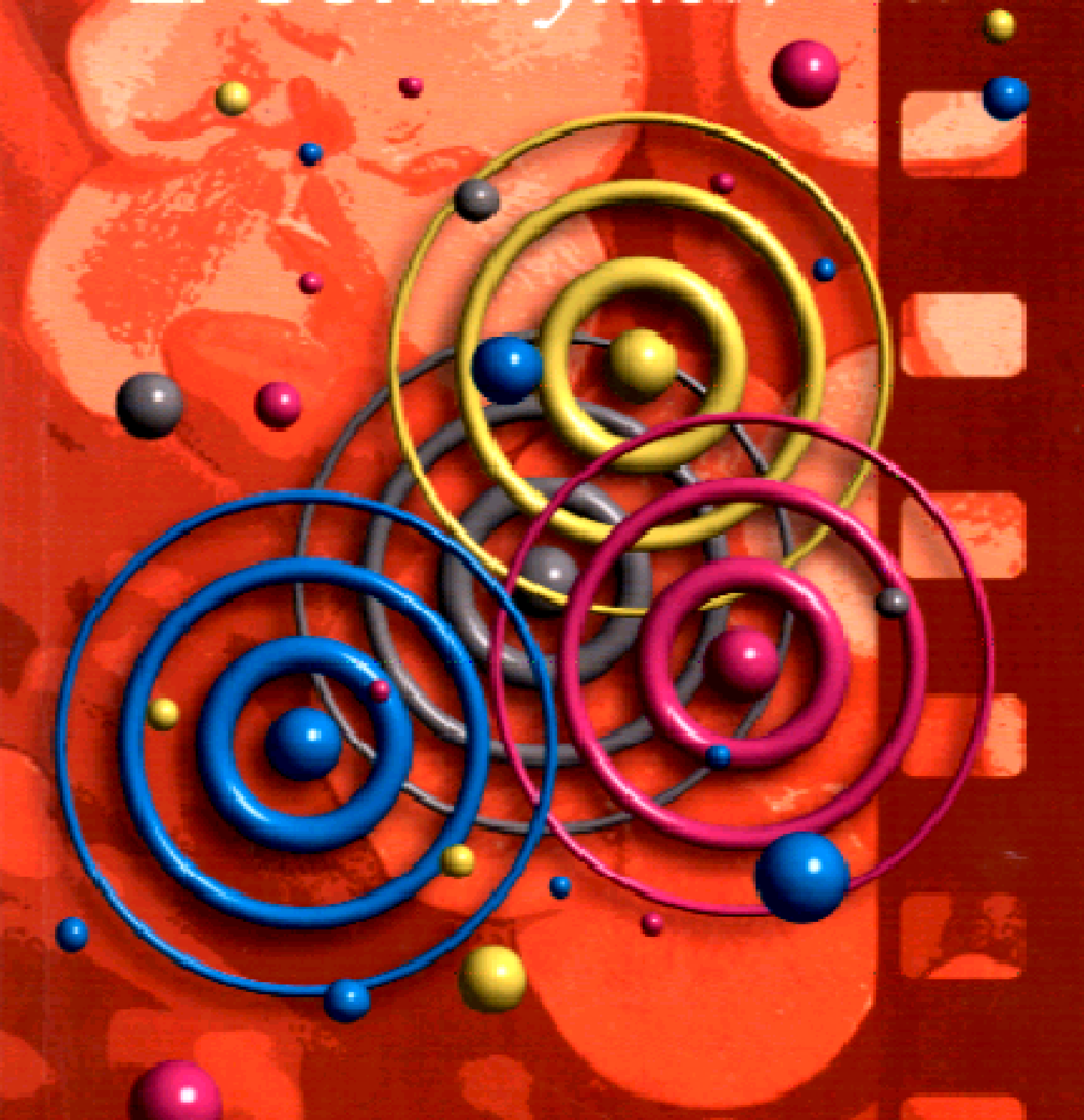
EPSON

Color Ink Jet Printer

EPSON *Stylus*™ *Photo*



User's Guide

Where to Find Information

This User's Guide

Provides you with all the information you need to use your EPSON Stylus Photo and consumable products, from setting up to troubleshooting.

Online Help (Windows only)

Provides you with detailed information and instructions on the Windows-based printer software that controls your printer. (Online help will be automatically installed when you install the printer software.) See Chapter 4 for information on accessing online help.

EPSON Answers (Windows CD-ROM only)

Provides you with additional information on using your printer and printing with colors. Here s what you ll find in EPSON Answers:

- ***How To*** displays a step-by-step guide for using your printer, information about printer maintenance, and instructions on replacing consumable products.

- ***Problem Solver*** helps you fix common printing problems when you encounter them.

- ***Test Print*** lets you print a test page to check the results of settings you have made and provides links to other sections of EPSON Answers based on the results.

- ***Color Guide*** explains the ABC s of color printing and shows you how to get impressive results from your printer. (A printed *Color Guide* is also included with your printer.)

EPSON Stylus™ Photo

Color Ink Jet Printer

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User s Guide

Declaration of Conformity

According to ISO/IEC Guide 22 and EN 45014

Manufacturer:	SEIKO EPSON CORPORATION
Address:	3-5, Owa 3-chome, Suwa-shi, Nagano-ken 392 Japan
Representative:	EPSON EUROPE B.V.
Address:	Prof. J. H. Bavincklaan 5 1183 AT Amstelveen The Netherlands

Declares that the Product:

Product Name:	Ink Jet Printer
Type Name:	EPSON Stylus Photo
Model:	P952A

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

February 1997

M. Hamamoto
President of EPSON EUROPE B.V.

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Safety Instructions

Important Safety Instructions

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

- Do not place the printer on an unstable surface or near a radiator or heat source.
- Place the printer on a flat surface. The printer will not operate properly if it is tilted or at an angle.
- Do not block or cover the openings in the printer’s cabinet. Do not insert objects through the slots.
- Use only the type of power source indicated on the printer’s label.
- Connect all equipment to properly grounded power outlets. Avoid using outlets on the same circuit as photocopiers or air control systems that regularly switch on and off.
- Do not use a damaged or frayed power cord.
- If you use an extension cord with the printer, make sure the total ampere rating of the devices plugged into the extension cord does not exceed the cord’s ampere rating. Also, make sure the total of all devices plugged into the wall outlet does not exceed 15 amperes.
- Unplug the printer before cleaning. Clean with a damp cloth only. Do not spill liquid on the printer.
- Except as specifically explained in this guide, do not attempt to service the printer yourself.

☐ Unplug the printer and refer servicing to qualified service personnel under the following conditions:

  If the power cord or plug is damaged; if liquid has entered the printer; if the printer has been dropped or the cabinet damaged; if the printer does not operate normally or exhibits a distinct change in performance. Adjust only those controls that are covered by the operating instructions.

☐ If you plan to use the printer in Germany, observe the following:

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

  Bei Anschluß des Druckers an die Stromversorgung muß sichergestellt werden, daß die Gebäudeinstallation mit einem 16 A-Überstromschalter abgesichert ist.

A few precautions

Even if you are familiar with other types of printers, be sure to read through the following list of precautions before operating your ink jet printer.

☐ Do not put your hand inside the printer or touch the ink cartridges during printing.

☐ Do not move the print head by hand; otherwise you may damage the printer.

☐ Under normal circumstances, ink will not come out of the cartridges. If it does get on your skin, wash it off with soap and water. If it gets in your eyes, flush them immediately with water.

☐ Keep ink cartridges out of the reach of children.

- Do not dismantle the ink cartridges or try to refill them. This could result in damage to the print head.
- 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 may become unusable otherwise.
- 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.
- Do not use an ink cartridge beyond the date printed on the cartridge carton. For best results, use up the ink cartridges within six months of installing them.
- Do not shake an ink cartridge; this can cause leakage.
- Always turn the printer off using the ⏻ power button. When this button is pressed, the ⏻ power light flashes briefly then goes out. Do not unplug the printer or turn off the power to the outlet until the ⏻ power light is off.
- Before transporting the printer, make sure the print head is capped in the far right position and the ink cartridges are in place.

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.

For United Kingdom Users

Use of options

Epson (UK) Limited shall not be liable against any damages or problems arising from the use of any options or consumable products other than those designated as Original EPSON Products or EPSON Approved Products by Epson (UK) Limited.

Safety information

Warning: *This appliance must be earthed. Refer to rating plate for voltage and check that the appliance voltage corresponds to the supply voltage.*

Important: *The wires in the mains lead fitted to this appliance are coloured in accordance with the following code:*

Green and yellow — Earth
Blue — Neutral
Brown — Live

If you have to fit a plug:
As the colours of the mains lead of this appliance may not match coloured markings used to identify the terminals in a plug, please proceed as follows:

The green and yellow wire must be connected to the terminal in the plug which is marked with the letter E or the Earth symbol (⏚).

The blue wire must be connected to the terminal in the plug marked with the letter N.

The brown wire must be connected to the terminal in the plug marked with the letter L.

If damage occurs to the plug, replace the cord set or consult a qualified electrician.

Replace fuses only with a fuse of the correct size and rating.

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 printer.*

Chapter 1

Getting to Know Your Printer

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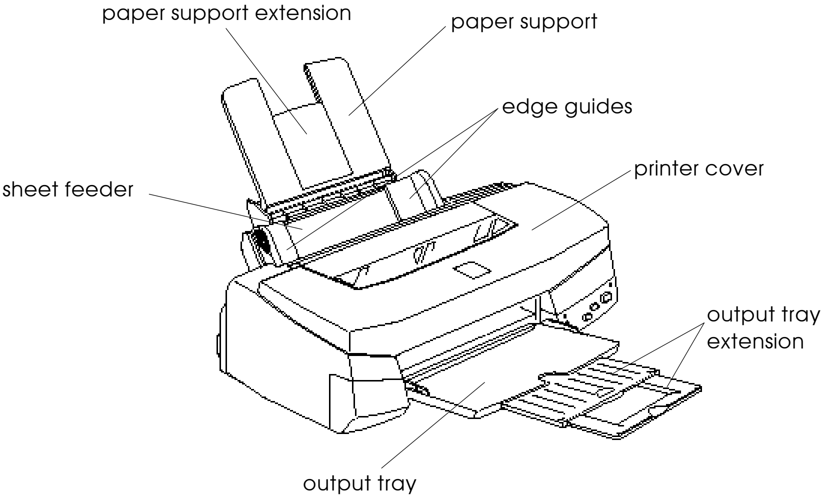
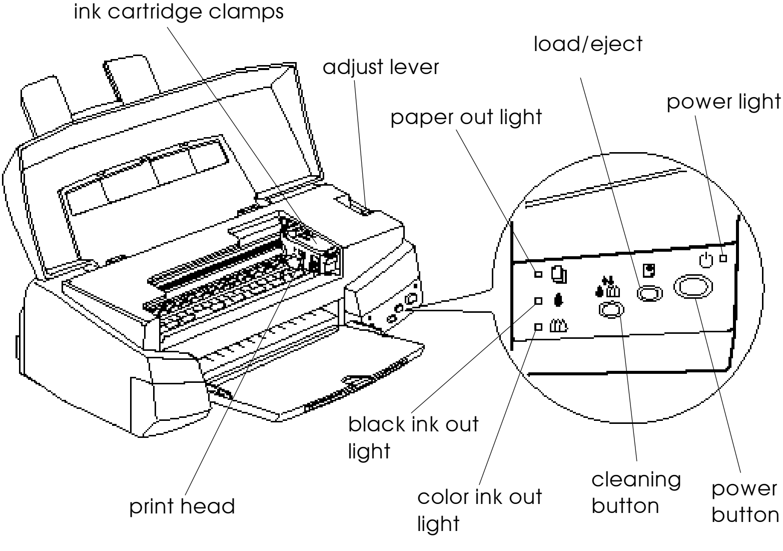
Printer Parts and Control Panel Functions


paper support extension
paper support
edge guides
printer cover
sheet feeder
output tray extension
output tray


ink cartridge clamps
load/eject
adjust lever
power light
paper out light
black ink out light
print head
color ink out light
cleaning button
power button

Buttons

Button	Function
⏻ **power**	Turns the printer on and off. Clears the print buffer if pressed twice while the power is on.
🗎 **load/eject**	Loads or ejects paper if pressed and released within two seconds. Resumes printing if pressed after a paper out error.
⇅ 💧💧💧 **cleaning**	Moves the print head to the replacement position if pressed for about three seconds while the 💧 or 💧💧 ink out light is flashing or on. Returns the print head to its home position after ink cartridge replacement. Performs print head cleaning if pressed for about three seconds when both the 💧 and 💧💧 ink out lights are off.

Lights

The lights on the front of the printer indicate the printer status, such as receiving data, paper jam, or low on ink. The following table describes what the lights mean.

⏻	🗐	💧	💧💧	**Printer Status**
○	-	-	-	Printer is on.
☼	-	-	-	Receiving data, replacing an ink cartridge, charging ink, or cleaning the print head.
-	○	-	-	Paper out. Load paper in the sheet feeder; then press the 🗎 load/eject button to resume printing.
-	☼	●	●	Paper jam. Take all the paper out of the sheet feeder, reload the paper, then press the 🗎 load/eject button. If the light continues to flash, turn off the printer and gently pull out any paper that may be jammed in the printer.
-	-	☼	-	Ink low. The black ink cartridge is nearly empty. Obtain a black ink cartridge (S020093).
-	-	○	-	Ink out. The black ink cartridge is empty. Replace the black ink cartridge (S020093).
-	-	-	☼	Ink low. The color ink cartridge is nearly empty. Obtain a color ink cartridge (S020110).
-	-	-	○	Ink out. The color ink cartridge is empty. Replace the color ink cartridge (S020110).

○ = on, ● = off, ☼ = flashing, - = irrelevant

System Requirements

When using your printer with a PC

To use your printer, you need Microsoft Windows 3.1, Windows for Workgroups, or Windows 95; and a shielded, twisted-pair parallel cable.

To install and use the printer software (printer driver and utilities) included on the CD-ROM or floppy disk packed with your printer, the following is required:

Minimum system	**Recommended system**
80386/25 MHz processor	Pentium or higher processor
16MB RAM	32MB RAM or more
20MB hard disk space	50MB or more free hard disk space
VGA monitor	VGA or better monitor

If you decide to use the EPSON Answers online guide included with your printer software, your system should also meet the following requirements:

- ☐ At least 20MB of free disk space for full program installation
- ☐ Double-speed CD-ROM drive (Quad-speed or faster recommended)

For more details on EPSON Answers, see your CD-ROM booklet.

Your computer dealer can help you update your system if it does not meet these requirements.

When using your printer with a Macintosh

The following are the hardware and system requirements that must be met to use this printer with a Macintosh.

Applicable computer models (as of July 1, 1996)

Macintosh LC II, LC III, LC475, LC520, LC575, LC630
Macintosh IIcx, IIci, IIsi, IIvi, IIvx
Macintosh Quadra Series
Macintosh Centris Series
Macintosh PowerBook™ Series (excluding PowerBook 100)
Macintosh PowerBook Duo Series
Macintosh Performa Series
Power Macintosh Series

Interface cables

To use your printer with a Macintosh, you need a standard Apple System Peripheral-8 cable (8-pin mini-circular connector) or equivalent.

Environment

Minimum system	**Recommended system**
System 7.1	System 7.1 or later
5MB of RAM	8MB of RAM or more
20MB hard disk space	More than 40MB hard disk space

Options and Consumable Products

Options

The following options are available for use with your printer.

Interface cables

EPSON supplies several types of interface cables. You can use any interface cable that meets the specifications listed below. See your computer manual for any additional requirements.

Parallel Interface Cable (shielded) C83602* from D-SUB 25-pin (computer) to 36-pin Amphenol 57 series (printer)

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

Consumable products

Ink cartridges

Black ink cartridge	S020093
Color ink cartridge	S020110

EPSON special media

Most plain paper works well in your printer. In addition, paper specifically designed for ink jet printers such as EPSON s *360 dpi Ink Jet Paper* will meet most high-quality printing needs.

EPSON 360 dpi Ink Jet Paper (A4)	S041059
	S041025
EPSON 360 dpi Ink Jet Paper (Letter)	S041060
EPSON Photo Quality Ink Jet Paper (A4)	S041061
	S041026
EPSON Photo Quality Ink Jet Paper (Letter)	S041062
EPSON Photo Quality Ink Jet Paper (Legal)	S041067
EPSON Photo Quality Ink Jet Card (A6)	S041054
EPSON Photo Quality Ink Jet Card (5 × 8 in.)	S041121
EPSON Photo Quality Ink Jet Card (10 × 8 in.)	S041122
EPSON Photo Quality Glossy Film (A4)	S041071
EPSON Photo Quality Glossy Film (Letter)	S041072
EPSON Photo Quality Glossy Film (A6)	S041107
EPSON Photo Quality Glossy Paper (A4)	S041126
EPSON Photo Quality Glossy Paper (Letter)	S041124
EPSON Ink Jet Transparencies (A4)	S041063
EPSON Ink Jet Transparencies (Letter)	S041064
EPSON Photo Quality Self Adhesive Sheet (A4)	S041106
EPSON Photo Paper (4 × 6 in.)	S041134

Note:

- *The availability of special media varies by country.*

- *Ink jet printers are particularly sensitive to the condition of your paper. Keep unused paper in its original packaging and store it in a cool, dark place.*

Chapter 2

Getting Started

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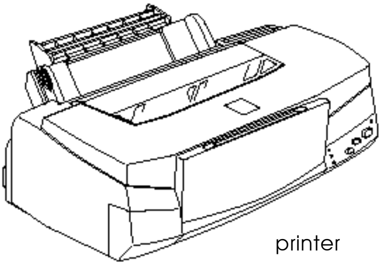
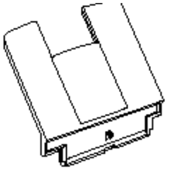
Unpacking the Printer

Your printer box should contain a CD-ROM, which includes the printer driver software that runs your printer, and the following items:

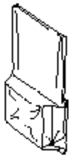


printer

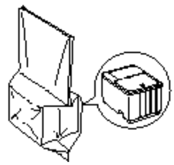


paper support

power cord



black ink cartridge



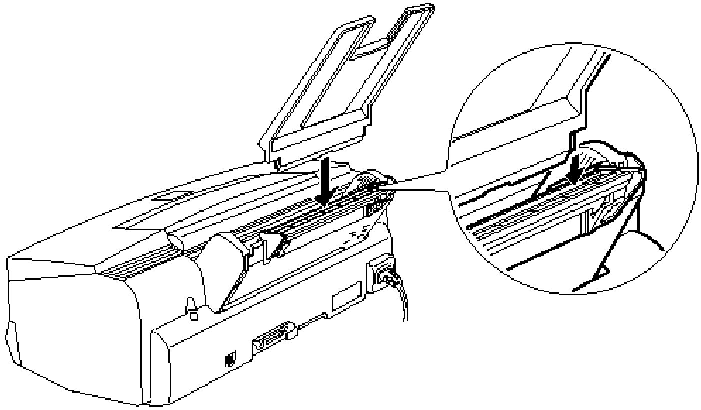
color ink cartridge

In some locations, the power cord comes attached to the printer. The shape of the AC plug varies by country; be sure the plug included is the right shape for your location.

