appears.

You can change the following settings.

Paper Size	Select the paper size you want to use. If you want to define a custom paper size, see "Defining a custom paper size".
Orientation	Use this setting to specify the direction of printing on the page: **Portrait** (tall) or **Landscape** (wide). If you need to print close to the bottom of the page, click **Rotate by 180 degrees**.
Reduce or Enlarge	Use this setting to reduce or enlarge the size of your image.
Printable Area	Select **Maximum** to increase the printable area. **Note:** Print quality may decline at the edges of the expanded printable area. Print a single sheet to confirm quality before printing large jobs using this setting. Also, make sure the paper loaded in the sheet feeder is not curled. Click **Centered** to position your printout at equal distances from the edges of the paper.

Defining a custom paper size

If your paper size is not included in the **Paper size** list in the **Page Setup** dialog box, follow the steps below to define a custom paper size.

1. In the **Page Setup** dialog box, click **Customize**. The following dialog box appears.
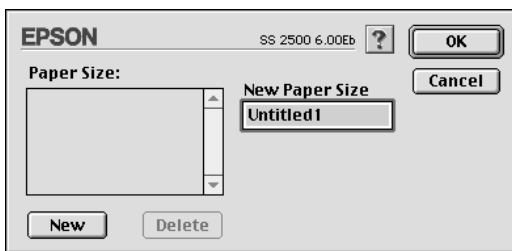
2. To define a new paper size, click **New**. The dialog box changes to allow you to enter a name for the new size.
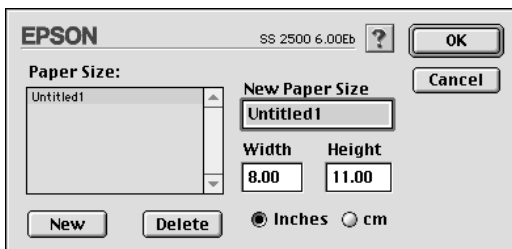
3. Type the paper size name in the **New Paper Size** box.

4. Specify the measurement unit as either **Inches** or **cm**.

5. Type in the width and the height.

6. Click **OK**. You return to the **Page Setup** dialog box.

You can define up to 30 paper sizes. The paper size names you create will appear in the **Paper Size** menu in the **Page Setup** dialog box.

To delete a custom paper size, click **Customize** in the **Page Setup** dialog box, select its name from the list in the **Custom Paper** dialog box, and click **Delete**.

Modifying the layout

You can modify the page layout of your document using the printer driver settings located in the **Layout** dialog box, shown below. To open this dialog box, click **Print** on the **File** menu of your application and click the ▣ Layout button in the **Print** dialog box. The **Layout** dialog box appears.
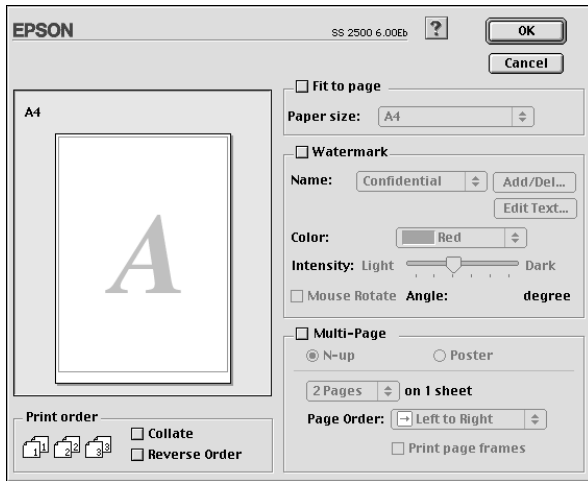
The **Layout** dialog box allows you to automatically match the document size to the paper size, print 2 or 4 pages on a single sheet, print poster-size images by enlarging one page to cover several sheets, or place watermarks on documents.

Fitting your document to the paper size

You can proportionally enlarge or reduce the size of the image to make it fit the paper size you selected in the **Paper Size** list. To do this, click the **Fit to Page** check box and select the paper size you loaded in the Stylus Scan.

Printing 2 or 4 pages on one sheet

To print 2 or 4 pages of your document on one sheet of paper, use the **Multi-Page** option in the **Page Layout** dialog box.
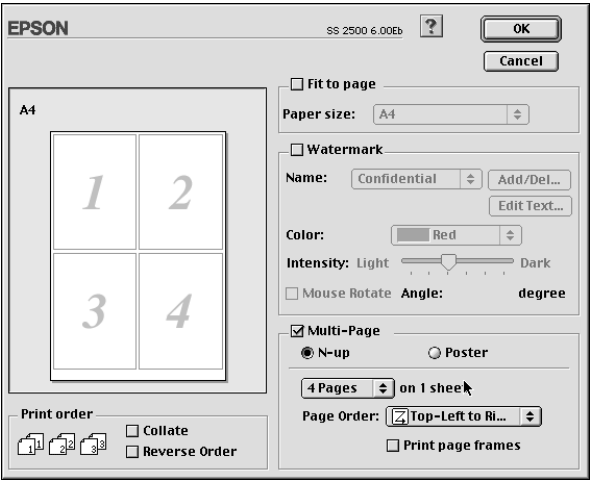
Select the **Multi-Page** check box and click **N-up**. Then make the following settings.

2 Pages **4 Pages**	Prints 2 or 4 pages of your document on a single piece of paper.
Page Order	Allows you to specify the order of the pages you want to print.
Print page frames	Allows you to print a frame around each page on the sheet of paper.

Printing posters

You can use the Poster setting in the Multi-Page option to print a poster-size image. A single document page can be enlarged to cover 4, 9, or 16 printed pages.

Select the **Multi-Page** check box and click **Poster**. Then make the following settings.

1 page covers xx sheets	Specifies how many printed pages the enlarged document page is to cover. You can select 4, 9, or 16 pages.
Overlapping Panels	Slightly overlaps the images so that they can be aligned more precisely.
Print Cutting Guidelines	Prints border lines on the images to guide you when trimming the pages.

If you only want to print a few of the panels without printing the entire poster, click **Panel selection** button then click the panels you don't need and click **OK**. Only the panels that you did not click will be printed.

Printing a watermark on your document

To print a watermark in the background of your printed documents or images, select the **Watermark** check box in the **Page Layout** dialog box.

Select the watermark you want to print from the **Watermark Name** list; then select its position, size, color, and intensity. You can change the position and size of the watermark by dragging it with your mouse in the preview window on the left.
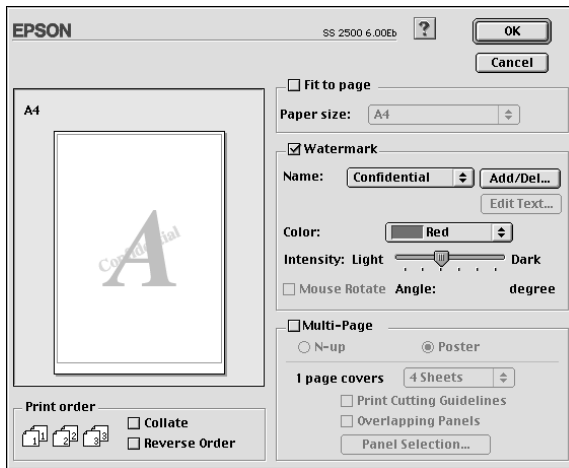
You can add your own text-based or image-based watermarks to the **Watermark Name** list. Follow these steps.

Note:
Custom Watermark allows you to save PICT files as watermarks. If you have QuickTime 2.1 or higher, images in other formats can be used as watermarks because QuickTime automatically converts them to PICT files. An alert will be displayed if QuickTime encounters an uncovertable graphics file.

1. Click the **Add/Del** button beside the **Watermark Name** list. The following dialog box appears.
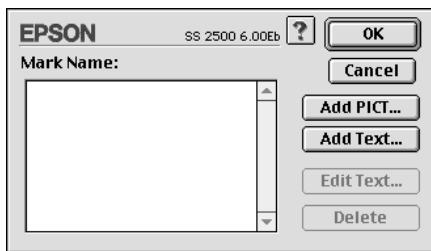
2. To use an image file as a watermark, click the **Add PICT** button. Select the image file from the list, then click **Open**.
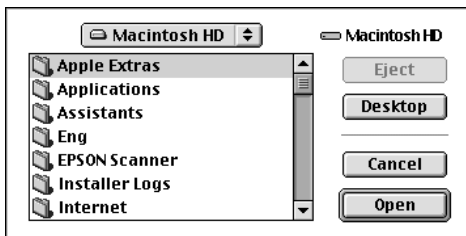
   To create a text-based watermark, click the **Add Text** button. Enter the text in the **Text** box, select a font and text style, then click **OK**.
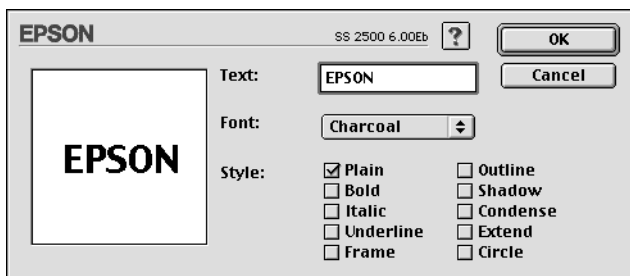
3. The image file name or the watermark text appears in the list in the **Watermark** dialog box. To change the name of the watermark, select it from the list, then type a new name.

```
EPSON                SS 2500 6.00Eb [?]  [  OK  ]
Mark Name:                              [ Cancel ]
 ✓ EPSON                          ▲     [ Add PICT... ]
                                        [ Add Text... ]
                                        [ Edit Text... ]
                                  ▼     [  Delete  ]
```
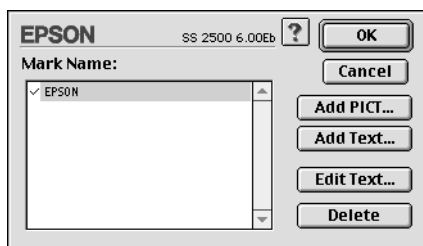
4. Click **OK** to add your watermark to the **Watermark Name** list.

   Note:
   When a text watermark is selected in the **Watermark Name** *list, you can edit the text and change the font and text style by clicking the* **Edit Text** *button.*

Setting a print time

You can specify the time that you want the printer to start printing your document. Follow these steps.

1. Click the 🔲 **Background Printing** button in the **Print** dialog box. The **Background Printing** dialog box appears.

```
EPSON                      SS 2500 6.00Eb [?] [  OK  ]
Background Printing:                          [ Cancel ]
     ● On            ○ Off
Print Time:
     ○ Urgent
     ● Normal
     ○ Print at:    5/18/99 ⇕   5:09 PM ⇕
     ○ Hold
```
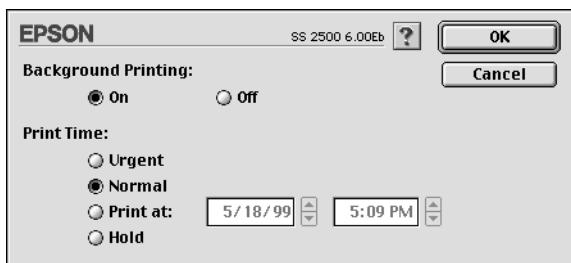
2. Click **On** to turn on background printing, if necessary.

3. Select **Urgent**, **Normal**, **Print at**, or **Hold** from the **Print Time** list.

    If you select **Print at**, use the arrows beside the **date** and **time** boxes to specify the date and time you want to print the document.

    Note:
    Make sure the computer and Stylus Scan are turned on at the date and time you specified.

4. Click **OK**. The **Background Printing** dialog box closes.

5. In the **Print** dialog box, make sure your print settings are as you want them, then click **Print**.

Note:
You can check or change the priority of print jobs using the EPSON Monitor3 utility. See "Controlling Background Printing" on page 7-4 for details.

Previewing your printout

The Preview button in the **Print** dialog box allows you to see how your document will look before actually printing it. Follow these steps to use this feature.

1. Make your printer driver settings.

2. Click the Preview button in the **Print** dialog box. The **Print** button changes into a **Preview** button.

    Note:
    Use the Preview button to switch between the Print, Preview, and Save File modes. Click the icon to select the mode you want. For information on the Save File mode, see "Saving print data in files" on page 6-21.

3. Click the **Preview** button. The **Preview** dialog box appears and displays a preview of your document.
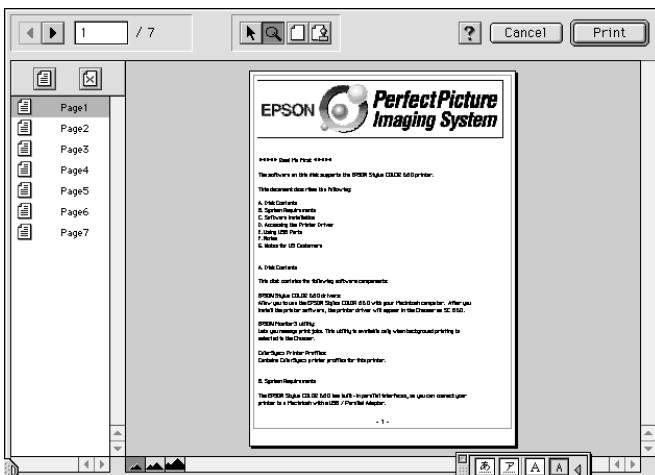
The **Preview** dialog box contains six buttons you can use to perform the following functions.

[arrow icon]	Selection	Lets you select, move, and resize watermarks.
[magnifier icon]	Zoom	Enlarges or reduces the size of the previewed page.
[page icon]	Margin Display/ Non- Display	Shows or hides borderlines indicating the printable area.
[watermark icon]	Watermark Editing	Shows or hides the **Watermark Edit** box. Use this box to apply watermarks to the document.
[add/remove icons]	Add page Remove page	Lets you select or deselect the pages you want to printout from the left-side column.

4. If you are satisfied with the previewed image, click **Print**.

    If you are not satisfied with the appearance of the image, click **Cancel**. The **Preview** and **Print** dialog boxes close with the current print settings preserved. Open the **Print** dialog box again to make more changes to the print settings.

Saving print data in files

You can save print data in a file by using the 🔳 Save File button in the **Print** dialog box. This feature lets you print the data at a later time simply by double-clicking the saved file. Follow these steps.

Note:
Use the 🔍 Preview button to switch between the 🔳 Print, 🔍 Preview, and 🔳 Save File modes. Click the icon to select the mode you want.

1. Make your printer driver settings.

2. Click the 🔍 Preview button in the **Print** dialog box repeatedly until the **Print** button changes into the **Save File** button.

3. Click the **Save File** button. The following dialog box appears.
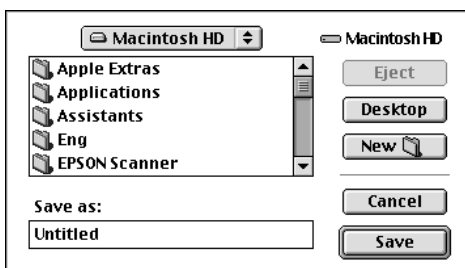
4. Select the location where you want to save the file, then type a file name into the **File Name** box and click **Save.**

When you want to print the data, double-click the file and open EPSON Monitor 3. Click the ▶ Resume button to send the data to the printer.

Using the Printer Utilities for Macintosh

EPSON printer utilities allow you to check the current printer status and do some printer maintenance from your screen. To access the utilities, click the 🕮 Utility button in the **Print** or **Page Setup** dialog box, then click the button for the utility you want to use.
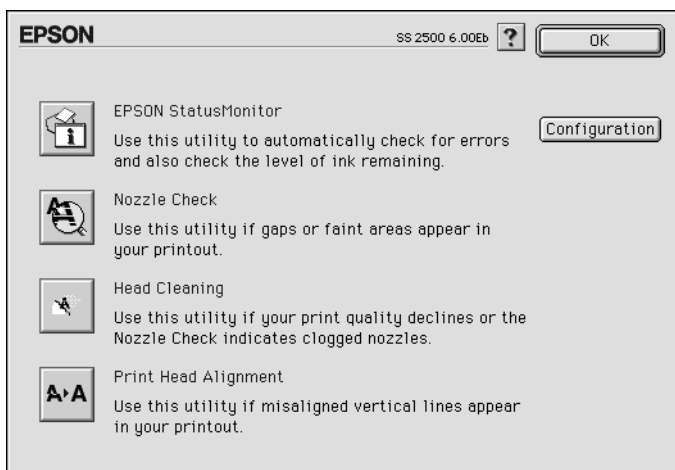
EPSON StatusMonitor

The StatusMonitor utility regularly monitors the printer status. If it detects a printer error, it will inform you with an error message.

You can also use this utility to check how much ink is remaining before printing.

To use the StatusMonitor, click the **EPSON StatusMonitor** button in the **Utility** dialog box. For details, see "Using the EPSON StatusMonitor" on page 7-2.

Note:
Do not use the Nozzle Check, Head Cleaning, or Print Head Alignment utilities while printing is in progress; otherwise your printout may be marred.

Nozzle Check

Checks the print head nozzles for clogging. Check the nozzles if you notice print quality has declined and also after cleaning to confirm that the print head nozzles have been cleaned. In case the nozzle check indicates the print head needs cleaning, you can access the Head Cleaning utility directly from the Nozzle Check utility. For details, see "Checking the Print Head Nozzles" on page 11-2.

Head Cleaning

Cleans the print head. You may need to clean the head when you notice print quality has declined. Use the Nozzle Check utility first to confirm that the head needs to be cleaned. For details, see "Cleaning the Print Head" on page 11-4.

Print Head Alignment

This utility aligns the print head. Use this utility if you notice a misalignment of vertical or horizontal lines.

Configuration

Clicking this button displays the **Configuration** dialog box, where you can change the way the StatusMonitor utility notifies you when the printer status changes. For details, see "Making Configuration Settings" on page 7-3.

Chapter 7

Checking Printer Status and Managing Print Jobs for Macintosh

Using the EPSON StatusMonitor

The StatusMonitor utility monitors the Stylus Scan's printer functions. If it detects a printer error, it will inform you with an error message. You can also use this utility to check ink levels before printing.

To access StatusMonitor, follow these steps.

1. Click **Print** or **Page Setup** on the **File** menu of your application.

2. Click the 🖼 Utility icon button in the dialog box.

3. Click the **EPSON StatusMonitor** button in the **Utility** dialog box. The following dialog box appears.
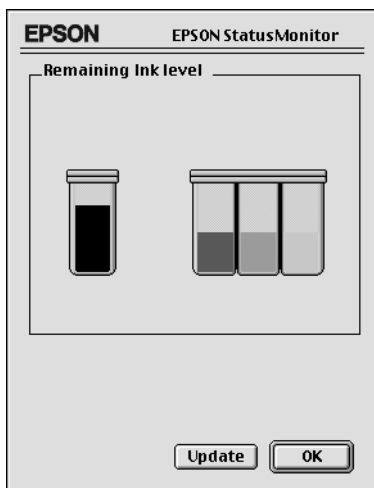
The StatusMonitor displays the amount of ink remaining at the time StatusMonitor was opened. To update the ink-level information, click the **Update** button.

Making Configuration Settings

If you want to change the way the StatusMonitor utility monitors the Stylus Scan's printer functions, follow the steps below.

1. Click **Print** or **Page Setup** on the **File** menu of your application.

2. Click 🖼 the Utility icon button in the dialog box.

3. Click the **Configuration** button. The **Configuration Settings** dialog box appears.
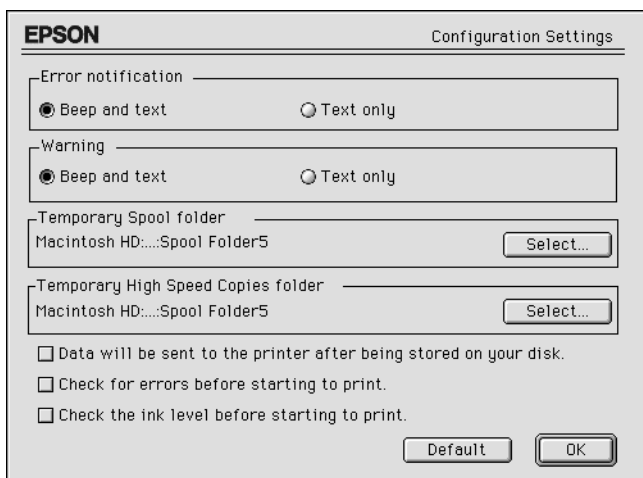
The options in this dialog box allow you to make the following settings.

Error notification	Choose how StatusMonitor notifies you in case of an error.
Warning	Choose how StatusMonitor notifies you if a warning message is necessary.
Temporary Spool folder	Choose a folder for temporary spooling of print data.
Temporary High Speed Copies folder	Choose the folders for multiple-copy print data storage.
Data will be sent to the printer after being stored on your disk	Select this check box if you want to send the data together after the printing command file is made. When this check box is on, the data is sent to the printer after making the command file for pages which are necessary for printing. This can prevent horizontal banding in your printout.
Check for errors before starting to print.	Click this check box if you want to check for errors before starting to print.
Check the ink level before starting to print.	Click this check box if you want to check the ink level before starting to print.

Controlling Background Printing

After you send a print job to the Stylus Scan, you can use the EPSON Monitor3 utility to check, control, or cancel print jobs that are queued for printing. This utility also shows the status of the job currently being printed.

Note:
If the installation of a new application makes it impossible to use Background Printing, this is because some of the Extension files used by Background Printing have been overwritten as previous versions of themselves by the new application's installer. Re-install the Stylus Scan driver to solve this problem.

Using EPSON Monitor3

To use the EPSON Monitor3, follow these steps.

1. First, turn on **Background Printing** in the **Chooser** or in the **Background Printing** dialog box.

2. Send a print job to the Stylus Scan.

3. Select **Epson Monitor3** from the **Application** menu at the right end of the menu bar. This opens a dialog box similar to the following:
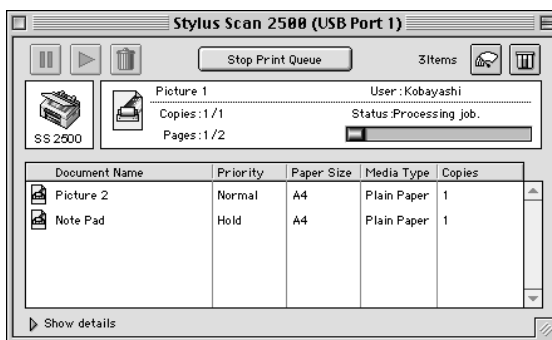
Note:
You can also open EPSON Monitor3 by double-clicking the **EPSON Monitor3** *icon in the Extensions folder.*

❏ Use these buttons to pause, resume, and cancel printing for documents selected in the dialog box.

![Hold]	Hold	Stops printing and moves print jobs to the end of the print queue
![Resume]	Resume	Resumes printing
![Delete]	Delete	Stops printing and deletes print jobs from the print queue

---

Checking Printer Status and Managing Print Jobs for Macintosh   **7-5**

❏ Use these buttons to start the printer utilities.

	Start/Stop Print Queue	When you click **Stop Print Queue**, printing stops until you click the **Start Print Queue** button.
	Print Head Cleaning	Starts the Print Head Cleaning utility
	Status Monitor	Starts the StatusMonitor, which shows the remaining ink levels

❏ Double-click the spool file in the list to preview the file (This function is disabled when you are printing the ESC/P command file).

❏ Double-click on **Copies** to change the number of copies you want to print.

❏ If you click the **Show details** arrow, an extension similar to the one below appears at the bottom of the **EPSON Monitor3** dialog box. The extended dialog box displays detailed information on a selected document's printer driver settings.
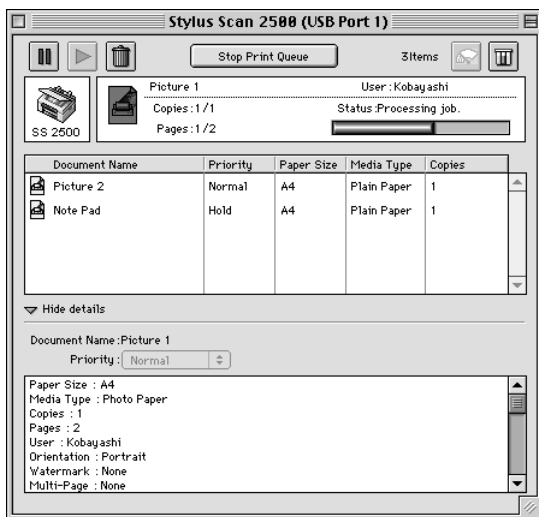
Changing the priority of print jobs

To change the priority of print jobs in a print queue, follow the steps below.

Note:
You can also change the priority of print jobs whose print times were previously set in the printer driver's **Background Printing** *dialog box.*

1. Click the **Show details** arrow at the bottom of the **EPSON Monitor3** dialog box, then click a document name in the **Document Name** box. You will see an extended dialog box similar to the one below.
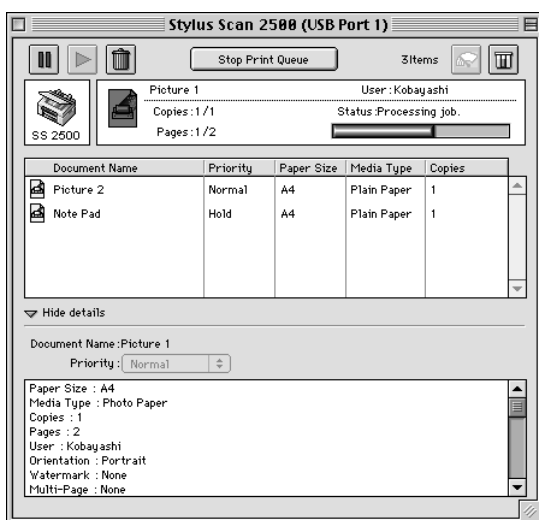
2. Select **Urgent**, **Normal**, **Hold**, or **Print Time** from the **Priority** list.

    If you select **Print Time**, a dialog box appears where you can specify the date and time that you want to print the document.

Chapter 8

Scanner

Placing a Document

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 Stylus Scan by pressing the ⏻ power button. The **Operate** light starts flashing.
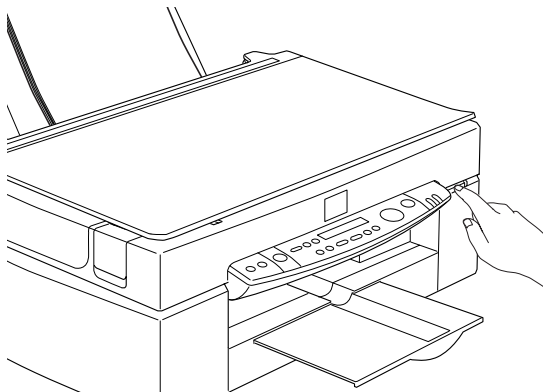
2. Turn on the computer and make sure that the Stylus Scan **Operate** light is on, but has stopped flashing.

3. Open the document cover.
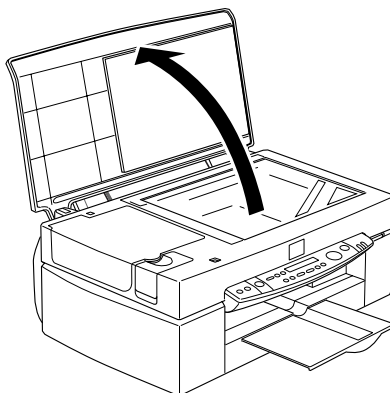
4. Place the document on the document table, with the side to be scanned facing down. Make sure that the document is carefully aligned.
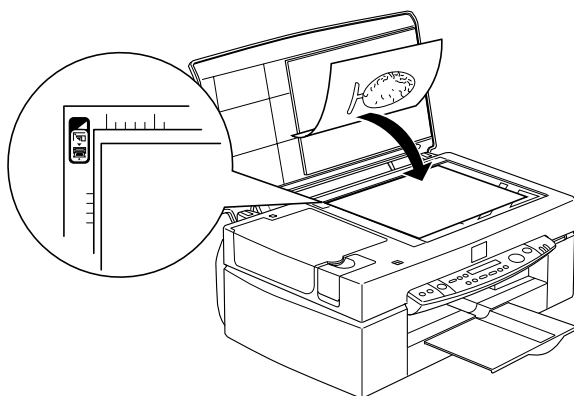
5. Close the document cover gently so that the document does not move.
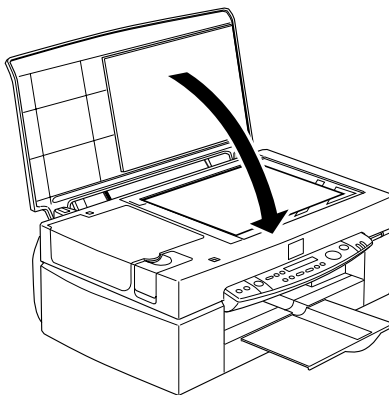
Note:

❏   *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 Stylus Scan" on page 11-22.*

❏   *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 Stylus Scan.*

6. Start your scanner software.

Scanning Basics

There are two ways to scan; with an application that supports TWAIN, or with the ✧ **Scan** button and preassigned application software.