Remove all protective materials packed with your printer before you set it up and turn on the power. Follow the instructions inserted with the printer to remove these materials. Save all packaging and protective materials in case you need to transport the printer later.

Attaching the Paper Support

Insert the paper support into the slots at the rear of the printer as shown below.



Note:
To print on transparencies, you need to reposition the paper support as described in Loading Transparencies on page 6-8.

Choosing a Place for the Printer

Follow the guidelines listed below when placing your printer.

- Place the printer on a flat, stable surface. The printer will not operate properly if it is tilted or at an angle.
- Place the printer close enough to the computer for the interface cable to reach it easily.
- Leave adequate room for easy operation and maintenance.
- Leave enough room on the table at the front of the printer to lower the output tray.

- Avoid using or storing the printer in places subject to rapid changes in temperature and humidity. Also keep it away from direct sunlight, strong light, or heat sources.

- Avoid places subject to shocks and vibrations.

- Place the printer near a wall outlet where the plug can be easily unplugged.

  Note for French-speaking users:

  Placez l imprimante près d une prise de contacte où la fiche peut être débranchée facilement.

- Avoid electrical outlets controlled by wall switches or automatic timers. Also, avoid outlets on the same circuit as large motors or other appliances that can cause fluctuations in line voltage.

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

- Use a grounded power outlet; do not use an adapter plug.

Using a printer stand

When using a printer stand, note the following:

- Use a stand that can support at least 11.0 kg (24.3 lb).

- Never use a stand that tilts the printer. The printer should always be kept level.

Plugging in the Printer

1. Check the label on the back of the printer to make sure the voltage required by the printer matches that of the electrical outlet you will be plugging it into. Also, make sure that you have the correct power cable for your power source.

   Caution:
   It is not possible to change the printer s voltage. If the rated voltage and your outlet voltage do not match, contact your dealer for assistance. Do not plug in the power cord.

2. If the power cord is not attached to the printer, connect it to the AC inlet on the back of the printer.

3. Plug the power cord into a properly grounded electrical outlet.

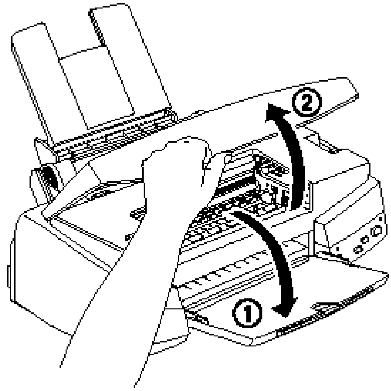
Installing the Ink Cartridges

Warning:
The ink cartridges are self-contained units. Under ordinary use, ink will not leak from a cartridge. If ink does get on your hands, wash them thoroughly with soap and water. If ink gets into your eyes, flush them immediately with water.

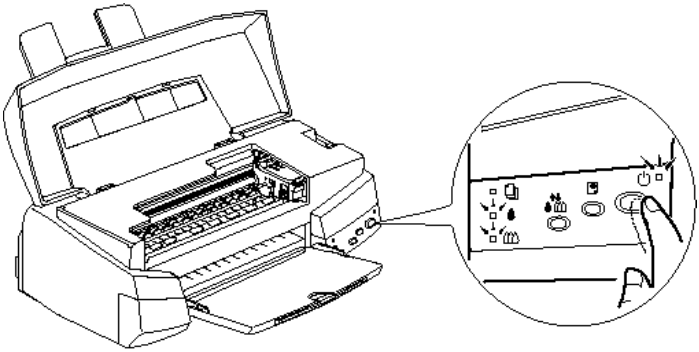
Install the ink cartridges as follows:

Note:
Do not open the ink cartridge packages until just before you install the cartridges, or the ink may dry up.

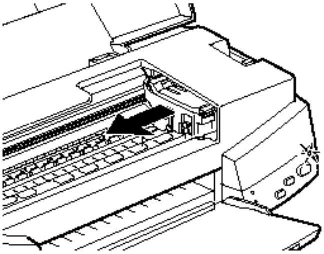
1. Lower the output tray at the front of the printer; then, holding the center edge of the cover, open the printer cover.



2. Turn on the printer by pressing the ⏻ power button.

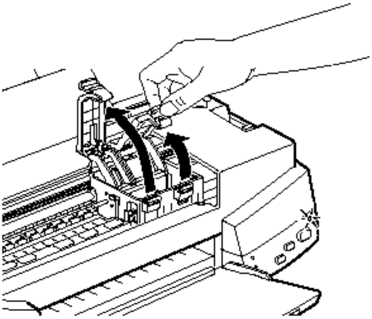


The print head moves slightly to the left, which is the ink cartridge installment position. The ⏻ power light flashes and the 🌢 and 💧 ink out lights come on.

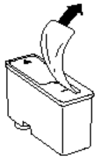


Caution:
Do not move the print head by hand; otherwise you may damage the printer.

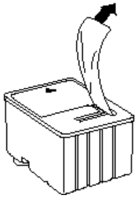
3. Lift up the two ink cartridge clamps.



4. Open the ink cartridge packages. Next, remove only the yellow tape seals from each cartridge as shown below.



black ink cartridge
(S020093)



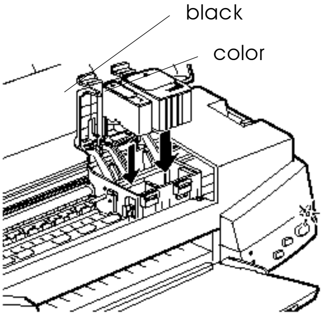
color ink cartridge
(S020110)

Caution:

☐ *You must remove the yellow tape seals from the cartridges. If you attempt to print using a cartridge with this tape seal still attached, the cartridge may become unusable.*

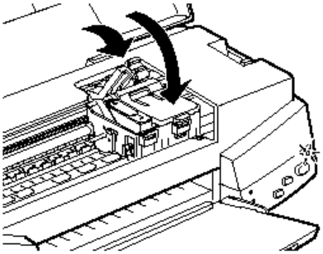
☐ *Do not remove the tape seals from the bottom of the cartridges; otherwise, ink will leak.*

5. Lower the cartridges into their holders with the labels face-up and the arrow marks pointing to the rear. The color cartridge, which is larger, goes on the right and the black ink cartridge goes on the left.



Note:
Install both ink cartridges. If either of the cartridges is not installed, the printer will not work.

6. Press the ink cartridge clamps down until they lock in place.



Caution:
Once you install the ink cartridges, do not open their clamps again until you replace the ink cartridges. Otherwise, the cartridges may become unusable.

7. Press the 💧 cleaning button then close the printer cover. The printer moves the print head and begins charging the ink delivery system. During the ink charging process, the ⏻ power light flashes.

   Note:
   Even if you do not press the 💧 cleaning button, the printer moves the print head and begins the ink charging process about 60 seconds after you install the cartridges.

   The ink charging process takes about five minutes to complete, during which time the printer produces a variety of mechanical sounds. These sounds are normal. When the ink delivery system has been charged, the ⏻ power light stops flashing.

Caution:
Never turn off the printer while the ⏻ power light is flashing.

The life of a cartridge depends on the amount of text and graphics you print. The life of a color ink cartridge depends on the amount and the number of colors used in your documents.

Note:
When ink runs out, see Replacing an Ink Cartridge on page 7-2.

Now you are ready to connect the printer to your computer. To connect the printer to your PC, see the following section. To connect it to your Macintosh, see page 2-20.

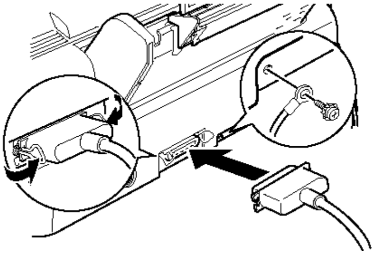
Connecting the Printer to Your PC

To connect the printer to your computer using the built-in parallel interface, you will need a shielded, twisted-pair parallel cable. To connect the printer to a Macintosh, see page 2-20.

Follow the steps below to connect the printer to the computer:

1. Make sure both the printer and computer are turned off.

2. Plug the cable connector securely into the printer s interface connector. Then squeeze the wire clips together until they lock in place on both sides. If your cable has a ground wire, connect it to the ground connector below the interface connector.



3. Plug the other end of the cable into the computer s parallel interface. If there is a ground wire at the computer end of the cable, connect it to the ground connector at the back of the computer.

   Now see the next section for instructions on installing the printer software. You must install the printer software before using your printer.

Installing the Printer Software in Your PC

After connecting the printer to your computer, install the Windows-based printer software. It is included on the Printer Software for EPSON Stylus Photo CD-ROM shipped with your printer.

Your printer software includes:

- ❑ Printer driver
  The printer driver gives you complete control over your printer. With it, you can make settings such as Print Quality, Media Type, and Paper Size.

- ❑ Utilities
  The Status Monitor utility allows you to check the current status of your printer. The Nozzle Check, Head Cleaning, and Print Head Alignment utilities help you to keep your printer in top operating condition.

- ❑ Online help
  Online help gives you instant on-screen access to detailed information and instructions on how to use your printer.

- ❑ EPSON Answers
  EPSON Answers provides you with additional information on using your printer and printing with colors. See the booklet packed with the CD-ROM for more information. EPSON Answers is not included in the floppy disk version.

If you are using the floppy disk version of the software, before you begin installation, make a backup copy of the EPSON printer software disk. If you wish to make a floppy disk version of the printer software on your CD-ROM, you can use the driver disk creation utility included on the CD. See page 2-15 for Windows 95, or page 2-18 for Windows 3.1.

Installing the software for Windows 95

Follow these steps to install the printer software using Windows 95 plug-and-play capabilities. If you are using Windows 3.1, see page 2-18 for instructions.

Note:
To install the printer software using Windows 95 plug-and-play capabilities, your computer s parallel port must be an IEEE-1284 compatible, bidirectional parallel port. See your computer documentation for more information.

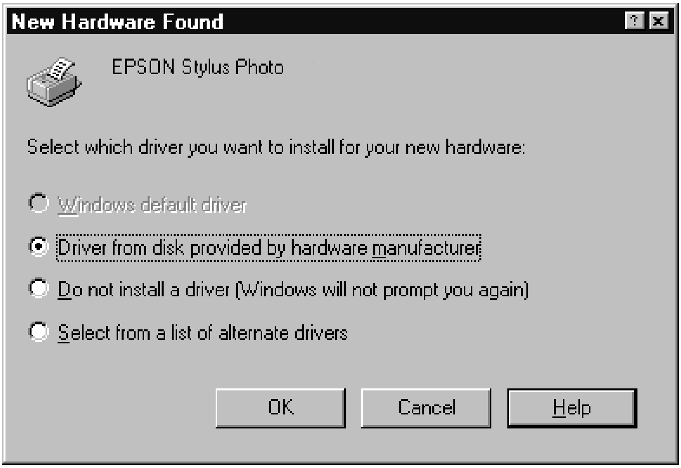
1. Make sure the printer is connected to the computer s parallel port.

2. Turn off your printer and computer, if necessary.

3. Turn on the printer first; then turn on the computer. Your computer begins loading Windows 95.

4. If you defined a password, enter it at the prompt. You see the New Hardware Found screen.

   Note:
   If you do not see the New Hardware Found screen, please follow the procedure under Installing the software while running Windows 95 on page 2-14 instead.


New Hardware Found

EPSON Stylus Photo

Select which driver you want to install for your new hardware:

○ Windows default driver

● Driver from disk provided by hardware manufacturer

○ Do not install a driver (Windows will not prompt you again)

○ Select from a list of alternate drivers

5. Make sure your printer model name is displayed on the screen. Then click the Driver from disk provided by hardware manufacturer button. Do not select any of the other buttons.

6. Click OK. You see the Install From Disk screen.

7. Insert the printer software CD shipped with your printer in the CD-ROM drive. Depending on the country, the CD-ROM may contain multiple-language versions of the printer software. First try typing D:\Windows and clicking OK. If an error message appears, click OK to return to the Install From Disk screen. Type D:\ then specify your preferred language by typing English, Francais, German, Italian, Portugal, or Spanish, followed by \Windows. Click OK. (If your CD-ROM drive uses a drive letter other than D , substitute the appropriate letter.)

   If you use the floppy disk version, insert it in a disk drive. If the drive you are installing from is displayed on the screen, click OK. Otherwise, change the drive letter in the Copy manufacturer s files from box and click OK.

8. At the next screen you can type a unique name for the printer in the Printer name box. We recommend that you keep the model name as shown. The program will copy the files to your hard disk and add an icon to the Printers folder using the printer name you assign.

   To use this printer as the default printer for Windows 95 applications, select Yes. (No is the default setting.)

9. Click the Finish button.

Note:
Installation time varies depending on your computer system.

If you use the CD-ROM version, EPSON Answers installation begins automatically once the printer driver and utilities are installed. Follow the on-screen instructions.

If you use the floppy disk version, click OK when the installation of the printer driver and utilities is completed.

Your printer software is now installed. For information on opening and using the software, see Chapter 3, Starting to Print with Windows.

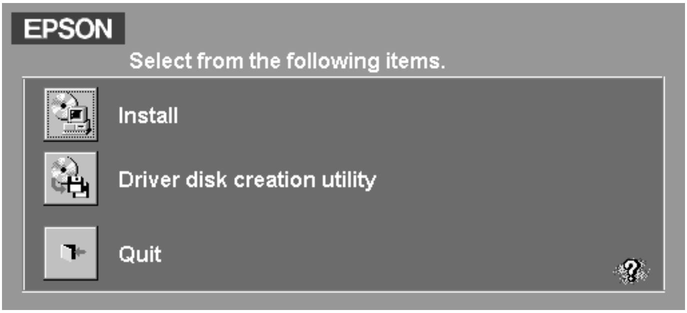
If you use your printer on a network with Windows 95, see page 2-16.

Installing the software while running Windows 95

If you want to install the printer software while Windows 95 is running, follow these steps:

1. Make sure Windows 95 is running and the printer is on.

2. Insert the printer software CD shipped with your printer in the CD-ROM drive. The dialog box below appears.
   If this dialog box does not appear, double-click the My Computer icon, and then double-click the CD-ROM drive icon. If this dialog box still does not appear, go to step 5.
   (If you use the floppy disk version, double-click the My Computer icon, then go to step 4.)


EPSON
Select from the following items.
Install
Driver disk creation utility
Quit

3. Click Install, then go to step 6.

   Note:
   If you wish to make a floppy disk version of the essential printer software (printer driver, utilities, and online help) included on your CD-ROM, click the Driver disk creation utility *button and follow the on-screen instructions.*

4. Double-click the appropriate drive icon.

5. Double-click the Setup.exe icon. If you don t see the Setup.exe icon, use the arrows to scroll through the folder.

6. Select your printer icon in the EPSON Printer Utility Setup dialog box. Click OK to start the printer software installation and follow the on-screen instructions.

Note:
Installation time varies depending on your computer system.

If you use the CD-ROM version, EPSON Answers installation begins automatically once the printer driver and utilities are installed. Follow the on-screen instructions.

If you use the floppy disk version, click OK when the installation of the printer driver and utilities is completed.

Your printer software is now installed. For information on opening and using the software, see Starting to Print with Windows in Chapter 3.

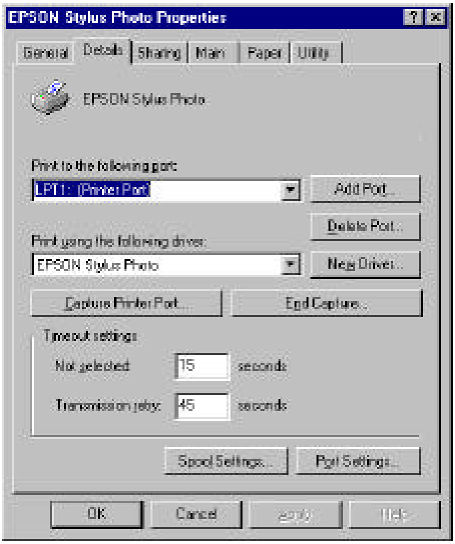
If you use your printer on a network with Windows 95, see the next section.

Using your printer on a network with Windows 95

If you want to use your printer on a network, you need to set up your printer as a network printer. Follow these steps:

1. Double-click the My Computer icon.
2. Double-click the Printers folder.
3. Right-click the icon of your printer, and click Properties. Be sure to right-click.

4. Click the Details tab. The following window appears:


EPSON Stylus Photo Properties
General
Details
Sharing
Main
Paper
Utility
EPSON Stylus Photo
Add Port...
Delete Port...
New Driver...
Capture Printer Port...
End Capture...
Timeout settings
Spool Settings...
Port Settings...
OK
Cancel
Apply
Help

Print to the following port: LPT1: (Printer Port)

Print using the following driver: EPSON Stylus Photo

Not selected: 15 seconds

Transmission retry: 45 seconds

5. Click the Add Port button, then specify the network path to the printer. Click OK.

6. After you have made your settings on the Details menu, click Start, point to Programs and Epson, then click Spool Manager4. The Spool Manager window opens.

7. Select your printer, click the Queue menu, then click Setup. The Queue setup window opens.

8. Make sure the Use Print Manager for this port option is on; it is on if the box contains a check mark. Then click OK.

Now you can use your printer on a network.

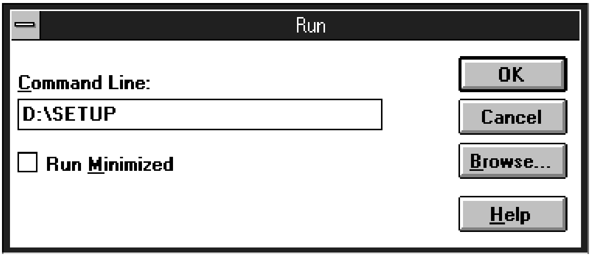
Installing the software for Windows 3.1

Follow these steps to install the software using Windows 3.1:

1. Make sure Windows 3.1 is running and the Program Manager window is open.

2. Insert the EPSON printer software CD shipped with your printer in the CD-ROM drive. (If you use the floppy disk version, insert it in a disk drive.)

3. From the File menu, choose Run. You see the Run dialog box. In the Command Line box, type `D:\SETUP` (If your CD-ROM drive has a drive letter other than D or you are using the floppy version, substitute the appropriate letter.)