If you...

❏ use an application that supports EPSON TWAIN to scan, open your application.

❏ To scan in imagery easily, use the included EPSON SMART PANEL (Windows) or Presto! PageManager for EPSON (Macintosh) utility software included. These utilities make it possible to open the scans directly into your application, and can be launched automatically by just pressing the **Scan** button (see "Using the Scan Button" on page 8-9).

Note:
Even if your application supports TWAIN, some features of EPSON TWAIN may not be available depending on the application software.

Starting EPSON TWAIN through your application software

Application programs that support the scanning interface standard TWAIN, allow you to scan images while an application is running. To verify whether your application is compatible with TWAIN, see your application documentation.

How you should open EPSON TWAIN and scan varies depending on the application. Read the following to find out how to access EPSON TWAIN.

1. Start your application.

2. Select **TWAIN Source** from the **File** menu, and then select **EPSON Stylus Scan FB.**

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

3. Choose **TWAIN Acquire** from the **File** menu to open EPSON
   TWAIN.

To scan, see the next section.

Scanning an Image

When you open EPSON TWAIN, the **EPSON TWAIN** dialog box
appears. This section shows you the easiest way to scan by using
the EPSON TWAIN.
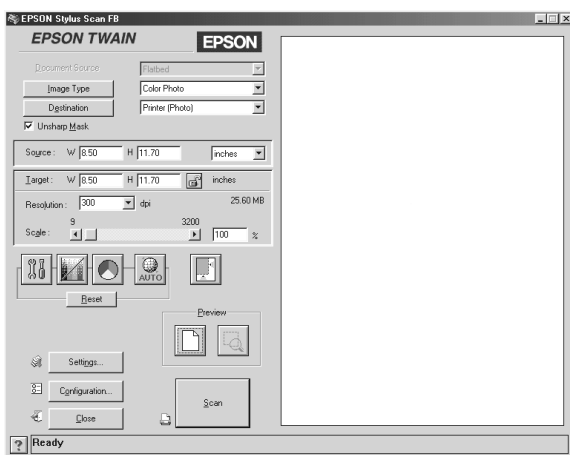
Note for Macintosh users:
Most illustrations in this chapter are for Windows, so they may vary
from the actual dialog boxes that appear on your screen. However, all
the settings and functions are the same for both systems.

Follow these steps to scan an image:

1. Select the **Document Source**.
   You can select **Flatbed**, or **Auto Document Feeder** (for the optional Automatic Document Feeder), or **TPU for Neg. Film or TPU for Pos. Film** (for the optional Film Adapter) if you have installed these options. For complete descriptions of Document Source settings, see "Document Source" on page 8-42.

2. Select the **Image Type**.
   You can select the type of image you will scan: **Color Photo**, **Color Photo De-screening**, **Black & White Photo**, **Line Art**, **OCR**, or **Copy/Fax**. For complete descriptions of Image Type settings, see "Image Type" on page 8-43.

3. Select the **Destination**.
   You can select an output device for image reproduction from: **Screen/Web**, **Fax**, **OCR**, **Printer (Fine)**, **Printer (Photo)**, and **Laser Printer**.

4. Click the **Preview** button.
   To specify the scan region, click the **Preview** button to display a preview of the original document.

5. Select the region to scan.
   Use the mouse to drag the marquee and define the region to be scanned.

6. Click the **Auto Exposure** button.
   This will adjust scan settings for optimal results.

7. Click **Scan**.
   The scanned image is displayed on the screen.

The scanner scans your image according to the Image Type and Destination settings you select. If you want more control over the settings, try the other options. See online help for complete descriptions of the settings.

To exit from the EPSON TWAIN window, click the **Close** button.

Scanning by Pressing the Scan button

You can open EPSON TWAIN, start scanning, and have the scanned image sent to a specified application, simply by pressing the ♦ **Scan** button on your EPSON Stylus Scan. To use this feature, you need to install EPSON SMART PANEL (Windows), PageManager for EPSON (Macintosh), or other Scan button compatible software. The following occurs when you press the ♦ **Scan** button:

❏ Windows 98 (with USB interface) and EPSON Scanner Monitor software (Windows parallel interface or Macintosh) will detect when the ♦ **Scan** button is pressed and sends information to the Scan button compatible application, such as EPSON SMART PANEL or PageManager for EPSON.

❏ The Scan button compatible application will be launched or will automatically open EPSON TWAIN, scan the image and process it in the way the application is designed.

Note:
❏ *You need to setup the Scan button compatible software before using this feature. See the documentation that comes with the application.*

❏ *The scanned image will be handled by the software to its maximum capability. For example, using EPSON SMART PANEL or PageManager for EPSON, you can send the scanned image to a printer to print, or convert your scanned OCR image to text format and paste it in a word processing application—all by simply pressing the ♦ Scan button and following the instructions for the application.*

Using the Scan Button

The Scan Button Feature

The **Scan** Button feature allows you to scan and send data to a target application with a single push of your Stylus Scan's ♦ **Scan** button. The following sections will help you set up your SMART PANEL, PageManager for EPSON and EPSON Scanner Monitor software, or Windows 98 system, so you can use the Scan Button feature.

Note for Windows 98 users:
The USB connection in Windows 98 supports the Scan Button feature. Because of this, EPSON Scanner Monitor is not installed.

EPSON SMART PANEL

When you install the Driver and EPSON SMART PANEL from the EPSON Stylus Scan Driver CD-ROM, it will automatically configure your system to launch EPSON SMART PANEL when you press the ♦ **Scan** button. You can also set the EPSON SMART PANEL to trigger other applications you specify.

Note:
For information on EPSON SMART PANEL installation, see the Setup Guide.

Assigning an application to the Scan button

Launch EPSON SMART PANEL. If it is already running the icon will be displayed in the task tray, so just click the icon to display the main screen.

To select the application you wish to launch with the Scan button, either click the ✧ **Scan** button icon (lower left), or select it from the menu. The Scan button mark will be displayed next to the selected application.
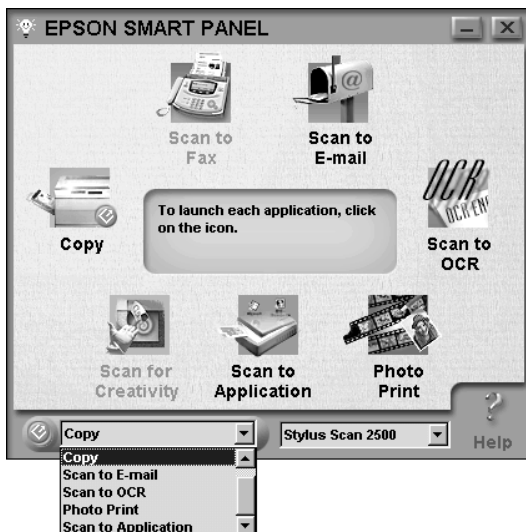
PageManager for EPSON

PageManager allows you to scan and send data directly to an assigned application with a single push of your Stylus Scan's ✧ **Scan** button. You can also scan to any target application by simply clicking on the application icon in PageManager's Scan Buttons bar. This section will help you set up PageManager so you can begin to scan using the ✧ **Scan** button. For more detailed information on PageManager settings, see your PageManager documentation.

Note:
For information on PageManager installation, see Setup Guide.

Target applications in the Scan Buttons bar

When PageManager is started, the Scan Buttons bar will appear on your screen. The icons in this bar represent target applications or peripheral devices that can be accessed by your Stylus Scan. This means that you can scan and send data directly to these applications or devices by clicking on their icons.

PageManager for EPSON also allows you to assign any one of the applications or devices on the Scan Buttons bar to the ✧ **Scan** button. This means that an image can be scanned and sent straight to your selected application with one simple push of the ✧ **Scan** button.

Scan button icon

Note:
The application button showing the Scan button icon✧ represents the application that is assigned to the **Scan** *button.*

Assigning an application to the Scan button

To assign an application on the Scan Buttons bar to the ✧ **Scan** button, follow the steps below.

1. Select **Scan Buttons Setting** from the **File** menu
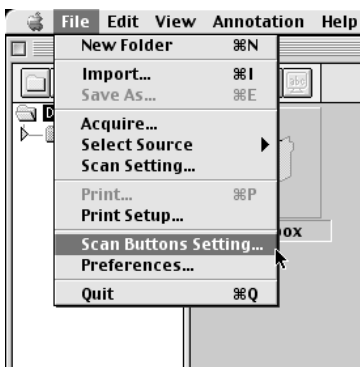
2. Click the **Scan Button Settings** tab in the **Scan Buttons Setting** dialog box. The following dialog box appears.
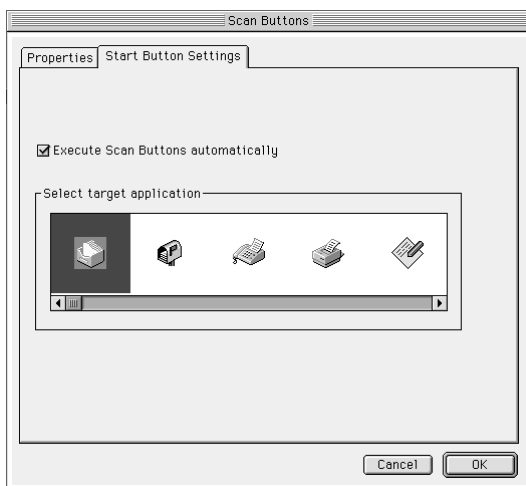
3. Select an application from the Select target application box and click **OK**.

Execute Scan Button automatically

When this check box is selected, the assigned application will automatically open and the scanned image is sent to the application when you press the ✧ **Scan** button. When this check box is cleared, no application is assigned to the ✧ **Scan** button and only the Page Manager will appear when the ✧ **Scan** button is pressed. Then you can select an application from the Scan Buttons bar.

Adding Applications to the Scan Buttons Bar

You can add applications on the Application bar at the bottom of the **PageManager** window to the Scan Buttons bar. Follow the steps below.

1. Select **Scan Buttons Setting** from the **File** menu. The following dialog box appears.
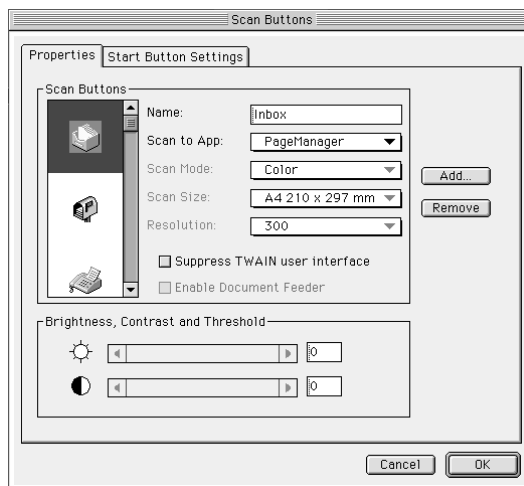
2. Click the arrow next to the **Scan to** box and select an application you want to add to the Scan Buttons bar. Make the appropriate scanning settings for the application and click **OK**.

Suppress TWAIN User Interface check box

> When this check box is selected, the **EPSON TWAIN** dialog box does not appear when you scan, and the scanner works according to the settings in PageManager. When this check box is cleared, the **EPSON TWAIN** dialog box appears when you scan, and the scanner works according to the settings in EPSON TWAIN.

Enable Document Feeder check box

> When this check box is selected, the scanner feeds your documents though the Automatic Document Feeder. When this check box is cleared, the scanner scans your documents from the document table.

> *Note:*
> *To remove applications from the Scan Buttons bar, select the icon of the application you want to remove in the box on the left of the dialog box, then click* **Remove***.*

Setting up EPSON Scanner Monitor

> EPSON Scanner Monitor is software that recognizes when the ✧ **Scan** button is pressed and sends information to assigned application software supporting the Scan Button feature and EPSON Scanner Monitor, such as EPSON SMART PANEL or PageManager for EPSON.

> Once EPSON TWAIN is installed on an operating system, EPSON Scanner Monitor is active and identifies EPSON SMART PANEL as the application that allows you to use the Scan Button feature. If you need to turn off Scanner Monitor, or select another application that supports the Scan Button feature, access Scanner Monitor as described below.

> *Note:*
> ❏ *Application software other than EPSON SMART PANEL or PageManager for EPSON which supports both EPSON Scanner Monitor and the Scan button feature may be limited.*

❏ *The USB connection under Windows 98 supports the Scan Button feature. As a result, the EPSON Scanner Monitor is not installed in this case.*

Windows 95/98 Users (excluding USB connection)

Click the Scanner Monitor icon located in the task bar on your desktop.

Scanner Monitor icon

❏ Turning off Scanner Monitor

If you want to turn off Scanner Monitor, select **Close**. This will disable the EPSON Stylus Scan's Scan Button feature.

Note:
After you turn off Scanner Monitor, it will turn back on automatically the next time you start Windows.

To activate Scanner Monitor, select **Programs** from the **Start** menu and click **EPSON Stylus Scan**; then select **EPSON Scanner Monitor for Stylus Scan**. The Scanner Monitor icon appears in your taskbar.

❏ Assigning an application to Scanner Monitor

Select **Preferences**. The **EPSON Scanner Monitor** dialog box appears. You can select an application that supports the Scan button feature and EPSON Scanner Monitor, such as EPSON SMART PANEL.
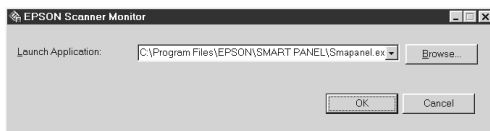
For Macintosh users

Select **Epson Scanner Monitor Setup** from the **Apple** menu.

❏ Turning off Scanner Monitor

If you want to turn off Scanner Monitor, clear the **Enable Monitoring** check box. Please note that this will disable the Scan Button feature.
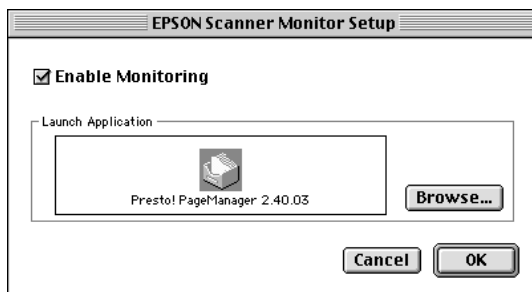
To re-activate Scanner Monitor, select the **Enable Monitoring** check box.

❏ Assigning an application to Scanner Monitor

Click **Browse**. Select a folder and an application that supports the Scan Button feature and EPSON Scanner Monitor, such as PageManager for EPSON.
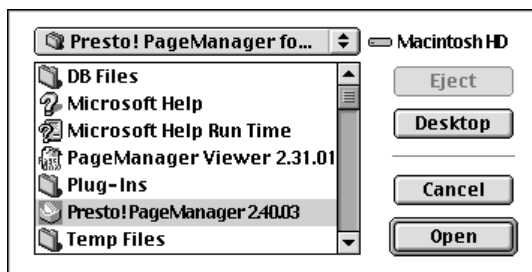
Setting Up the Scan Button Feature for Windows 98

EPSON Scanner Monitor is not installed in Windows 98 with USB interface support installed. Because Windows 98 supports the Scan Button feature, the Scan button can be used to launch applications supporting the Scan button feature. When you press the ◇ **Scan** button, you can have a scanned image automatically sent to your application, such as EPSON SMART PANEL, as long as it is installed.

When the EPSON Stylus Scan Driver is installed via USB in Windows 98, the Scanner and Camera icons will appear in the control panel, and your Stylus Scan is listed in the **Scanners and Cameras Properties** dialog box as shown below.
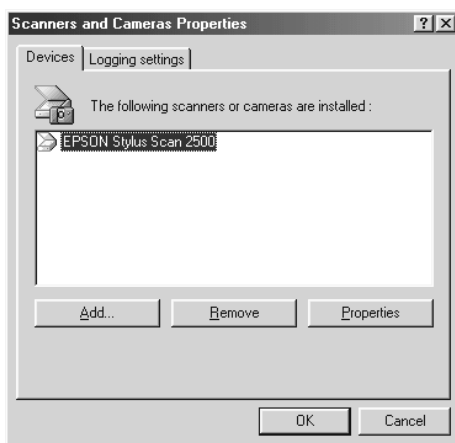
Assigning an application to the Scan button

When the EPSON Stylus Scan Driver is installed, EPSON SMART PANEL will automatically be assigned to the application handling Scanner events.

To change the application launched by the Scan button, use the following procedure.

1. Select your scanner from the installed scanners and cameras list in the **Scanners and Cameras Properties** dialog box. Click **Properties,** and then click the **Events** tab.
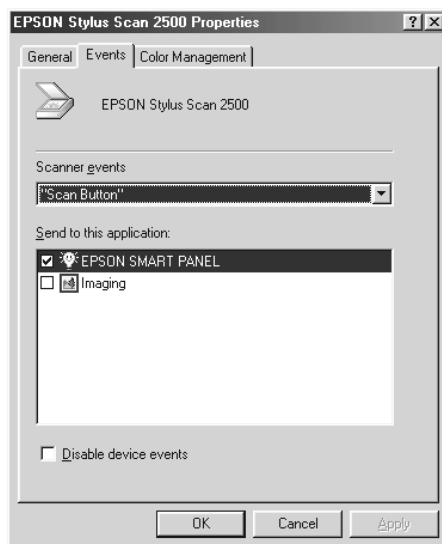
2. You can see the **Scan** Button is listed as the scanner event. Make sure the check box of the application you want to assign to the ✧ **Scan** button is selected and all other application check boxes are clear in the **Send to this application** list.

   Note:
   ❏ *If more than one application is selected, a dialog box appears prompting you to select an application when the* **Scan** *button is pressed.*

   ❏ *Some applications do not support linkage to scanners and digital cameras. Linkage is available only with the applications that appear in the* **Send to this application** *list.*

3. Close the dialog box by clicking the **OK** button.

Disabling the Scan button

If you need to disable the Scan Button feature, select the **Disable device event** check box in the **EPSON Stylus Scan 2500 Properties** dialog box. When this check box is cleared, Windows 98 will detect if the ✧ **Scan** button is pressed and launch the application you selected in the **Send to this application** list.

Options

Using the Film Adapter

The Film Adapter (B813133) is a special device developed to enable the scanning of negative film strips and slides by simply installing the unit on your Stylus Scan. The Film Adapter is compact so it can be attached or removed easily when you alternate scanning between transparent materials and normal reflective (paper) documents.

Note:
The Film Adapter cannot be used with the copy function.

Unpacking the Film Adapter

When you first open the package, make sure that all the following items are included. If any items are missing or damaged, contact your EPSON dealer immediately. Do not throw away the package after unpacking the Film Adapter as it can be used again for storage when you are not scanning transparencies.

Film Adapter   film holders
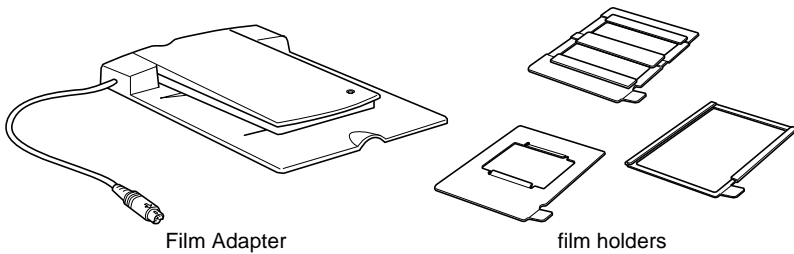
Installing the Film Adapter

Follow the steps below to install the Film Adapter on the Stylus Scan.

1. Make sure the Stylus Scan is turned off.

2. Remove the document cover from the Stylus Scan by lifting the back straight up.

3. Remove the option cover.
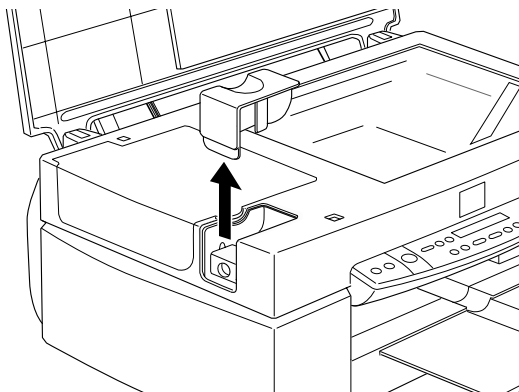
4. Place the Film Adapter on the document table so that the hinges face the left of the Stylus Scan and it fits on the table.
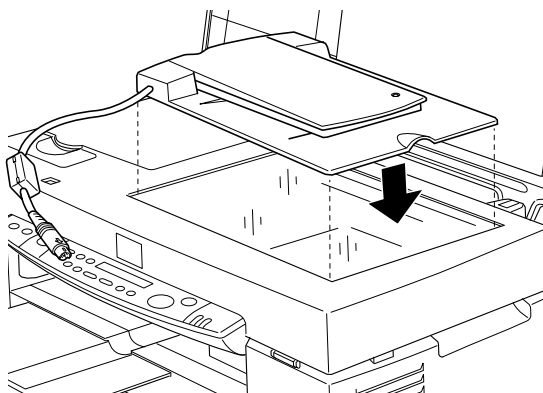
5. Connect the Film Adapter connector to the Stylus Scan's option interface.
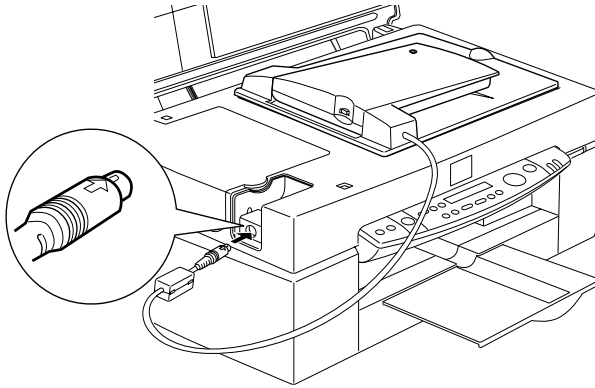
6. Turn on the Stylus Scan.

7. Turn on the Film Adapter.
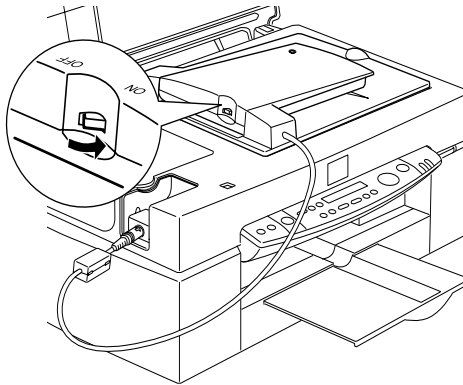
Film holders

Three film holders are included with this unit. To scan film, see the instructions below.

> ⚠️ **Caution:**
> *Hold the film at the edges, or else use gloves. Touching the film surface with bare hands can leave fingerprints or other traces on the film.*

Note:
The base side of the film is the side which the film maker's name and film ID numbers are shown.

35 mm negative or positive film

Insert a strip of film in the 35 mm film holder, base side facing down.
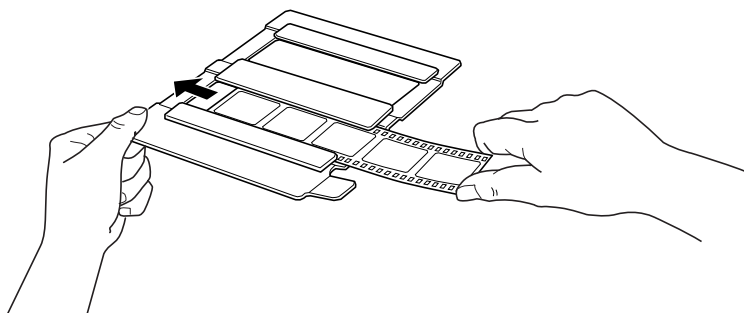
Brownie size (6 cm x 9 cm) film

Insert film in the Brownie size film holder, base side facing down.
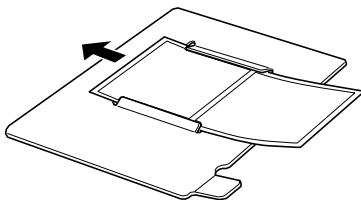
4 x 5 inch film

Insert film in the 4×5 inch film holder, base side facing down.
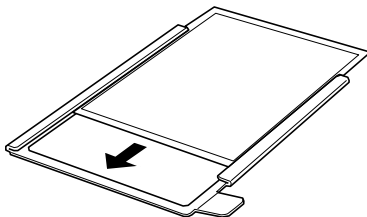
Loading slides and film

You can scan slides and film strips in the 4×5 inch (101.6×127 mm) scanning area of the Film Adapter.

Note:
❏ *Wipe the glass of the Film Adapter, the Stylus Scan's document table, and the narrow window near the hinges before scanning transparencies.*

❏ *You need to select* **TPU - Neg. Film** *or* **TPU - Pos. Film** *in the Document Source settings in EPSON TWAIN depending on the type of film (negative or positive) you are scanning. The scanner software automatically controls the operation of the Film Adapter.*

Follow the steps below to load film or slides.

! *Caution:*
Hold the film at the edges, or else use gloves. Touching the film surface with bare hands can leave fingerprints or other traces on the film.

1. Open the top of the Film Adapter, holding the base down.
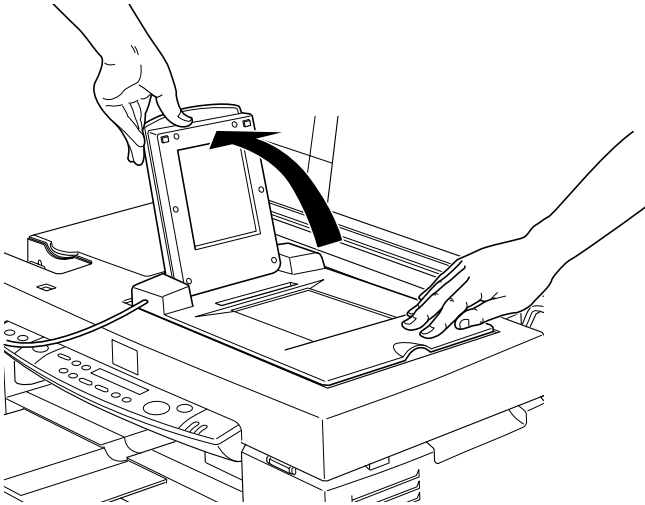
2. Load the transparency to be scanned face down on the Stylus Scan's document table in the window of the Film Adapter as shown below.

    ❏ If you are scanning 35 mm strip film, use the 35 mm film holder to set the film.
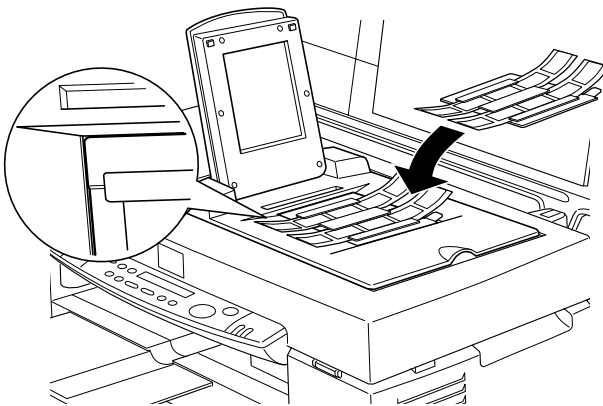
❏ If you are scanning slides or transparencies which will not fit in the film holders, place them directly on the document table.
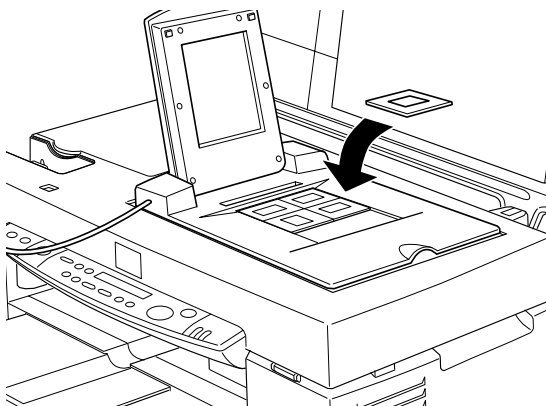
Note:
❏ *Place film holders on the document table in alignment with the upper left-hand corner of the film holder.*

❏ *When scanning Brownie size (6cm × 9cm) or similar film, use the film holder as shown below.*
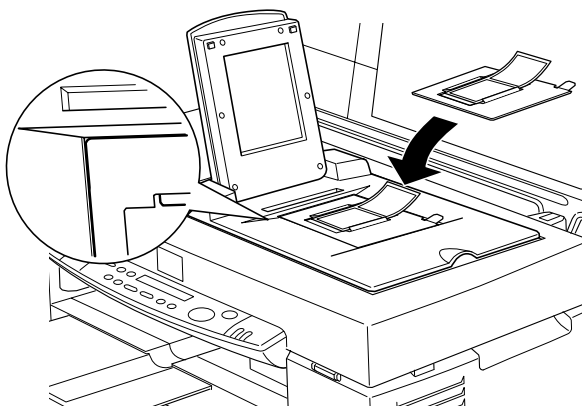
❏ *If the film size is 4" × 5" or similar, use the film holder as shown below.*
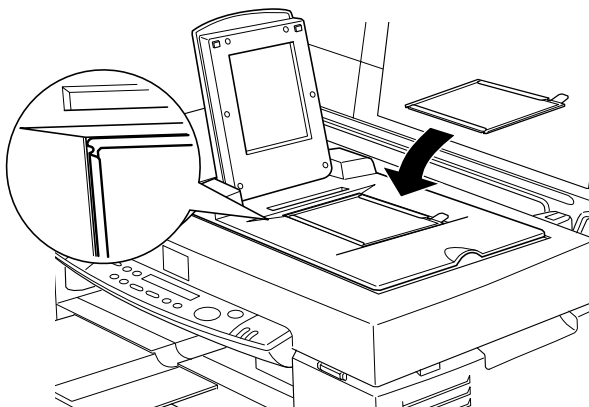
3. Close the unit.

Note:
❏ *Make sure the unit is completely closed, otherwise an option error results and you will not be able to scan the document, or get properly colored images.*

❏ *When previewing images on EPSON TWAIN of negatives scanned using a film holder, the color may appear odd as the frame of the film holder is perceived as white, causing your scans to appear darker. To see the correct color, click and drag the mouse over an area, then click the zoom preview button.*

❏ *You can move and adjust the position of 35mm film by sliding the strips in the film holder so the frames you want scan are positioned in the window.*
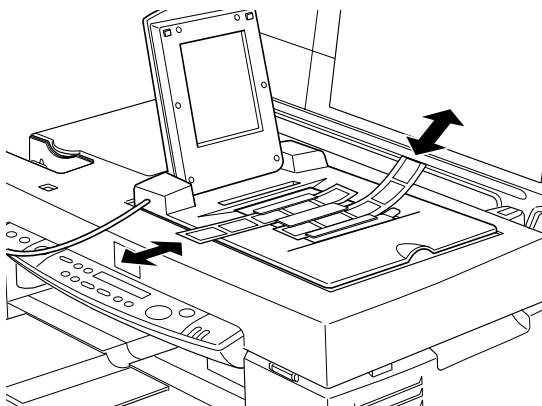
❏ *To remove a film holder from the document table, slide it left or right then take it out of the window.*

❏ *Leave the opening shown below uncovered, otherwise the colors in your scans will be affected.*

opening
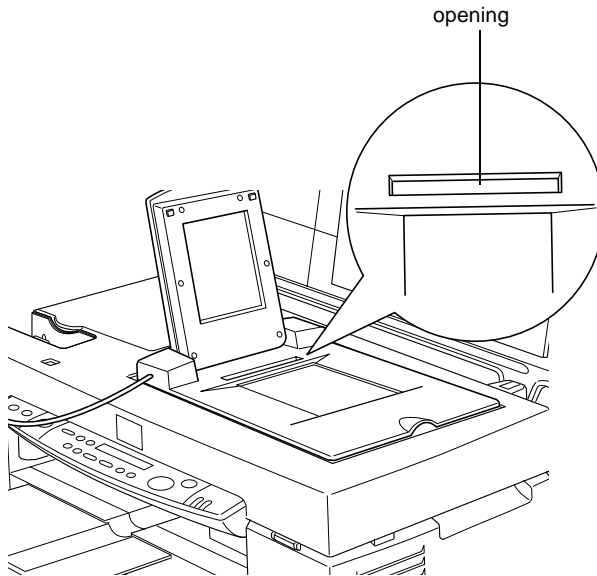
Scanning normal (reflective) documents

When you return to scanning normal reflective documents, you can simply turn off the Film Adapter, then place documents between it and the document table. If you will not scan transparencies for long time, you can remove the Film Adapter and store it in the original package.

Remove the Film Adapter in reverse order as described on "Installing the Film Adapter".

Note:
When scanning thin documents, you may see an impression of the underside of the Film Adapter in your scans. If so, change to using the document cover instead of the Film Adapter.

Using the Automatic Document Feeder

The Automatic Document Feeder (B813143) allows you to automatically load multiple-page documents into your Stylus Scan. This document feeder is particularly useful for OCR (optical character recognition) scanning, or for creating an image database.

Unpacking the Automatic Document Feeder

When you unpack your Automatic Document Feeder, make sure you have all the parts shown below. If any items are missing or damaged, contact your EPSON dealer immediately.
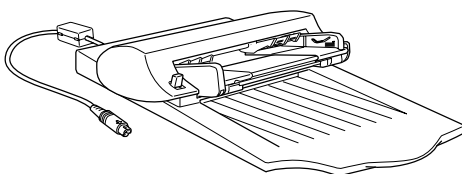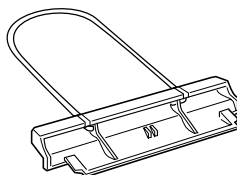
Automatic Document Feeder   paper support
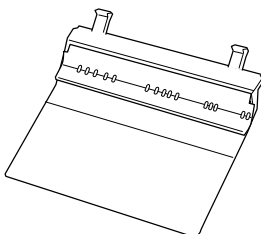
spare paper path guide

Installing the Automatic Document Feeder

Follow the steps below to install the Automatic Document Feeder on your Stylus Scan.

1. Make sure your Stylus Scan is turned off, and unplug the Stylus Scan's power cord.

2. Remove your Stylus Scan's document cover.

3. Remove the protective materials from the Automatic Document Feeder.

4. Remove the option cover.
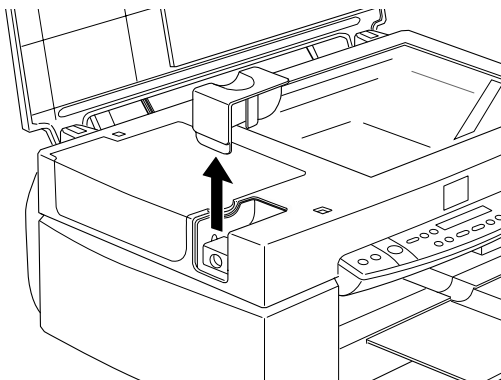
5. Insert the hinges on the Automatic Document Feeder into the holes at the left of the Stylus Scan and close the Automatic Document Feeder.
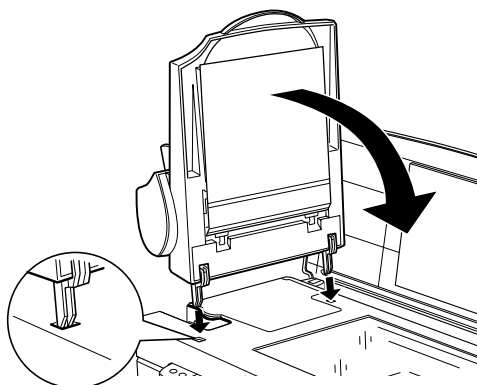
6. Attach the Automatic Document Feeder's connector to the Stylus Scan's option interface.
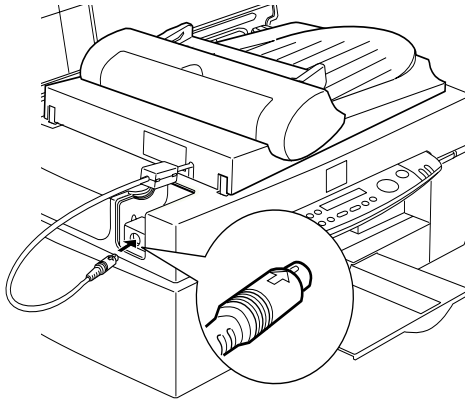
7. Attach the paper support to the Automatic Document Feeder.
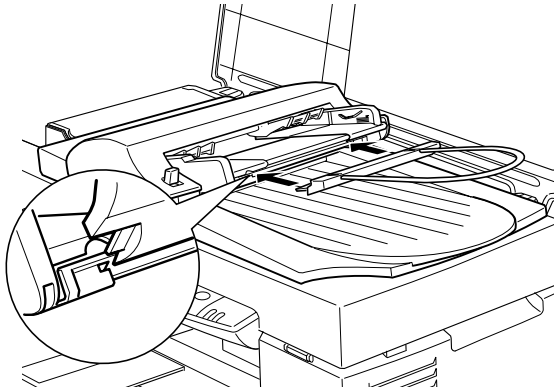
⚠ *Caution:*
When replacing the ink cartridge, remove the Automatic Document Feeder from the Stylus Scan, but do not pull out its connector.

Loading paper into your Automatic Document Feeder

Your Automatic Document Feeder can automatically load up to
20 sheets of the following paper sizes (based on a paper weight of
17 lbs and a stack thickness of 4.0 mm or less):

Checks	83×127 mm
B5	182×257 mm
A4	210×297 mm
Letter	215.9×279.4 mm
Legal	215.9×355.6 mm

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

Note:
Make sure no documents or dust are on the document table when using
the Automatic Document Feeder. Dust on the document table near the
carriage home position may result in vertical lines on the scanned
images.

1. Slide the right edge guide all the way to the right.
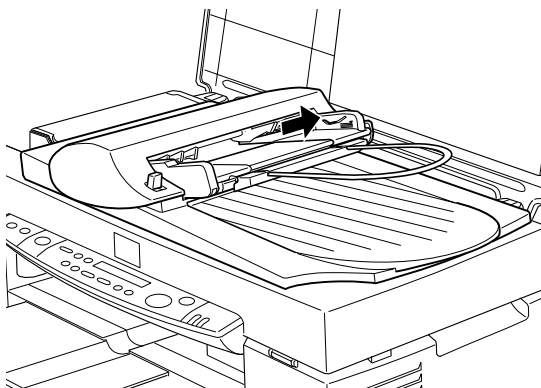
2. Insert the paper stack into the Automatic Document Feeder until it meets resistance. Make sure that the side you want to scan is facing up. Then move the right edge guide so it is flush with the right edge of your paper.
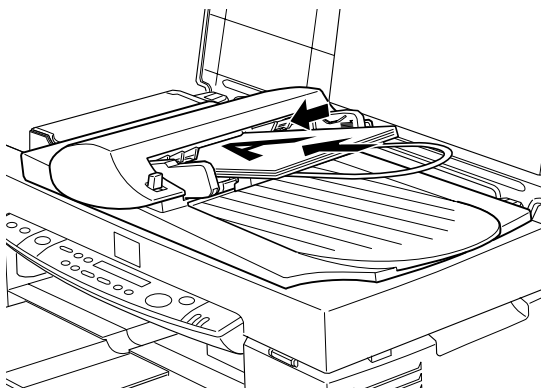
Documents are output into the lower tray after scanning is finished.

Loading documents manually

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

Lift the Automatic Document Feeder and place the document on the document table. Then lower the Automatic Document Feeder and scan the document.

Note:
❏ *Opening the Automatic Document Feeder or its cover while it is operating results in an option error and paper feeding stops.*

❏ *Always close the Automatic Document Feeder and its cover before scanning. If you are scanning thick material or documents of more than 2 cm in height, the Automatic Document Feeder can be left in the upright position.*

❏ *Be sure to select* **Flatbed** *in the Document Source settings in EPSON TWAIN.*

❏ *When scanning thin documents, you may see an impression of the underside of the Automatic Document Feeder in your scans. If so, change to using the document cover instead of the Automatic Document Feeder.*

Document specifications

Size:	Width 3.3 to 8.5 inches (83 to 215.9 mm) Length 5 to 14 inches (127 to 355.6 mm)
Thickness:	0.07 to 0.16 mm
Weight:	58 to 122 g/m²
Paper quality:	High-quality bond paper
Document type:	Documents printed with impact printers, laser printers, or facsimile machines

Document conditions

Check the following before feeding a document:

❏   The ink on the document is dry.

❏   The document has no holes, is not ripped or wrinkled, and has no articles attached to it.

❏   The document has no staples or other objects attached that might damage the feeder mechanism.

❏   The document has no folds closer than 5 mm from its edge.

❏   The document is not a multipart form or bound.

❏   The document has no rear carbon coating.

❏   The document has no cut out areas.

Other precautions

Do not feed photographic sheets or valuable original artwork into the Automatic Document Feeder as mis-feeding a document may result in accidental wrinkling or damage.

When you are scanning high-quality color or halftone documents, it is recommended you open the Automatic Document Feeder and scan documents individually.

Understanding EPSON TWAIN Features

When you start EPSON TWAIN through a TWAIN-compliant application, one of the following windows appears on the screen:

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. However, all the settings and functions are the same for both systems.
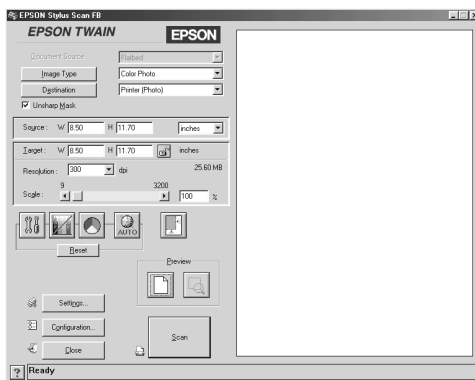
The following sections describe the features of EPSON TWAIN.

Note:
Some settings may appear dimmed and cannot be selected because of incompatibility with your scanner or your choice of settings.

Scanning From the EPSON TWAIN
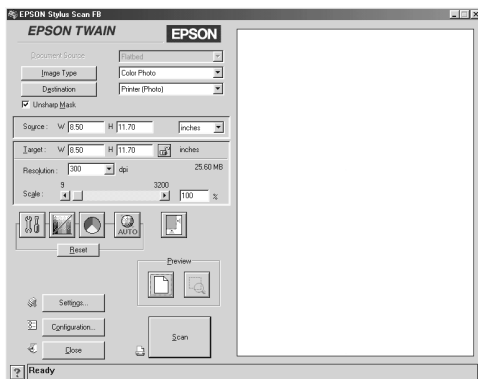
The EPSON TWAIN allows you to make detailed settings. You can set parameters for a setting or select special functions provided with EPSON TWAIN to attain the highest quality scanned images.

Note:
❏ *Online help also provides you with information on settings. Click the* **?** *button in the* **EPSON TWAIN** *dialog box.*

❏ *You cannot scan an image that exceeds available memory or disk space. If you attempt to scan an image that is too large, an alert appears on the screen.*

❏ *Before you begin scanning, you should calibrate your screen. For details, see "Calibrating Your Screen" on page 11-11.*

❏ *After an image is scanned, be sure to save or export it.*

Previewing images

Before you scan and save an image, you can preview it in the
Preview window located on the right of the **EPSON TWAIN**
dialog box. Use the preview feature to check the results of your
settings.

preview button ———— zoom preview button
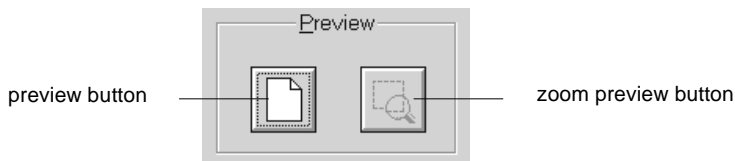
❏ To preview the entire image, click the preview button.

❏ To preview a part of the image that is already in the Preview
window, click and drag the mouse over the area you want to
see in detail, and click the zoom preview button.

Note:
❏ *You cannot preview an image that exceeds available memory or disk
space. If you attempt to preview an image that is too large, an alert
appears on the screen.*

❏ *When the mouse pointer is placed within the marquee (the frame of
the selected image area), it changes to a hand. You can click and drag
the marquee anywhere in the Preview window.*

❏ *When the mouse pointer is placed on the edge of the marquee, it changes to an arrow allowing you to re-size the marquee.*
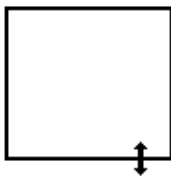
❏ *To remove or delete a marquee, double-click the preview window.*

Modifying the preview image
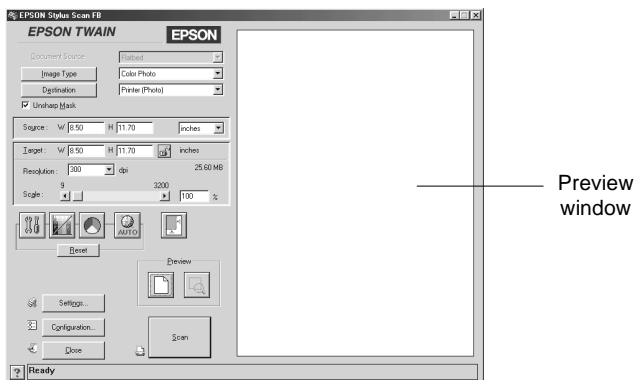
Preview window

You can see the effects of the following settings in the preview image.

❏ **Unsharp Mask** in the **EPSON TWAIN** window

❏ **Pixel Depth**, **Halftone**, and **Dropout** in the **Image Type** dialog box

❏ **Exposure**, **Gamma**, **Highlight**, **Shadow**, and **Threshold** in the **Image Controls** dialog box

❏ **Tone Correction** in the **Tone Correction** dialog box

❏ **Gray Balance Intensity**, and Saturation in the **Color Adjustment** dialog box

❏ Auto Exposure

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 re-scan, the image.*

Document Source

When using the document table of the Stylus Scan, leave the Document Source set to **Flatbed**. Other selections are available depending on what is installed. These are the optional **Automatic Document Feeder**, and **TPU for Neg. Film** or **TPU for Pos. Film** (for the optional Film Adapter).

Note:
Uninstalled options are not displayed.

```
┌─────────────────────────────┬───┐
│ Flatbed                     │ ▼ │
├─────────────────────────────┴───┤
│ Flatbed                         │
│ ADF                             │
└─────────────────────────────────┘
```

Flatbed:

Choose this setting to use the document table of the Stylus Scan.

Automatic Document Feeder:

Choose this setting to use the optional Automatic Document Feeder.

TPU for Neg. Film, TPU for Pos. Film:

Select one of these settings when using the optional Film Adapter. If you are scanning negative film, select **TPU for Neg. Film**, and if you are scanning positive film (or slides), select the **TPU for Pos. Film** setting.

Image Type

Use the **Image Type** list or button to select the type of image to be scanned.
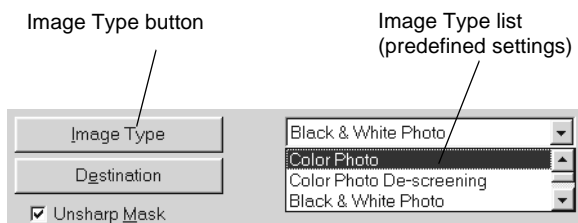
Image Type list

The **Image Type** list provides the following predefined settings. EPSON recommends you use the predefined settings first, then later improve the quality of the scanned image manually by making the detailed settings described in the next pages, if necessary. Click the arrows on the right to view all of the available settings.

Color Photo:

24-bit Color, best quality

Color Photo De-screening:

24-bit Color, best quality with De-screening to remove moire patterns

Note:
A moire is a crosshatch pattern that is appears on scanned images when scanning printed material. It is a result of interference that occurs due to the difference between the pitches of the scanning and the halftone screens.

Black & White Photo:

8-bit Gray, best quality

Line Art:

Black and white, draft quality

OCR:

Black and white, best quality, with Text Enhancement Technology

Copy/Fax:

Black and white, hard halftone, draft quality, with Auto Area Segmentation

Image Type button

The **Image Type** button allows you to customize the Image Type settings. If you want to make many detailed settings manually, use this feature.

Click the **Image Type** button. The following dialog box appears.
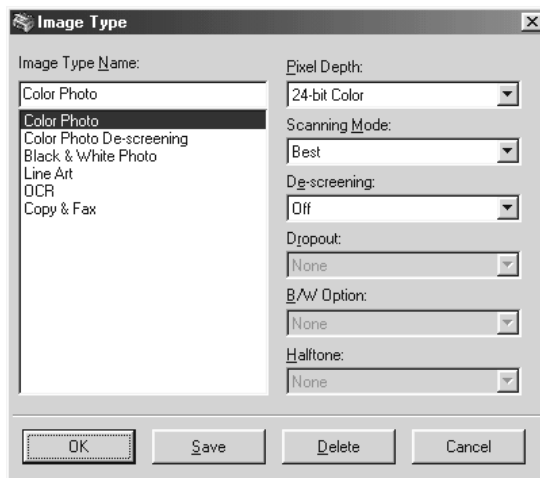
Image Type Name:

> The names of predefined settings and custom settings you
> have saved appear in the **Image Type Name** list.

Pixel Depth:

> Select scanning colors from:
> **24-bit Color**, **8-bit Gray**, and **Black & White**.

Scanning Mode:

> Select either **Best** or **Draft** scanning quality. Select **Best** when
> quality is more important than speed.

De-screening:

> Select either **On** or **Off**. When **On** is selected, moire patterns
> are automatically removed from scanned images, but
> scanning takes longer.

Note:
A moire is a crosshatch pattern that appears on scanned images when scanning printed material. It is a result of interference that occurs due to the difference between the pitches of the scanning and the halftone screens.

Dropout:

Select a color to subtract from a black and white scan of a colored original. Proper use of dropout can improve the quality of your black and white scans. Available dropout options are:
None, **Red**, **Green**, and **Blue**.

Note:
❏ *Dropout is available only when Pixel Depth is set to* **8-bit Gray** *or* **Black & White***.*

❏ *Depending on the image you scan, you may need to adjust the Threshold setting in the* **Image Controls** *dialog box to enable this feature.*

B/W Options:

Select from:
Text Enhancement Technology, **Auto Area Segmentation**, or **None**.

Text Enhancement Technology
To improve recognition accuracy during OCR (Optical Character Recognition) scanning, select this option. This function eliminates the document background from scans.

Auto Area Segmentation
To make grayscale images clearer and text recognition more accurate, select this option. This function separates text from graphics.

Note:
❏ *The B/W Options setting is available only when* **Black & White** *is selected as the Pixel Depth setting.*

❏ *When you need neither TET nor AAS, select* **None**. *Default is* **None**.

To apply the settings you made, click **OK**. The **Preview** window displays the effects of the current settings except for TET (Text Enhancement Technology) and AAS (Auto Area Segmentation) settings.

Halftone:

Select a halftone or dither setting to reproduce images using special dot patterns:
Mode A (Hard Tone), **Mode B (Soft Tone)**, **Mode C (Net Screen)**, **Dither A (4 x 4 Bayer)**, **Dither B (4 x 4 Spiral)**, **Dither C (4 x 4 Net Screen)**, **Dither D (8 x 4 Net Screen)**, or **None**.

Note:
Halftone is available only when Pixel Depth is set to **Black & White**.

To apply the settings you made, click **OK**. The **Preview** window displays the effects of the current settings except for TET (Text Enhance Technology) and AAS (Auto Area Segmentation) settings.

To cancel the settings, click **Cancel**.

To save the settings you made as a group of custom settings, type a new name in the **Image Type Name** box, then click **Save**.

To delete an Image Type setting, select the setting name to be deleted in the **Image Type Name** menu, then click **Delete**.

Destination

Select the destination, or output device, where the scanned image is to be printed or displayed using the **Destination** list or button.

Destination button   Destination list
                            (predefined settings)
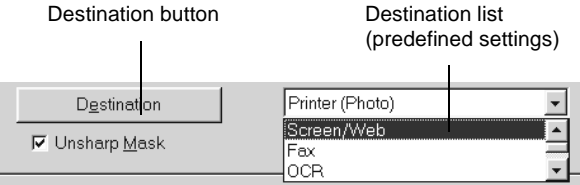
Destination list

The **Destination** list contains the following predefined settings and any custom settings you have saved in the **Destination** dialog box. Click the arrows on the right to view all the available settings.

Destination name	Resolution	
	Line drawings and halftone images	**Photos**
Screen/Web	96 dpi (for Windows) 72 dpi (for Macintosh)	96 dpi (for Windows) 72 dpi (for Macintosh)
Fax	200 dpi	200 dpi
OCR	300 dpi	300 dpi
Printer (Fine)	360 dpi	150 dpi
Printer (Photo)	720 dpi	300 dpi
Laser Printer	600 dpi	200 dpi

If you are using an EPSON Stylus printer and are printing scanned images with Economy, Normal, or Fine Print Quality settings in your printer software, selecting **Printer (Fine)** is recommended. If you are printing with the **SuperFine** or **Photo Print Quality** settings, select **Printer (Photo)**.

Note:
The effects of the Destination settings cannot be viewed in the Preview window.

Destination button

The **Destination** button allows you to customize the Destination settings. To make your own settings, such as scanning resolution, click this button. The following dialog box appears.
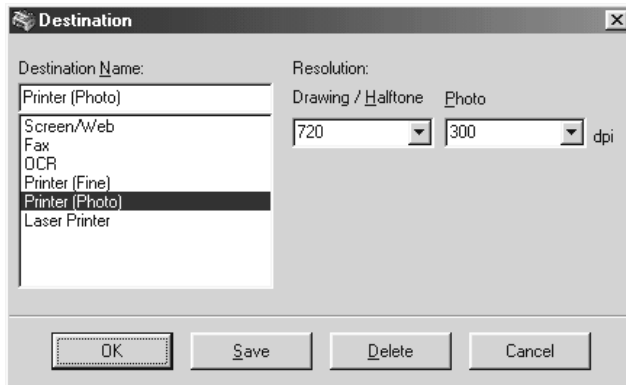
Destination Name:

Predefined and custom settings names appear in the **Destination** menu.

Resolution:

Select a scanning resolution for line drawing and halftone images, or photos.

Note:
❏ *When the Pixel Depth setting in the* **Image Type** *dialog box is set to* **Black & White***, the Drawing/Halftone setting takes effect and the Photo setting becomes irrelevant. For other Pixel Depth settings, the Photo setting takes effect and the Drawing/ Halftone setting becomes irrelevant.*

❏ *To print your scanned document when Resolution is set to* **Drawing/Halftone**, *select the same resolution setting from the list as you select in the printer driver. To print your scanned document when Resolution is set to* **Photo**, *select a resolution between 150 and 300 dpi. If you select higher resolution, the* **Photo** *setting requires longer to print, but does not improve the output quality.*

❏ *The Resolution setting is closely related to the Image Size and Scale settings. If you change them arbitrarily, the resulting image may not be what you expected.*

❏ *The range of resolution values depends on your Stylus Scan.*

To apply the settings you made, click **OK**. To cancel the settings, click **Cancel**.

To save the settings you made, type a new name in the **Destination Name** box, and then click **Save**.

To delete a Destination setting, select the target setting name to be deleted in the **Destination Name** menu, then click **Delete**.

Unsharp Mask

You can select or deselect the Unsharp Mask setting. Selecting this check box improves image sharpness.
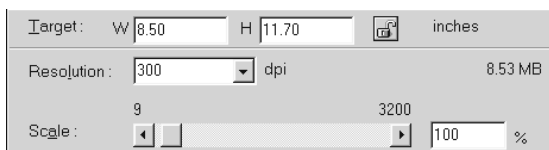
Source and Target image sizes

The Source fields indicate the size of the image that is displayed or selected in the **Preview** window.

Source :	W 8.50	H 11.70	inches ▼

The Target fields indicate what size the image will be when it is output.