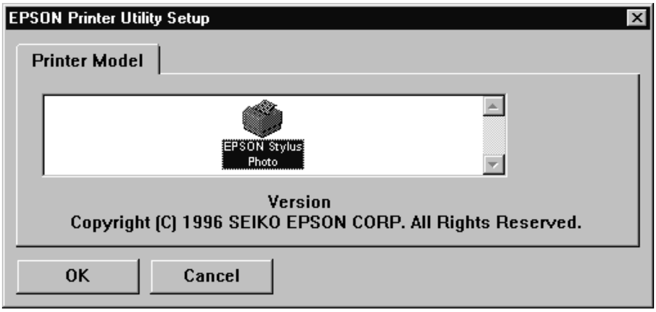


Command Line: D:\SETUP

☐ Run Minimized

Note:
If you wish to make a floppy disk version of the essential printer software (printer driver, utilities, and online help) on your CD-ROM, type EPSETUP *instead of* SETUP. *In the dialog box that appears, click the* Driver disk creation utility *button and follow the on-screen instructions.*

4. Click OK. You see the EPSON Printer Utility Setup dialog box.



Version
Copyright (C) 1996 SEIKO EPSON CORP. All Rights Reserved.

5. Select your printer icon and click OK. The installation program begins copying the printer software files.

   After a few moments, the installation program creates the EPSON program group in Windows.

If you use the CD-ROM version, EPSON Answers installation begins automatically once the printer driver and utilities are installed. Follow the on-screen instructions.

If you use the floppy disk version, click OK when the installation of the printer driver and utilities is completed.

The installation program automatically selects this printer as the default printer for Windows applications.

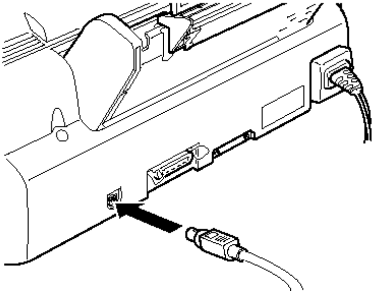
Your printer software is now installed. For information on opening and using the printer driver and utilities, see Starting to Print with Windows in Chapter 3.

Connecting the Printer to Your Macintosh

To use the printer s built-in serial interface, you will need an Apple System Peripheral-8 cable. Read the following steps to connect the printer to your Macintosh.

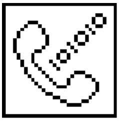
1. Make sure both your printer and Macintosh are switched off.

2. Connect one end of the interface cable to the serial connector on the back of the printer.

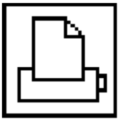


Note:
Use only an Apple System Peripheral-8 cable to connect the printer to your Macintosh. Do not use a LocalTalk cable.

3. Connect the other end of the interface cable to either the modem port or printer port on the Macintosh. The ports are marked with the following icons. (Some Macintosh Power Book models have only one serial port.)



modem port



printer port

Note:
If your Macintosh has a built-in modem, connect the interface cable to the printer port.

4. Turn on the printer by pressing the ⏻ power button.

5. Turn on your Macintosh.

See the next section for instructions on installing the printer software. You must install the printer software before using your printer.

Installing the Printer Software in Your Macintosh

Always use the EPSON Stylus Photo printer software for the Macintosh when printing with your printer. This software is specially designed to allow easy access to all the features of the printer.

Caution:
Turn off all virus protection programs before you install your printer software.

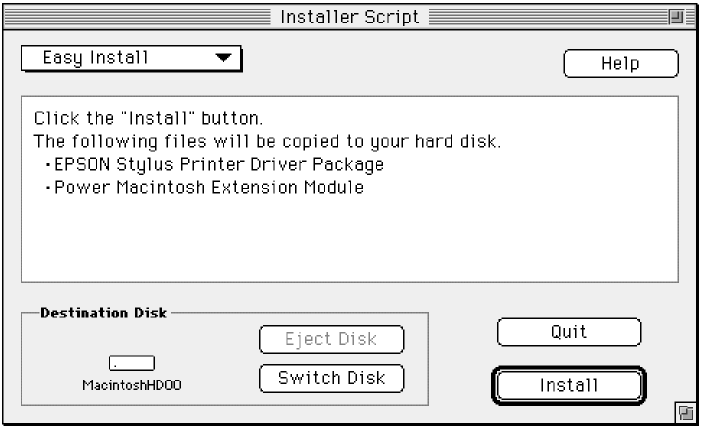
Installing the printer software

Follow the steps below to install your printer software. If you are using the floppy disk version, make a backup copy of the EPSON Macintosh printer software disk before you begin installation.

1. Turn on your Macintosh and insert the EPSON printer software CD shipped with your printer into its CD-ROM drive. (If you use the floppy disk version, insert it in a disk drive.)

   The EPSON printer software disk opens automatically and, depending on the country, displays either a single installer icon or separate folders containing installer icons for several languages. Double-click the Installer icon if it is displayed, or open the folder for your preferred language, then open the Disk 1 folder and double-click the installer icon inside it.

2. After the initial screen appears, click Continue to advance to the following dialog box, where you can choose to install all or some of the software components included on your printer software CD. For information on the included software, see page 2-24.



Click the "Install" button.
The following files will be copied to your hard disk.
- EPSON Stylus Printer Driver Package
- Power Macintosh Extension Module

3. If you want to install all of the printer software included on your printer software CD-ROM, make sure the disk on which you want to install the software is displayed in the Destination Disk box, then click Install.

   If you are low on disk space, select Custom Install from the pop-up menu and click EPSON Stylus Printer Driver Package. Confirm the destination for installation, then click Install. (If you later decide you need the Power Macintosh Extension Module, select and install it using the custom install procedure described here.)

   Note:
   Click the ℹ button to get information on each component.

4. When a message appears informing you that installation is finished, click Restart to complete the installation and restart your computer.

Printer software components

Your printer software CD-ROM includes the following software components:

EPSON Stylus Printer Driver Package

- **EPSON Stylus (EX)**
  This is the printer driver software that gives you control over your printer. With it, you can make settings such as Print Quality, Media Type, and Paper Size.

- **EPSON Monitor2**
  Monitors and manages background printing jobs. You must turn on background printing in the Chooser to use this utility. For more information, see Using the EPSON Monitor2 Utility on page 5-25.

- **ColorSync™ 2.0 and Profiles**
  Matches the colors in your printout with the colors displayed on your screen automatically. Use this when printing scanned photographs or computer graphics.

  To use this feature, you may need to set the system profile for your monitor. Access the ColorSync System Profile utility through the Control Panel and click the Set Profile button. Select your monitor from the list of monitors that appears, and then click Select. Close the dialog box.

- **StatusMonitor**
  Keeps track of the current status of your printer, and alerts you when printer errors occur. You can open it from the Utility dialog box in the printer software. For more information, see Using EPSON Printer Utilities on page 5-22.

- **Nozzle Check**
  Checks the print head for clogging. You can open this utility from the Utility dialog box in the printer software. For more information, see Using EPSON Printer Utilities on page 5-23.

- **Head Cleaning**
  Cleans the print head to maintain the best print quality. You can open this utility from the Utility dialog box in the printer software. For more information, see Using EPSON Printer Utilities on page 5-24, and Cleaning the Print Head on page 8-26.

- **Print Head Alignment**
  Adjusts the print head so that vertical lines are aligned. You can open this utility from the Utility dialog box in the printer software. For more information, see Using EPSON Printer Utilities on page 5-24, and Aligning the Print Head on page 8-30.

Power Macintosh Extension Module

Increases the printing speed, especially when printing CAD documents or line art. For more information, see your Macintosh user s guide.

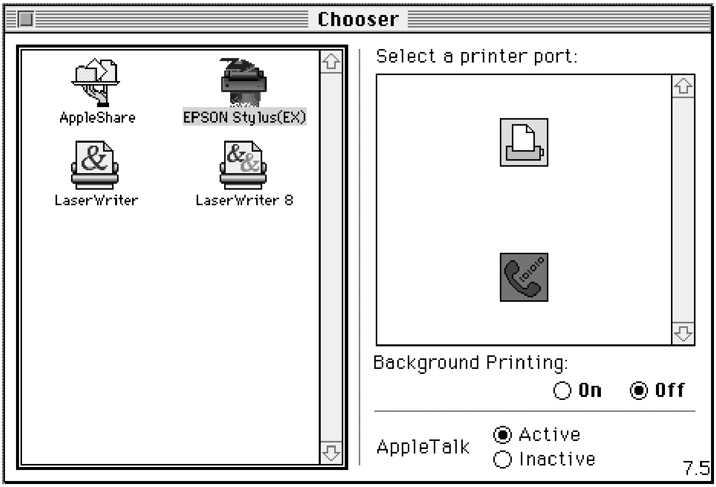
Using the Chooser to select your printer

After you install the printer software, you need to open the Chooser to select your printer. You have to choose the printer only the first time you use it or whenever you want to switch to another printer. Your Macintosh will always print using the last printer selected.

Note:
If you are using a Macintosh Quadra 950 or 900, you need to choose Compatible *in the Serial Switch dialog box before selecting your printer from the Chooser. To open the Serial Switch dialog box, choose* Control Panel *from the Apple menu, then choose* Serial Switch.

1. Make sure the printer is connected to your Macintosh and is turned on.

2. Choose Chooser from the Apple menu. Then click the EPSON Stylus(EX) icon and the port your printer is connected to.



Chooser

Select a printer port:

Background Printing: ○ On ● Off

AppleTalk ● Active ○ Inactive

Note:

❑ *If you don't see the* EPSON Stylus(EX) *icon, use the arrows on the right to scroll through the available icons.*

❑ *If your Macintosh has only one serial port, select the modem port.*

3. If your printer is connected to the Macintosh's printer port and you are not using an AppleTalk network, make AppleTalk inactive by clicking the Inactive radio button.

   You do not need to make AppleTalk inactive if the printer is connected to the modem port.

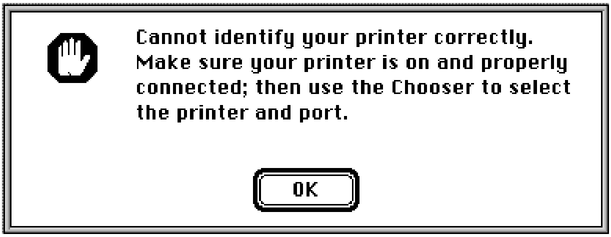
Caution:
Do not make AppleTalk inactive if the Macintosh is connected to an AppleTalk network. However, if your Macintosh has a 68030 microprocessor cpu, make AppleTalk inactive whenever you print with the EPSON Stylus Photo.

4. Click the Background Printing radio buttons to turn background printing on or off.

   When background printing is on, you can use your Macintosh while it is preparing a document for printing. You must turn on background printing to use the EPSON Monitor2 utility to manage print jobs. For more information, see Using the EPSON Monitor2 Utility on page 5-25.

5. Close the Chooser.

Your Macintosh will check that the printer is connected correctly. If the following message appears, follow the instructions on the screen, click OK, and repeat the steps above.



Cannot identify your printer correctly. Make sure your printer is on and properly connected; then use the Chooser to select the printer and port.

Chapter 3

Starting to Print

Loading Paper 3-2

Printing with Windows 3-5

Printing with a Macintosh 3-8

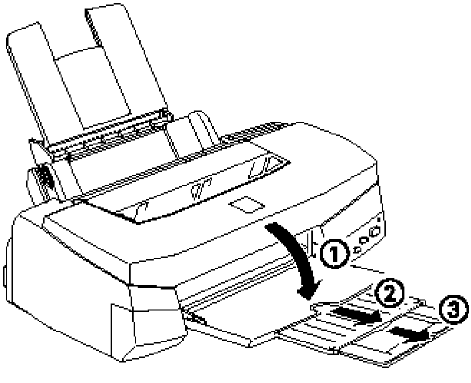
Loading Paper

The following procedure describes how to load plain paper into the printer.

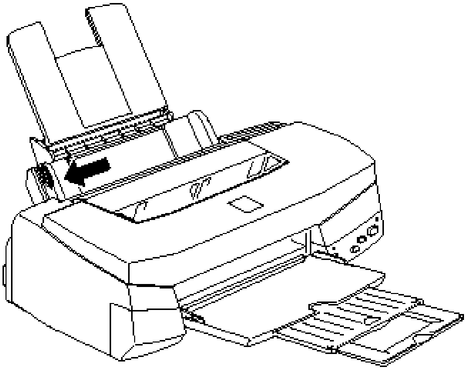
You can also print on ink jet paper, transparencies, photo-quality glossy film or paper, envelopes, index cards, and adhesive sheets. For details on using such media, see Chapter 6, Printing on Special Paper.

Note:
To print on transparencies, you need to reposition the paper support as described in Loading Transparencies on page 6-8.

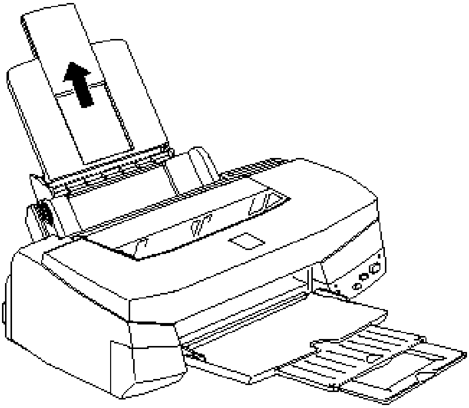
1. Lower the output tray at the front of the printer and slide out the extension.



2. Slide the left edge guide to the left as far as it will go.



If you load long paper (for example, legal size paper), pull up the paper support extension.

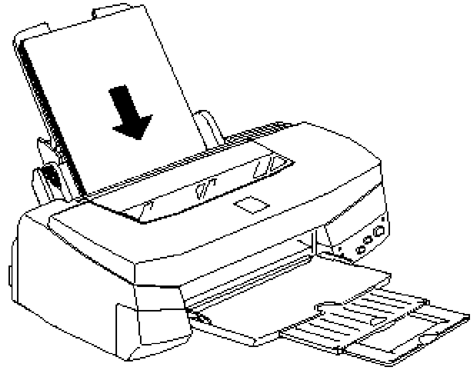


3. Fan a stack of paper; then tap it on a flat surface to even the edges.

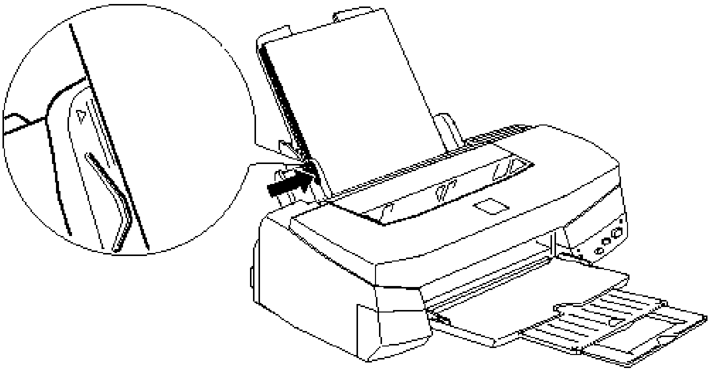
4. Load the stack of paper with the printable surface up and the right edge of the paper resting against the right side of the sheet feeder.

   Note:

   - ❑ *Always load paper into the sheet feeder short edge first. Load envelopes flap edge first with the flap side down.*
   - ❑ *Load pre-printed forms or letterhead top edge first.*



5. Slide the left edge guide against the left edge of the paper. Make sure the paper stack fits under both the edge guide tab and arrow mark as shown below.



Printing with Windows

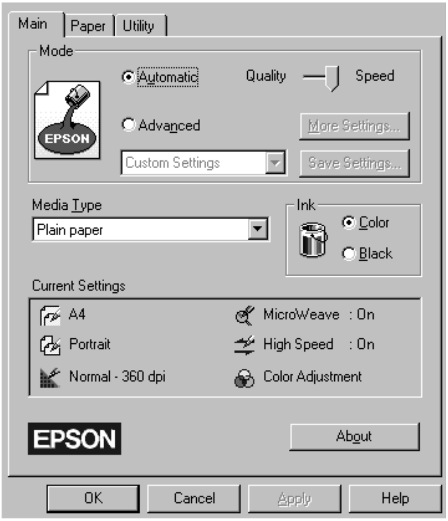
To get started printing right away, follow the printing method explained below, which is typical of many Windows applications. The actual way you print may vary depending on the application you use. See your application manual for details. See page 3-8 for information on printing with a Macintosh.

Note:
While many Windows applications override the settings made with the printer driver, some do not, so you must verify the settings to get the results you expect.

1. From your application, open the document you want to print.

2. Click Print on the File menu. The Print dialog box (or a similar dialog box) appears.

3. Make sure your printer is selected and then click Printer, Setup, Properties, or Options. You may need to click a combination of these buttons. The printer software window appears.



Mode: ● Automatic ○ Advanced

Quality — Speed

Custom Settings

Media Type: Plain paper

Ink: ● Color ○ Black

Current Settings

A4	MicroWeave : On
Portrait	High Speed : On
Normal - 360 dpi	Color Adjustment

4. Click the Main tab if necessary, and make sure the Mode option is set to Automatic.

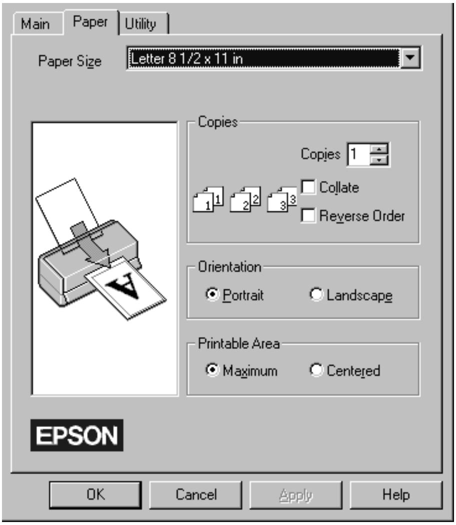
   Note:
   When Automatic *is selected, the printer software determines the best settings according to the Media Type and Ink settings you make.*

5. Click anywhere in the Media Type box, and select the media you loaded in the printer. If you don t see your media in the list, use the arrow on the right to scroll through the list. See Making the Media Type Setting on page 4-10 for more information.

   Note:
   If you choose Plain Paper, Photo Quality Ink Jet Paper, *or* Photo Quality Glossy Paper, *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.*

6. Select Color as the Ink setting if your document includes color. Select Black if you are printing black text, a draft, or if you want colors to print as varying shades of gray.

7. Click the Paper tab. The Paper menu appears.



Paper Size: Letter 8 1/2 x 11 in

Copies

Copies: 1

☐ Collate

☐ Reverse Order

Orientation

● Portrait ○ Landscape

Printable Area

● Maximum ○ Centered

8. Select the size of the paper you loaded in the printer from the Paper Size list. If you don t see your paper size in the list, use the arrow on the right to scroll through the list.

   Note:
   If your paper size is not included in the list, select User Defined *and enter the paper size in the dialog box that appears. For information on the User Defined option, see online help.*

9. Make the Orientation setting. The effect of your setting is shown in the display to the left.

   Note:
   Always load paper into the sheet feeder short edge first. Load envelopes flap edge first with the flap side down.

10. Click OK at the bottom of the window. You return to the Print dialog box (or a similar dialog box).

11. Click Close, OK, or Print to print. You may need to click a combination of these buttons.

While your document is printing, the EPSON Despooler dialog box will appear, showing the printing progress and the status of your printer. If you are printing from Windows 95, this dialog box also displays the Status Monitor.

See Chapter 4 and online help for detailed information on printer driver settings, the EPSON Despooler, and the Status Monitor.

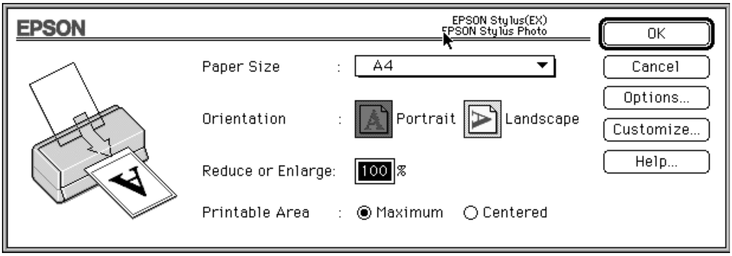
Printing with a Macintosh

To get started printing right away, follow the printing method explained below, which is typical of many Macintosh applications. The actual way you print may vary depending on the application you use. See your application manual for details. If you are printing from Windows applications, see the previous section.

Note:
While many Macintosh applications override the settings made with the printer driver, some do not, so you must verify the settings to get the results you expect.

1. From your application, open the document you want to print.

2. Choose Page Setup from the File menu. This brings up the dialog box shown below.



Paper Size : A4

Orientation : Portrait Landscape

Reduce or Enlarge: 100 %

Printable Area : ● Maximum ○ Centered

3. Select the paper size you loaded in the printer from the Paper Size list.

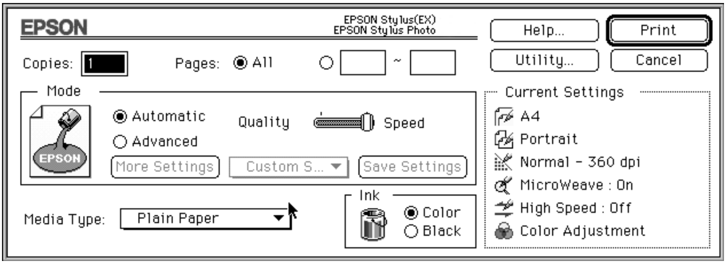
4. Check the Orientation option for A Portrait or ▷ Landscape orientation.

   Note:
   Always load paper into the sheet feeder short edge first. Load envelopes flap edge first with the flap side down.

5. After making your settings, click the OK button to close the Page Setup dialog box.

   Note:
   You cannot print from the Page Setup dialog box. You can only print from the Print dialog box.

6. Choose Print from the File menu. This brings up the dialog box shown below.


EPSON
EPSON Stylus(EX)
EPSON Stylus Photo
Help...
Print
Utility...
Cancel
Quality
Speed
More Settings
Custom S...
Save Settings
EPSON

Copies: 1

Pages: ● All ○ ~

Mode
● Automatic
○ Advanced

Media Type: Plain Paper

Ink
● Color
○ Black

Current Settings
A4
Portrait
Normal - 360 dpi
MicroWeave : On
High Speed : Off
Color Adjustment

7. Make sure the Mode option is set to Automatic.

   Note:
   When Automatic *is selected, the printer software determines the best settings according to the Media Type and Ink settings you make.*

8. Select the type of paper you loaded in the printer from the Media Type list. See Media Type on page 5-xx for more information.

   Note:
   If you choose Plain Paper, Photo Quality Ink Jet Paper, *or* Photo Quality Glossy Paper, *a slide bar appears in the Mode box that lets you shoose* Quality *or* Speed. *Select* Quality *when print quality is more important than speed.*

9. Select Color as the Ink option if your document includes color. Select Black if you are printing black text, a draft, or if you want colors to print as varying shades of gray.

10. Click Print to start printing.

Chapter 4

Using the Printer Software for Windows

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Introducing the Printer Software Functions

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 printer and keep it in top condition.

The quickest and easiest way to start printing is to leave the Mode option set to Automatic on the printer driver s Main menu. This way you only need to check the Media Type and Ink settings, as described on page 3-6.

Basically, there are three levels of settings: the Automatic setting; the predefined settings, which give you more control over printer settings; and the custom settings, which you make to fit your individual needs. To work with predefined and custom settings, you need to select Advanced as the Mode option. These settings are described in detail starting on page 4-6.

To check the condition of the printer or perform a maintenance procedure, see Using EPSON Printer Utilities on page 4-12.

Accessing the Printer Software

As explained on the following pages, you can access the printer driver settings and printer utilities contained in your printer software directly from any Windows application, or from My Computer in Windows 95 or Program Manager in Windows 3.1. The print settings made in many Windows applications override similar settings made in the printer driver, so in most cases you should access the printer software from your application to make sure that the settings are appropriate for the document you want to print.

Note:
Online help is available for details about the printer driver settings.

From Windows applications

How you should access the printer software varies depending on the application, application version, and Windows version you are using. Read the following to get a general idea of how to access the software.

From the File menu, choose Print or Print Setup. In the dialog box that appears click Printer, Setup, Properties, or Options. You may need to click a combination of these buttons.

The Main and Paper menus contain the printer driver settings. The Utility menu contains the printer utilities. Click the tabs at the top of the menus to open them.

For information on the printer driver settings, see online help and pages 4-5 to 4-11. See page 4-12 for information on the printer utilities.

From Windows 95

Follow these steps to access the printer software from My Computer.

If you are using Windows 3.1, see the next page.

1. Double-click the My Computer icon.

2. Double-click the Printers folder.

3. Right-click the icon of your printer, and click Properties. The Properties window appears.

4. Click the menu tabs at the top of the Properties window to open the printer software menus. The Main and Paper menus contain the printer driver settings. The Utility menu contains the printer utilities.

For information on the printer driver settings, see online help and pages 4-5 to 4-11. See page 4-12 for information on the printer utilities.

From Windows 3.1

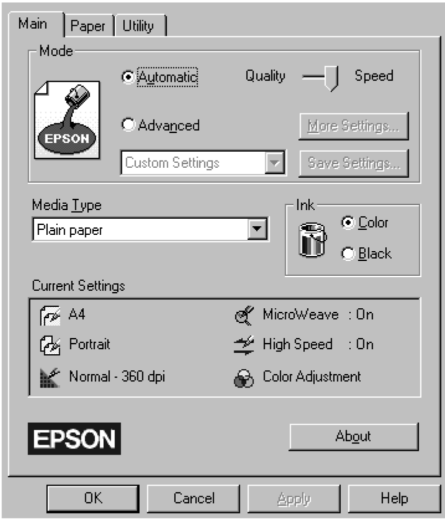
Follow these steps to access the printer software from Program Manager:

1. Open the Main program group and double-click the Control Panel icon.
2. Double-click the Printers icon.
3. Choose your printer from the Installed Printers list.
4. Choose Setup. You see the Main menu of the printer software window. The Main and Paper menus contain the printer driver settings. The Utility menu contains the printer utilities. Click the tabs at the top of the menus to open them.

For information on the printer driver settings, see online help and pages 4-5 to 4-11. See page 4-12 for information on the printer utilities.

Using the Automatic Setting

When Automatic is selected on the Main menu, the printer driver takes care of all detailed settings according to the Media Type and Ink settings you make (see page 4-10 for details on the Media Type settings). If you leave Mode set to Automatic, Media Type and Ink are the only settings you need to check yourself. Most Windows applications feature paper size and page layout settings which override similar settings on the Paper menu, but if your application does not, you should also check the items on the Paper menu.



Mode
● Automatic
○ Advanced

Media Type
Plain paper

Ink
● Color
○ Black

Current Settings
A4
Portrait
Normal - 360 dpi
MicroWeave : On
High Speed : On
Color Adjustment

Note:
If you choose Plain Paper, Photo Quality Ink Jet Paper, *or* Photo Quality Glossy Paper *as the Media Type setting 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.*

Online help provides more information about the printer driver settings. See page 4-17 for instructions on using online help.

Using the Predefined Settings

The predefined settings are provided to help you optimize the print settings for a particular kind of printout, such as presentation documents or images taken by a video or digital camera. You will find the predefined settings in the list below the Advanced button on the Main menu.

To choose a predefined setting, click Advanced, then select the most appropriate setting from the list according to the type of document or image you will print.

When you choose a predefined setting, other settings such as Print Quality, Halftoning, and Color are set automatically. Changes are shown in the Current Settings display at the bottom of the Main menu. Before printing, be sure to verify the Media Type and Ink settings, as they may be affected by the predefined setting you select. See page 4-10 for more information on the Media Type settings.

The printer driver provides the following predefined settings:

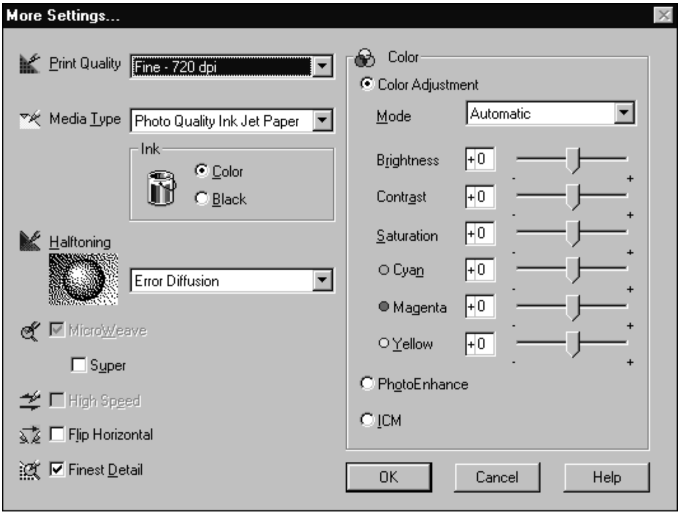
Photo	Good for printing scanned photos
Text/Graph	Good for printing presentation documents such as graphs and charts
PhotoEnhance	Good for printing images captured using a video, digital camera, or scanner. EPSON PhotoEnhance automatically adjusts the contrast, saturation, and brightness of the original image data to produce sharper, more vivid color printouts. PhotoEnhance does not affect your original image data. ***Note:*** *Printing with PhotoEnhance selected may take longer depending on your computer system and the amount of data contained in your image.*
Text	Good for printing text-only documents
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.

Note:

- *ICM is only available for Windows 95.*
- *Selecting* PhotoEnhance *or* ICM *automatically sets the Ink option to* Color. *Also, some Media Type settings are not available depending on the selected predefined setting and on the Ink setting if a predefined setting is selected.*

Customizing the Print Settings

Many users will never need to manually make their own print settings. However, if you need more control over the driver, want to make the most detailed settings available, or just want to experiment, click the Advanced button on the Main menu and then click the More Settings button. The More Settings dialog box appears:



Print Quality: Fine - 720 dpi

Media Type: Photo Quality Ink Jet Paper

Ink: ● Color ○ Black

Halftoning: Error Diffusion

☑ MicroWeave

☐ Super

☐ High Speed

☐ Flip Horizontal

☑ Finest Detail

Color

● Color Adjustment

Mode: Automatic

Brightness: +0

Contrast: +0

Saturation: +0

○ Cyan: +0

● Magenta: +0

○ Yellow: +0

○ PhotoEnhance

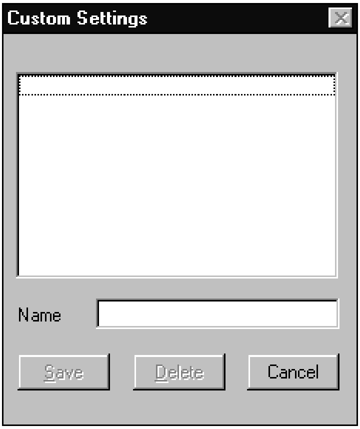
○ ICM

Some settings are enabled or disabled depending on the Print Quality, Media Type, and Ink settings you make. To save time and effort, always customize your settings in this order: Print Quality, Media Type, Ink, and then make other settings. See the next section for details about making the Media Type setting.

After making your settings, click OK. Your settings will be applied and you will return to the Main menu. To return to the Main menu without applying your changes, click Cancel. For details on the settings, see online help.

Saving your settings

To save your custom settings, click Save Settings on the Main menu. The Custom Settings dialog box appears:



Type a unique name for your custom settings in the Name box, and click the Save button. Your settings will appear in the list under the Advanced button on the Main menu.

Note:

❏ *You cannot use a predefined setting name for your custom settings.*

❏ *To delete a custom setting, click* Save Settings *on the Main menu, select the setting in the Custom Settings dialog box and then click* Delete.

❏ *You cannot delete the predefined settings.*

If you change the Media Type or Ink setting when one of your customized settings is selected in the Advanced settings list on the Main menu, the setting selected in the list changes 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 settings list.

Making the Media Type Setting

On the Main menu, select the Media Type setting that matches the paper you loaded in the printer. See the following to determine the Media Type setting (shown in bold) for your paper. First find your paper, then click the corresponding Media Type setting.

Note:
If the corresponding Media Type option for your paper is not shown in the Media Type list, change the Print Quality setting in the More Settings dialog box, select Automatic *as the Mode setting, or change the predefined setting in the Advanced settings list on the Main menu.*

Plain Paper

Plain paper
Envelopes

360 dpi Ink Jet Paper

EPSON 360 dpi Ink Jet Paper (A4)	S041059
	S041025
EPSON 360 dpi Ink Jet Paper (Letter)	S041060
EPSON Special Coated Paper for 360 dpi Printing (A4)	S041059
	S041025
EPSON Special Coated Paper for 360 dpi Printing (Letter)	S041060

Photo Quality Ink Jet Paper

EPSON Photo Quality Ink Jet Paper (A4)	S041061
	S041026
EPSON Photo Quality Ink Jet Paper (Letter)	S041062
EPSON Photo Quality Ink Jet Paper (Legal)	S041067
EPSON Photo Quality Ink Jet Card (A6)	S041054
EPSON Photo Quality Ink Jet Card (5 × 8 in.)	S041121
EPSON Photo Quality Ink Jet Card (10 × 8 in.)	S041122

EPSON Photo Quality Self Adhesive Sheet (A4)	S041106
EPSON Special Coated Paper for 720 dpi Printing (A4)	S041061 S041026
EPSON Special Coated Paper for 720 dpi Printing (Letter)	S041062
EPSON Special Coated Paper for 720 dpi Printing (Legal)	S041067 S041048
EPSON Special Coated Index Card for 720 dpi Printing (A6)	S041054

Ink Jet Transparencies

EPSON Ink Jet Transparencies (A4)	S041063
EPSON Ink Jet Transparencies (Letter)	S041064
EPSON Transparency Film (A4)	S041063
EPSON Transparency Film (Letter)	S041064

Photo Quality Glossy Paper

EPSON Photo Quality Glossy Paper (A4)	S041126
EPSON Photo Quality Glossy Paper (Letter)	S041124
EPSON Photo Paper (4 × 6 in.)	S041134

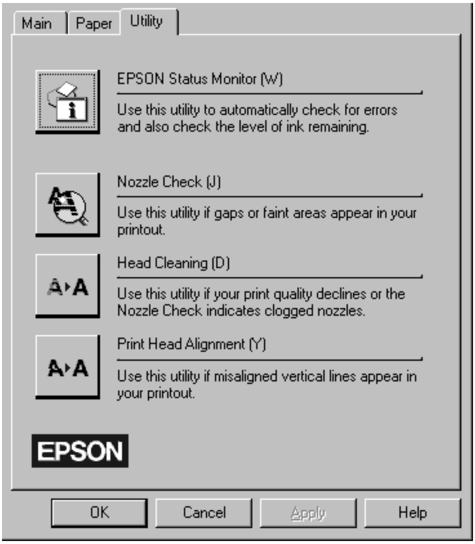
Photo Quality Glossy Film

EPSON Photo Quality Glossy Film (A4)	S041071
EPSON Photo Quality Glossy Film (Letter)	S041072
EPSON Photo Quality Glossy Film (A6)	S041107
EPSON High Quality Glossy Paper (A4)	S041071
EPSON High Quality Glossy Paper (Letter)	S041072

Note:
The availability of special media varies by country.

Using EPSON Printer Utilities

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 tab in the printer software window, then click the button for the utility you want to use. The utilities are explained briefly below. For more details, see online help.



EPSON Status Monitor (W)

Use this utility to automatically check for errors and also check the level of ink remaining.

Nozzle Check (J)

Use this utility if gaps or faint areas appear in your printout.

Head Cleaning (D)

Use this utility if your print quality declines or the Nozzle Check indicates clogged nozzles.

Print Head Alignment (Y)

Use this utility if misaligned vertical lines appear in your printout.

Note:
The letter in parentheses after the utility name indicates the shortcut key for that utility. On your keyboard, press the Alt *key and the letter to open that utility.*

EPSON Status Monitor

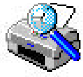
The Status Monitor utility helps you to keep track of the printer, and it alerts you if there are any problems. You can also check how much ink is remaining before printing and while printing. When you install the printer software for Windows 95, the Status Monitor is automatically copied to your hard disk.

Note:
The Status Monitor is only available for Windows 95.

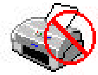
The Status Monitor utility is available only when the printer is connected directly to the host computer. You cannot use this utility when printing over a network.

When you send a print job to the printer, the Status Monitor will appear in the Despooler dialog box. For information on the Despooler dialog box, see Understanding the EPSON Spool Manager on page 4-15.

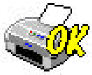
The Status Monitor provides information about the printer status as shown by the icons below.



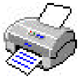
Checking the printer status.



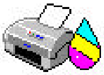
An error has occurred. Your printer cannot print. Check your printer.



The printer is ready.



The printer is printing.



The ink level is low or out.

Nozzle Check

You can check the print head nozzles for clogging with this utility. Check the nozzles when you notice a decline in print quality and after cleaning to confirm that the print head nozzles have been cleared. In case the nozzle check indicates the print head needs cleaning, you can access the Head Cleaning utility directly from the Nozzle Check utility. See Chapter 8, Troubleshooting, for more information.