Target :	W 8.50	H 11.70	🔲	inches
Resolution :	300 ▼	dpi		8.53 MB
	9		3200	
Scale :	◄ ▯		►	100 %

Note:
The image size setting is closely related to the Resolution. If you change either setting arbitrarily, the resulting image may not be what you expected.

Width and Height menu:

The width and height of an image are indicated in the selected unit of measure. You can type new values directly in the indicator fields, or you can change the image area in the **Preview** window by creating a marquee, or frame. Do this by dragging the mouse over the desired area. See "Previewing images" on page 8-40 for more information on marquees.

Units menu:

Select a unit of measurement. You can select **pixels**, **inches**, or **cm**.

Storage size indicator:

> The storage size of an image is indicated in KB or MB. As you change the image area in the Preview window, this value also changes.

Lock button:

> The current size of width-to-height of the target image can be locked, allowing the ratio of width-to-height of the Source image to change according to the scale value, or the scale value to change according to the ratio of width-to-height of the Source image. This is especially useful in cases where the size of an image does not fit the size of the paper on which you want to print the image, but you want to keep the image's original proportions. Enter the size of the paper in the Width and Height fields of the **Target** box and then click the lock button. The scale value is automatically changed, maintaining the current ratio of width-to-height to fit the paper.

Resolution:

> The resolution for the current scanning operation can be changed by selecting a resolution or typing in the value. this setting overrides the resolution setting you make in the **Destination** dialog box.

Scale slider:

> An image can be reduced or enlarged by moving the Scale slider. You can also click the left or right arrow to change the image size in 1% increments.
>
> The range of possible reduction or enlargement varies depending on the current resolution setting.

Scale indicator:

> The percentage of enlargement or reduction is shown in the Scale indicator field. You can type a new value directly into this field, or use the Scale slider to determine the value.

Image Controls

Click the **Image Controls** button on the Advanced menu to view the following dialog box.
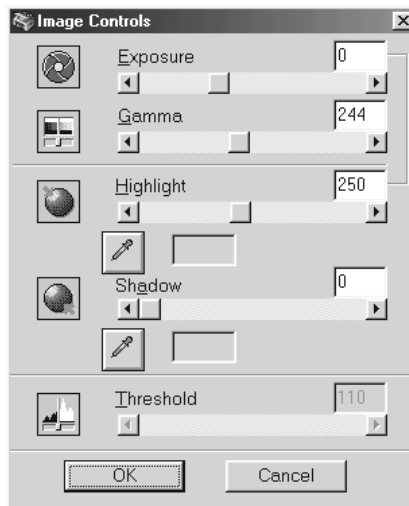
Note:

❏ *The* **Image Controls** *button appears dimmed and is not available when* **TET** *(Text Enhancement Technology) is selected in the* **Image Type** *dialog box.*

❏ *If Pixel Depth is set to* **Black & White** *and Halftone is set to* **None** *in the* **Image Type** *dialog box, all the settings except Threshold appear dimmed and cannot be selected.*

❏ *You can see the effects of the Image Controls settings in the Preview window.*

Exposure:

The Exposure setting lightens or darkens an image. You can select from -10 (darkest) to 20 (brightest) by moving (clicking and dragging) the slider.

The Exposure and Highlight controls are related. When the Exposure setting is changed, the Highlight value is automatically set.

Gamma:

The Gamma contrast allows you to adjust the mid-tones in an image. You can select from 50 (lowest) to 500 (highest) by moving the slider.

Highlight:

The Highlight control allows you to adjust the brightness level of the brightest parts of an image. You can select from 61 to 490 by moving the slider.

Click the eyedropper button beneath the slider, and the mouse pointer changes to an eyedropper. Move the eyedropper over the preview image, and click a bright area. The eyedropper "picks up" the color from that area, and uses it as the highlight for the entire image. This effect shows up immediately in the preview image. Click **Cancel** to restore the original image.

Shadow:

The Shadow control allows you to adjust the darkness level of the darkest parts of an image. You can select from 0 to 60 by moving the slider.

Click the eyedropper button beneath the slider, and the mouse pointer changes to an eyedropper. Move the eyedropper over the preview image, and click a dark area. The eyedropper "picks up" the color from that area, and uses it as the shadow for the entire image. This effect shows up immediately in the preview image. Click **Cancel** to restore the original image.

Threshold:

Available only when Pixel Depth is set to **Black & White** and Halftone is set to None in the **Image Type** dialog box. The scanner scans gray shades as either black or white using this setting.

You can select from 0 (lightest) to 255 (darkest) by moving the slider.

Tone Correction

Click the **Tone Correction** button on the Advanced menu to view
the following dialog box.

tone curve
editor

tone correction list
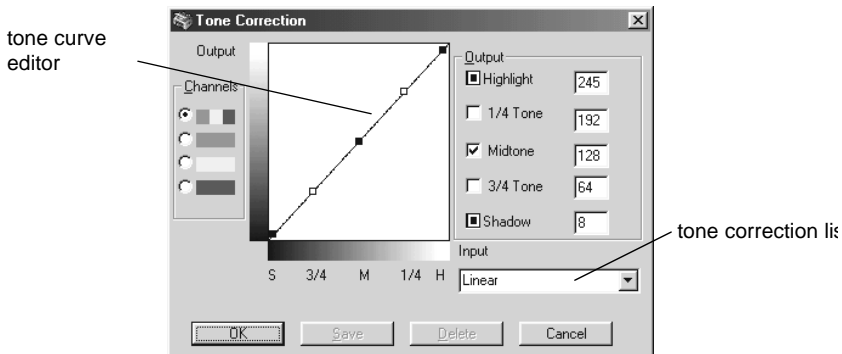
Note:

❏ *The Linear Tone Correction settings are used when you scan from*
the Easy menu.

❏ *The* **Tone Correction** *button appears dimmed and is not available*
when Pixel Depth is set to **Black & White***, Halftone is set to* **None***,*
and **TET** *(Text Enhancement Technology) is selected in the* **Image**
Type *dialog box.*

❏ *You can see the effects of the Tone Correction settings in the Preview*
window.

The tone value represents the contrast in the tonal relationship
between an original image and its reproduction on a monitor or
printer.

Tone Curve editor:

The editor allows you to customize tone correction. Drag
points on the tone curve to adjust the tone value. You can edit
up to five tonal elements.

Output options:

If you select the check box for a specific point, such as 1/4 Tone or Midtone, you can move that point and it will remain where you leave it; it will not be affected by the movement of other points on the curve. If the check box is clear, the point will be affected by the movement of other points.

Channels options:

You can select the combined red, green, and blue (RGB) channel to modify all colors, or select these colors separately.

Note:
If Pixel Depth is set to **Black & White** *or* **8-bit Gray** *in the* **Image Type** *dialog box, you can only select the combined RGB channel option.*

Tone correction list:

Select a tone correction setting from this list. The custom settings you have saved appear in this list.

OK/Save/Delete/Cancel buttons:

To accept the defined Tone Correction or close the dialog box, click **OK**.

After you correct tone, type a name for your custom settings in the tone correction list and click **Save**.

To delete a setting, select the name of the setting you want to delete in the tone correction list and click **Delete**.

To cancel the operation, click **Cancel**.

Color Adjustment

Click the **Color Adjustment** button on the Advanced menu to view the following dialog box.
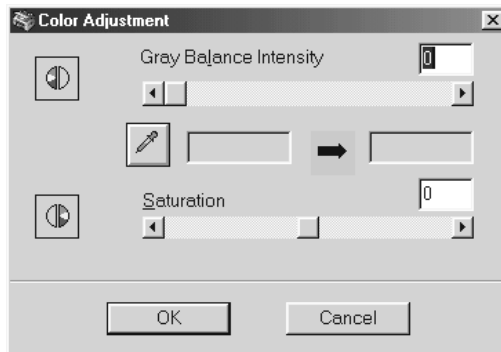
Note:
❏ *If the Image Type setting is not* **Color Photo***, or* **Color Photo De-Screening***, or the Pixel Depth is set to* **8-bit Gray** *or* **Black & White***, the* **Color Adjustment** *button appears dimmed and these settings cannot be selected.*

❏ *You can see the effects of the Color Adjustment settings in the Preview window.*

Gray Balance Intensity:

Gray Balance Intensity removes unwanted color casts and tints by balancing color saturation.

Click the eyedropper button beneath the slider. The mouse pointer changes to an eyedropper. Then click the color you want to be gray. The eyedropper "picks up" the color and displays it in the box beside the eyedropper button. You can then correct the cast level for that color from 0 to 100 by moving the slider. The corrected color appears in the box on the right, and the effect shows up immediately in the preview image. Click **Cancel** to restore the original image.

Saturation:

> Saturation is the property that defines color depth. Select the saturation level for color from -100 (less color) to 100 (more color) by moving the slider.

Auto Exposure

Click the **Auto Exposure** button on the Advanced menu to automatically optimize the exposure for an image. The Gamma, Highlight and Shadow settings in the **Image Controls** dialog box are automatically set.

Note:
The **Auto Exposure** *button appears dimmed and is not available when Pixel Depth is set to* **Black & White** *and* **AAS** *is not selected in the* **Image Type** *dialog box.*

Reset Button

Use the **Reset** Button to return any image control settings you made back to their default settings. If you do not alter any image control settings, this button appears dimmed and is not available.

Auto Locate

Click the **Auto Locate button** on the Advanced menu to cause
the scanner to automatically locate and select the target image.
The image appears without white borders in the Preview
window.

entire preview area   Auto Locate button   located image
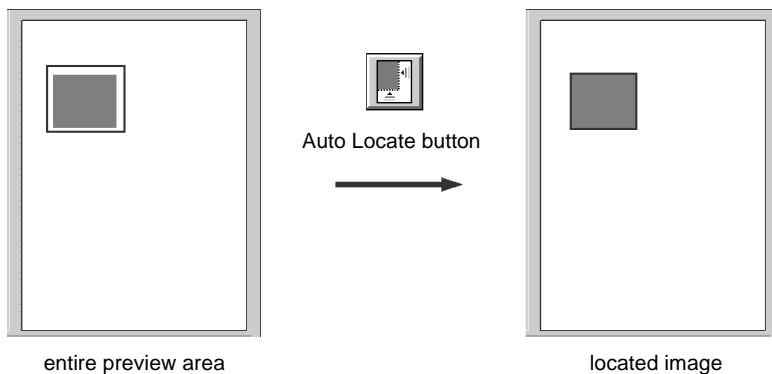
If a document contains more than one image, select a target image
by dragging the mouse pointer over the image and clicking the
Auto Locate button. The selected target image is located
automatically.

target image and other
image   Auto Locate button   located and
non-located images
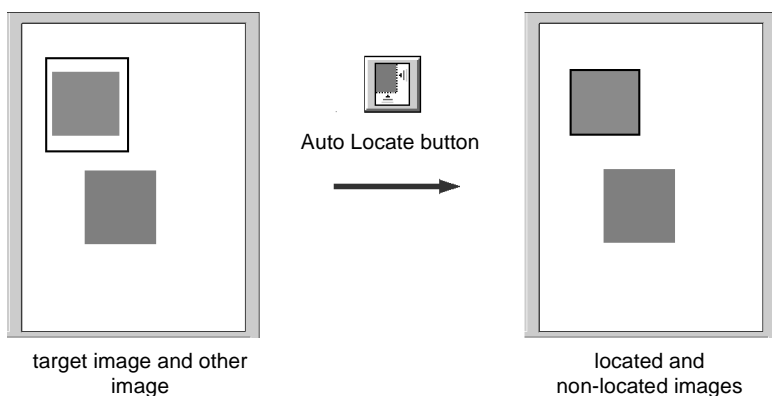
Settings

Click the **Settings** button on the Advanced menu to view the following dialog box. You can view all the settings for the current preview image in this dialog box. Also, you can apply any custom settings you have saved.
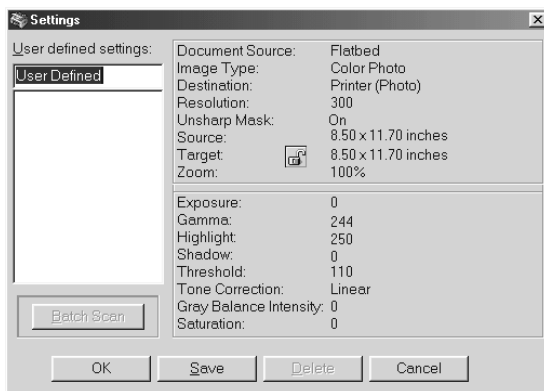
To save the currently selected settings, type a new name in the **User defined settings** field, then click **Save**.

To apply saved settings, select a setting name from the list, then click **OK**. The preview image will reflect the settings you saved.

To restore the previous settings, click **Cancel**.

To delete a setting, select the setting name in the list, then click **Delete**.

To scan a single image with several different settings, make and save each group of settings as described above. Then hold down the **Shift** key while clicking the custom settings you want to select in the **User defined settings** list. After selecting all the settings you want to use when scanning, click **Batch Scan**. The Stylus Scan scans the image once for each group of settings you have selected.

Configuration

Click the **Configuration** button on the Advanced menu to view the following dialog box. You can make settings that affect the Preview window.

Windows
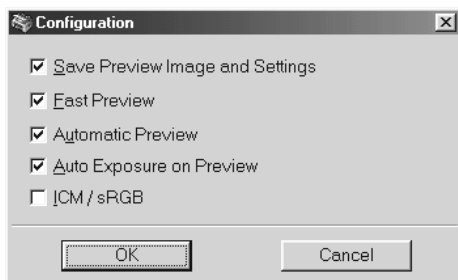
Macintosh
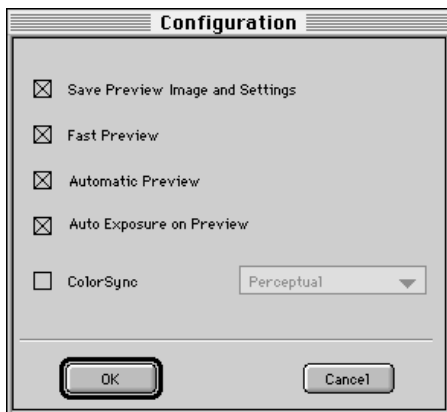
Save Preview Image and Settings:

Select this check box to automatically save the preview image and all the image settings when you exit EPSON TWAIN (quit scanning). The next time you restart EPSON TWAIN, the image and settings will reappear.

Fast Preview:

Enables high-speed loading of the preview image. If this is selected, the preview image is scanned in **Draft** mode. If this is not selected, the preview image is scanned in **Best** mode, and you can get accurate values of the Highlight, Shadow, and Gray Balance Intensity by sampling using the eyedropper in the preview image.

Do not use this feature (do not select the check box) when quality is more important than speed.

Automatic Preview:

Previewing automatically starts when EPSON TWAIN is launched.

Auto Exposure on Preview:

Displays the preview image with automatically optimized exposure settings. The result is the same as if you clicked the **Auto Exposure** button.

ICM, ICM/sRGB (for Windows)

Depending on the version of Windows installed in your computer, this setting may be unavailable or have a different caption.

Select this check box to reproduce the colors in your image using the Windows ICM color management system. This setting appears only with Windows.

Note:
If your output devices (printer and monitor) do not support ICM, leave this check box clear.

ColorSync (for Macintosh)

> Select this check box to reproduce the colors in your image using the ColorSync color management system. This setting appears only with Macintosh.
>
> ***Note:***
> *If your output devices (printer and monitor) do not support ColorSync, leave this check box clear.*

Chapter 9
Copier

About the Copy Feature

The Stylus Scan can be used to copy documents and photographs, just like a standard copier, using the scanner and printer functions without even turning on the computer.

The following copy functions are available from the control panel. Refer to the section "Using the Control Panel feature" on page 9-11 for details.

❏ Color and monochrome copies.

❏ Enlarged and reduced copies.

❏ The following paper sizes can be used
Metric: A4, B5, A6
US: Letter, Half Letter, 5×8"

❏ Up to 20 copies can be made at once.
(When using the Automatic Document Feeder, only one copy of each original page can be made at a time.)

❏ Copy quality can be set to Normal, Fine, or Photo (color).

❏ Copy density can be adjusted.

Note:
If your computer is turned on, you can use the Copier utility in EPSON SMART PANEL (Windows) to make copies also. For details, refer to "Using the Copy Utility (from EPSON SMART PANEL)" on page 9-17.

Loading the Paper

Load the paper to be used for copying into the Stylus Scan.

The following paper sizes and types can be used:

Paper size: Metric* A4, B5, A6
US* Letter, Half Letter, 5x8"

* Select either Metric or US size in the **Menu** Mode (Control Panel Setting). For details, refer to "Changing the Control Panel Settings" on page 9-16.

Paper type: The following types of paper can be used depending on the Quality setting.

Normal: Plain paper
Fine: Plain paper
Photo: EPSON Photo Paper

Follow these steps to load paper for copying.

1. Slide out the output tray. Next, slide the left edge guide to adjust the width of the loading area so that it is just wider than the width of your paper.
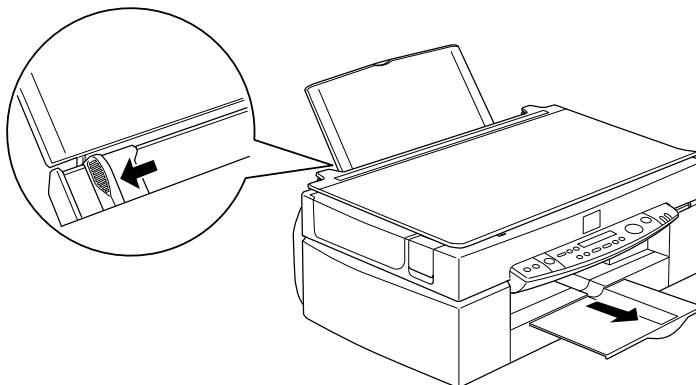
2. Fan a stack of paper; then tap it on a flat surface to even the edges.
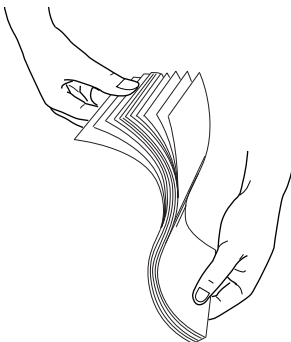
3. Load the stack of paper with the printable side up and the right edge of the paper resting against the right side of the paper feeder. Then slide the left edge guide against the edge of the paper.
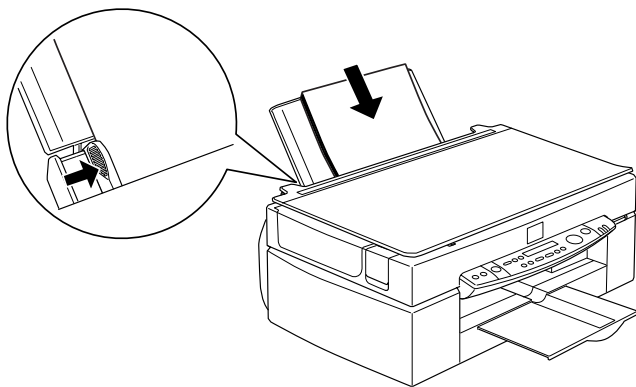
Note:
❏ *Always load the paper into the paper feeder short edge first.*

❏ *Make sure the paper stack fits under the arrow mark inside the edge guide.*
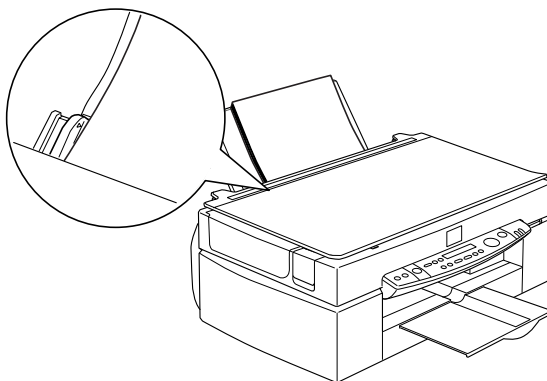
Placing the Document

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

1. Open the document cover.
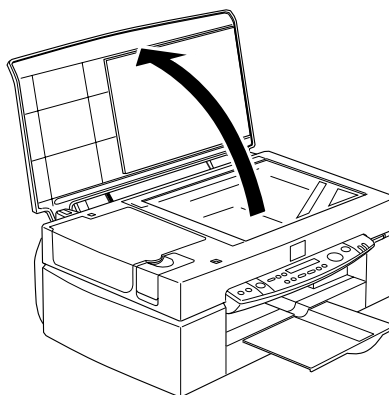
2. Place the original on the document table, with the side to be scanned facing down. Make sure that the document is carefully aligned.
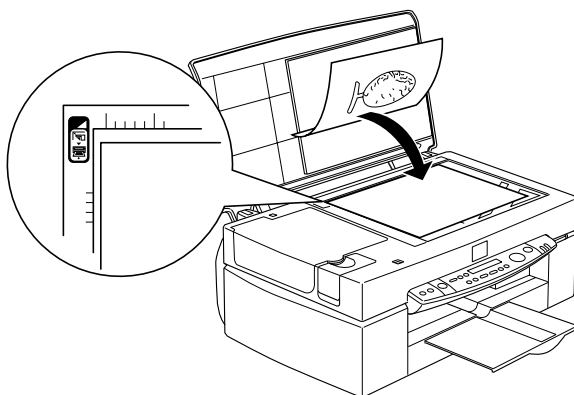
3. Close the document cover gently so that the document does not move.
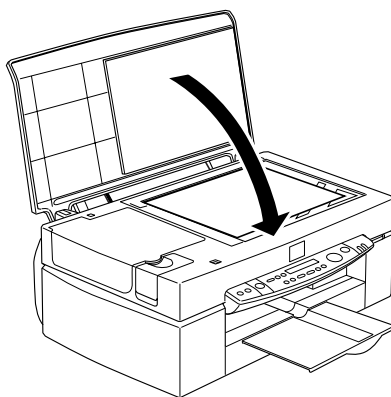
Note:
❏ *Make sure the document is flat against the glass surface, otherwise the image will appear fuzzy and out of focus. Also be sure to close the document cover to prevent interference from external light.*

❏ *Always keep the document table clean.*

❏ *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 Stylus Scan.*

How to Make Copies

1. Press the Stylus Scan ⏻ power switch and turn on the power. The **Operate** light will flash as the system warms up. Please wait until the **Operate** light stops flashing.

2. Make sure that the **Operate** light has stopped flashing.

3. Load the paper into the sheet feeder.

4. Set the size of the paper with the **Paper Size** button on the control panel.
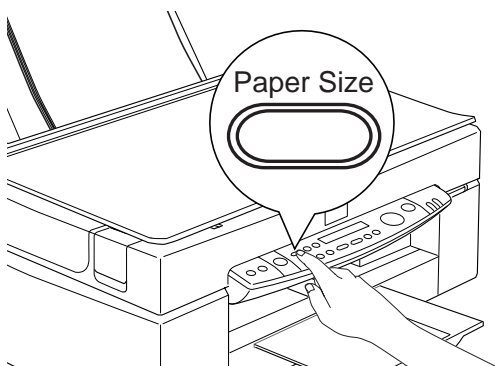
Note:
❏ *The following sizes can be selected:*
   Metric: A4, B5, A6
   US: Letter, Half Letter, 5 × 8"

❏ *Select either Metric or US size in the* **Menu** *Mode (Control Panel Setting). For details, refer to "Changing the Control Panel Settings" on page 9-16.*

5. Place the original on the document table.

   Note:
   With the Automatic Document Feeder you can copy a stack of originals automatically in a single operation. For details, refer to "Using the Optional Automatic Document Feeder" on page 9-9.

6. Use the control panel buttons to set B&W or Color, Copy Quality, Copies, Reduce/Enlarge and Lighter/Darker. For details, refer to "Using the Control Panel feature" on page 9-11.

   Note:
   When you are using the Automatic Document Feeder, the number of Copies will be automatically set to one even if you have a multi-page original document. You cannot change the Copies setting.

7. Press the **Copy** button to start copying.
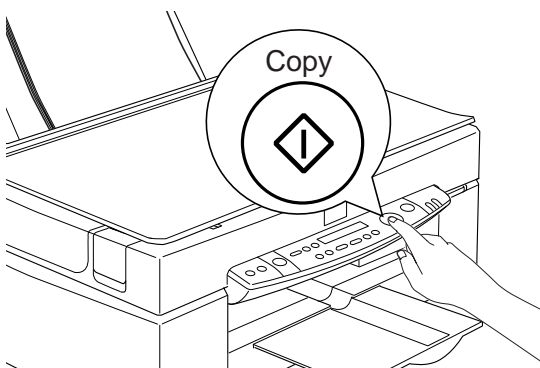
   Note:
   Press the **Stop** *button to halt copying in progress. The sheet being copied will be ejected.*

Using the Optional Automatic Document Feeder

The optional Automatic Document Feeder can be used to make copies of multiple pages automatically. Even with the Automatic Document Feeder mounted, you can still make single copies using the Document table.

Loading paper into the Automatic Document Feeder

The Automatic Document Feeder can automatically load up to 20 sheets of the following paper sizes (based on a paper weight of 17lbs and stack thickness of 4.0 mm or less):

Checks 83×127 mm

B5 182×257 mm

A4 210×297 mm

Letter 215.9×279.4 mm

Note:
When you are using the Automatic Document Feeder, the number of Copies will be automatically set to one even if you have a multi-page original document. You cannot change the Copies setting.

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

Note:
Make sure no documents or dust are on the document table when using the Automatic Document Feeder. Dust on the document table near the scan carriage home position may result in vertical lines on copied images.

1. Slide the right edge guide all the way to the right.
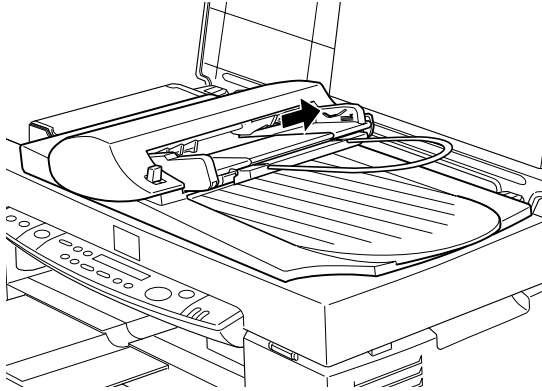
2. Insert the paper stack into the Automatic Document Feeder until it meets resistance. Make sure that the side you want to scan is facing up. Then move the right edge guide so it is flush with the right edge of your paper.
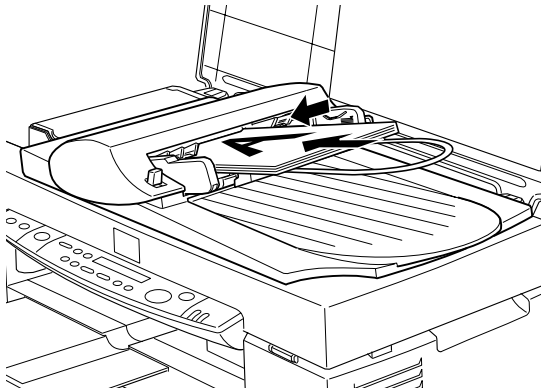
   Documents are output into the lower tray after copying is finished.

Loading documents manually

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

Lift the Automatic Document Feeder and place the document on the document table. Then lower the Automatic Document Feeder and scan the document.

Note:
❏ *Opening the Automatic Document Feeder or its cover while it is operating results in an option error and paper feed will stop.*

❏ *Always close the Automatic Document Feeder and its cover before copying. If you are copying thick material or documents of more than 2cm in height, the Automatic Document Feeder can be left in the upright position.*

❏ *When copying thin documents, you may see an impression of the underside of the Automatic Document Feeder in your scans. If so, change to the document cover.*

Using the Control Panel feature

You can control most copy functions from the Control Panel.
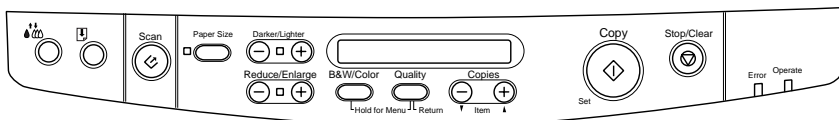
This section describes the control panel LCD displays and button functions.

LCD panel

The LCD panel displays the current copy settings.
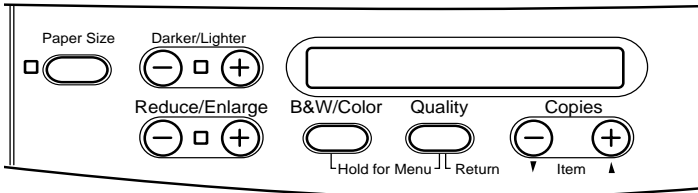
The LCD panel displays, from the left, the enlargement/reduction ratio, copy color, copy quality, and number of copies. The display will change to reflect any settings you change, so you can always check your current settings.

Paper Size and Lighter/Darker settings are displayed when the corresponding button is depressed.

Copy button

Copying will start when the **Copy** button is pressed.
The default copy settings are:

Reduce/Enlarge: 100%

B&W/Color: B&W

Quality: Normal

Copies: 1

On the LCD Panel, the display will read "100% B&W Normal 1".

Stop/Clear button

Press the **Stop/Clear** button to halt copying. The sheet being copied will be ejected.

When the **Stop/Clear** button is pressed while the LCD panel is displaying copy settings ("100% B&W Normal 1"), the number of copies will be reset to one.

Note:
When you are using the Automatic Document Feeder, the number of Copies will be automatically set to one even if you have a multi-page original document. You cannot change the Copies setting.

If you press the **Stop/Clear** button while changing either the Quality, Paper Size, Reduce/Enlarge, B&W/Color, or Copies setting, that setting will be returned to its default.

Paper Size button

This is used to set the paper size. When the **Paper Size** button is pressed the LCD panel will change to the Paper Size setting. Press it again to select the desired Paper Size. After you select a Paper Size, the display will automatically return to its previous state.

The following paper sizes can be selected:

Metric: A4, B5, A6

US: Letter, Half Letter, 5x8"

Note:
Select either Metric or US size in the **Menu** *Mode (Control Panel Setting). For details, refer to "Changing the Control Panel Settings" on page 9-16.*

B&W/Color button

This is used to set the output color (grayscale or color). Press the **B&W/Color** button and the LCD panel display will change to the B&W/Color setting. Press again to select the desired setting. After you make a selection, the display will automatically return to its previous state.

Copies button

This is used to set the number of copies. Press the "+" or "-" **Copies** button and the number of copies displayed on the LCD panel will begin to flash. Press the button again to change the number of copies to a number from 1 to 20.

Note:
When making a Color copy with Quality set to Photo, the LCD panel will display a message reading "Load Photo Paper". When Quality is set to Photo, we recommend using EPSON Photo Paper for best results.

Reduce/Enlarge button

This is used to set the enlargement/reduction ratio. Press the "+" or "-" **Reduce/Enlarge** button and the Reduce/Enlarge setting will be displayed on the LCD panel. Press again to select the desired setting. After you make a selection, the display will automatically return to its previous state.

The following ratios can be selected:

    200%, 141%, 120%, 100%, 93%, 80%, 70%, 50%

The initial setting is 100%.

Quality button

This is used to set copy quality. Press the **Quality** button and the Quality setting will be displayed on the LCD panel. Press again to select the desired setting. When you make a selection, the display will automatically return to its prior state.

The following Quality settings can be selected:

B&W: Normal, Fine

Color: Normal, Fine, Photo

We recommend the following Quality settings for different originals.

Normal: Text, Line Art, Graphics

Fine: Photographs, plain paper

Photo: Photographs, EPSON Photo Paper

The initial setting for both B&W and Color is Normal.

Lighter/Darker button

This is used to set the copy printout density. Press the "+" or "-" **Lighter/Darker** button and the Lighter/Darker setting will be displayed on the LCD panel. Press again to select the desired setting. After you make a selection, the display will automatically return to its previous state.

The following print density settings can be selected:

-2, -1, 0, +1, +2

The initial setting is zero.

Changing the Control Panel Settings

Depress the **Quality** button and **B&W/Color** button for three seconds and the LCD panel display will change to the **Menu** Mode, making it possible to change the following settings. These settings will be saved, and remain effective even when the power is turned off, until they are changed again manually.

The following items can be set in the **Menu** Mode:

Status Sheet Print
Bottom Margin
Paper Size
Language
Set Factory Default

In the **Menu** Mode, press the **Copies** "+" or "-" button to select the desired item.

There are two methods of quitting the **Menu** Mode.
Press the Quality button to enable the settings and terminate the **Menu** Mode, or press the Stop/Clear button to restore the default settings.

Status Sheet Print

When Status Sheet Print is displayed on the LCD panel, press the Copy button to print out a Status Sheet listing the current settings for the following items:

Bottom Margin (3mm or 14mm)
Paper Size category (Metric or US)
Language used on panel display

Bottom Margin

This is used to set the paper Bottom Margin for copying to either 3 or 14 mm. The initial setting is 14 mm.

Note:
You can extend the minimum bottom margin to 3mm. However, copy quality may degrade in the expanded area.

Paper Size

This is used to set the paper size category for copying. Press the **Copy** button to select **Metric** or **US**. In Metric, you will be able to use paper sizes A4, B5, and A6. In US, you will be able to use Letter, Half Letter, and 5x8".

Language

This is used to set the language used on the LCD panel. Press the **Copy** button to select the display language.

Set Factory Default

Returns **Menu** Mode settings (Bottom Margin, Paper Size, Language) to the factory defaults.

Using the Copy Utility (from EPSON SMART PANEL)

Copy Utility is a function within EPSON SMART PANEL. Before you can use it, you must install the EPSON Stylus Scan Software and EPSON SMART PANEL in the computer. Refer to the *Setup Guide* for details on installation.

Note:
The Copy Utility is only available in Windows. For Macintosh, use PersonalCopy.

Accessing the Copy Utility

Follow these steps to access the Copy Utility.

1. Click **Start**, then select **Programs**, and **EPSON SMART PANEL** to open the EPSON SMART PANEL application.

2. EPSON SMART PANEL appears. Click the copier icon to launch the Copy Utility. The **Copy Utility** dialog box appears.

To make copy settings, see the next section.

Making Copy Settings in the Copy Utility

You can make copy settings in the **Copy Utility** dialog box.
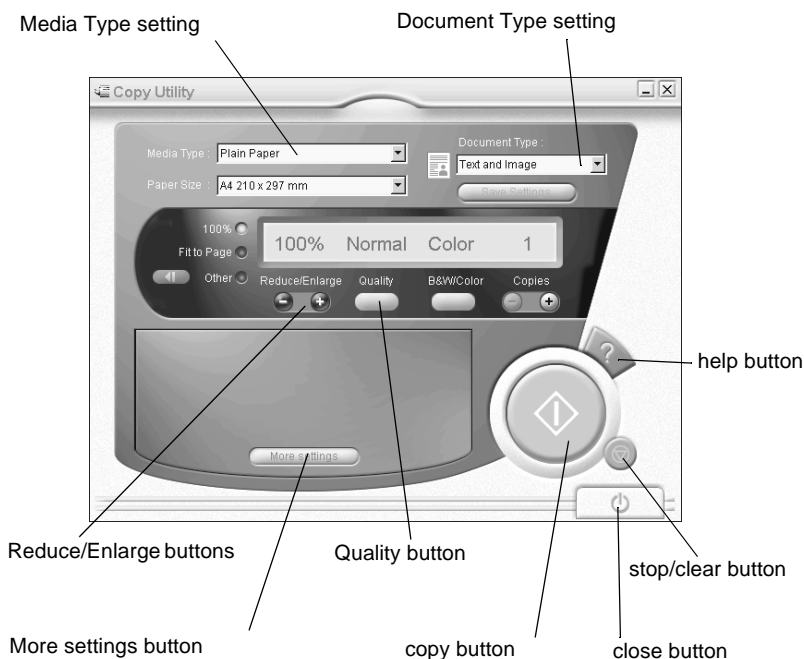
See below to make your settings. If necessary, click the **More settings** button to make advanced and custom settings. After you finish making settings, click the ◊ copy button to begin copying.

Help button	Click for online help.
Stop/Clear button	Click to quit copying already in progress.
Copy button	Click to start copying.
Close button	Click to close the utility, or the menus for custom settings.
More settings button	Click to make custom settings.

Making paper and document settings

Media Type

Select the type that matches the paper you have loaded into the paper feeder.

Paper Size

Select the size that matches the paper you have loaded into the paper feeder.

Document Type

Select the type that matches the original document that you are copying.

Text	Use if your document contains text only.
Photo	Use if you are copying from a photograph.
Text and Image	Use if your document includes both text and illustrations.
Save Settings	Click the **Save Settings** button to open the **Document Type Setting** list. You can save your original setting.
Multi-page Document	Enables you to use the ADF (Auto Document Feeder) for multi-page copies. This selection appears only when the ADF is connected to your Stylus Scan.

Note:
For types of Text, Photo, and Mixed Document, the default settings contain with both B/W and color settings. So when you change the content of the B&W/Color column, it remains as the same default document type.

Making other basic settings

shows current settings

scaling

scaling setting

reduce/enlarge custom setting
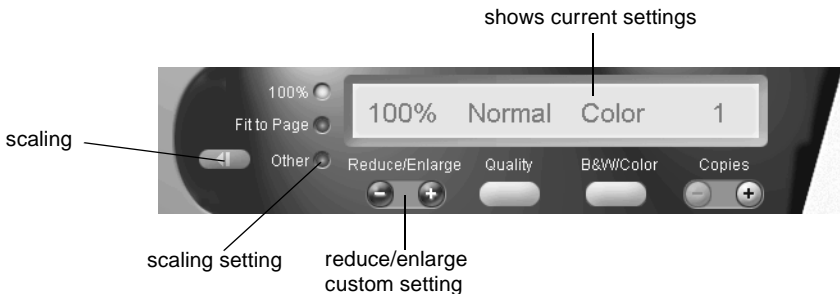
Reduce/Enlarge

To set the reduce/enlarge ratio, do either of the following:

❑ To make a copy that is the same size as your document, select **100%**.

❑ To automatically re-size the image to match the size of your paper size setting, select **Fit to Page**.

To set an arbitrary size, do either of the following:

❑ Select **Other**, then click the **+** or **-** button to adjust the setting.

❑ Click the ◀ scaling button to open a dialog box where you can adjust the setting.

Quality

Click this button to select the quality for your copy.

Normal: Print quality is lower, but print speed is higher.

Fine: Provides high quality printout.

B&W/Color

Click to select between a black-and-white or color copy.

Copies

Use these buttons to select the number of copies you want to make. Press the **+** button to increase the number of copies, or the **-** button to reduce it.

Chapter 10

Replacing Ink Cartridges

Replacing Empty Ink Cartridges

Using the control panel

The Stylus Scan's Error light and panel message will inform you when it is time to get a replacement ink cartridge ready, and when it is time to make replace the ink cartridges.

Note:
If an ink cartridge is damaged or old, you may need to replace it before even before it runs out of ink. For information, see "Replacing an Old or Damaged Ink Cartridge" on page 10-9.

This table explains what the status of the Error light and LCD panel message on your Stylus Scan mean and what actions you need to take.

Error Light	Message	Action
Off	Black Ink Low	The black ink cartridge is running low. Have a new black ink cartridge ready. (You can replace the cartridge now, or you can wait until it is empty.)
Flashing	Black Ink Out	The blank ink cartridge is empty. Replace it with a new black ink cartridge.
Off	Color Ink Low	The color ink cartridge is running low. Have a new color ink cartridge ready. (You can replace the cartridge now, or you can wait until it is empty.)
Flashing	Color Ink Out	The color ink cartridge is empty. Replace it with a new black ink cartridge.

> ⚠️ **Caution:**
> ❏ *EPSON recommends the use of genuine EPSON ink cartridges. Products from other manufacturers may cause damage not covered under the EPSON warranty.*
>
> ❏ *Never remove a cartridge from the Stylus Scan until you have a new cartridge on hand to replace it. Leaving the Stylus Scan with a missing cartridge may cause ink in the print head nozzles to dry out.*
>
> ❏ *If you are using the Automatic Document Feeder and need to replace the ink cartridge, remove the Automatic Document Feeder from the Stylus Scan, but do not pull out its connector.*

Note:
❏ *Once a cartridge becomes empty, you must replace it before continuing operation. The Stylus Scan cannot operate if either cartridge is empty.*

❏ *In addition to the ink used during document printing, ink is consumed during the print head cleaning operation and during the self cleaning cycle which is performed when the printer is turned on.*

Before replacing ink cartridges, make sure the Stylus Scan is on. The operate light should be on, but not flashing. Then, determine which ink cartridge needs to replaced by referring to the LCD Panel on the control panel.

1. Make sure the Stylus Scan is on. The Operate light should be on.

2. Refer to the panel message to determine which cartridge is low or empty.

3. Open the document cover and maintenance cover.

4. Hold down the ●‼⚪ cleaning button for three seconds until the print head moves to the cartridge replacement position. The Operate light begins flashing.
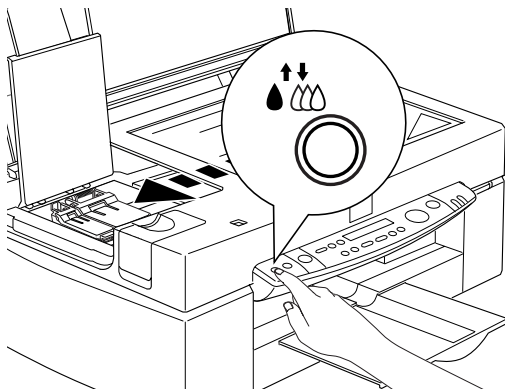
> **Caution:**
> *Do not move the print head by hand, as doing so may damage the mechanism.*

Note:
If you press the ●‼⚪ cleaning button for three seconds when the black and color ink out lights are off, the Stylus Scan starts cleaning the print head.

5. Lift up the clamp that holds the cartridge as far as it will go. The cartridge rises partly out of the cartridge holder.

> **⚠ Caution:**
> *Once you open the ink cartridge clamp, the ink cartridge becomes unusable and cannot be reinstalled, even if ink remains.*

6. Lift the cartridge out of the Stylus Scan and dispose of it properly. Do not take the used cartridge apart or try to refill it.
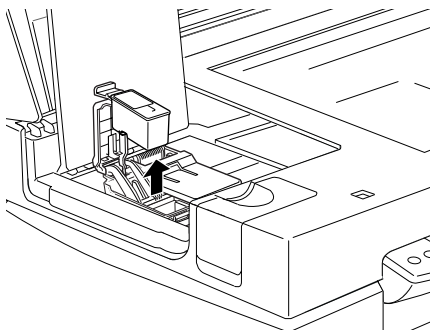
> ⚠ *Warning:*
> ❏ *If ink gets on your hands, wash them thoroughly with soap and water. If ink gets into your eyes, flush them immediately with water. If discomfort or vision problems remain afer a thorough flushing, see a doctor immediately.*
>
> ❏ *Keep ink cartridges out of the reach of children. Do not allow children to drink the ink or otherwise handle the cartridges.*

7. Remove the new ink cartridge from its protective bag. Next, remove only the yellow tape seal from the cartridge.
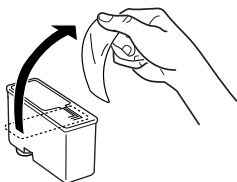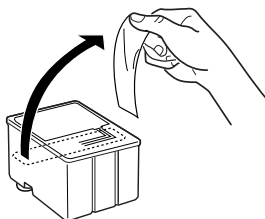
black ink cartridge (S020189)   color ink cartridge (S020191)

> ▮ *Caution:*
> ❏ *You must remove the yellow tape seal from the cartridge before installing it. The cartridge will be permanently damaged if installed with the yellow tape attached.*
>
> ❏ *Do not remove the blue portion of the tape seal from the top of the cartridge; otherwise, the print head may become clogged and unable to print.*
>
> ❏ *Do not remove the tape seal from the bottom of the cartridge; otherwise, ink will leak.*

8. Place the ink cartridge gently into the cartridge holder with the label on the cartridge facing up. Do not press down on the cartridge.
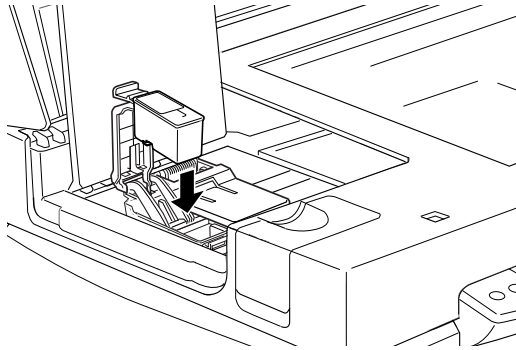
9. Press the ink cartridge clamp down until it locks in place.
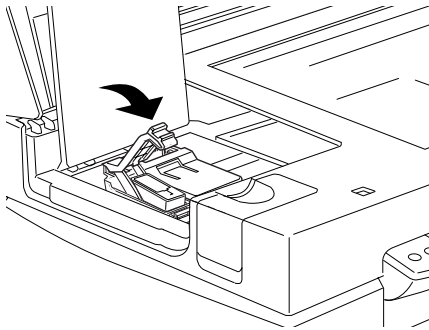
Caution:
Once you install the ink cartridges, do not open their clamps again until you replace the cartridges. Otherwise, the cartridges becomes unusable.

10. Close the maintenance cover and the document cover.

> ⚠ **Caution:**
> *The Operate light flashes while the Stylus Scan performs the ink charging operation. Never turn off the Stylus Scan while this light is flashing. Doing so can result in incomplete charging of ink.*

11. Press the ♦🌢 cleaning button. The Stylus Scan moves the print head and begins charging the ink delivery system. This process takes about one minute to complete. When the ink charging process is finished, the Stylus Scan returns the print head to its home position and the Operate light stops flashing.
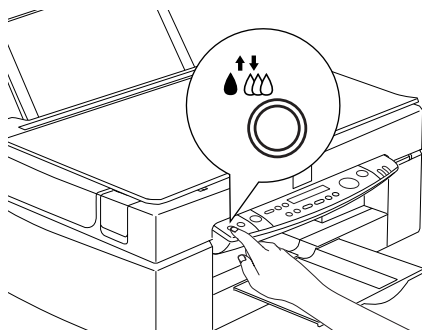
Using the Status Monitor 3

If you have installed EPSON Status Monitor 3 in your computer, you can monitor the remaining ink level from your computer and view on-screen instructions for replacing a low or empty ink cartridge.

When an ink cartridge is low or empty and you are ready to replace it, click the **How to** button in Status Monitor's Printer Status window. This print head moves to the ink cartridge replacement position. Follow the on-screen instructions to replace the cartridge.

Replacing an Old or Damaged Ink Cartridge

In some circumstances you may need to replace an ink cartridge before it is empty. For example, if the quality of your prints and copies remains poor even after repeated cleaning and aligning of the print head, one or both of the ink cartridges may be old or damaged and should be replaced.

To replace an ink cartridge before the Black or Color Ink Out message appears, follow the steps below.

If the Black or Color Ink Out message is displayed, replace the empty ink cartridge as described in "Replacing Empty Ink Cartridges" on page 10-2.

> **⚠ Caution:**
> ❏ *Once you remove an ink cartridge, it becomes unusable and cannot be reinstalled even if ink remains.*
>
> ❏ *Leave the old cartridge installed in the Stylus Scan until you are ready to replace it with a new one.*

1. Make sure the Stylus Scan is on. The Operate light should be on, but not flashing.

2. Open the document cover and maintenance cover.

3. Hold down the ⬇ load/eject button for three seconds; the print head moves to the cartridge replacement position. The Operate light begins flashing.
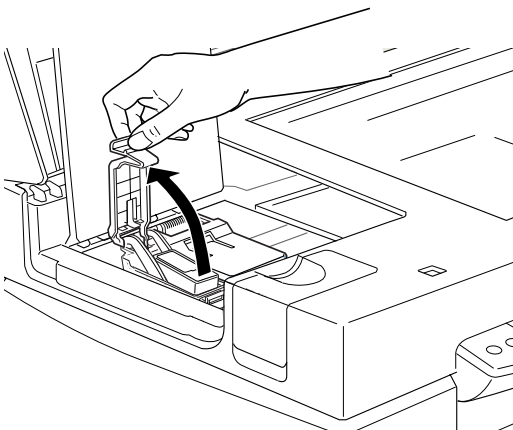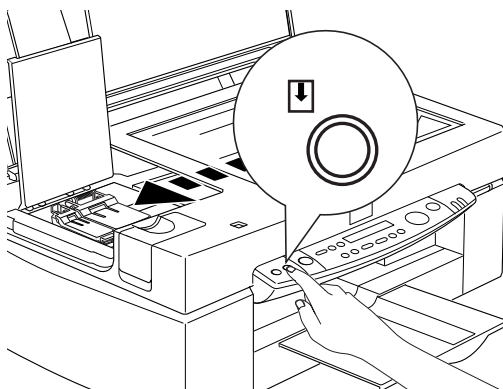

4. Lift the appropriate ink cartridge clamp. Then lift the cartridge out of the Stylus Scan and dispose of it properly.
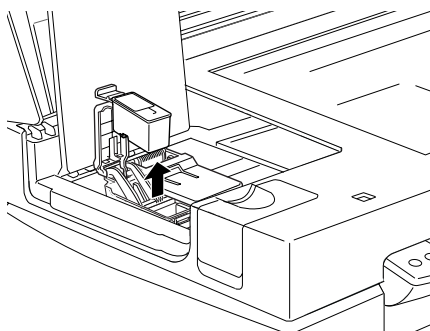
5. Remove the yellow tape seal from a new cartridge.
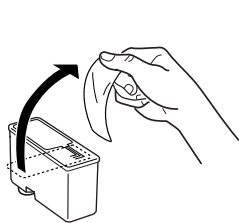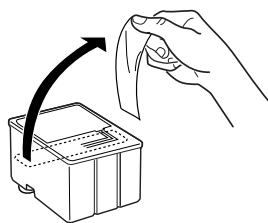
black ink cartridge (S020189)   color ink cartridge (S020191)

6. Place the cartridge gently into the cartridge holder. Do not press down on the cartridge. Then press the ink cartridge clamp down until it locks in place.
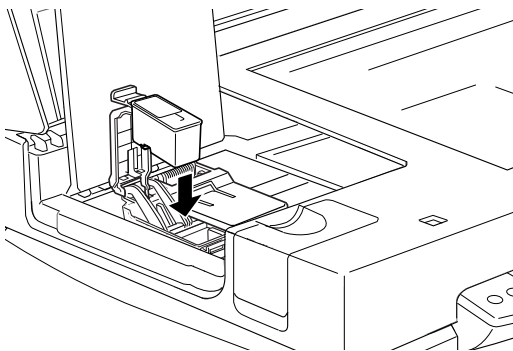
> **Caution:**
> *Do not open the clamp again until you are ready to replace the cartridge. Opening the clamp causes the currently installed cartridge to become unusable.*

7. Close the maintenance cover and the document cover.

8. Press the ⬇ load/eject button again. The Stylus Scan moves the print head back to its home position and charges ink in the system.
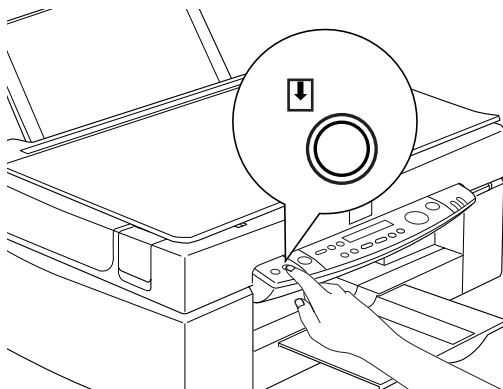
> ⚠ *Caution:*
> *The Operate light continues to flash while the Stylus Scan performs the ink charging operation. Never turn off the Stylus Scan while the Operate light is flashing. Doing so can result in incomplete charging of ink.*

Maintenance

Checking the Print Head Nozzles

If you find that your printouts and copies are unexpectedly faint or that there are gaps (missing dots) in the printed image, you may be able to identify the problem by checking the print head nozzles.

You can check the print head nozzles from your computer or from the control panel. To check from your computer, use the Nozzle Check utility in the printer software window. Both methods are described below.

Using the Nozzle Check utility

Note:
Do not start the Nozzle Check utility while printing is in progress. Doing so may mar your printout.

For Windows users

1. Make sure A4 or Letter size paper is loaded in the sheet feeder.

2. Access the printer software window. If you need instructions, see "Accessing the printer software" on page 4-2.

3. Click the **Utility** tab in the printer window, then click the **Nozzle Check** button.

4. Follow the messages on your screen.

For Macintosh users

1. Make sure A4 or Letter size paper is loaded in the sheet feeder.

2. Access the **Print** or **Page Setup** dialog box.

3. Click the Utility icon button in the **Print** or **Page Setup** dialog box, then click the **Nozzle Check** button.

4. Follow the messages on your screen.

Using the control panel buttons

1. Make sure that A4 or Letter size paper is loaded in the paper bin.

2. If the Stylus Scan is on, press the ⏻ power button once to turn it off.

3. Hold down the ⬇ load/eject button (① in the illustration below) while pressing the ⏻ power button (② in the illustration below) to turn on the Stylus Scan. Then release both buttons.
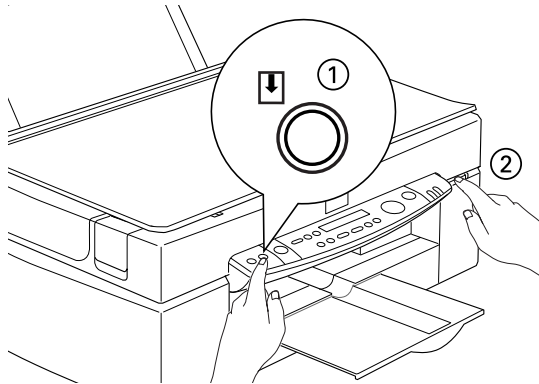
The Stylus Scan prints out ROM version information and the ink counter codes, and a nozzle check pattern. Here are sample printouts.

Good sample

Print head needs to be cleaned

segments are missing
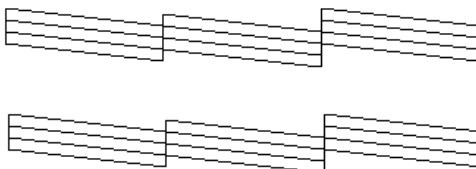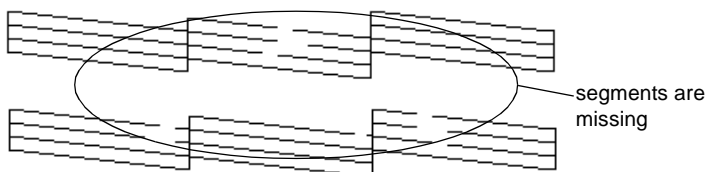
The above sample is in black and white, but the actual test prints in color (CMYK).

If the quality is not satisfactory (for example, if a line segment is missing), it is likely that a nozzle is clogged or that the print head is out of alignment. For information about how to clean the print head, see the next section. For information about how to realign the print head, see "Aligning the Print Head" on page 11-9.

Cleaning the Print Head

If you find that printouts and copies are unexpectedly faint or that there are gaps (missing dots) in the printed image, you may be able to solve the problem by cleaning the print head. Cleaning the print head ensures that nozzles are delivering ink properly.

You can carry out cleaning either from the your computer or from the control panel. To run cleaning from your computer, use the Head Cleaning utility. Both methods are described below.

Note:
❏ *Print head cleaning uses both color and black ink. To avoid wasting ink, clean the print head only if print quality declines.*

❏ *Use the Nozzle Check utility to confirm that the print head needs to be cleaned. This saves ink.*

❏ *When the Black or Color Ink Out light is flashing or on, you cannot clean the print head. Replace the appropriate ink cartridge first.*

❏ *Do not start the Head Cleaning or the Nozzle Check utility while printing is in progress; otherwise your printout may be marred.*

Using the Head Cleaning utility

For Windows users

1. Make sure that an ink out message is not displayed on LCD panel.

    Note:
    If the ink out message is displayed, you cannot clean the print head. Replace the appropriate ink cartridge first.

2. Access the printer software window. If you need instructions, see "Accessing the printer software" on page 4-2.

3. Click the **Utility** tab in the printer window, then click the **Head Cleaning** button.

4. Follow the messages on your screen.

    The **Operate** light flashes while the Stylus Scan performs the cleaning cycle. The cycle takes about one minute to complete.

> ⚠ **Caution:**
> *Never turn off the Stylus Scan while the Operate light is flashing. Doing so may damage the device.*

5. When the Operate light stops flashing, click **Print nozzle check pattern** in the **Head Cleaning** dialog box to confirm that the head is clean and to reset the cleaning cycle.