Head Cleaning

You can clean the print head with this utility. You may need to clean the head if you notice a decline in print quality. Before and after print head cleaning, use the Nozzle Check utility to check whether the print head needs to be cleaned (again). You can access the Nozzle Check utility directly from the Head Cleaning utility. See Cleaning the Print Head on page 8-26 for more information.

Print Head Alignment

This utility aligns the print head. Use this utility when you notice a misalignment of vertical lines. See Aligning the Print Head on page 8-30 for more information.

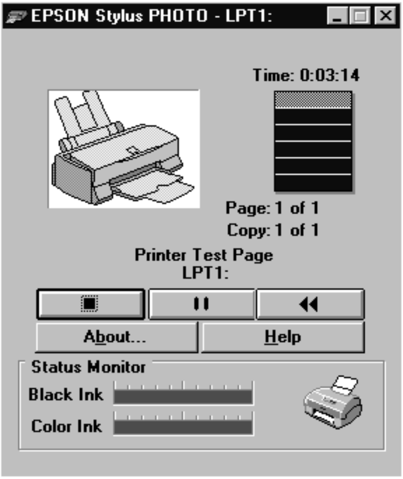
Understanding the EPSON Spool Manager

The EPSON Spool Manager is similar to Windows Print Manager. If it receives two or more print jobs at one time, it puts them in a line (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 line, the EPSON Despooler sends the job to the printer.

The Spool Manager starts automatically when you print from your application. To access the Spool Manager from Windows 95, click the EPSON Spool Manager icon after it appears on the taskbar. To access the Spool Manager from Windows 3.1, double-click the EPSON Spool Manager icon after it appears at the bottom of your desktop. For more information, see online help.

Checking printer status

When you send a print job to the printer, the EPSON Despooler dialog box appears in the lower right portion of your computer screen. This box shows the progress of the current print job and provides printer status information.


EPSON Stylus PHOTO - LPT1:
Time: 0:03:14
Page: 1 of 1
Copy: 1 of 1
Printer Test Page
LPT1:
About...
Help
Status Monitor
Black Ink
Color Ink

You can control printing from the Despooler dialog box using the stop, pause, and reprint buttons as explained below.

■	Stop	Cancels printing
❚❚	Pause	Pauses printing until you press it again
◀◀	Reprint	Restarts printing from the current page, reprints the whole document, or holds the document for printing later

The Status Monitor at the bottom of the Despooler dialog box only appears if you are using Windows 95. See page 4-13 for more details.

Note:
The small printer illustration in the Status Monitor may continue to indicate that the printer is printing even when the Despooler dialog box displays an error status alert. If this happens, check your printer and resend the print job.

Getting Information Through Online Help

Your printer software has an extensive online help feature that includes detailed information and instructions about printer driver settings and the printer utilities. Online help will answer most of your questions about your printer software.

From Windows applications

To access online help from your application, open the File menu and choose Print or Print Setup. Then click Printer, Setup, Options, or Properties (you may need to click a combination of these buttons) depending on the software you are using. Click the Help button at the bottom of the Main, Paper, or Utility menu for help related to the items on that menu.

If you are running Windows 95, you can get specific help related to any item on a menu by right-clicking the item, then clicking the What s This? prompt.

From Windows 95

To access online help from Start, click the Start button, point to Programs and Epson, and then click EPSON Stylus Photo Help. You see the help contents window.

From Windows 3.1

To access online help from Program Manager, open the EPSON program group and double-click the EPSON Stylus Photo Help icon. You see the help contents window.

Chapter 5

Using the Printer Software for Macintosh

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Introducing the Printer Software Functions

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 printer and keep it in top condition.

The quickest and easiest way to start printing is to leave the Mode option set to Automatic in the Print dialog box. This way you only need to check the Media Type and Ink settings, as described on page 5-4.

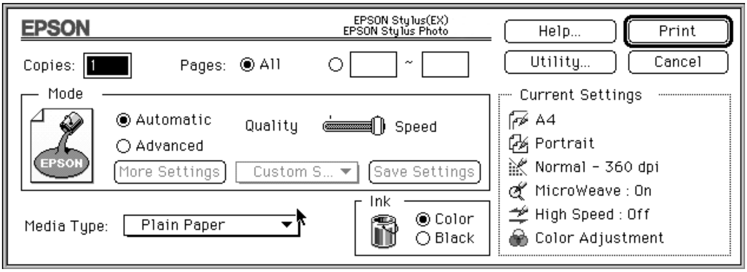
Basically, there are three levels of settings: the Automatic setting; the predefined settings, which give you more control over printer settings; and the custom settings, which you make to fit your individual needs. To work with predefined and custom settings, you need to select Advanced as the Mode option. These settings are described in detail below.

To check the condition of the printer or perform a maintenance procedure, see Using EPSON Printer Utilities on page 5-21.

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 according to the Media Type and Ink settings you make (see page 5-4 for details on making the Media Type setting). Most users will never have to switch from the Automatic to the Advanced mode. However, if your application program does not give you enough control over the printout, you may want to switch to Advanced mode to experiment with the predefined settings or make your own custom settings. See page 5-6 for information on the predefined settings, and page 5-8 for information on making custom settings.—

To access the Print dialog box, click Print on the File menu of your application. The Print dialog box appears:


EPSON
EPSON Stylus(EX)
EPSON Stylus Photo
Help...
Print
Utility...
Cancel
Mode
EPSON
More Settings
Custom S...
Save Settings
Ink

Copies: 1

Pages: ● All ○ ~

● Automatic
○ Advanced

Quality ▭ Speed

Media Type: Plain Paper

● Color
○ Black

Current Settings
A4
Portrait
Normal - 360 dpi
MicroWeave : On
High Speed : Off
Color Adjustment

Note:
If you choose Plain Paper, Photo Quality Ink Jet Paper, *or* Photo Quality Glossy Paper *as the Media Type setting 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.*

Before printing, be sure to verify the Media Type and Ink settings as described below because they also have an effect on the other settings. You may also need to check the Page Setup dialog box for other basic settings such as paper size. See page 5-18 for information on the Page Setup dialog box.

Media Type

Select the Media Type setting that matches the kind of paper you loaded in the printer. See below to determine which Media Type setting (shown in bold) best matches your paper.

Plain Paper

Plain paper
Envelopes

360 dpi Ink Jet Paper

EPSON 360 dpi Ink Jet Paper (A4)	S041059 S041025
EPSON 360 dpi Ink Jet Paper (Letter)	S041060
EPSON Special Coated Paper for 360 dpi Printing (A4)	S041059 S041025
EPSON Special Coated Paper for 360 dpi Printing (Letter)	S041060

Photo Quality Ink Jet Paper

EPSON Photo Quality Ink Jet Paper (A4)	S041061 S041026
EPSON Photo Quality Ink Jet Paper (Letter)	S041062
EPSON Photo Quality Ink Jet Paper (Legal)	S041067
EPSON Photo Quality Ink Jet Card (A6)	S041054
EPSON Photo Quality Ink Jet Card (5 × 8 in.)	S041121
EPSON Photo Quality Ink Jet Card (10 × 8 in.)	S041122
EPSON Photo Quality Self Adhesive Sheet (A4)	S041106
EPSON Special Coated Paper for 720 dpi Printing (A4)	S041061 S041026
EPSON Special Coated Paper for 720 dpi Printing (Letter)	S041062

EPSON Special Coated Paper for 720 dpi Printing (Legal)	S041067 S041048
EPSON Special Coated Index Card for 720 dpi Printing (A6)	S041054

Ink Jet Transparencies

EPSON Ink Jet Transparencies (A4)	S041063
EPSON Ink Jet Transparencies (Letter)	S041064
EPSON Transparency Film (A4)	S041063
EPSON Transparency Film (Letter)	S041064

Photo Quality Glossy Paper

EPSON Photo Quality Glossy Paper (A4)	S041126
EPSON Photo Quality Glossy Paper (Letter)	S041124
EPSON Photo Paper (4 × 6 in.)	S041134

Photo Quality Glossy Film

EPSON Photo Quality Glossy Film (A4)	S041071
EPSON Photo Quality Glossy Film (Letter)	S041072
EPSON Photo Quality Glossy Film (A6)	S041107
EPSON High Quality Glossy Paper (A4)	S041071
EPSON High Quality Glossy Paper (Letter)	S041072

Note:
The availability of special media varies by country.

Ink

If your document includes color, select Color. If you are printing black text, a draft, or if you want colors to print as varying shades of gray, choose Black.

Using the Predefined Settings

The predefined settings are provided to help you optimize the print settings for a particular kind of printout such as presentation documents or images taken by a video or digital camera.

The predefined settings appear in a list located between the More Settings and Save Settings buttons in the Print dialog box. This list is enabled when you click the Advanced button.

To select a predefined setting, click the Advanced button, then click in the list and select a setting according to the type of document or image you want to print.

When you choose a predefined 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. Before printing, be sure to verify the Media Type and Ink settings, as they may be affected by the predefined setting you select. See the previous section for more information on the Media Type and Ink settings.

The printer driver provides the following predefined settings:

Photo

This setting is best for printing scanned photographs. It increases the contrast in an image.

Note:
Changing the Ink setting after Photo is selected returns the settings list to Custom Settings*, so always make your Ink setting before you select this option.*

Text/Graph

This setting is best for graphics-intensive documents such as charts and graphs for presentations. It intensifies the colors but lightens the midtones and highlights of an image.

Note:
Changing the Ink setting after Text/Graph is selected returns the settings list to Custom Settings*, so always make your Ink setting before you select this option.*

PhotoEnhance

This setting is best for printing images captured using a video, digital camera, or scanner. EPSON PhotoEnhance feature produces sharper images and more vivid colors by automatically adjusting the contrast, saturation, and brightness of the original image data.

Note:

- ☐ *Selecting* PhotoEnhance *automatically sets the Ink option to* Color. *Changing the Ink setting after* PhotoEnhance *is selected returns the settings list to* Custom Settings.

- ☐ *Printing with PhotoEnhance selected may take longer depending on your computer system and the amount of data contained in your image.*

Economy

This setting provides you with faster printing and saves ink. The printer uses less ink by printing fewer dots per character. Choose this setting for rough drafts of text only.

Note:
Changing the Ink setting after Economy is selected returns the settings list to Custom Settings*, so always make your Ink setting before you select this option.*

ColorSyncÔ

This setting automatically adjusts printout colors to match the colors on your screen.

Note:
Selecting ColorSync *automatically sets the Ink option to* Color. *Changing the Ink setting after* ColorSync *is selected returns the settings list to* Custom Settings.

Text

This setting is best for printing text-only documents. It provides you with faster printing than the Text/Graph setting with only a slight decrease in printing quality.

Note:
Changing the Ink setting after Text is selected returns the setting list to Custom Settings*, so always make your Ink setting before you select this option.*

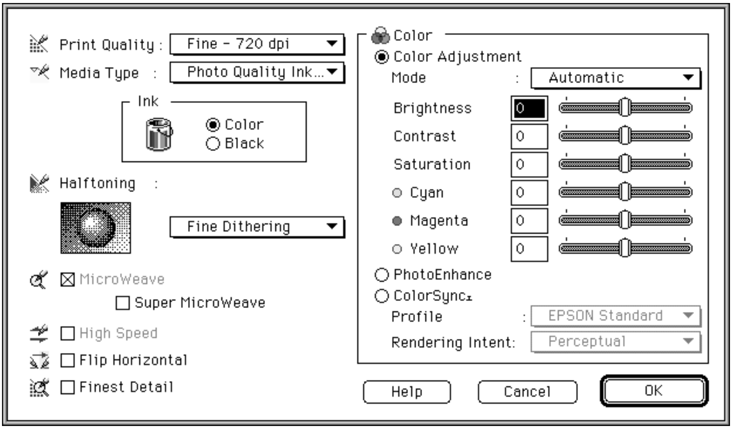
Customizing the Print Settings

Many users will never need to manually make their own print settings. However, if you need more control over the driver, want to make the most detailed settings available, or just want to experiment, customize your print settings as described below.

Making your settings

1. Click the Advanced button in the Print dialog box.

2. Click the More Settings button. The More Settings dialog box appears. The settings in the More Settings dialog box allow you to modify visual effects and control printing quality. These settings are explained in detail later in this chapter.



Print Quality : Fine - 720 dpi
Media Type : Photo Quality Ink...
Ink
● Color
○ Black
Halftoning : Fine Dithering
☒ MicroWeave
☐ Super MicroWeave
☐ High Speed
☐ Flip Horizontal
☐ Finest Detail

Color
● Color Adjustment
Mode : Automatic
Brightness 0
Contrast 0
Saturation 0
Cyan 0
Magenta 0
Yellow 0
○ PhotoEnhance
○ ColorSync
Profile : EPSON Standard
Rendering Intent: Perceptual

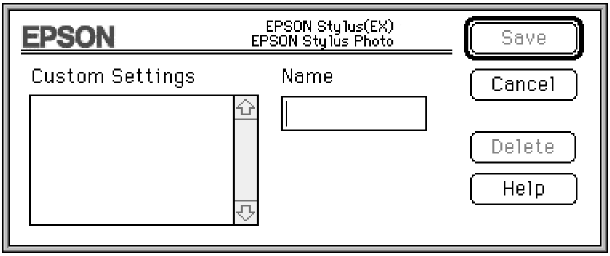
Note:
The Print Quality, Media Type, and Ink settings affect the availability of other options, so always make your settings in this order: Print Quality, Media Type, Ink, then other settings.

3. After making your settings, click OK. Your settings will be applied and you will return to the Print dialog box. To return to the Print dialog box without applying your settings, click Cancel.

Saving your settings

To save your custom settings as a group, follow these steps:

1. Click Save Settings in the Print dialog box. The Custom Settings dialog box appears.


EPSON
EPSON Stylus(EX)
EPSON Stylus Photo
Save
Custom Settings
Name
Cancel
Delete
Help

2. Type a unique name (up to 16 characters) for your custom settings in the Name box.

3. Click Save.

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.

Note:

- ❏ *You cannot use a predefined setting name for your custom settings.*
- ❏ *To delete a custom setting, click* Save Settings *in the Print dialog box to open the Custom Settings dialog box, then select the setting and click* Delete.
- ❏ *You cannot delete the predefined settings.*

Choosing your settings

To choose your settings, click Advanced in the Print dialog box, then click in the settings list beside the More Settings button and select your setting.

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.

Modifying visual effects

If you want to make detailed modifications to the printed appearance of your color and black-and-white documents, you can use the Color and Halftoning settings in the More Settings dialog box. You can also invert the entire image using the Flip Horizontal option.

You may need to experiment with different settings to get the output you want.

Note:
When Color *is selected as the Ink setting, all Color settings are available. When* Black *is selected, only Contrast and Brightness are available. See page 5-5 for information on the Ink settings.*

Color Adjustment

The Color Adjustment settings provide you with a level of control over printed colors that you cannot find in many applications.

Mode

There are four color adjustment modes, as follows:

Automatic

Analyzes the print data and optimizes color correction for the type of data sent to the printer.

Photo-realistic

Provides output that closely matches the original data. Use this setting for color photographs.

Vivid

Intensifies the colors and lightens the midtones and highlights of an image. Use this setting for presentation graphics, such as charts and graphs.

No Color Adjustment

The printer driver does not enhance the color. Choose this option only when making a ColorSync profile for this printer. When printing normally, choose one of the other modes.

Slide bars

For the settings below, drag the slide bar to the right or left with your mouse or type a value in the box next to the slide bar to adjust a setting. The range varies from -25% to +25%.

Brightness

Changes the overall lightness or darkness of an image.

Contrast

Magnifies or minimizes the difference between the bright and dark parts of an image.

Saturation

Modifies the vividness of color. Lower saturation produces colors that are more muted than those produced with higher saturation.

Cyan, Magenta, Yellow

Adjusts the amount of each of the three basic colors used for printing.

PhotoEnhance

Select this option when printing images taken with a video camera, digital camera, or scanner. EPSON PhotoEnhance automatically adjusts the contrast, saturation, and brightness of the original image data to produce sharper, more vivid color printouts. PhotoEnhance does not affect your original image data.

When PhotoEnhance is selected, other settings are dimmed, meaning you cannot change those settings.

Note:

- ❑ *PhotoEnhance is only available when* Color *is selected as the Ink option.*
- ❑ *Printing with PhotoEnhance selected may take longer depending on your computer system and on the amount of data contained in your image.*

ColorSync™

Select ColorSync when matching printed colors with the colors on your screen is important. It automatically adjusts the color range to print colors the way they appear on your screen. There are two settings, Profile and Rendering Intent. See below for details.

To use this feature, make sure you set the system profile for your monitor. To set your monitor profile, access the ColorSync System Profile utility through the Control Panel and click the Set Profile button. Select your monitor from the list of monitors that appears, and then click Select. Close the dialog box.

Note:
ColorSync is available only when Color *is selected as the Ink option.*

Profile

Matches the colors in your output with the colors displayed on your monitor. This software provides one profile, EPSON Standard, which is custom-designed to work with your printer. When this option is selected, the printer software uses the profile provided by EPSON.

Some companies may provide other profiles with their products. If installed, these profiles will appear in the Profile list.

Rendering Intent

Transfers the color information using the profile you have chosen from the Profile list.

Perceptual

The best option for reproducing photographs and printouts that are not suited to the other options.

Saturation

The best option for reproducing vivid images. Use this setting for presentation graphics, such as charts and graphics.

Colorimetric

The best option when precise matching of colors is most important, for example, when printing a company logo. Keep in mind that Colorimetric, or any other color matching method, may not always reproduce colors perfectly due to differences in the way scanners, printers, and other devices process color data. See Appendix A, Tips for Color Printing, for more information.

Halftoning

Use the Halftoning settings to achieve the results described below.

❑ Select No Halftoning when printing black-and-white text only. This option is only available when black ink is selected.

❑ Select Error Diffusion to make edges and colors softer when printing photographic images. Error diffusion blends every colored dot in your image with the surrounding colored dots.

❑ Select Fine Dithering for images with significant detail but limited shading, such as presentation graphics. Dithering arranges dots in orderly patterns and is best suited for printing charts, graphs, and other images that require precise, solid areas of bright colors.

Flip Horizontal

This feature flips the image 180° along its vertical axis. Printed images and text appear backwards.

Controlling the printing quality

Use the following controls in the More Settings dialog box to adjust the quality of the output. Some settings in this dialog box may be determined by Print Quality and Media Type settings.

Print Quality

The available Print Quality settings are:

Fine - 720 dpi

Select this setting when you want high-quality output at 720 dpi. With this setting, we recommend the use of EPSON Photo Quality media. See page 5-4 for a complete list of EPSON special media.

Normal - 360 dpi

Select this setting for most types of documents. Use this setting for plain paper, EPSON Ink Jet Transparencies, or EPSON 360 dpi Ink Jet Paper. See page 5-4 for a complete list of EPSON special media.

Economy

Select this option for printing rough drafts of text. This setting speeds printing and saves ink by printing fewer dots per character.

Note:
The Print Quality settings limit the availability of Media Type settings. Before selecting the Media Type, make the Print Quality setting. See page 5-4 for details on the Media Type settings.

MicroWeave

MicroWeave allows your printer to generate superior output because graphics data is re-ordered and printed in finer increments. This technology reduces the possibility of banding, the light horizontal lines that can mar an image.

Note:

❑ *You can select MicroWeave when printing with black ink, but the printing time is significantly longer.*

❑ *MicroWeave is switched off automatically when* Economy *or* Text *is selected as the predefined setting in the Print dialog box, or when* Economy *is selected as the Print Quality setting in the More Settings dialog box.*

When Photo Quality Ink Jet Paper or Photo Quality Glossy Paper is the Media Type setting, you can select Super MicroWeave if your printout still has banding problems even with MicroWeave turned on. However, the printing time is longer when Super MicroWeave is selected.

High Speed

This setting activates bidirectional printing, which reduces the time it takes to print an image. Keep in mind that High Speed should be switched off for highest quality printing.

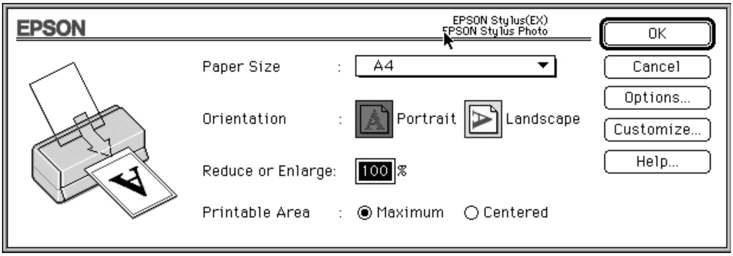
Note:
If vertical lines printed when High Speed is selected appear misaligned, you may need to align the print head. For details, see Aligning the Print Head on page 8-30.

Finest Detail

If you select Fine - 720 dpi as the Print Quality setting, you can turn on Finest Detail to print text and line art with very sharp edges. Be aware that it may take considerably longer to print using this feature and it will increase your Macintosh memory requirements. Additionally, you may not be able to print some larger images, and some patterns may not print correctly. If you experience problems printing with Finest Detail on, turn it off or add more memory.

Changing the Paper Size

To change the paper size, choose Page Setup from the File menu of your application. The following dialog box appears:


Paper Size : A4

Orientation : ● Portrait ○ Landscape

Reduce or Enlarge: 100 %

Printable Area : ● Maximum ○ Centered

Paper Size

You can use any of the following predefined paper sizes.

A4
B5
A5
Letter
Executive
Legal
Half Letter
Envelope #10
Envelope C6
Envelope DL
A6 Index card
Index card 5 × 8 in
Index card 8 × 10 in
EPSON Photo Paper 4 × 6 in

Note:
Always load paper into the sheet feeder short edge first. Load envelopes flap edge first with the flap side down.

Orientation

Use this setting to specify the direction of printing on the page, A Portrait or ▷ Landscape.

Reduce or Enlarge

Use this setting to reduce or enlarge the size of your image.

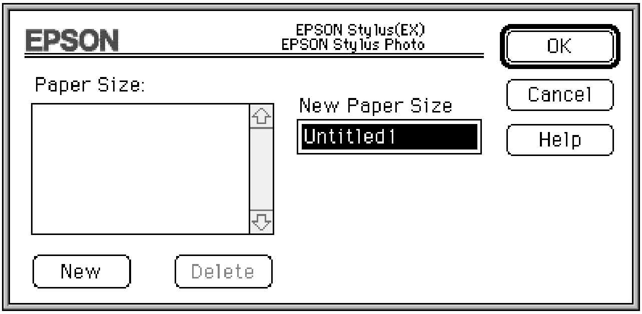
Printable Area

Select Maximum to make your printout as large as possible on the paper. Select Centered to position your printout at equal distances from the edges.

Defining a Custom Paper Size

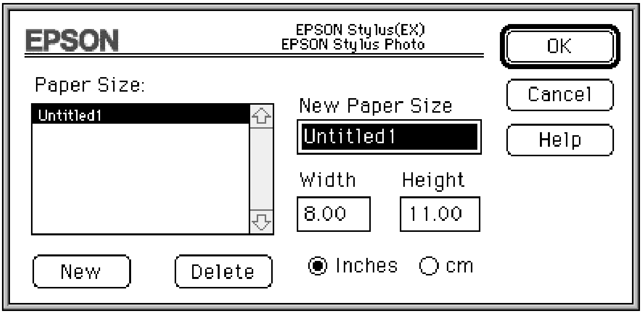
If your paper size is not included in the paper size list in the Page Setup dialog box, follow the steps below to define a custom paper size.

1. In the Page Setup dialog box, click Customize.
   The following dialog box appears:


EPSON
EPSON Stylus(EX)
EPSON Stylus Photo
OK
Cancel
Help
Paper Size:
New
Delete

New Paper Size: Untitled1

2. To define a new paper size, click New. The dialog box updates to allow you to enter a name for the new size.


EPSON
EPSON Stylus(EX)
EPSON Stylus Photo
OK
Cancel
Help
New
Delete

Paper Size: Untitled1

New Paper Size: Untitled1

Width: 8.00

Height: 11.00

● Inches ○ cm

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.

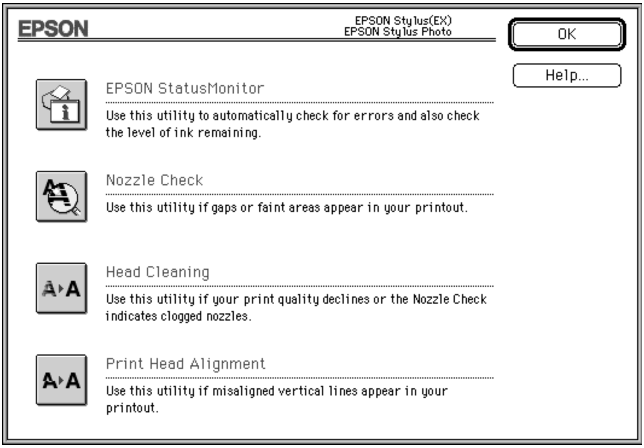
6. Click OK. You return to the Page Setup dialog box.

   You can define up to eight 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.

Using EPSON Printer Utilities

EPSON printer utilities allow you to check the current printer status and do some printer maintenance from your screen. Click Utility in the Print dialog box to view the Utility dialog box:



EPSON StatusMonitor

Use this utility to automatically check for errors and also check the level of ink remaining.

Nozzle Check

Use this utility if gaps or faint areas appear in your printout.

Head Cleaning

Use this utility if your print quality declines or the Nozzle Check indicates clogged nozzles.

Print Head Alignment

Use this utility if misaligned vertical lines appear in your printout.

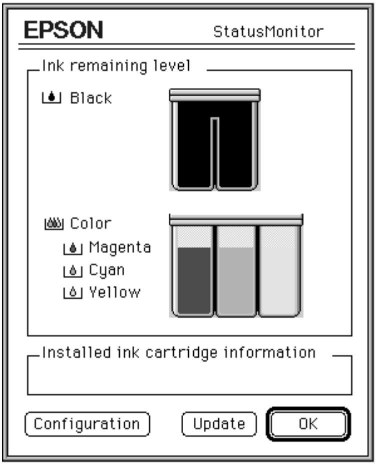
EPSON StatusMonitor

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.

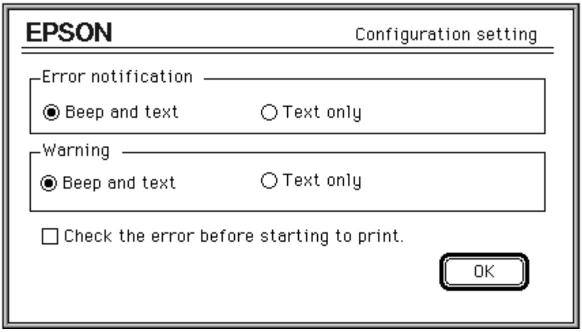
To use the StatusMonitor, follow these steps:

Click the EPSON StatusMonitor button in the Utility dialog box. The following dialog box appears:


EPSON
StatusMonitor
Ink remaining level
Black
Color
Magenta
Cyan
Yellow
Installed ink cartridge information
Configuration
Update
OK

The StatusMonitor checks the amount of ink remaining once when you click the StatusMonitor button in the Utility dialog box. To update the ink-level information, click the Update button.

The StatusMonitor provides an error message when a printer error occurs while printing. You can choose how error information will be displayed using the Configuration setting dialog box. Click the Configuration button while the StatusMonitor dialog box is open. The following dialog box appears:



Error notification
● Beep and text ○ Text only

Warning
● Beep and text ○ Text only

☐ Check the error before starting to print.

Choose the method and click OK.

Nozzle Check

Checks whether or not the print head nozzles need to be cleaned. Click the Nozzle Check button to print the nozzle check pattern. If the print head needs cleaning, you can directly enter the Head Cleaning utility from this utility. After you clean the print head, you can return to the Nozzle Check utility directly from the Head Cleaning utility.

For detailed information on print head cleaning, see Cleaning the Print Head on page 8-26.

Head Cleaning

Cleans the print head. If print quality declines, use this utility to ensure the nozzles are delivering ink properly. Before and after print head cleaning, use the Nozzle Check utility to check whether the print head needs to be cleaned (again). You can access the Nozzle Check utility directly from the Head Cleaning utility. If the print quality does not improve, repeat print head cleaning.

For detailed information on print head cleaning, see Cleaning the Print Head on page 8-26.

Note:
To avoid wasting ink, clean the print head only if print quality declines.

Print Head Alignment

Aligns the print head so that images print clearly. If you find that your printed image is fuzzy or the vertical lines in your printout are not properly aligned, you may need to use this utility.

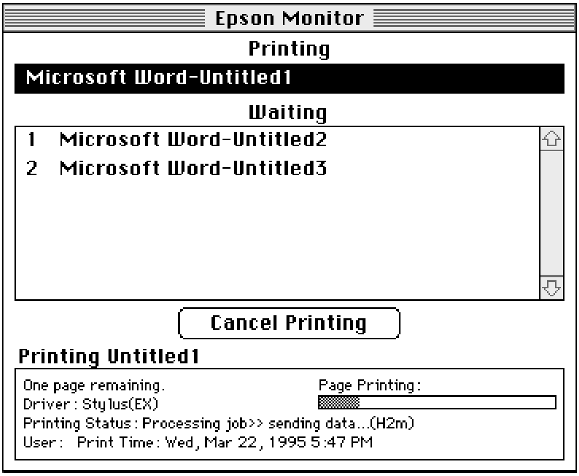
For more details on using this utility, see Aligning the Print Head on page 8-30.

Using the EPSON Monitor2 Utility

After you send a print job to the printer, you can use the EPSON Monitor2 utility to check on what print jobs are queued for printing. You can cancel any print job in the queue. This utility also shows the status of the job currently being printed.

Before using EPSON Monitor2, you must first turn on background printing in the Chooser.

After starting a printing operation, select Epson Monitor2 from the Application menu at the right end of the menu bar. This opens a dialog box similar to the following:



Microsoft Word-Untitled1

1 Microsoft Word-Untitled2
2 Microsoft Word-Untitled3

Printing Untitled1

One page remaining.
Page Printing:
Driver : Stylus(EX)
Printing Status : Processing job>> sending data...(H2m)
User :   Print Time : Wed, Mar 22, 1995 5:47 PM

To cancel a print job, click the name of the job and then click Cancel Printing.

Chapter 6

Printing on Special Paper

Choosing Special Paper and Other Media 6-2
    About special media cleaning sheets 6-3

Loading Special Paper and Other Media 6-4

Loading Envelopes 6-7

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Using EPSON Photo Paper (S041134) 6-9
    Loading 6-9
    Removing the perforated margins 6-11
    Storing EPSON Photo Paper 6-11

Choosing Special Paper and Other Media

You can use most plain bond paper with your printer and achieve good results. Coated papers and glossy papers give you better results because they reduce the amount of ink that is absorbed.

You should get good printing results with most types of coated paper. However, print quality can vary depending on the paper quality and the manufacturer. Test the printout quality before purchasing large quantities of paper.

EPSON provides special media such as ink jet (coated) paper, transparencies, glossy paper, glossy film, index cards, and adhesive sheets that are formulated for the inks used in EPSON ink jet printers. EPSON recommends you to use media distributed by EPSON to ensure high-quality results.

The product names of some EPSON media currently on the market may vary depending on when it was distributed. The following table lists media types whose product names have changed. The media names used in this manual are shown in the Current name column, and the former names for the same media are shown in the Former name column. The quality and use of this media is the same regardless of the name on the media packaging.

Coated (Ink Jet) Paper

Former name	Current name
Special Coated Paper for 360 dpi Printing (A4) S041059, S041025 (Letter) S041060	EPSON 360 dpi Ink Jet Paper
Special Coated Paper for 720 dpi Printing (A4) S041061, S041026 (Letter) S041062 (Legal) S041067, S041048	EPSON Photo Quality Ink Jet Paper

Former name	**Current name**
Special Coated Index Card for 720 dpi Printing (A6) S041054	EPSON Photo Quality Ink Jet Card

Transparencies

Former name	**Current name**
Transparency Film (A4) S041063 (Letter) S041064	EPSON Ink Jet Transparencies

Glossy Film

Former name	**Current name**
High Quality Glossy Paper (A4) S041071 (Letter) S041072	EPSON Photo Quality Glossy Film

Note:

- *The availability of special media varies by country.*
- *Since the name on the special media packaging may vary in certain markets, you may need to use the product number to confirm the type of special media you have.*

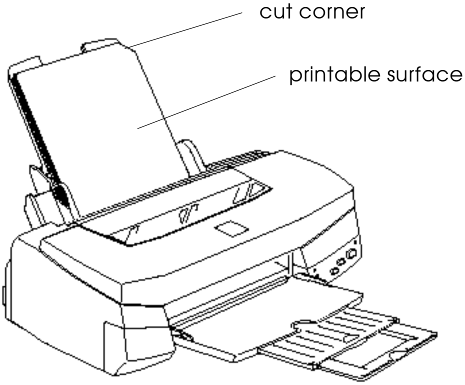
About special media cleaning sheets

Cleaning sheets packaged with EPSON special media should not be used with this printer. The cleaning function performed by these sheets is not necessary with this printer, and the sheets could jam in the printer.

Loading Special Paper and Other Media

When loading special paper distributed by EPSON, read the instruction sheets packed with your special media first and keep the following in mind.

- ❑ Make sure the printable surface of the paper is face up when loading media into the sheet feeder. See the instruction sheets packed with the media to determine which side is the printable surface. Some media features cut corners to help identify the correct loading direction, as shown below.



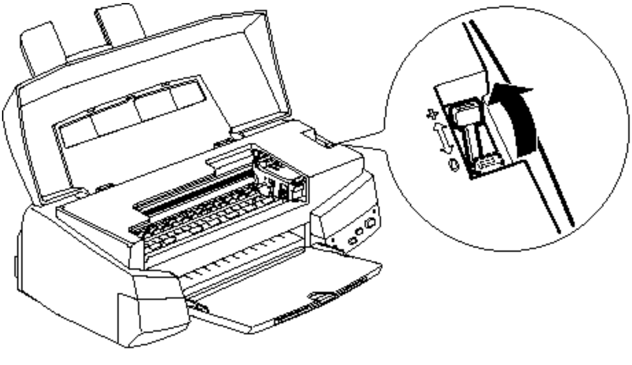
- ❑ Make sure the paper stack fits under the edge guide tab and the arrow mark, both of which are located on the inside surface of the left edge guide. Basic loading capacity for special media is explained below.

EPSON 360 dpi Ink Jet Paper and Photo Quality Ink Jet Paper	You can load paper up to the arrow mark on the left edge guide. If you load legal-size ink jet paper, do not load it more than halfway to the arrow mark.
EPSON Photo Quality Ink Jet Cards	You can load up to 30 index cards. Always place the included support sheet* under the cards when loading them.
EPSON Photo Quality Glossy Paper	You can load up to 20 sheets. Before loading glossy paper, always put a support sheet* or a sheet of plain paper under the stack of glossy paper.
EPSON Photo Quality Glossy Film	For best results, you should load glossy film one sheet at a time. If you wish to load multiple sheets of glossy film, load only up to 30 sheets and set the minimum top margin of the page to 30 mm. Before loading glossy film, always put a support sheet* or a sheet of plain paper under the glossy film.
EPSON Ink Jet Transparencies	You can load up to 10 transparencies. Always put a support sheet* or a sheet of plain paper under the stack of transparencies. You also need to reposition the paper support. See page 6-8.
EPSON Photo Quality Adhesive Sheets	You can load one sheet at a time.

EPSON Photo Paper	You can load up to 20 sheets. Before loading Photo Paper, always put a support sheet* under the stack of Photo Paper. See page 6-9.
Envelopes	You can load up to 10 envelopes. See page 6-7.

*If a support sheet is packed with the paper, load it underneath the paper, but do not print on it.

- Set the adjust lever to the + position when you print on envelopes or if ink smears on your documents when printing on thick special media. To change the setting, open the printer cover and position the lever as shown below.

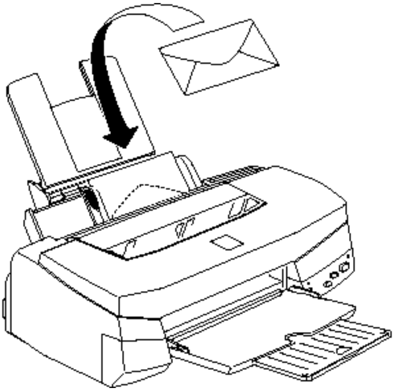


Note:
Return the adjust lever to the 0 position before printing on media of normal thickness. Leaving the lever in the + position may cause gaps in the printed image.

Loading Envelopes

When printing on envelopes, please note the following:

- ☐ You can load up to 10 envelopes into the sheet feeder.
- ☐ Load envelopes flap edge first with the flap side down, as shown below.