Nozzle check patterns:

Good sample
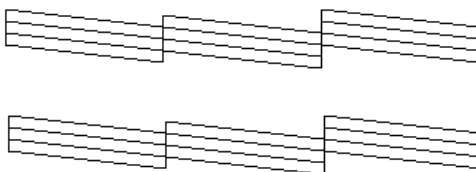
Print head needs to be cleaned

segments are missing
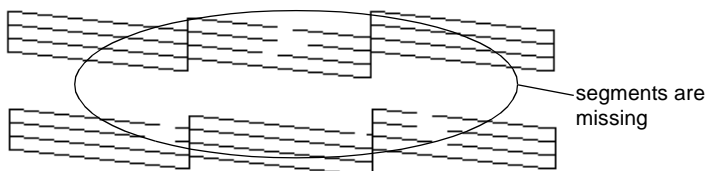
The above sample is in black and white, but the actual check pattern prints in color.

If you find that any segments are missing from the test lines in the check pattern, you may need to repeat the head cleaning and print the check pattern again.

If quality hasn't improved after repeating this procedure four or five times, turn the Stylus Scan off and leave it off overnight. Then try the head cleaning again.

If the print quality still does not improve, one or both of your ink cartridges may be old or damaged and may need to be replaced. To replace an ink cartridge before it is empty, see "Replacing an Old or Damaged Ink Cartridge" on page 10-9.

If print quality remains a problem after replacing the ink cartridges, contact your dealer.

Note:
To maintain print quality, we recommend turning on the Stylus Scan for at least one minute every month

For Macintosh users

1. Make sure that the Stylus Scan is on, and an ink out message is not displayed on LCD panel.

2. Click the Utility icon button in the **Print** or **Page Setup** dialog box, then click the **Head Cleaning** button.

3. Follow the on-screen messages.

    The Operate light flashes while the Stylus Scan performs a cleaning cycle. A cycle takes about one minute to complete.

    Caution:
    Never turn off the Stylus Scan while the Operate light is flashing. Doing so may damage the device.

4. When the Operate light stops flashing, click the **Confirmation** button in the **Head Cleaning** dialog box to print a nozzle check pattern and to reset the cleaning cycle. Use the check pattern to confirm that the head is clean.

If print quality hasn't improved after repeating this procedure four or five times, turn the Stylus Scan off and leave it off overnight. Then try the head cleaning again.

If the print quality still has not improved, one or both of your ink cartridges may be old or damaged and may need to be replaced. To replace an ink cartridge before it is empty, see "Replacing an Old or Damaged Ink Cartridge" on page 10-9.

If print quality remains a problem after replacing the ink cartridges, contact your dealer.

Note:
To maintain print quality, we recommend turning on the Stylus Scan for at least one minute every month.

Using the control panel buttons

1. Make sure that the Operate light is on and that an ink out or ink low message is not displayed.

2. Hold down the ♦🌢 cleaning button for three seconds.
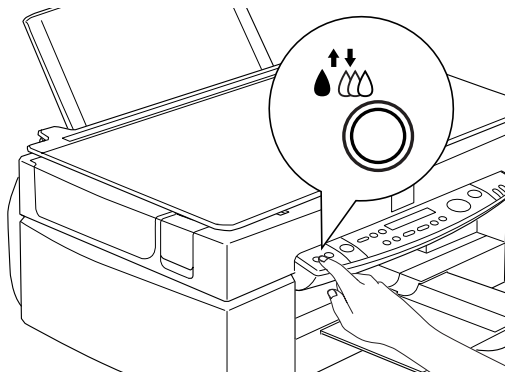
The Stylus Scan starts cleaning the print head and the Operate light begins flashing. Print head cleaning takes about one minute to complete.

> **Caution:**
> *Never turn off the Stylus Scan while the Operate light is flashing. Doing so may damage the device.*

Note:
*If an ink out or ink low message is displayed, press the Cleaning
button to start the ink cartridge replacement procedure. If you do
not want to replace an ink cartridge at this time, press the
♦♪⚬ cleaning button again to return the print head to its home
position.*

3. When the Operate light stops flashing, print a few lines from
    a document to confirm that the head is clean and to reset the
    cleaning cycle.

If print quality hasn't improved after repeating this procedure
four or five times, turn the Stylus Scan off and leave it off
overnight. Then try the head cleaning again.

If the print quality still has not improved, one or both of your ink
cartridges may be old or damaged and may need to be replaced.
To replace an ink cartridge before it is empty, see "Replacing an
Old or Damaged Ink Cartridge" on page 10-9.

If print quality remains a problem after replacing the ink
cartridges, contact your dealer.

Note:
*To maintain print quality, we recommend turning on the Stylus Scan
for at least one minute every month.*

Aligning the Print Head

If you notice a misalignment of vertical lines, you may be able to
solve this problem from your computer using the Print Head
Alignment utility.

Note:
*Do not start the Print Head Alignment utility while printing is in
progress; otherwise your printout may be marred.*

For Windows users

1. Make sure A4 or Letter size plain paper is loaded in the sheet feeder.

2. Access the printer software window. If you need instructions, see "Accessing the printer software" on page 4-2.

3. Click the **Utility** tab in the printer window, then click the **Print Head Alignment** button.

4. Follow the messages on your screen to align the print head.

For Macintosh users

1. Make sure A4 or Letter size plain paper is loaded in the sheet feeder.

2. Access the **Print** or **Page Setup** dialog box.

3. Click the Utility icon button in the **Print** or **Page Setup** dialog box, then click the **Print Head Alignment** button.

4. Follow the messages on your screen to align the print head.

Calibrating Your System

When you install the EPSON Stylus Scan Software, the EPSON Screen Calibration utility is automatically installed.

EPSON Screen Calibration calibrates your monitor to ensure the tone and contrast on your screen closely match the original image. Be sure to calibrate your screen before using your scanner.

Calibrating Your Screen

You need to calibrate your screen when you first install the scanner software, and anytime you switch to a different monitor.

For Windows Users

1. Double-click the **EPSON Stylus Scan FB Setup** icon in the Control Panel. The **EPSON Stylus Scan FB TWAIN** dialog box appears.

2. Click the **Screen Calibration Utility** button. The **Screen Calibration** dialog box appears.
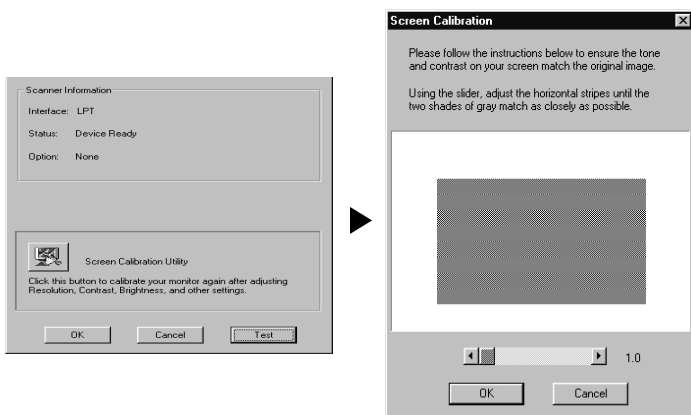
3. Move the slider to the right or left until the two shades of the gray horizontal stripes match.

4. Click **OK** when you have finished calibrating your scanner and monitor.

The gray stripes will not perfectly blend together; however, try to make the different tones match as closely as possible.

The setting is automatically saved as the Screen profile in the Calibration list in EPSON TWAIN's **Destination** dialog box. Screen profile contains calibration information for the preview image as well as the scanned image.

For Macintosh Users

1. Double-click the **EPSON Screen Calibration** icon in the EPSON Scanner folder. The following dialog box appears.
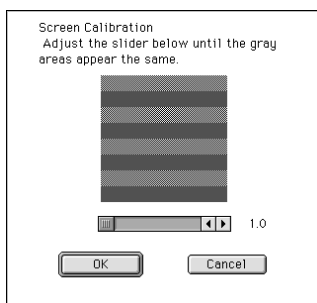
2. Move the slider to the right or left until the two shades of the gray horizontal stripes match.

3. Click **OK** to finish calibrating your scanner and monitor.

The gray stripes will not perfectly blend together; however, try to make the different tones match as closely as possible.

The setting is automatically saved as the Screen profile in the Calibration list in EPSON TWAIN's **Destination** dialog box. Screen profile contains calibration information for the preview image as well as the scanned image.

Using ICM, ICM/sRGB (For Windows 98/95 Users)

If you use Windows 98 or 95 and your output devices (monitor and any additional printers you wish to use) support the ICM color management system, you can use the ICM calibration method.

For Windows 98 users

Note:
If your output devices do not support sRGB, make sure that the check box is clear.

Follow the steps below:

1. Run an application that supports TWAIN and select **Acquire** or **Acquire & Export** to start EPSON TWAIN.

2. Click **Configuration**. Select **ICM/sRGB** in the **Configuration** dialog box.

3. Make any other settings you desire.

4. Click **Scan**. The scanner scans an image using the sRGB profile.

For Windows 95 users

Note:
If your output devices do not support ICM, make sure the check box is clear.

Follow the steps below:

1. Run an application that supports TWAIN and select **Acquire** or **Acquire & Export** to start EPSON TWAIN.

2. Click **Configuration**. Select **ICM** in the **Configuration** dialog box.

3. Make any other settings you desire.

4. Click **Scan**. The scanner scans an image using the ICM profile.

Note:
Adding or removing profiles on the **Color Management** *menu of your scanner's properties dialog box will not affect the colors of your scanned images.*
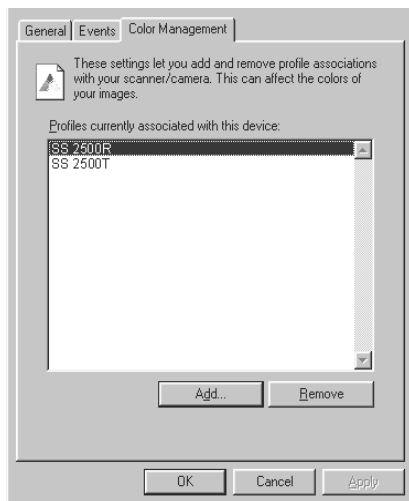
Using ColorSync (For Macintosh Users)

If your output devices (printer and monitor) support the Apple ColorSync color management system, you can use the ColorSync calibration method.

Note:
If your output devices do not support ColorSync, make sure that the check box is clear.

Follow the basic steps below:

1. Run an application that supports TWAIN and select **Acquire** or **Acquire & Export** to start EPSON TWAIN.

2. Click **Configuration**. Check **ColorSync** in the **Configuration** dialog box.

3.	Make any other settings you desire.

4.	Click **Scan**. The scanner scans an image using the ColorSync profile.

When the scanned image is printed or displayed with the output device calibrated for the scanner, the image reproduced is identical to the original.

Replacing the fluorescent lamp

The luminosity of the fluorescent lamp declines over time. If the lamp breaks or becomes too dim to operate normally, the Stylus Scan stops working and the error light flashes red. When this happens, the lamp assembly must be replaced. For details, contact your dealer.

> *Caution:*
> *Never open the case of the Stylus Scan. If you think repairs or adjustments are necessary, consult your dealer.*

Optional Automatic Document Feeder

Cleaning or replacing the paper path guide

If you notice the quality of your scans has declined, or you simply want to keep the quality of your scans at their best, clean the Automatic Document Feeder paper path guide.

If the paper path guide is badly scratched and cleaning the guide does not improve the quality of your scans, replace it with a new one.

Follow the instructions below to remove, clean, and reattach the paper path guide.

Removing the paper path guide

1. Turn off the Stylus Scan.

2. Disconnect the cable for the Automatic Document Feeder, and take the Automatic Document Feeder off the Stylus Scan.
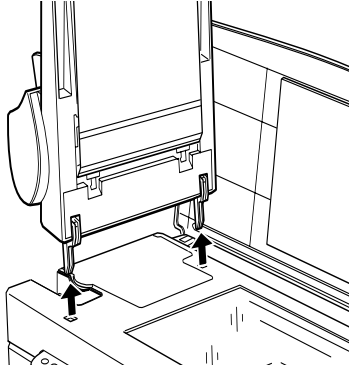
3. Take the paper support off.
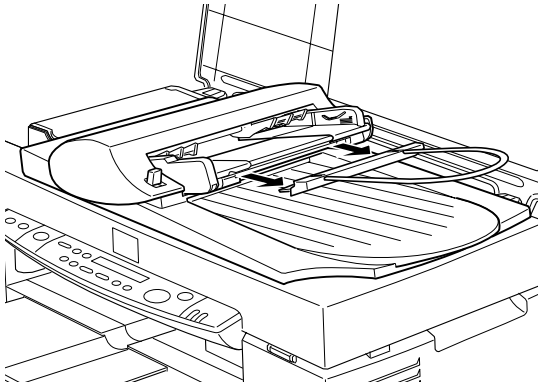
4. Put the Automatic Document Feeder on the document table upside down, with the front of the Automatic Document Feeder towards you.

5. Pull the two white hooks up, and then back down out of the through holes.
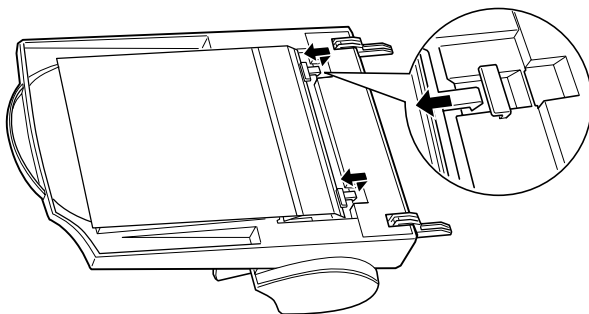
6. Pull the paper path guide upwards.
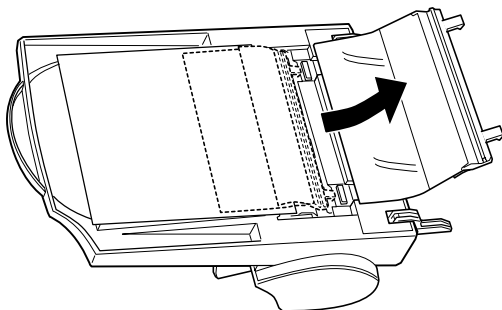
Cleaning the paper path guide

Gently wipe off dust from the transparent plastic sheet of the paper path guide with a soft dry cloth.
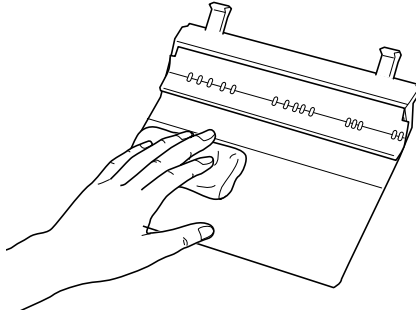
> ⚠ *Caution:*
> ❑ *Be careful not to scratch or damage the paper path guide.*
>
> ❑ *Be careful not to touch the rollers or metal parts of the Automatic Document Feeder. Doing so may cause damage.*

Attaching the paper path guide

1. Insert the transparent plastic sheet of the paper path guide into the paper path of the Automatic Document Feeder.
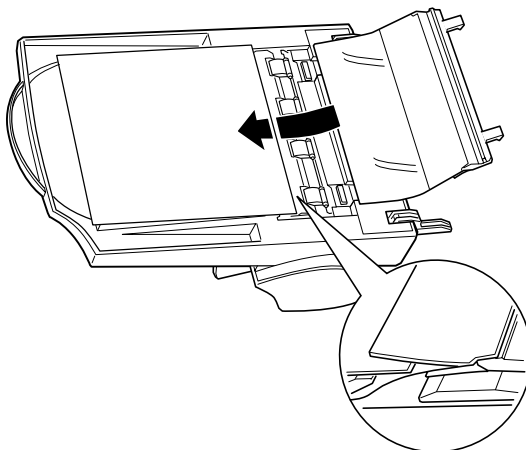
2. Insert the hooks into the rectangular through holes in the rear direction of the Automatic Document Feeder. Make sure that the hooks clip into place.
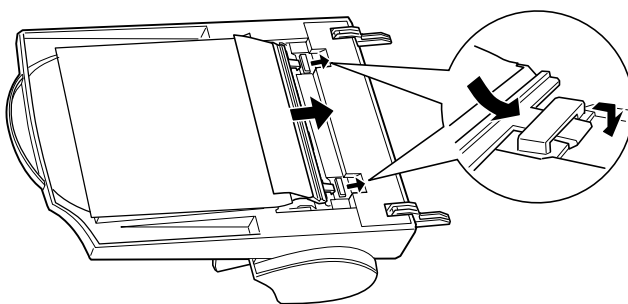
Clearing Jammed Paper

To clear jammed paper in the optional Automatic Document Feeder, follow the steps below:

1. Turn off the Stylus Scan.

2. Push down the release lever to slightly raise the feeder mechanism and release the paper.
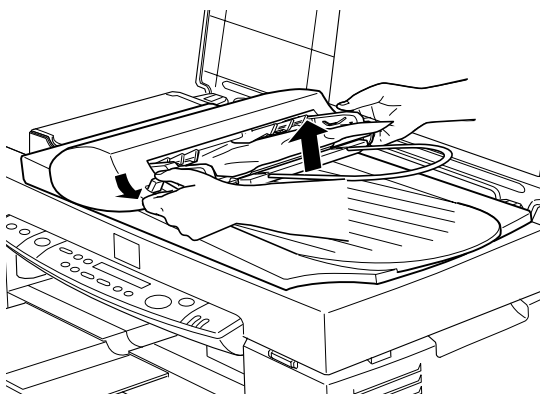
3. Slowly pull the jammed paper out of the feeder mechanism. (Be careful not to pull too hard; the paper may tear, making it more difficult to remove.)
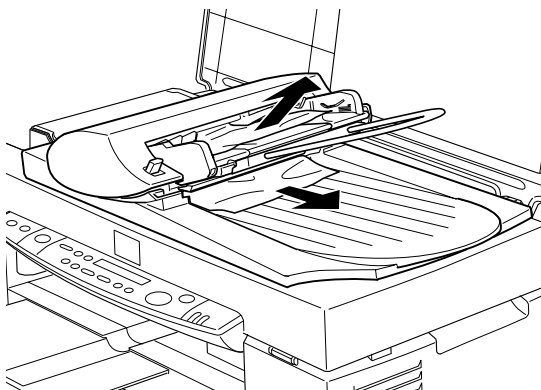
4. If paper is still jammed inside the mechanism, open the cover to remove it.
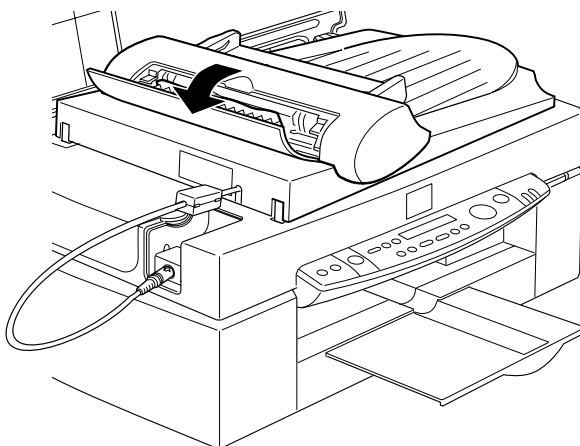
5. After removing jammed paper, make sure that the cover is closed, and push the feeder mechanism down until it clicks into place.

Cleaning the Stylus Scan

To keep your Stylus Scan operating at its best, clean it thoroughly several times a year.

1. Make sure the Stylus Scan is turned off and all of its lights are off. Then unplug the power cord.

2. Remove all paper from the sheet feeder.

3. Use a soft brush to carefully clean away all dust and dirt.

4. If the outer case or the inside of the sheet feeder is dirty, clean it with a soft, clean cloth dampened with mild detergent. Keep the document and maintenance cover closed to prevent water from getting inside.

5. If the document table is dirty, open the document cover. Then clean the glass with a soft, clean and dry cloth, or with a blower brush.

6. If the inside of the Stylus Scan accidentally gets soiled with ink, wipe the ink away with a damp cloth.

> *Warning:*
> *Be careful not to touch the internal gears.*

> **Caution:**
> ❏ *Never use alcohols or thinners to clean the Stylus Scan; these chemicals can damage the components as well as the case.*
>
> ❏ *Be careful to keep water away from the printing and scanning mechanisms and electronic components.*
>
> ❏ *Do not use a hard or abrasive brush.*
>
> ❏ *Do not spray the inside of the Stylus Scan with lubricants; unsuitable oils can damage the mechanisms. Contact your dealer or a qualified service person if lubrication is needed.*

Transporting the Stylus Scan

If you need to transport your Stylus Scan, carefully repack it using the original box and packing materials as follows:

1. Make sure that the Stylus Scan power is off.

> **Caution:**
> *Leave the ink cartridges installed during transport. Removing the cartridges for transport may result in damage.*

2. Open the document cover.

3. Open the maintenance cover and lock the scanner carriage.
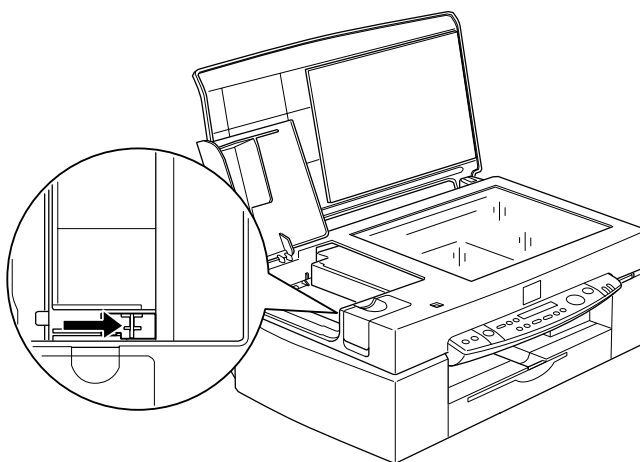
4. Close the maintenance and document covers.

5. Unplug the power cord from the electrical outlet; then disconnect the interface cable.

6. Remove all paper from the sheet feeder, and then remove the paper supports.

7. Push in the output extension tray.

8. Secure the ink cartridge holder to the body with tape as shown below.
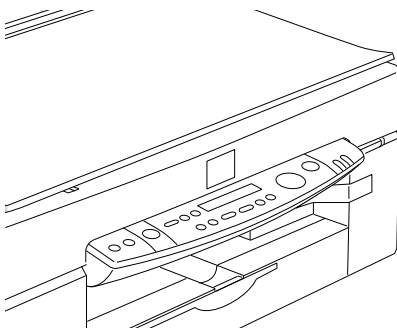
9. Attach the protective materials to both sides of the Stylus Scan.

10. Repack the Stylus Scan and power cord in the original box.

11. Keep the Stylus Scan level during transport.

Chapter 12
Troubleshooting

Diagnosing the Problem

Troubleshooting is best handled in two easy steps: first diagnose the problem, then apply likely solutions until the problem is fixed. You can find the information that you need to diagnose most common problems directly from the control panel message and from the Status Monitor utility.

Use the information presented in this chapter to pinpoint the source of your problem, then apply the recommended solutions until the problem is solved.

Error Messages

You can identify many common problems by looking at the Error light and LCD panel on the control panel. If the Stylus Scan stops working and the Error light is on or flashing, use the following table to help diagnose and solve the problem.

Error light	Error message Problem and Solution	
On	**Printer Error**	
	An unknown printer error has occurred.	Turn off the Stylus Scan and contact your dealer.
On	**Call Service**	
	The used ink tank is full.	Turn off the Stylus Scan and contact your dealer.
On	**Scanner Error**	
	One of the following scanner errors has occurred: The transportation lock has not been released, the fluorescent lamp needs to be replaced, or the EPSON Stylus Scan is broken.	Make sure that the transportation lock is in the unlocked position; then turn the Stylus can off and back on. If the Stylus Scan still does not operate properly, or if this error occurs repeatedly, consult your dealer.

On	**ADF Jam**	
	No paper is loaded, or paper has jammed in the Automatic Document Feeder.	Load paper in the Automatic Document Feeder, or turn off and remove the jammed paper from the Automatic Document Feeder.
Flashing	**ADF Cover Open**	
	The cover of the optional Automatic Document Feeder is open, or the paper feed unit is slightly open.	Make sure that the cover of optional Automatic Document Feeder is closed and/or push the paper feed unit down until it clicks into place.
Flashing	**Printer Jam**	
	Paper is jammed in the printing area.	Press the ⬇ load/eject button. The Stylus Scan should eject the jammed paper and resume printing. If the error not clear, remove the jammed paper from the printing area. Check that paper is loaded in the sheet feeder, and press the ⬇ load/eject button to resume printing or copying.
Flashing	**Printer Paper Out**	
	No paper loaded in the sheet feeder.	Load paper into the sheet feeder. Then press the ⬇ load/eject. The Stylus Scan will resume printing or copying.
Flashing	**Black Ink Out**	
	The black ink cartridge is empty.	Replace the black ink cartridge with a new one. See "Replacing Empty Ink Cartridges" on page 10-2 for details.
Flashing	**Color Ink Out**	
	The color ink cartridge is empty.	Replace the color ink cartridge with a new one. See "Replacing Empty Ink Cartridges" on page 10-2 for details.

Off	Maint. Cover Open	
(Operate light flashing)	The maintenance cover is open.	The Stylus Scan will not operate unless the maintenance cover is closed. Close the cover.
Off	Black Ink Low	
	The black ink cartridge is nearly empty.	Prepare a new black ink cartridge.
Off	Color Ink Low	
	The color ink cartridge is nearly empty.	Prepare a new color ink cartridge.

Status Monitor 3

You can also check the Stylus Scan's current status using the Status Monitor 3 utility. This utility's printer window provides status messages and a graphic display showing the current state of the Stylus Scan. The graphic display can depict the several error conditions.

If an ink cartridge is empty, click the **How To** button in the Stylus Scan's Status window. The Status Monitor will lead you step-by-step through the cartridge replacement procedure.

Running a printer operation check

Performing a printing check can help you determine whether the problem comes from the Stylus Scan or the computer.

To print an operation check page, follow these steps.

1. Make sure both the Stylus Scan and computer are turned off.

2. Disconnect the cable from the Stylus Scan's interface connector.

If the Stylus Scan is connected to the parallel interface (available on Windows machines only): First unlock the wire clips on both sides of the interface connector. Also remove the ground connector, if necessary). Then disconnect the cable from the Stylus Scan's interface connector.
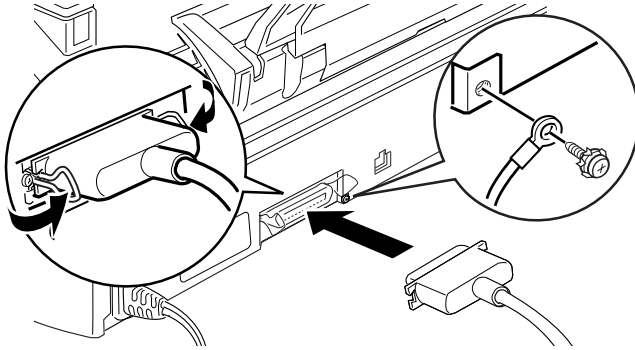
3. Make sure that A4 or Letter size paper is loaded in the sheet feeder.

4. Hold down the ⬇ load/eject button and press the ⏻ power button to turn on the Stylus Scan. Then release both buttons.
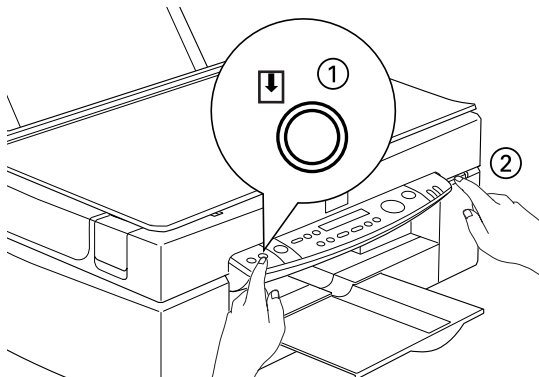
The Stylus Scan prints an operation check page that includes the Stylus Scan's ROM version number, the ink counter code, and a nozzle check pattern.

❏ Compare the quality of the printed check page with the sample shown below. If there are no print quality problems, such as gaps or missing segments in the test lines, the Stylus Scan itself is functioning properly and your problem may lie in the software settings, application settings, the interface cable (be sure to use a shielded cable), or the computer.
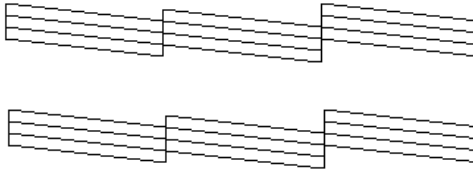
The above sample is in black and white, but the actual check page prints in color (CMYK).

❏ If the check page does not print satisfactorily as shown below, there is a problem with the Stylus Scan. If any segment of the printed lines is missing, it could indicate a clogged ink nozzle or a misaligned print head.

segments are missing
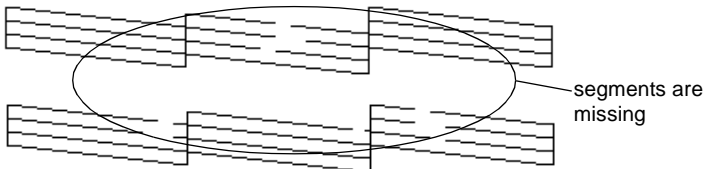
The above sample is in black and white, but the actual check pattern prints in color.

.*Printing and Copying problem*

Print and Copy Quality Could Be Better

Horizontal banding

Try one or more of these solutions.

❏ Make sure the printable side of the paper is face up in the sheet feeder.

❏ Run the Head Cleaning utility to clear any clogged ink nozzles.

❏ Select the **Automatic** mode in your printer driver's **Main** menu (Windows) or **Print** dialog box (Macintosh).

❏ Check the Error light and LCD panel message. If Error light is on and LCD panel message is Ink Out, replace the ink cartridge. See "Replacing Empty Ink Cartridges" on page 10-2.

❏ Make sure the Maximum Printable Area setting in your printer driver is turned off. When this setting is on, banding may occur in the expanded area.

Vertical misalignment or banding

Try one or more of these solutions.

❏ Make sure the printable side of the paper is face up in the sheet feeder.

❏ Run the Print Head Alignment utility.

❏ Turn off the High Speed setting in your printer driver. For instructions, see "Using the Advanced settings" on page 4-10 for Windows or "Using the Advanced settings" on page 6-8 for Macintosh.

❏ Run the Head Cleaning utility to clear any clogged ink nozzles.

Color gaps

Try one or more of these solutions.

❏ Make sure your paper is not damaged, dirty, or old. Also, make sure the printable side of the paper is face up in the sheet feeder.

❏ Run the Head Cleaning utility to clear any clogged ink nozzles.

❏ Check the Error light and LCD panel message. If Error light is on and LCD panel message is Ink Out, replace the appropriate ink cartridge. See "Replacing Empty Ink Cartridges" on page 10-2.

❏ Adjust the color settings in your application software or your printer driver.

❏ Select **Automatic** mode in your printer driver.

Incorrect or missing colors

Try one or more of these solutions.

❏ Change the ink setting in your printer driver to Color. For instructions, see "Using the Automatic setting" for Windows or "Using the Automatic setting" for Macintosh.

❏ Adjust the color settings in your application software or your printer driver. For instructions, see "Using the Advanced settings" for Windows or "Using the Advanced settings" for Macintosh.

❏ Run the Head Cleaning utility. If colors are still incorrect or missing after cleaning is finished, replace the color ink cartridge. If the problem persists, replace the black ink cartridge. See "Replacing an Old or Damaged Ink Cartridge" on page 10-9.

Blurry or smeared printout

Try one or more of these solutions.

❏ Make sure your paper is dry and the printable side is face up. Also, make sure you're using a suitable paper type. See "Paper" for specifications.

❏ Select the **Automatic** mode in your printer driver's **Main** menu (Windows) or **Print** dialog box (Macintosh).

❏ Set the adjust lever to the "+" position, and make sure the Media Type setting is set correctly in your printer driver.

❏ If the paper is curled toward the printable side, flatten it or curl it slightly toward the opposite side.

❏ Remove each sheet from the output tray as it is printed, especially if you're using transparencies.

❏ If you're printing on glossy media or transparencies, place a support sheet (or a sheet of plain paper) beneath the stack. Or load one sheet at a time.

❏ Run the Head Cleaning utility.

❏ Run the Print Head Alignment utility.

❏ Ink may have leaked inside the Stylus Scan. Wipe the inside of the Stylus Scan with a soft, clean cloth.

Wipe here
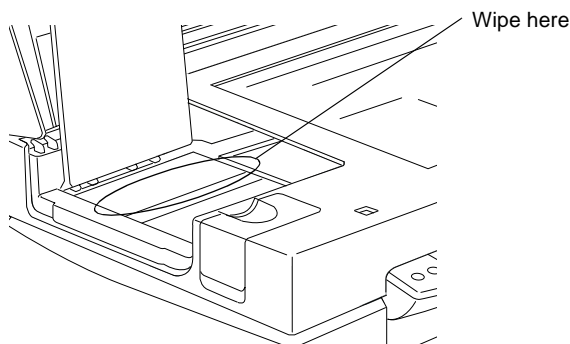
Cannot print or copy

If one of the following problems has occurred, try the solutions listed for the following conditions.

❏ All lights are off

❏ Lights came on and then went out

❏ Only the Operate light is on

❏ Error light is on

❏ Error light is flashing

Note:
When the Stylus Scan is connected through the parallel interface in Windows, it is impossible to use the scanner if the printer driver is uninstalled.

All lights are off

❏ Press the ⏻ power button and make sure the Stylus Scan is on.

❏ Turn off the Stylus Scan and make sure the power cord is securely plugged in.

❏ Make sure your outlet works and is not controlled by a wall switch or timer.

Lights came on and then went out

The voltage required by the Stylus Scan may not match the voltage rating of your outlet. Immediately turn off the Stylus Scan and unplug it. Then check the label on the Stylus Scan to determine the required voltage.

If the required voltage doesn't match your outlet rating, DO NOT PLUG THE STYLUS SCAN BACK IN. Contact your dealer.

Only the Operate light is on

Try one or more of these solutions.

❏ Turn off the Stylus Scan and the computer. Make sure the interface cable is securely plugged in at both ends.

❏ Make sure there is no packing material inside the Stylus Scan.

❏ Turn off the Stylus Scan and the computer, and then disconnect the interface cable. Then print an operation check page. See "Running a printer operation check" on page 12-4.

❏ If the check page prints, make sure the Stylus Scan software and your application software are installed correctly.

Note:
If you're trying to print a large image, your computer may not have enough memory available to print.

❏ Clear any stalled print jobs from the Spool Manager.

❏ If the Stylus Scan sounds like it's trying to print, but can't, run the Head Cleaning utility.

❏ If the above does not work, replace the ink cartridges.

Paper Doesn't Feed Correctly

If one of the following problems has occurred, try the solutions listed for that problem.

❏ Paper doesn't feed

❏ Multiple pages feed

❏ The paper jams

❏ Paper isn't ejected fully or is wrinkled

Paper doesn't feed

Check that the loaded paper stack does not extend above the arrow mark on the left edge guide.

Remove the stack of paper and check that:

❏ The paper isn't curled or creased.

❏ The paper isn't too old. See the instructions that came with the paper for more information.

❏ The loaded paper stack does not extend above the arrow mark on the left edge guide.

❏ The paper isn't jammed inside. If it is, remove the jammed paper.

Then load paper again. Make sure you follow any special loading instructions that came with your paper. See also "Loading Special Paper and Other Media" on page 3-3.

Multiple pages feed

Remove the stack of paper and:

❏ Make sure the paper is not too thin. See "Paper" for specifications.

❏ Fan the edges of the stack to separate the sheets, then reload the paper.

If too many copies of a document are printing, check the **Copies** settings in both the printer driver and your application. For instructions, see "Modifying the printout style" on page 4-14 for Windows or "Modifying the layout" on page 6-13 for Macintosh.

The paper jams

Press the ⬇ load/eject button to eject the jammed paper. If the error message does not clear, open the cover and remove all the paper inside, including any torn pieces. Then load paper again.

If your paper jams frequently, make sure you:

❏ Use smooth, high-quality paper, loaded with the printable side up.

❏ Fan the stack before loading it.

❏ Don't load paper above the arrow mark on the left edge guide.

❏ Adjust the left edge guide to fit your paper.

Paper isn't ejected fully or is wrinkled

Try one or more of these solutions:

❏ If the paper doesn't eject fully, press the ⬇ load/eject button. Also check the paper size setting in your application or printer driver.

❏ If the paper is wrinkled when it comes out, it may be damp or too thin. Load a new stack.

Note:
Store any unused paper in its original packaging in a dry area. See "Paper" on page B-2 for specifications.

Printouts Are Not What You Expected

If one of the following problems has occurred, try the solutions listed for the problem.

❏ Incorrect or garbled characters

❏ Incorrect margins

❏ Inverted image

❏ Blank pages print

❏ Printout has smears on the bottom edge

❏ Printing is too slow

Incorrect or garbled characters

Try one or more of these solutions.

❏ If you are using a Windows machine, select the Stylus Scan as the default Windows.

❏ Clear any stalled print jobs from the Spool Manager. Windows 95 and 98 users can do this by selecting **Clear all print jobs now**.

❏ Turn off the Stylus Scan and the computer. Make sure the Stylus Scan's interface cable is securely plugged in.

Incorrect margins

Try one or more of these solutions.

❏ Check the margin settings in your application software.

❏ Make sure the margins are within the printable area of the page. See "Paper" on page B-2 for specifications.

❏ In Windows, check the settings in the **Paper** menu. Make sure the settings are correct for the paper size you're using.

In Macintosh, check the settings in the **Page Setup** dialog box. Make sure the settings are correct for the paper size you're using.

Inverted image

Turn off the Flip Horizontal setting in the printer driver, or the "Mirror" setting in your application software. For instructions, see online help for the printer driver or for your application.

In Macintosh, see also "Using the Advanced settings" on page 6-8.

Blank pages print

Try one or more of these solutions.

❏ If you are using Windows, select the Stylus Scan as the default Windows printer.

❏ If you are using Windows, check the settings in the **Paper** dialog box. Make sure they're correct for the paper size you're using.

❏ If you are using Macintosh, check the settings in the **Page Setup** dialog box. Make sure they're correct for the paper size you're using.

❏ Run the Head Cleaning utility to clear any clogged nozzles.

After trying one or more of these solutions, run a printing operation check to see whether the problem has been solved. See "Running a printer operation check" on page 12-4.

Printing is too slow

Try one or more of these solutions.

❏ Make sure the Media Type setting is set correctly in your printer driver. For instructions, see "Making the Media Type setting" on page 4-5 for Windows or "Making the Media Type settings" on page 6-4 for Macintosh.

❏ To increase speed, select the **Automatic** mode and then set the slide bar to the **Speed** setting. For instructions, see "Using the Automatic setting" on page 4-7 for Windows or "Using the Automatic setting" on page 6-5 for Macintosh.

❏ Don't run too many applications at the same time. Close any applications you are not using at the moment.

❏ Delete unnecessary files to make room on your hard disk drive.

   Note:
   Your computer may not have enough memory. For further tips, See "Increasing the Print Speed" on page 4-30.

❏ If you upgraded from Windows 95 to Windows 98, uninstall the EPSON Stylus Scan software using Add/Remove Programs in Windows, then install the software again.

Scanning Problem

Note:
When the Stylus Scan is connected through the parallel interface under Windows, it will be impossible to use the scanner if the printer driver is uninstalled.

Operating problems

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

❏ Inappropriate selection of the scanner functions (see your software manual).

❏ Incorrect setup of your computer or software (see your software manual).

❏ Incorrect operation of your software (see your software manual).

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

The operate light does not come on

Press the ⏻ power button to turn on the scanner.

Make sure the power cord is correctly plugged into the scanner and the power outlet.

The scanner does not start scanning

Make sure that the Operate light is green (in ready state).

The scanner software does not work properly

Be sure you have correctly installed your software.

Make sure that your computer system meets the requirements, such as the operating system version, specified for your software.

Confirm that the computer has enough memory for your software. If your computer has many device drivers, or if you are running other software at the same time, or using RAM-resident programs, the computer may not have enough memory available. (See your software and computer documentation.)

Quality problems

The entire image is distorted or blurred

Make sure that the document is placed flat against the document table.

You may have accidentally moved the document during scanning. Check the position of the document and do not move it while the scanner is operating.

See that the scanner is not tilted or placed on an unstable surface.

Part of the image is distorted or blurred

Part of the document may be wrinkled, warped, or not in contact with the document table. Be sure the document is uniformly flat.

> **■ Caution:**
> *Do not place heavy objects on the document table.*

Edges of the document are not scanned

The document table has non-readable areas around the edges. If part of your document extends beyond the maximum limits marked on the document table edge guides, you may have to reposition your document so that the image you want to scan is within the readable area.

Color is patchy or distorted at the edges of the image

If the document is very thick or warped at the edges, the edges of the image may be discolored. Cover the edges of the document with opaque paper to block outside light.

If part of the document extends beyond the document table, that edge may not be in contact with the document table. Change the position of the document.

The image is faint or out of focus

Check that the document is placed flush against the document table.

Check the Gamma setting in your software.

Check the Exposure setting in your software.

The image is too dark

Adjust the brightness with your software. Also check the brightness and contrast values of your display screen.

Straight lines in the image are jagged

The document may be placed at an angle on the document table. Align it so that the horizontal and vertical lines are carefully aligned with the scales on the top and side of the document table.

The image does not look the same as the original

Try different combinations of image settings using your scanner software.

Your software may not have sufficient color matching and color management features, or these components of your software may not be correctly installed. (See your software and computer manuals.)

If you are importing an image file into your application software, make sure the file format is one your software can read. Also check that the image settings in your application are appropriate for the type of image you want to scan. (See your software manual.)

A line of dots is always missing in the scanned image

If this happens in your printed image only, your printer or its print head is probably malfunctioning. (See the online **Reference Guide**.)

If this happens on both your screen and printout, the scanner's sensor may be malfunctioning. Consult your dealer.

A line of dots always appears in the scanned image

If this happens on both your screen and printout, the paper path guide of the Auto Document Feeder or the document table may be dusty or scratched. Clean the paper path guide, or clean the document table. If the problem still exists the guide may be scratched and require replacement.

When halftoning is used, textured patterns of dots appear on particular areas of an image

This is normal. Your scanner automatically minimizes the problem if Best & de-screening is selected as the Quality & de-screening setting in the **Image Type** dialog box.

Colors in the image look odd

Make sure the Image Type and Destination settings in EPSON TWAIN are selected correctly.

When you are using the Film Adapter, make sure the rectangular opening near the hinges on the base is uncovered, or make sure the top of the Film Adapter is closed when scanning.

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

Check the image settings in your scanner software, especially data format (bits/pixel/color), gamma correction, and color correction. Try a different combination of these settings.

Check the color matching and color management capabilities of your computer, display adapter, and software. Some computers can change the color palette to adjust the colors on your screen. (See your software and computer manuals.)

Exact matching of colors is very difficult. Check your software and monitor manuals for information on color matching and calibration.

Printed colors are different from those in the original image

Exact reproduction of colors is very difficult. See your software manual or your printing company for guidance on color matching.

The printed image is larger or smaller than the original size

The image size settings in your software determine the size of the printed image. Do not use the size of the image on your monitor to judge the printed size.

Your image cannot be printed or the printout is garbled

Check that the printer is properly connected to the computer and is correctly set up. (See the online **Reference Guide**.)

Check that your software is properly installed and set up for your printer. (See your software manual.)

Color of negative film preview images looks odd

Check that **TPU - Neg. Film** is selected in the Document Source settings in EPSON TWAIN.

The dark area around the film, such as the frame of the film holder, is perceived as white - altering the exposure of the scanning area and causing your scans to appear darker. See the correct color by clicking and dragging the mouse over an area, then clicking the zoom preview button.

Improving scan speed

If the Stylus Scan is connected by parallel interface (available on Windows machines only). The best way to improve the speed of your scans is to make sure ECP mode is enabled on your system. This is a system-level setting, so if you want to change it, contact the manufacturer of your computer.

Always use the lowest Resolution (dpi setting) possible that will still give good image quality. A higher dpi setting may not increase the quality of a scan, but it will significantly slow down your computer and it will require more disk space to save the image.

Troubleshooting the Parallel Port (Windows 98/95)

Printing or scanning speed is slow

Make sure the ECP mode is turned on in your computer's BIOS. For details, see your computer's documentation.

If the ECP mode is enabled in BIOS and printing and scanning are still slow, the ECP hardware (a component inside your computer which processes the ECP protocol) is malfunctioning. When the Stylus Scan's ECP port driver senses a problem in the ECP hardware, the driver switches to software processing of the ECP protocol to protect your data. Software processing is secure, but much slower than hardware processing.

A communication error occurs during printing or scanning

Make sure the ECP mode is turned on in your computer's BIOS. For details, see your computer's documentation.

If the errors continue to occur, follow the steps below:

1. Click **Start**, then **Run**.

2. Type **EPLPTDMA** in the **Open** box, then click **OK**.
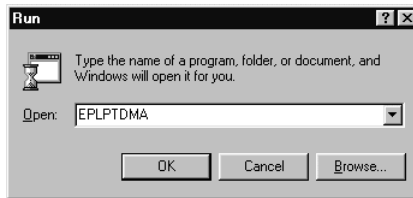
3. The following dialog box appears. Clear the check box that appears beside the name of the port to which you have connected the Stylus Scan, then click **OK**.

Note:
Unavailable ports appear dimmed.

4. Restart Windows.

USB (Windows 98) Installation Problems

If the Stylus Scan Driver was not properly installed, uninstall the Stylus Scan Driver in the manner described in the Setup Guide, then reinstall it.

If, after doing the above, the Stylus Scan does not work correctly, check the following:

USB Printer Device Driver or Stylus Scan Driver (Printer) Problems

Make sure your computer had Windows 98 pre-installed

Your computer must have Windows 98 pre-installed. The printer driver may not function properly on a computer that has been upgraded from Windows 95 to 98.

For details about your computer, contact your dealer.

Check that the USB driver was installed correctly

Use the following procedure to confirm that the USB driver was installed correctly.

1. Click the **Start** button, point to Settings and click the **Printers** folder. Make sure that the icon for the printer appears in the Printers folder.

2. Click the printer icon, and select **Properties** from the **File** menu.

3. Click the **Details** tab and make sure that EPUSBx: (EPSON Stylus Scan 2500) is displayed in the **Print to the following port** list box
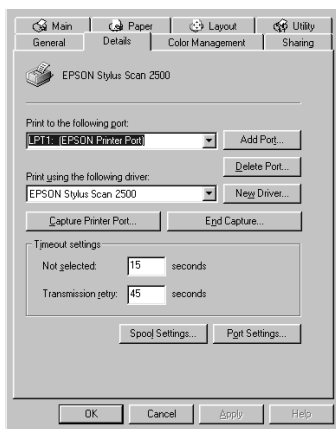
4. If the correct port is not displayed, remove the USB cable, then connect the Stylus Scan to the first tier of the hub, or connect the Stylus Scan to the computer's USB port directly.

Make sure that EPSON USB Printer Devices appears in the Device Manager menu

If you canceled the plug-and-play driver installation before the procedure completed, either the USB printer device driver or the printer driver may be incorrectly installed.

Follow the steps below to check the installation and reinstall the drivers.

1. Turn the Stylus Scan on. Plug the USB cable into the Stylus Scan and the computer.

2. Right-click the My Computer icon on your desktop, then click **Properties**.

3. Click the **Device Manager** tab.

If your drivers are correctly installed, EPSON USB Printer Devices should appear in the **Device Manager** menu.

If **EPSON USB Printer Devices** does not appear in the **Device Manager** menu, click the plus (**+**) sign beside **Other Devices** to view the installed devices. If **USB Printer** appears under Other Devices, the USB printer device driver is not installed correctly. If **EPSON Stylus Scan 2500** appears under Other Devices, the printer driver is not installed correctly.

If neither USB Printer nor EPSON Stylus Scan 2500 appears under Other Devices, click **Refresh** or unplug the USB cable from the Stylus Scan, then plug it into the Stylus Scan again.

4. Under Other Devices, click **USB Printer** or **EPSON Stylus Scan 2500**, then click **Remove** and **OK**.
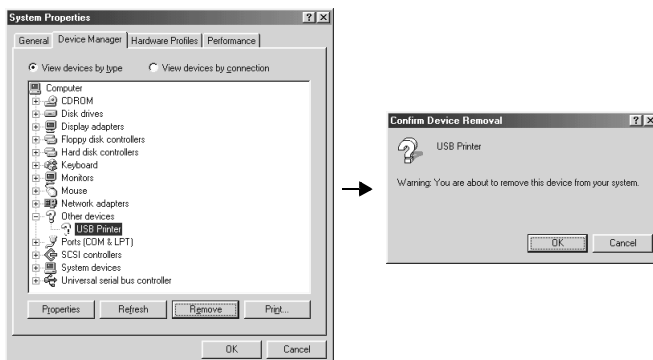
5. Click **close** to close the System Properties window.

6. Unplug the USB cable from the Stylus Scan, then plug it into the Stylus Scan again.

7. The following dialog box appears. Install the driver again, following the instructions in the Setup Guide.

Stylus Scan driver (scanner) problems

Check if your Stylus Scan name appears under Imaging Device hardware type without a ? or ! mark in the **Device Manager** menu. To view this menu, right-click the My Computer icon on the Desktop. If your scanner appears with a ? or ! mark, or appears as an Unknown Devices hardware type, make sure your Stylus Scan is turned on and connected, the click **Remove** to remove it from the **Device Manager** menu.

Note:
If the EPSON Stylus Scan Disk is requested when reinstalling the driver, make sure the EPSON Stylus Scan 2500 Software for Windows CD is still in the CD-ROM drive and check that the correct drive letter, the EPSON folder, the folder of your preferred language, and the Win98 folder are specified.

Make sure that EPSON Stylus Scan 2500 appears in the Device Manager menu

If you canceled the plug-and-play driver installation before the procedure was completed, EPSON Stylus Scan FB TWAIN may be incorrectly installed.

Follow the steps below to check the installation.

1. Turn the Stylus Scan on. Plug the USB cable into the Stylus Scan and the computer.

2. Right-click the **My computer** icon on your desktop, then click **Properties**.

3. Click the **Device Manager** tab.

   If your EPSON Stylus Scan FB TWAIN is correctly installed, **EPSON Stylus Scan 2500** should appear under Imaging Device when you click the plus (**+**) sign next to Imaging Device.

   If EPSON Stylus Scan 2500 appears under Other Devices with a ? mark or under Imaging Device with ! mark, the EPSON Stylus Scan FB TWAIN file is not installed correctly. Follow the instructions to reinstall the driver.
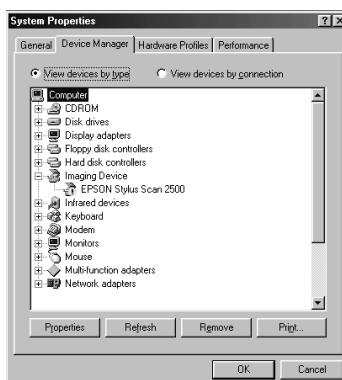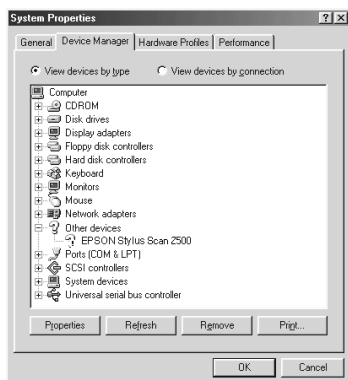
If EPSON Stylus Scan 2500 appears under Other Devices

Note:
Make sure the Stylus Scan is on and connect to your computer. If the Stylus Scan is off or not connected to your computer, you cannot reinstall the driver properly.

1. If ? EPSON Stylus Scan 2500 appears under Other Devices, click **? EPSON Stylus Scan 2500**. Then click **Remove** and **OK**.
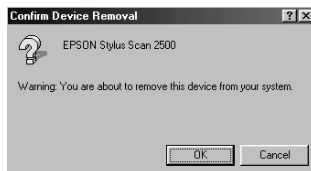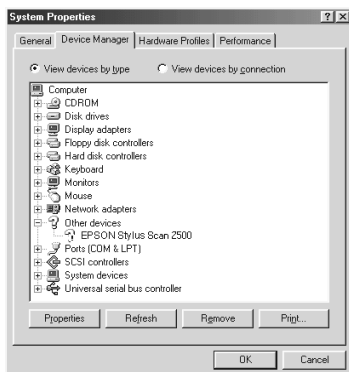
2. Click **Close** to close the System Properties window.

3. Make sure the Stylus Scan is on and restart your computer.

4. The following dialog box appears. To install the driver again, follow the instructions in the Setup Guide.

If EPSON Stylus Scan 2500 appears under Imaging Device

Note:
Make sure the Stylus Scan is on and connected to your computer. If the Stylus Scan is off or not connected to your computer, you cannot reinstall the driver properly.

1. If ! EPSON Stylus Scan 2500 appears under Imaging Device, click **! EPSON Stylus Scan 2500**. Then click **Remove** and **OK**.
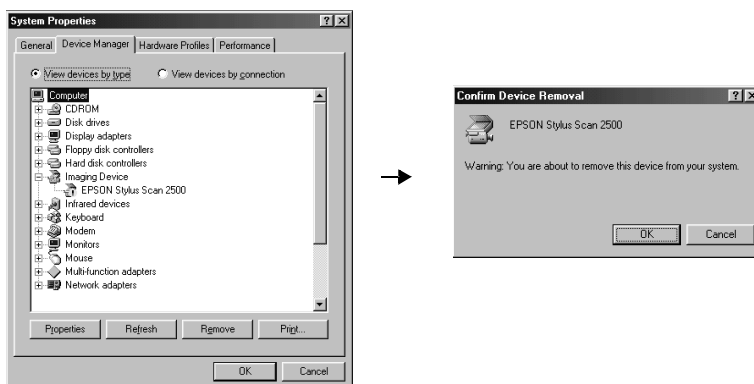
2. Click **Close** to close the System Properties Window.

3. Make sure the Stylus Scan is on and restart your computer.

4. When the following dialog appears, insert the **EPSON Stylus Scan 2500 Software for Windows** CD-ROM in the CD-ROM drive, then click **OK**.
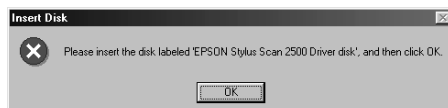
If the following dialog appears, click ▼, select your CD-ROM drive, then click **OK**.
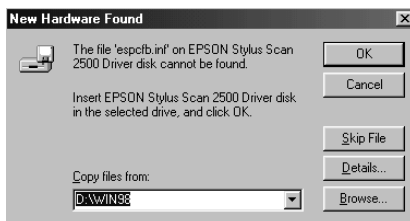
5. The Screen Calibration window appears. Follow the instructions described in the Setup Guide.

Where to Get Help

If your Stylus Scan is not operating properly and you cannot solve the problem using the troubleshooting information provided in the Stylus Scan documentation, contact customer support services for assistance.

Customer support will be able to help you much more quickly if you give them the following information.

❏ Serial number of your Stylus Scan
(The serial number label is on the back of the Stylus Scan.)

❏ EPSON Stylus Scan model

❏ Brand and model of your computer

❏ EPSON Stylus Scan software version
(Click **About** in your printer driver.)

❏ Windows version you are using

❏ Software application(s) you normally use with your EPSON Stylus Scan, and their version number(s)

Chapter 13

Options and Consumable Products

Options

The following options are available for your Stylus Scan.

Film Adapter

The Film Adapter (B813133) is a special device developed to enable the scanning of negative film strips and slides by simply installing the unit on your Stylus Scan. The Film Adapter is compact so it can be attached or removed easily when you alternate scanning between transparent materials and normal reflective (paper) documents.

Note:
The Film Adapter cannot be used with the copy function.

Automatic Document Feeder

The Automatic Document Feeder (B813143) allows you to automatically load multiple-page documents into your Stylus Scan. This document feeder is particularly useful for OCR (optical character recognition) scanning, or for creating an image database.

Interface cables

You can use any interface cable that meets the following specifications. See your computer manual for any additional requirements.

❏ Parallel Interface Cable (shielded) from D-SUB 25-pin (computer) to 36-pin Amphenol 57 Series (printer)

❏ *To connect the printer to your PC or Macintosh you must purchase an USB conversion cable.*

> *Caution:*
> *Use only interface cables which meet the specifications listed above. Using other cables not covered by EPSON warranties may cause the printer to malfunction.*

Consumable products

The following ink cartridges and EPSON special media are available for your Stylus Scan.