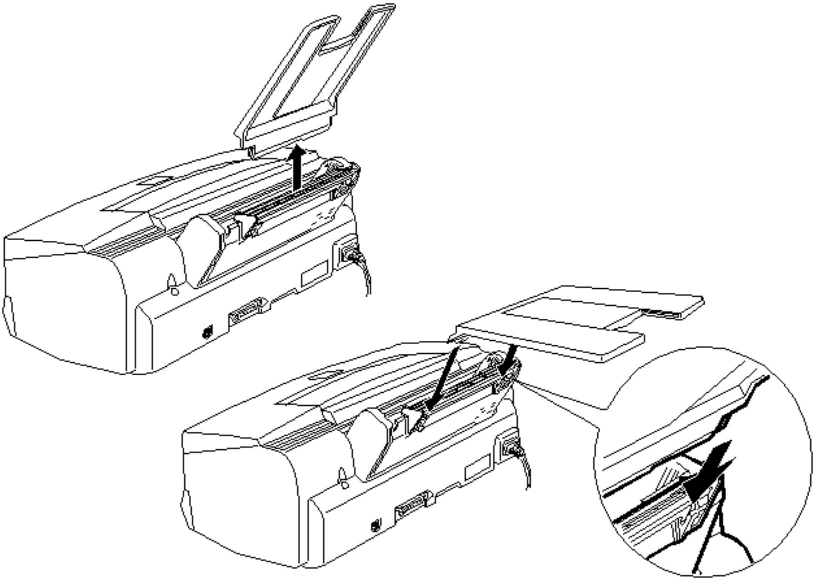
- ☐ Do not use envelopes that are curled or folded. Also avoid using envelopes that are too thin; they may curl during printing.
- ☐ Select Plain Paper as the Media Type setting in the printer driver. For more details on making printer driver settings, see online help for Windows, or Chapter 6 for Macintosh.
- ☐ Set the adjust lever to the + position before printing on envelopes. To change the setting, open the printer cover and reposition the lever. See the illustration on page 6-6.

  Note:
  Return the adjust lever to the 0 position, which is the normal position, after you finish printing on envelopes. Leaving the lever in the + position may cause the printed image to have gaps on other media.

Loading Transparencies

When printing on transparencies, please note the following:

- ❏ Before loading transparencies, remove the paper support and reinstall it into the slots at the back of the printer as shown below.



- ❏ Always put a support sheet or a sheet of plain paper under the stack of transparencies.

- ❏ You can load up to 10 transparencies.

- ❏ Make sure the printable surface of the paper is face up when loading transparencies into the sheet feeder. See the illustration on page 6-4.

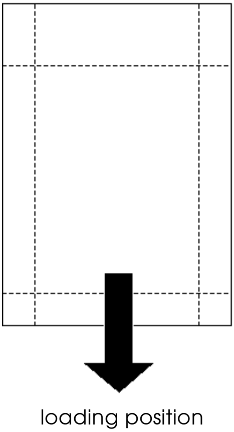
- ❏ Select Ink Jet Transparencies as the Media Type setting in the printer driver. For more details on making printer driver settings, see online help for Windows, or Chapter 5 for Macintosh.

Using EPSON Photo Paper (S041134)

EPSON Photo Paper (S041134) is perforated around the margins so you can trim your printed images to look like 4 × 6 inch (102 × 152 mm) photographs. Please note the following when using this paper.

Loading

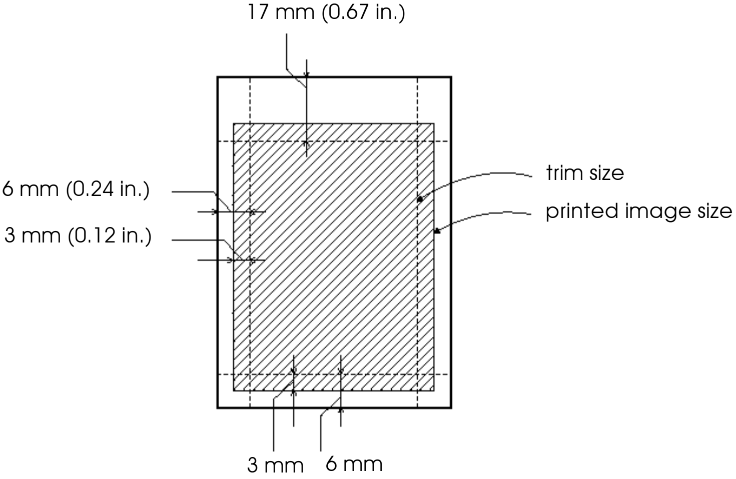
- ☐ Load the paper printable side up with the perforated margins positioned as shown below.



- ☐ 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 Photo Paper into the sheet feeder.

- ☐ To print on the coated (whiter) side of Photo Paper, select Photo Quality Glossy Paper as the Media Type setting and EPSON PhotoPaper 4X6 in as the Paper Size setting in your printer driver.

  Note:
  The outside edge of your image might be cut off when you remove the perforated margins.

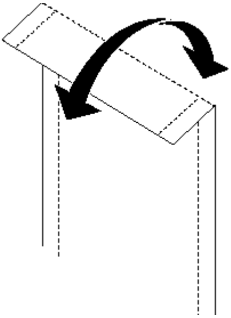


- ☐ You can also print with black ink on the non-coated side (EPSON logo side) of Photo Paper. To print on this side, select 360 dpi Ink Jet Paper as the Media Type setting and then select EPSON Photo Paper 4X6 in as the Paper Size setting.

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

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 may also remove the margins by cutting along the perforations.

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, and direct sunlight.

Chapter 7

Maintenance and Transportation

Replacing an Ink Cartridge 7-2

Cleaning the Printer 7-7

Transporting the Printer 7-8

Replacing an Ink Cartridge

The printer s indicator lights will inform you as described below when it is time to obtain a replacement ink cartridge and when it is time to replace an empty cartridge.

Note:
If you need to replace an ink cartridge when the 💧 and 💧💧 lights are off, see   Ink Cartridge Problems   on page 8-30.

EPSON recommends the use of genuine EPSON ink cartridges. Other products not manufactured by EPSON may cause damage to your printer not covered by EPSON s warranties.

When the 💧 ink out light is

☐	flashing	obtain a replacement black ink cartridge (S020093).
☐	on	replace the empty black ink cartridge.

When the 💧💧 ink out light is

☐	flashing	obtain a replacement color ink cartridge (S020110).
☐	on	replace the empty color ink cartridge.

Note:
If the ink runs out, you cannot continue printing until you replace it even if the other ink cartridge still contains ink.

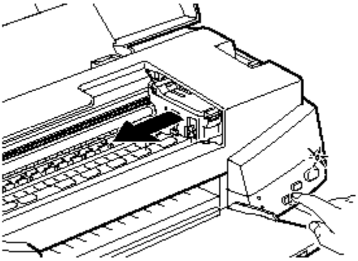
Caution:
- ❑ *Once you remove an ink cartridge, it becomes unusable and cannot be reinstalled even if ink remains.*
- ❑ *Leave the old cartridge installed in the printer until you are ready to replace it with a new one. Attempting to print a document or store the printer without a cartridge installed can damage the printer.*

To replace an ink cartridge, follow these steps.

1. Make sure the printer is on. The ⏻ power light should be on, but not flashing. Determine which cartridge needs to be replaced as indicated by the 💧 black and 💧💧 color ink out lights.

2. Make sure the output tray at the front of the printer is lowered; then open the printer cover.

3. Hold down the ⇅💧💧 cleaning button for three seconds until the print head moves left slightly to the cartridge replacement position. The ⏻ power light flashes when the print head is in position.

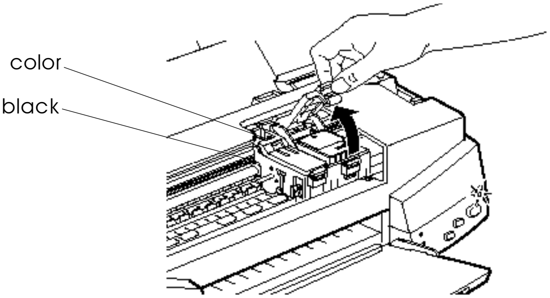


Caution:
Do not move the print head by hand. Always use the ⇅💧💧 cleaning button to move it. Otherwise you may damage the printer.

Note:

- ❑ *If you press the 💧💧 cleaning button for three seconds when the 💧 and 💧 ink out lights are off, the printer starts cleaning the print head.*
- ❑ *The printer automatically moves the print head back to its home (far right) position after about 60 seconds if you have not started the replacement procedure.*

4. Lift up the clamp that holds the cartridge you want to replace as far as it will go. When you do, the cartridge will rise partly out of the cartridge holder. The following illustration shows color ink replacement. For black ink replacement, lift up only the smaller clamp on the left.

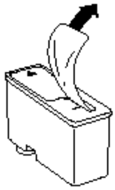


Caution:
Once you open the ink cartridge clamp, the ink cartridge becomes unusable and cannot be reinstalled even if ink remains.

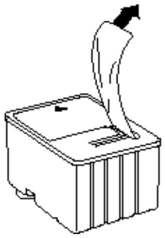
5. Lift the cartridge out of the printer and dispose of it properly. Do not take the used cartridge apart or try to refill it.

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.

6. Make sure the replacement ink cartridge is the correct one, color or black. Remove the ink cartridge from its protective bag. Next, remove only the yellow tape seal from the cartridge as shown below.



black S020093



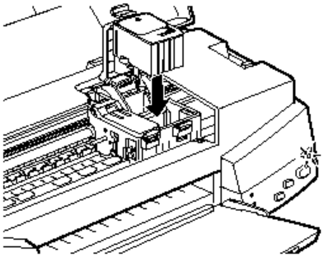
color S020110

Caution:

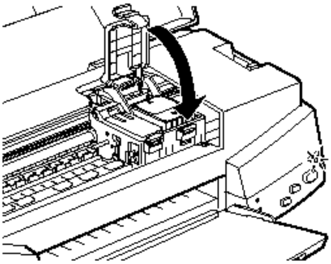
❑ *You must remove the yellow tape seal from the cartridge. Leaving the tape on when you install the cartridge will permanently damage it.*

❑ *Do not remove the tape seal from the bottom of the cartridge; otherwise, ink will leak.*

7. Lower the ink cartridge into the cartridge holder with the label on the cartridge face up and the arrow on the cartridge pointing to the rear of the printer. The larger (color) cartridge goes on the right, the black ink cartridge on the left.



8. Press the ink cartridge clamp down until it locks in place. The following illustration shows color ink replacement. For black ink replacement, press down the smaller clamp on the left.



Caution:
Once you install the cartridges, do not open their clamps again until you replace the ink cartridges. Otherwise, the cartridges may become unusable.

9. Press the ⇅💧 cleaning button then close the printer cover. The printer moves the print head and begins charging the ink delivery system. This process takes about two minutes to complete.

   When the ink charging process is finished, the ⏻ power light stops flashing.

Caution:
The ⏻ power light continues to flash while the printer performs the ink charging operation. Never turn off the printer while this light is flashing. Doing so can result in incomplete charging of ink.

Note:
Even if you do not press the ⇅💧 cleaning button, the printer moves the print head and begins the ink charging process about 60 seconds after you replace the ink cartridge.

Cleaning the Printer

To keep your printer operating at its best, you should clean it thoroughly several times a year.

1. Make sure the printer is turned off and all the control panel lights are off. Then unplug the power cord.
2. Remove any 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 printer cover closed to prevent water from getting inside.
5. If the inside of the printer accidentally gets soiled with ink, wipe it off with a damp cloth.

Warning:
Be careful not to touch the gears inside the printer.

Caution:
- ❑ *Never use alcohol or thinners to clean the printer; these chemicals can damage the components as well as the case.*
- ❑ *Be careful not to get water on the printer mechanism or electronic components.*
- ❑ *Do not use a hard or abrasive brush.*
- ❑ *Do not spray the inside of the printer with lubricants; unsuitable oils can damage the mechanism. Contact your dealer or a qualified service person if lubrication is needed.*

Transporting the Printer

If you need to transport your printer some distance, carefully repack it using the original box and packing materials as follows:

1. Open the printer cover and make sure that the print head is capped. It is capped when it is in the far right (home) position. If the print head is not capped, turn on the printer; then turn it off again. The print head returns to the home position and is capped. Close the printer cover.

   Caution:
   Leave the ink cartridges installed when you transport the printer. Removing the cartridges during transport can damage the printer.

2. Unplug the power cord from the electrical outlet; then disconnect the interface cable from the printer.
3. Remove the paper from the sheet feeder and remove the paper support.
4. Push in the output extension tray, and then raise the output tray.
5. Attach the protective materials to the printer.
6. Repack the printer and power cord in the original box.
7. Keep the printer level during transport.

Chapter 8

Troubleshooting

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Diagnosing the Problem

Troubleshooting printer problems is best handled in two easy steps: first diagnose the problem, then apply likely solutions until the problem is fixed. The information that you need to diagnose the most common problems is provided by the printer s control panel lights and by the Status Monitor utility (Windows 95 and Macintosh only). In addition, you can determine whether a problem lies with the printer itself or with the computer by performing a printer operation check.

In Problems and Solutions later in this chapter you can find causes and solutions to specific printer problems. 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 indicators

You can identify many common printer problems with the lights on the control panel. If your printer stops working and the lights are on or flashing, use the following table of panel light patterns to diagnose the problem, then follow the recommended corrective measures.

<table>
<tr><th>⏻</th><th>🗐</th><th>💧</th><th>💧💧</th><th>Problem and Solution</th></tr>
<tr><td>-</td><td>○</td><td>-</td><td>-</td><td>Paper Out</td></tr>
<tr><td colspan="4">No paper is loaded in the printer.</td><td>Load paper in the sheet feeder; then press the ⏏ load/eject button to turn this light off. The printer resumes printing.</td></tr>
<tr><td colspan="4">The paper is not loaded correctly.</td><td>Remove and reload the paper; then press the ⏏ load/eject button to turn this light off. The printer resumes printing.</td></tr>
<tr><td>-</td><td>☼</td><td>●</td><td>●</td><td>Paper Jam</td></tr>
<tr><td colspan="4">Paper has jammed in the printer.</td><td>Take all the paper out of the sheet feeder, reload the paper, then press the ⏏ load/eject button. If the light continues to flash, turn off the printer and gently pull out any paper that may be jammed in the printer. If it tears and pieces remain inside the printer, open the printer cover and remove the pieces of paper. Turn on the printer and try again.</td></tr>
<tr><td>-</td><td>-</td><td>☼</td><td>-</td><td>Ink Low (black ink cartridge)</td></tr>
<tr><td colspan="4">The black ink cartridge is nearly empty.</td><td>Obtain a replacement black ink cartridge (S020093).</td></tr>
<tr><td>-</td><td>-</td><td>○</td><td>-</td><td>Ink Out (black ink cartridge)</td></tr>
<tr><td colspan="4">The black ink cartridge is empty.</td><td>Replace the black ink cartridge with a new one (S020093).</td></tr>
<tr><td>-</td><td>-</td><td>-</td><td>☼</td><td>Ink Low (color ink cartridge)</td></tr>
<tr><td colspan="4">The color ink cartridge is nearly empty.</td><td>Obtain a replacement color ink cartridge (S020110).</td></tr>
<tr><td>-</td><td>-</td><td>-</td><td>○</td><td>Ink Out (color ink cartridge)</td></tr>
<tr><td colspan="4">The color ink cartridge is empty.</td><td>Replace the color ink cartridge with a new one (S020110).</td></tr>
<tr><td>☼</td><td>☼</td><td>○</td><td>○</td><td>Carriage Error</td></tr>
<tr><td colspan="4">The printer failed.</td><td>Press the ⏻ power button twice to reset the printer. If the error is not cleared, contact your dealer.</td></tr>
<tr><td>☼</td><td>☼</td><td>☼</td><td>☼</td><td>Unknown Printer Error</td></tr>
<tr><td colspan="4">An unknown printer error has occurred.</td><td>Turn off the printer, and contact your dealer.</td></tr>
</table>

○ = on, ● = off, ☼ = flashing, - = irrelevant

Status Monitor

If you are using Windows 95 or a Macintosh, you can use the Status Monitor to check the printer s current status. For more details, see page 4-13 (for Windows) or page 5-22 (for Macintosh).

Printer operation check

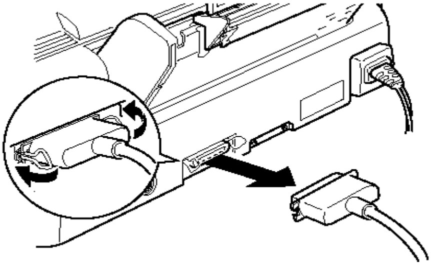
Performing a printer operation check can help you determine whether the problem comes from the printer or the computer.

- If the operation check page results appear as shown in step 4 below, this means that the printer itself is all right and that the problem probably lies in the printer software settings, application settings, the interface cable (be sure to use a shielded cable), or the computer itself.

- If the operation check page does not print satisfactorily, for example, if any segment of the printed lines is missing, there is a problem with the printer. This could be a clogged ink nozzle or a misaligned print head. See Problems and Solutions below for possible causes and solutions to the problem, or go directly to Cleaning the Print Head on page 8-26.

To perform a printer operation check, follow these steps:

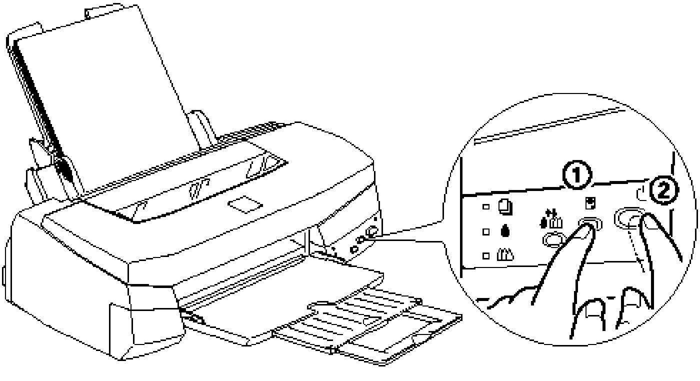
1. Make sure both the printer and computer are turned off.
2. Unlock the wire clips on both sides of the interface connector and remove the ground connecter, if necessary. Then disconnect the cable from the printer s interface connector.



3. Make sure that paper is loaded in the sheet feeder.

Caution:
Use paper at least 182 mm (7.17 inches) wide; for example, A4 size paper loaded short edge first. Otherwise, the print head will spray ink directly onto the platen, which could mar future printouts.

4. Hold down the ⎙ load/eject button and press the ⏻ power button to turn the printer on. Then release both buttons.



The printer prints an operation check page including the version of your printer s ROM, the ink counter code, character table, and a nozzle check pattern. Here is a typical printout:

The above sample is in black and white, but the actual test prints in color.

5. Press the ⏻ power button to turn off the printer after it finishes printing the operation check page.

Problems and Solutions

This section divides printer problems into five categories:

Power supply . . . . page 8-7
Operation . . . . page 8-8
Paper handling . . . page 8-14
Printing quality . . . page 8-17
Printer utilities . . . page 8-23

Go to the category for the type of problem you have and look for the description that most closely matches the problem. The most likely causes and solutions are listed first, so try them in the order that they are written until the problem is solved.