Ink cartridges

You can use the following cartridges with your printer.

Black ink cartridge	S020189
Color ink cartridge	S020191

EPSON special media

EPSON offers specifically designed media for ink jet printers to meet most high-quality printing needs.

EPSON 360 dpi Ink Jet Paper (A4)	S041059
EPSON Premium Ink Jet Plain Paper (A4)	S041214
EPSON Photo Quality Ink Jet Paper (A4)	S041061
EPSON Photo Quality Ink Jet Card (A6)	S041054
EPSON Photo Quality Ink Jet Card (5 × 8")	S041121
EPSON Photo Quality Ink Jet Card (8 × 10")	S041122
EPSON Photo Quality Self Adhesive Sheet (A4)	S041106
EPSON Ink Jet Note Cards A6 (with envelopes)	S041147
EPSON Ink Jet Greeting Cards 5 × 8" (with envelopes)	S041148
EPSON Ink Jet Greeting Cards 8 × 10" (with envelopes)	S041149
EPSON Photo Quality Glossy Film (A4)	S041071
EPSON Photo Quality Glossy Film (A6)	S041107
EPSON Ink Jet Transparencies (A4)	S041063
EPSON Photo Paper (A4)	S041140
EPSON Photo Paper (4 × 6")	S041134
EPSON Photo Paper (100 × 150 mm)	S041255
EPSON Photo Paper (200 × 300 mm)	S041254
EPSON Photo Paper Cards (A4)	S041177
EPSON Photo Stickers 16 (A6)	S041144
EPSON Photo Stickers 4 (A6)	S041176
EPSON Panoramic Photo Paper (210 × 594 mm)	S041145
EPSON Iron-On Cool Peel Transfer Paper (A4)	S041154
EPSON Iron-On Cool Peel Transfer Paper (Letter)	S041153 S041155
EPSON Matte Paper-Heavyweight (A4)	S041256

Appendix A

Tips for Color Printing

Basics of Color

This section describes the basic properties of color, the
relationships between colors, and how to use color to improve the
quality of your printed documents.

Properties of color

Color is composed of three properties: hue, saturation, and
brightness.

Hue
The name of the color, such as red, blue, or violet. The circle that
represents the relationship between all hues is called the hue
circle.

Saturation
The vividness of the color. This represents the amount of gray in
proportion to the hue.

Brightness
The relative lightness or darkness of the color.

The method for representing these properties is called the
Munsell renotation color system. The hue circle and the Munsell
renotation color system are useful to understand the properties
of color.

Synchronizing monitor colors and printer colors

Your Stylus Scan produces images by printing tiny patterns of ink
dots on paper. It uses the colors cyan (C), magenta (M), yellow
(Y), and black (K) to create a blending effect that makes you think
you are seeing millions of colors. This type of color, produced by
pigments that absorb some colors of light and reflect others, is
called subtractive.

Note:
In theory, pure cyan, magenta, and yellow should produce black, but
actually they produce a muddy brown and must be combined with black
ink to produce a true black (K).

Your monitor produces images by illuminating color phosphors
on the screen with an electron gun. (A phosphor is a substance
that gives off light when irradiated.) Each screen point (pixel) has
three colored phosphors: red (R), green (G), and blue (B).

Since the printer and monitor produce color images differently,
and the available range of color produced by the monitor and
printer are different, the image on the screen does not exactly
match your printed output all of the time. If you want to adjust,
or calibrate, the printed color to more closely match the on-screen
color, you may have to experiment with the printer driver
settings.

Additionally, color management software is available from a
variety of software and monitor companies to help you match
colors produced by your monitor and printer. See your image-
editing software documentation for information on color
matching.
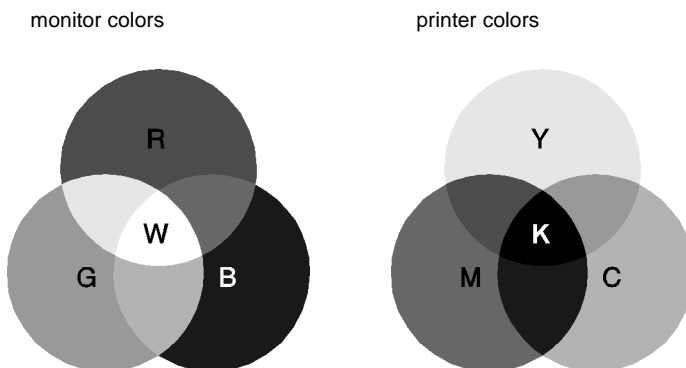
The range of colors that can be displayed:
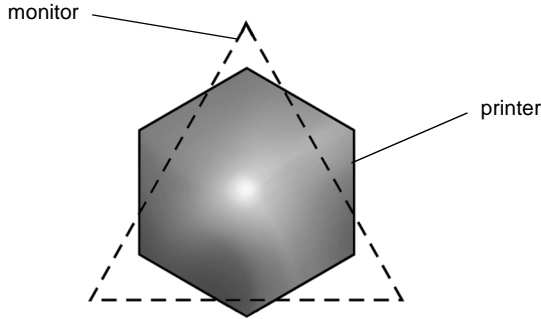
Note:
When printing a scanned image, you may find it more difficult to match colors. Because scanners create the original image data using CMYK, the data format of your image will be changed twice.

Process of color printing

A printer produces color images by printing tiny patterns of ink dots using CMYK colors as mentioned in the previous section. Because most ink jet printers are not able to print different gradations of the three primary colors, they must use a halftoning method in order to represent millions of colors or the gradation of colors as follows:
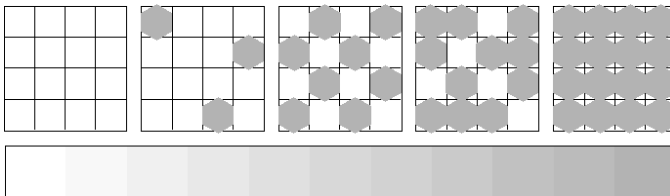
Dithering and error diffusion are the most commonly used halftoning methods.

Dithering

Dithering uniformly aligns individual dots of different colored inks to create the appearance of natural colors. This method is suitable for printing documents that contain large areas of solid color, such as bar charts and graphs.

Error diffusion

Error diffusion blends individual colored dots with the colors of the surrounding dots to create the appearance of natural colors. By blending colored dots, the printer can achieve excellent colors and subtle color gradation. This method is best suited for printing documents that contain detailed graphics or photographic images.

Image Resolution and Image Size

The resolution of your original image affects the quality of your printouts. Generally, the higher the resolution, the better the print quality. However, keep in mind that the higher the resolution, the longer the wait for processing and printing a document.

Generally, the printed image size is in inverse proportion to the image resolution, as shown below. The larger the image size, the lower the image resolution. Conversely, the smaller the image size, the higher the image resolution.

Note:
Some applications have a function that can correct this relationship.

300 pixel

225 pixel

Print

300 dpi

300 pixel

225 pixel

Print

150 dpi
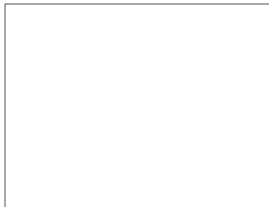
400 pixel

292 pixel

Print

300 dpi

100 pixel
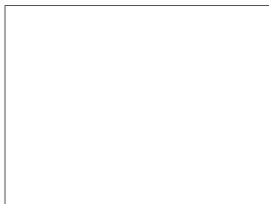
72 pixel

Print

75 dpi

Since increasing the image size means decreasing the image resolution, you must take care that print quality or color tone is not degraded when working with images pasted into documents created with word processing software. To avoid print quality and color tone problems, change the size and the resolution of the image in your graphics application before pasting it into your document.

Guidelines for Using Color

To help you use color to maximize your document's impact on its readers, determine the who, what, when, where, why, and how of color printing.

Know WHO your readers are and WHAT your purpose is

Your documents are intended to communicate information, opinions, or feelings to one or more people and also to get results. Therefore, first you need to think about who is going to see your work: customer, co-worker, or other; and what your purpose is: to advise, sell, propose, and so on.

For example:
A marketing proposal with generous quantities of bright, fluorescent colors might fail to impress a conservative accounting firm, yet win over a music video company.

Know WHEN to use color

While color can enhance any document, you need to decide when color helps expand understanding of your message and when it distracts the reader. Sometimes a serious business message is best delivered without additional colors. (Remember that white and black are colors, too.)

For example:
A job offer letter to a prospective employee works best in black and white, while a list of safety rules benefits from attention-getting color.

Decide WHERE color will most benefit your document

If you use color on every page or all over a page, you may lose not only the impact of color, but also the clarity and readability of your work. When used consistently and strategically, color breaks up the monotony of black-and-white text reading.

Note:
❏ *Avoid placing too many color pictures, tables, or icons on a page.*

❏ *Size your color images so that they do not overpower text or graphics.*

❏ *Avoid using too much colored text. It is more difficult to read than black-on-white or white-on-black text.*

Know WHY you are using color

Color adds interest and clarity, and makes documents appear easier to understand. Just as you use fonts and graphics to create appeal and capture attention, color provides an additional visual interpretation of a document that influences the reader.

For example:
An overhead presentation of sales results by territory is far more interesting and memorable if you show the figures with colored charts and graphs.

Know HOW to select colors

❏ Use just one hue in the hue circle to make your document unified. Modify saturation or brightness to add interest.
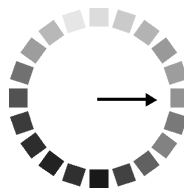
❏ Use contrasting hues to make your work more eye-catching.
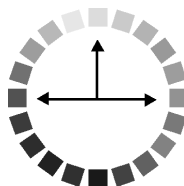
❏ Use of complementary colors in documents is generally not recommended.
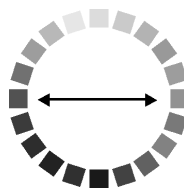
❏ Determine a rule for using color throughout the document.

Product Specifications

Printing

Printing method	On-demand ink jet
Nozzle configuration	Monochrome (black) 144 nozzles
	Color (cyan, magenta, yellow) 144 nozzles (48 [each color] × 3)
Resolution	Maximum 1440 dpi × 720 dpi
Print direction	Bidirectional with logic seeking
Control code	ESC/P raster EPSON Remote
Input buffer	64 KB

Paper

Note:
Since the quality of any particular brand or type of paper may be changed by the manufacturer at any time, EPSON cannot attest to the quality of any non-EPSON brand or type of paper. Always test samples of paper stock before purchasing large quantities or printing large jobs.

Single sheets:

Size	A4 (210 mm × 297 mm) A5 (148 mm × 210 mm) B5 (182 mm × 257 mm) Letter (216 mm × 279 mm) Half letter (139.7 mm × 215.9 mm) Legal (216 mm × 356 mm) Executive (184.2 mm × 266.7 mm)
Paper types	Plain bond paper, special papers distributed by EPSON
Thickness (for plain bond paper)	0.08 mm to 0.11 mm
Weight (for plain bond paper)	64 g/m² to 90 g/m²

Envelopes:

Size	No. 10 (104 mm × 240 mm)
	DL (110 mm × 220 mm)
	C6 (114 mm × 162 mm)
	132 mm × 220 mm
Paper types	Plain bond paper, air mail
Thickness	0.16 mm to 0.52 mm
Weight	45 g/m² to 75 g/m²

Index cards:

Size	A6 (105 mm × 148 mm)
	5 × 8" (127 mm × 203 mm)
	10 × 8" (254 mm × 203 mm)
Paper types	Special papers distributed by EPSON

Transparencies, glossy film:

Size	A4 (210 mm × 297 mm)
	Letter (216 mm × 279 mm)
	A6 (105 mm × 148 mm)*
	* for glossy film
Paper types	Special papers distributed by EPSON

Self-adhesive sheets:

Size	A4 (210 mm × 297 mm)
Paper types	Special papers distributed by EPSON

Photo paper:

Size	A4 (210 mm × 297 mm)
	Letter (216 mm × 279 mm)
	4 × 6" (102 mm × 152 mm)
	Panoramic (210 mm × 594 mm)
	100 mm × 150 mm
	200 mm × 300 mm
Paper types	Special papers distributed by EPSON

Photo Stickers:

Size	A6 (105 mm × 148 mm) with 4 or 16 frames
Paper types	Special paper distributed by EPSON

Matte Paper-Heavyweight

Size	A4 (210 mm × 297 mm)
Paper types	Special papers distributed by EPSON

Note:
❏ *Poor quality paper may reduce print quality and cause paper jams or other problems. If you encounter problems, switch to a higher grade of paper.*

❏ *Do not load curled or folded paper.*

❏ *Use paper under normal conditions:*
> *Temperature 15 to 25°C*
> *Humidity 40 to 60% RH*

❏ *EPSON Photo Quality Glossy Film and Self Adhesive Sheets should be stored under the following conditions:*
> *Temperature 15 to 30°C*
> *Humidity 20 to 60% RH*

Printable area

Single sheets (including panoramic size) and index cards
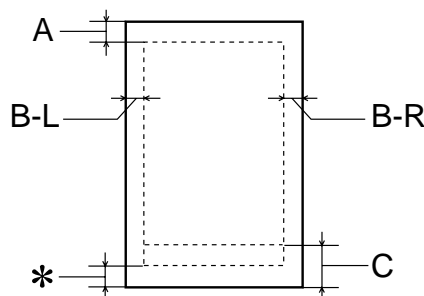
Envelopes
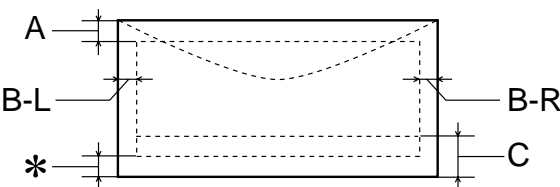
A: The minimum top margin is 3.0 mm.

       When loading multiple sheets of EPSON Photo Quality Glossy
       Film, the minimum top margin is 30.0 mm.

B-L: The minimum left margin is 3.0 mm.

B-R: The minimum right margin is as follows:
       3.0 mm for single sheets and C6 envelopes.
       7.0 mm for DL envelopes.
       28.0 mm for No. 10 envelopes.

C: The minimum bottom margin is 14.0 mm.

∗:   You can extend the minimum bottom margin to 3 mm by selecting
       Maximum as the Printable Area setting on the printer driver's
       Paper menu (for Windows) or Page Setup dialog box (for
       Macintosh). Please note that print quality may decline in the
       expanded area. Before printing large jobs using this setting, print
       a single sheet to confirm printout quality.

Note:
Always load paper into the sheet feeder short edge first. Load
envelopes flap edge first with the flap side down.

Mechanical

Paper feed method	Friction
Paper path	Sheet feeder, rear entry
Sheet feeder capacity	About 100 sheets at 64 g/m² paper
Dimensions	Storage Width: 517 mm Depth: 529 mm Height: 300 mm
	Printing Width: 517 mm Depth: 575 mm Height: 300 mm
Weight	12 kg without the ink cartridges

Ink Cartridges

Black ink cartridge (S020189)

Color	Black
Print capacity*	900 pages (A4, text at 360 dpi)
Cartridge life	2 years from production date (within 6 months after opening package, at 25°C)
Temperature	Storage: -20 to 40°C 1 month at 40°C) Transit: -30 to 60°C) 1 month at 40°C) 120 hours at 60°C) Freezing:** -16°C
Dimensions	27.8 mm (W) $\times$ 52.7 mm (D) $\times$ 38.5 mm (H)

Color ink cartridge (020191)

Color	Cyan, Magenta, and Yellow
Print capacity*	300 pages (A4, 360 dpi, 5% duty each color)
Cartridge life	2 years from production date (within 6 months of opening the package at 25°C)
Temperature	Storage: -20 to 40°C 1 month at 40°C Transit: -30 to 60°C 1 month at 40°C 120 hours at 60°C Freezing:** -18°C
Dimensions	42.9 mm (W) $\times$ 52.7 mm (D) $\times$ 38.5 mm (H)

* The figure given is based upon continuous printing after ink replacement. The actual print capacity may vary, depending on how often you use the print head cleaning function and how often you turn the printer on.

** Ink thaws and is usable after approximately 3 hours at 25°C.

> *Caution:*
> ❏ *EPSON recommends the use of original EPSON ink cartridges only. Other products not manufactured by EPSON may cause damage to your printer not covered by EPSON's warranties.*
>
> ❏ *Do not use an ink cartridge if the date on the package has expired.*

Scanning

Scanner type:	Flatbed color image scanner
Photoelectric device:	Color CCD line sensor
Effective pixels:	5100×7020 pixels at 600 dpi, 100%
Document size:	8.5×11.7"(216×297 mm) A4 or US letter size (The reading area can be specified from your software.)
Scanning resolution:	600 dpi (main) 1200 dpi (sub)
Output resolution:	50 dpi to 9600 dpi (50 to 4800 dpi in 1 dpi increments, 7200 dpi and 9600 dpi performed with zoom function)
Color separation:	RGB color filters on CCD
Reading sequence:	Monochrome: One-pass scanning Color page sequence: Three-pass scanning (R, G, B) Color byte sequence: One-pass scanning (R, G, B) Color line sequence: One-pass scanning (R, G, B)
Zoom:	50% to 200% in 1% increments
Image data:	12 bits per pixel per color internal 8 bits per pixel per color external
Brightness:	7 levels
Line Art settings:	Fixed threshold Text Enhancement Technology (enable/disable selectable)
Halftoning process:	AAS (Auto Area Segmentation) Error Diffusion 3 mode (A, B, C) Dither (Resident) 4 mode (A, B, C, D) Dither (User defined) 2 mode (A, B)
Gamma correction:	CRT display 2 level Printer 3 level (A, B, C) User defined 1 level
Color correction:	1 type for CRT display Impact-Dot Printer Thermol Printer Ink-jet Printer 1 type for user-defined
Interface:	USB + IEEE1284.4
Light source:	White cold cathode fluorescent lamp

Reliability: 30,000 cycles of carriage movements
                           (main unit MCBF)
                           Lamp: Life 10,000 hour

Electrical

Input voltage range	198 to 264V
Rated frequency range	50 to 60 Hz
Input frequency range	49.5 to 60.5 Hz
Rated current	0.4 A (220-240V)
Power consumption	Approx. 32W (ISO10561 Letter Pattern)

Note:
Check the label on the back of the EPSON Stylus Scan for the voltage
information.

Environmental

Temperature   Operation: 10 to 35°C
                           Storage: -20 to 40°C
                                        1 month at 40°C
                           Transit:*-20 to 60°C
                                        120 hours at 60°C

Humidity   Operation: 20 to 80% RH
                           Storage:*,** 5 to 85% RH

*   Stored in shipping container

** Without condensation

Initialization Methods

The scanner can be initialized (returned to a fixed set of conditions) in the following ways:

Hardware initialization:	This scanner is initialized when turning the printer power on. When scanner is initialized, following action is performed. a) Initializes scanner mechanism. b) Clears input/output data buffer. C) Sets default values.
Software initialization:	The ESC @ command also initializes the printer. When printer is initialized, following action is performed. a) Clears input/output data buffer. b) Sets default values.
Operator initialization:	This scanner recognizes the INIT (negative pulse) of the parallel interface. When the printer is initialized, following action is performed. a) Clears input/output data buffer. b) Sets default values.

Safety Approvals

Safety standards:	EN60950

EMC:	EN 55022 (CISPR Pub. 22) class B
	EN 50082-1
	   IEC 801-2
	   IEC 801-3
	   IEC 801-4
	EN 61000-3-2
	EN 61000-3-3

Interface Specifications

Your printer is equipped with an 8-bit parallel interface and a USB interface.

Parallel interface

The built-in parallel interface has the following characteristics.

Forward channel

Data format	8-bit parallel, IEEE-1284 compatibility mode, IEEE-1284 ECP mode
Synchronization	$\overline{\text{STROBE}}$ pulse
Handshake timing	BUSY and $\overline{\text{ACKNLG}}$ signals
Signal level	TTL compatible
Connector	57-30360 Amphenol connector or equivalent

Reverse channel

Transmission mode	IEEE-1284 Nibble mode, IEEE-1284 ECP mode
Adaptable connector	57-30360 Amphenol connector or equivalent
Synchronization	Refer to the IEEE-1284 specification
Handshaking	Refer to the IEEE-1284 specification
Signal level	IEEE-1284 Level 1 device
Data transmission timing	Refer to the IEEE-1284 specification

USB interface

The printer's built-in USB interface is based on the standards specified in the Universal Serial Bus Specifications Revision 1.0 and the Universal Serial Bus Device Class Definition for Printing

Devices Version 1.0. This interface has the following characteristics.

Standard	Based on Universal Serial Bus Specifications Revision 1.0, Universal Serial Bus Device Class Definition for Printing Devices Version 1.0
Bit rate	12 Mbps (full speed device)
Data encoding	NRZI
Adaptable connector	USB Series B
Recommended cable length	2 meters

System Requirements

For PCs

To use your printer, you need Microsoft® Windows® 95, or Windows® 98; a CD-ROM drive and a shielded, twisted-pair parallel cable. If you want to connect your printer to a USB port, you need a Windows 98 pre-installed PC equipped with a USB port; and a shielded USB cable.

Your computer should also meet the following system requirements.

Minimum System Requirements	Recommended System
i486/25 MHz for Windows 95 i486/66 MHz for Windows 98	Pentium or higher processor
32 MB RAM	32 MB RAM or more for Windows 98 and 95
50 MB hard disk space for Windows 98, and 95	50 MB or more free disk space for Windows 98, and 95
VGA size, 16 bit color	SVGA or better 24 bit color

Your computer dealer can help you update your system if it does not meet these requirements.

For Macintosh computers

You can use this printer with the following Apple® Macintosh® computers. You also need a shielded USB cable.

Supported computer models

    iMac Series (for USB)
    USB equipped Power Macintosh G3

Your Macintosh must meet the following system requirements.

Minimum System Requirements	Recommended System
System 8.1 + iMac update 1.0	System 8.5.1 or later
7 MB of available memory 12 MB of available memory when background printing is turned on.	14 MB or more of available memory 23 MB of available memory when background printing is turned on.

Note:
❏ *The amount of available memory varies according to the number and kind of applications that are open. To see how much memory is available, choose* **About This Computer** *from the* **Apple** *menu and refer to the memory size (listed in kilobytes) under* **Largest Unused Block** *(1,024K=1 MB).*

❏ *The memory requirements above are for printing on Letter size paper. These requirements may vary depending on the size of the paper, the type of application you are using, and the complexity of the document you want to print.*

In addition to these system and memory requirements, you also need 10 MB of free hard disk space to install your printer software. To print, you need extra hard disk space amounting to about double the size of the file you want to print.

Glossary

The following definitions apply specifically to printers.

application
A software program that helps you carry out a particular task, such as word processing or financial planning.

ASCII
American Standard Code for Information Interchange. A standardized coding system for assigning numerical codes to letters and symbols.

banding
The horizontal lines that sometimes appear when printing graphics. This occurs when the print head is misaligned. See also *MicroWeave*.

bit
A binary digit (0 or 1), which is the smallest unit of information used by a printer or computer.

brightness
The lightness or darkness of an image.

buffer
The portion of the printer's memory used to store data before printing it.

byte
A unit of information consisting of eight bits.

characters per inch (cpi)
A measure of the size of text characters, sometimes referred to as pitch.

CMYK
Cyan (blue-green), magenta, yellow, and black. These colored inks are used to create the subtractive system array of printed colors.

color matching
A method of processing color data so that colors displayed on a computer screen closely match colors in printouts. A variety of color-matching software is available. See also *ColorSync*.

ColorSync
Macintosh software that is designed to help you get WYSIWIG (what you see is what you get) color output. This software prints colors as you see them on your screen.

cpi
See *characters per inch.*

default
A value or setting that takes effect when the equipment is turned on, reset, or initialized.

dithering
A halftoning method in which dots are arranged in an orderly pattern. Dithering works best for printing images with solid colors, such as charts and graphs. See also *halftoning*.

DMA
Direct Memory Access. A data transfer feature that bypasses a computer's CPU and allows direct communication between a computer and peripheral devices (like printers), and between one peripheral device and another.

dpi
Dots per inch. The dpi measures the resolution. See also *resolution*.

drive
A memory device, such as CD-ROM, hard disk, or floppy disk. In Windows, a letter is assigned to each drive for easy management.

driver
A software program that sends instructions to a computer peripheral to tell it what to do. For example, your printer driver accepts print data from your word processor application and sends instructions to the printer on how to print this data.

economy printing
Printing in which images are printed with fewer dots to save ink.

error diffusion
Error diffusion blends individual colored dots with the colors of the surrounding dots to create the appearance of natural colors. By blending colored dots, the printer can achieve excellent colors and subtle color gradation. This method is best suited for printing documents that contain detailed graphics or photographic images.

ESC/P
Abbreviation for EPSON Standard Code for Printers, the system of commands your computer uses to control your printer. It is standard for all EPSON printers and supported by most application software for personal computers.

Finest detail
This printer driver setting automatically makes your printout sharper and clearer, especially for text. Be aware that this may increase the time required for printing.

font
A style of type designated by a family name.

grayscale
A scale of shades of gray from black to white. Grayscale is used to represent colors when printing with black ink only.

halftones
Patterns of black or colored dots used to reproduce an image.

halftoning
Method of using dot patterns to represent an image. Halftoning makes it possible to produce varying shades of gray using only black dots, or a nearly infinite array of colors using only a few colors of dots. See also *halftones*.

high speed printing
Printing in which images are printed in both directions. This provides faster printing.

initialization
Returns the printer to its defaults (fixed set of conditions). This happens every time you turn on the printer or reset the printer.

ink cartridge
Contains the ink your printer uses when printing.

ink jet
A method of printing in which each letter or symbol is formed by precisely spraying ink onto paper.

interface
The connection between the computer and the printer. A parallel interface transmits data one character or code at a time. A serial interface transmits data one bit at a time.

interface cable
The cable that connects the computer and the printer.

local printer
The printer connected to the computer's port directly by interface cable.

media
Materials upon which data is printed, such as envelopes, plain paper, special paper, and transparency film.

memory
The part of the printer's electronic system that is used to store information (data). Some information is fixed and is used to control how the printer operates. Information that is sent to the printer from the computer is stored in memory temporary. See also *RAM* and *ROM*.

MicroWeave
Printing in which images are printed in finer increments to reduce the possibility of banding and to produce laser-like images. See also *banding*.

monochrome
This means printing with only one color of ink, which is generally black ink.

nozzle
Fine tubes in the print head through which ink is sprayed on the page. Print quality may decline if the print head nozzles are clogged.

operation check
A method for checking the operation of the printer. When you perform a printer operation check, the printer prints the ROM version, code page, ink counter code, and a nozzle check pattern.

parallel interface
See *interface*.

port
An interface channel through which data is transmitted between devices.

printable area
The area of a page on which the printer can print. It is smaller than the physical size of the page due to margins.

printer driver
A software program that sends commands for using the features of a particular printer. Often shortened to "driver".

print queue
If your printer is connected to a network, print jobs that are sent to the printer while it is busy are stored in a waiting line, or print queue, until they can be printed.

RAM
Random Access Memory. The portion of the printer's memory used as a buffer and for storing user-defined characters. All data stored in RAM is lost when the printer is turned off.

reset
To return a printer to its defaults by turning the printer off and then back on.

resolution
The number of dots per inch used to represent an image.

ROM
Read Only Memory. A portion of memory that can only be read and cannot be used for data storage. ROM retains its contents when you turn off the printer.

RGB
Red, green, and blue. These colors, in phosphors irradiated by the computer monitor's electron gun, are used to create the additive array of screen colors.

spool
The first step in printing, in which the printer driver converts the print data into codes that your printer understands. This data is then sent to the printer directly or to the print server.

spool manager
The software program that converts print data into codes that your printer understands. See also *spool*.

status monitor
The software program that allows you to check the printer's status.

subtractive colors
Colors produced by pigments that absorb some colors of light and reflect others. See also *CMYK*.

USB interface
Universal Serial Bus interface. Enables the user to connect up to 127 peripheral devices (such as keyboards, mice, and printers) to the computer through a single, general purpose port. The use of USB hubs allows you to add additional ports. See also *interface*.

WYSIWIG
What-you-see-is-what-you-get. This term is used to describe printout that looks exactly like it appears on screen.

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