Power supply

The lights come on briefly but then go off and stay off.

Cause	What to do
The printer s voltage rating may not match the voltage of your electrical outlet.	Check the printer and outlet voltage ratings. If the voltages do not match, unplug the printer immediately and contact your dealer. ⚡ ***Warning:*** *Do not reconnect the power cord to an electrical outlet that does not have matching voltage.*

The printer does not work and the control panel lights are off.

Cause	What to do
The printer is turned off.	Press the ⏻ power button. The ⏻ power light will come on.
The power cord is not properly plugged into the electrical outlet.	Turn off the printer, make sure the power cord is firmly plugged into the electrical outlet, and turn the printer back on.
The electrical outlet is controlled by an outside switch or automatic timer.	Use a different outlet.
The electric outlet is out of order.	Plug another electrical device into the outlet to determine whether the outlet is working. If it is not, use a different outlet.

Operation

The ⏻ power light is on but nothing prints.

Cause	What to do
The interface cable is not connected properly.	Confirm that the cable is fastened to the printer and the computer securely. If the cable is connected correctly, run a printer operation check as described on page 8-4. If your Macintosh has a built-in modem, connect the interface cable to the Macintosh s printer port.

Your interface cable does not meet both the printer and computer specifications.	Use an interface cable that meets both printer and computer specifications. See Connecting the Printer to Your PC or Connecting the Printer to Your Macintosh in Chapter 2. Also see Interface Specifications in Appendix B.
Your software is not properly set up for your printer.	Make sure that your printer is properly selected in your software. Install or reinstall the printer software as described in Chapter 2.

Nothing prints and the control panel lights are on or flashing.

Cause	**What to do**
Several common printer errors have occured at once.	Use the table in Error indicators on page 8-3 to determine what combination of errors may have occurred, and apply the recommended solutions.

The printer sounds like it is printing, but nothing prints.

Cause	**What to do**
The print head nozzles are clogged.	Clean the print head. See Cleaning the Print Head on page 8-26. If this does not work after four or five trials, see below.
One or both of the ink cartridges have been used longer than six months or beyond the date on the packaging.	Try cleaning the print head. If that does not solve the problem, replace the ink cartridges as described on page 8-30.

The printer operation check prints well, but nothing prints from within an application program.

Cause	What to do
Your printer is not selected in your software.	Select your printer in the printer setup section of your software.
The interface cable does not meet both the printer and computer requirements.	Use a printer cable that meets the requirements shown under System Requirements on page 1-4.
Your computer is not 100% IBM® AT compatible.	Select Use Print Manager for this port in the Queue Setup window. To access this window, click the EPSON Spool Manager4 icon in the EPSON folder (Windows 95) or double-click this icon in the EPSON program group (Windows 3.1), and select Setup from the Queue menu.
Your computer system s memory is too small to handle the volume of data in your document.	Try reducing the image resolution of your document in your image-editing software. Install more memory in your computer if you can. Select lower resolution or less colors for your display setting as described below. For Windows 95, choose a lower resolution setting as the Color Palette setting. To access the Color Palette, click Start, point to Settings, and choose Control Panel. Then double-click the Display icon and click the Settings tab. For detailed information on making this setting, see your Windows 95 user s guide.

For Windows 3.1, double-click the Windows Setup icon on the Main menu; then click Options and choose Change System Settings. Then choose a lower resolution setting for your display from the Display pop-up list. For detailed information on making this setting, see your Windows 3.1 user s guide.

If you have a display-adapter setting utility, use it to set the lower resolution. For detailed information, see your display board user s guide.

For Macintosh, choose Control Panel from the Apple menu and select Monitors. Select a lower resolution. For detailed information on making this setting, see your Macintosh user s guide.

Color documents print out in black and white.

Cause	What to do
Your printer is not selected in your software.	Select your printer in your software.
Color printing is not selected in your application or in the printer driver.	Select color printing in your application and the printer driver. Try to print again. If the image still comes out in black and white, try printing from another program. If this fixes the problem, contact the manufacturer of the software you had trouble with.

Printing starts too high or too low on the page.

Cause	What to do
Margins are set incorrectly in your application.	Check that the margins are set correctly in your program. See the printable area specifications on page B-5 in Appendix B.
The size of the paper loaded in the printer does not match the paper size setting within your application program or printer driver.	Load the correct size of paper, or change the paper size settings within your application program or printer driver to match the size of paper you are using.

Print speed is not what you expect.

Cause	What to do
The image resolution and the amount of color used in the document may be too high.	Carefully considering your use of color and resolution can help you optimize your printing times. For more details, see Increasing the Print Speed on page 8-25. ***Note:*** *High resolution printing and color printing significantly increase the amount of data to be processed. These two factors have the greatest effect on print speed.*

Something on the page is wrong or missing.

Cause	What to do
The printer settings within your application are incorrect.	Adjust the printer settings within your application and print again. If your Macintosh has only one serial port, choose Chooser from the Apple menu and select the ☎ modem port.
The interface cable is not connected properly.	Check that the cable is securely connected to the printer and the computer. If your Macintosh has a built-in modem, connect the interface cable to the Macintosh s printer port.
An unknown problem has occurred.	Disconnect the interface cable from the computer; then try the printer operation check described on page 8-4.

The print head moved to the ink cartridge replacement position unexpectedly.

Cause	What to do
The 💧 cleaning button was pressed while the 💧 or 💧 light was flashing or on.	One or both of the ink cartridges is low or out of ink. Replace the ink cartridges as described on page 7-2.

The New Hardware Found screen appears even though the printer software has already been installed.

Cause	What to do
This error may occur when using Windows 95.	Click the Do not install a driver (Windows will not prompt you again) button; then click OK.

Paper handling

Paper does not feed properly from the sheet feeder.

Cause	What to do
Too many sheets are loaded in the sheet feeder.	Take the paper stack out of the feeder, remove some sheets, and reload the stack. Before you load paper, see page 6-4 to check the amount of paper you can load in the sheet feeder.
The edge guides are not set correctly.	Adjust the guides against the stack of paper. See Loading Paper on page 3-2.
Paper is jammed in the paper path.	Take all the paper out of the sheet feeder, reload the paper, then press the load/eject button. If the paper out light continues to flash, turn off the printer and gently pull out any paper that may be jammed in the printer. If it tears and pieces remain inside the printer, open the printer cover; then remove the pieces of paper.
The paper stack does not fit under the edge guide tab inside the left edge guide.	Reload the paper so that it fits under the edge guide tab. See Loading Paper on page 3-2.
The paper is curled or folded.	Use flat, undamaged paper.
The paper is old or creased.	Use only new, smooth sheets of paper.
The paper s size is not compatible with the printer.	Use paper that meets the paper requirements for this printer. See Paper on page B-3.

The printer loads more than one sheet at a time.

Cause	What to do
Too many sheets are loaded in the sheet feeder.	Take the paper stack out of the feeder, remove some sheets, and reload paper. Before you load paper, see page 6-4 to check the amount of paper you can load in the sheet feeder.
The edge guides are not set correctly.	Adjust the guides against the stack of paper. See Loading Paper on page 3-2.
The paper was not fanned before being loaded in the sheet feeder.	Remove the paper stack and fan it. Tap it on a flat surface to even the edges. Then reload the paper.
The edges of the paper stack are not even.	Remove the paper stack and tap it on a flat surface to even the edges. Then reload the paper.
The paper is too thin.	Make sure the paper meets the paper requirements for this printer. See Paper on page B-3.

Ejected paper is wrinkled.

Cause	What to do
The paper is damp.	Do not store your paper in a damp or humid environment. Store paper in its original packaging.
The paper is too thin.	Make sure the paper meets the paper requirements for this printer. See Paper on page B-3.

Paper does not fully eject.

Cause	What to do
The paper is too long.	Press the load/eject button to eject the paper. Use paper that meets the paper requirements for this printer. See Paper on page B-3.

Paper feed or paper jam problems occur frequently.

Cause	What to do
Sheets of paper are stuck together.	Fan the stack of paper and align the edges before loading.
The paper is too thin or rough.	Make sure the paper meets the paper requirements for this printer. See Paper on page B-3.
Too many sheets are loaded in the sheet feeder.	Check the paper package and Loading Special Paper and Other Media on page 6-4 for the amount of paper you can load at one time in the sheet feeder .
The printable side of the paper is not correctly loaded.	Try turning the stack of paper over in the sheet feeder. Most packages of paper indicate the printable side with an arrow on the end of the package. Make sure the printable side is loaded face up.

Printing quality

The printed image has gaps or faint areas.

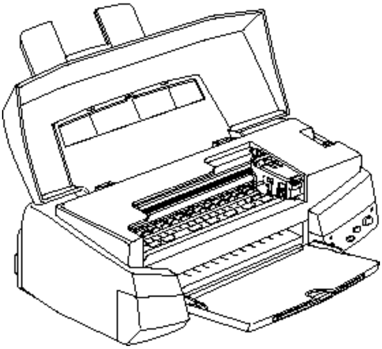
Cause	What to do
The print head nozzles are clogged.	Clean the print head. See Cleaning the Print Head on page 8-26.
The paper quality has been degraded due to age.	Use new paper.
The printer driver settings may not be correct.	Select Automatic on the printer driver s Main menu (Windows) or Print dialog box (Macintosh), and make sure the Media Type setting is appropriate for the type of paper loaded in the printer.

The printed image is blurred.

Cause	What to do
Your paper is damp.	Do not store your paper in a damp or humid environment. Store the paper in its original packaging.
The printer driver settings may not be correct.	Select Automatic on the printer driver s Main menu (Windows) or Print dialog box (Macintosh), and make sure the Media Type setting is appropriate for the type of paper loaded in the printer.

The printed image is smeared.

Cause	What to do
The paper you loaded is too thick.	Open the printer cover and set the adjust lever to the + position. See page 6-6 in Chapter 6, Printing on Special Paper.
Special paper was loaded without the support sheet under it. Index cards, glossy film, glossy paper, transparencies, and EPSON Photo Paper should be loaded with the support sheet under them.	Load the support sheet under the special paper. You can use a piece of plain paper instead of the support sheet for glossy film, glossy paper, and transparencies. See Loading Special Paper and Other Media on page 6-6, or the instructions packed with your paper.
Multiple sheets of EPSON Photo Quality Glossy Film are loaded.	Load glossy film one sheet at a time with the loading support sheet or a piece of plain paper under it. If you need to load multiple sheets of glossy film, load only up to 30 sheets with the loading support sheet or a piece of plain paper under them and set the top margin of the page to 30 mm or more.
Ink has leaked on the platen.	Wipe the inside of the printer as shown below with a soft, clean cloth.



Warning:
Be careful not to touch the gears inside the printer.

The print head nozzles are clogged.	Clean the print head. See Cleaning the Print Head on page 8-26.

White horizontal lines appear in the printed image.

Cause	What to do
The Media Type setting in your printer driver is incorrect.	Make sure the Media Type setting matches the type of paper loaded in the printer.
The MicroWeave or Super MicroWeave option in your printer driver is not selected.	Turn on MicroWeave or Super MicroWeave in your printer driver.
One of the ink cartridges is low on ink.	Check the control panel to confirm that the 💧 or 💧💧💧 ink out light is flashing, and replace the appropriate ink cartridge.
The print head nozzles are clogged.	Clean the print head. See Cleaning the Print Head on page 8-26.

Vertical printed lines do not align.

Cause	What to do
The print head is misaligned.	Align the print head with the Print Head Alignment utility. See Aligning the Print Head on page 8-30.
The printing position is misaligned.	Make sure the High Speed option in your printer driver is not selected.

Printing quality is not what you expect.

Cause	What to do
The paper loaded is not the paper selected in your application or the printer driver.	Make sure you loaded the correct paper in the printer and that you selected the same media type in your application and/or the printer software. Make sure you are using paper that meets the paper requirements for this printer. See Paper on page B-3.
You are not printing on the correct side of the paper.	Check the paper packaging for the correct side for printing; then load the printable side of the paper face up in the sheet feeder.
The printer driver settings are not correct.	Check the printer driver settings to make sure they are appropriate. If these settings are correct, check your application because some settings are overridden by application settings. Also, for more information on making printer driver settings, see online help for Windows, or Chapter 5 for Macintosh.
The High Speed setting is selected in the printer driver.	To obtain higher quality output, make sure High Speed is not selected.

Colors are different than you expect.

Cause	**What to do**
The color print head nozzles are clogged.	Clean the print head. See Cleaning the Print Head on page 8-26.
Black ink is selected in your printer driver.	Set the Ink setting to Color.
The paper is not loaded printable side up.	Check that the printable side of the paper is facing up.
The Media Type setting does not match the paper loaded.	Change the Media Type setting in your printer driver to match the type of media you have loaded. Load media that matches the Media Type setting you selected in the printer driver.
The ICM (Windows) or ColorSync (Macintosh) setting in your driver is not appropriate for your document.	Select Automatic as the Mode setting in the printer driver.
Your printer and monitor are not properly calibrated for color matching.	See the user s guides of your image-editing software and your monitor for information on calibrating your system for color matching.
Since monitors and printers produce colors differently, printed colors will not always match on-screen colors perfectly.	See Appendix A, Tips for Color Printing .

Colors are not very vibrant.

Cause	What to do
The image was printed on the wrong side of EPSON Ink Jet Paper.	Make sure that you are printing on the coated side of the paper. If necessary, flip over the paper and try printing again. If printing has not improved, clean the print heads as described on page 8-26.
The Media Type setting does not match the paper loaded.	Make sure the Media Type setting in your printer driver matches the type of media you have loaded, or load media that matches the Media Type setting.

Color dots are missing in printed graphics or characters. The printed color image has gaps or faint areas.

Cause	What to do
The color print head nozzles are clogged.	Clean the print head. See Cleaning the Print Head on page 8-26.

Black dots are missing in printed graphics or characters. The printed black image is light or faint.

Cause	What to do
The black print head nozzles are clogged.	Clean the print head. See Cleaning the Print Head on page 8-26.

Photographic images look grainy or rough.

Cause	What to do
The printing position is misaligned.	Align the print heads with the Print Head Alignment utility. See Aligning the Print Head on page 8-30.
The resolution of the original image data or the resolution setting for the image in your image-editing software may be too low.	Increase the image resolution in your image-editing software. Keep in mind that higher resolution images take longer to print. Use of the EPSON PhotoEnhance feature is recommended for printing photographic images. On the printer driver s Main menu (Windows) or Print dialog box (Macintosh), click the Advanced button and select PhotoEnhance from the settings list.

Printer utilities

The Status Monitor window does not appear when you are using Windows 95.

Cause	What to do
The Use Print Manager for this port option is selected in the Queue Setup window.	Make sure Use Print Manager for this port is not selected. Click the Start button, point to Programs, point to Epson, and click Spool Manager4. Then click Queue and Setup in the EPSON Spool Manager window.

The Enable bi-directional support for this printer option is not selected in the Spool Settings window.	You must select Enable bi-directional support for this printer in the Spool Settings window to use the Status Monitor. To access the Spool Settings window, click the Start button, point to Settings, and click Printers. Right-click the icon for your printer and choose Properties from the drop-down menu. Click the Details tab; then click Spool Settings. Select Enable bi-directional support for this printer.

When you clean the print head using the Head Cleaning utility, the output quality does not improve.

Cause	What to do
You attempted to clean the print head while one or both of the ink cartridges were low or out of ink.	Check the 🌢 and 💧 ink out lights. When one or both of the ink cartridges are low or out, the Head Cleaning utility has no effect. Replace the ink cartridges as needed. See page 7-2.

Increasing the Print Speed

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 software settings		
Print Quality	Economy	Fine - 720 dpi
Halftoning	No halftoning	Error Diffusion
High Speed	On	Off
MicroWeave Super	Off	On
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 software settings		
Ink	Black	Color
Collate*	Off	On
Page reverse*	Off	On
Page rotate*	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 software and application software you are using.

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

Cleaning the Print Head

If you find that the printed image is unexpectedly faint or dots in the printed image are missing, you may be able to solve these problems by cleaning the print head, which ensures that the nozzles are delivering ink properly.

You can clean the print head from your computer using the Head Cleaning utility in the printer software, or from the printer itself by using the printer s control panel buttons.

Note:

- *Print head cleaning uses 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.*
- *When the 💧 black or 💧💧 color ink out light is flashing or on, you cannot clean the print head. Replace the appropriate ink cartridge first.*

To clean the print head, follow these steps:

Using the Head Cleaning utility

For Windows users:

1. Make sure that the printer is on, and the 💧 and 💧💧 ink out lights are off.
2. Access the Utility menu as described in Chapter 4. Then click the Head Cleaning button.
3. Follow the on-screen messages.

   The ⏻ power light flashes while the printer performs the cleaning cycle. This operation takes about two minutes to complete.

   Caution:
   Never turn off the printer while the ⏻ power light is flashing. Doing so may damage the printer.

4. When the ⏻ power light stops flashing, click Print nozzle check pattern in the Head Cleaning dialog box and use the pattern to confirm that the head is clean and to reset the cleaning cycle.

Nozzle check pattern:

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

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

If print quality hasn t improved after repeating this procedure four or five times, follow the recommendations listed in this chapter. If the print quality still has not improved, contact your dealer.

For Macintosh users:

1. Make sure that the printer is on, and the 💧 and 💧 ink out lights are off.

2. Choose Utility from the Print dialog box. Then click the Head Cleaning button.

3. Follow the on-screen messages.

The ⏻ power light flashes while the printer performs the cleaning cycle. This operation takes about two minutes to complete.

Caution:
Never turn off the printer while ⏻ power light is flashing. Doing so may damage the printer.

4. When the ⏻ power 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 the head is clean. See page 8-28 to see a sample of the nozzle check pattern.

In the check pattern, if you find that any segments are missing from the test lines, you may need to repeat the head cleaning and print the nozzle check pattern again. If print quality hasn t improved after repeating this procedure four or five times, try other recommendations listed in this chapter. If the quality still has not improved, contact your dealer.

Using the control panel

To clean the print head using the control panel buttons, follow these steps.

1. Make sure that the printer is on and the 🌢 and 💧 ink out lights are off.

2. Press the 🌢💧 cleaning button for three seconds. The ⏻ power light begins flashing, and the printer ejects any paper in the paper path and starts cleaning the print head. This operation takes about two minutes to complete.

Caution:
Never turn off the printer while the ⏻ power light is flashing. Doing so may damage the printer.

3. After the ⏻ power light stops flashing, print a few lines to confirm that the head is clean and to reset the cleaning cycle.

If the print quality does not improve, repeat step 2, then print a few lines to check the output. If print quality hasn t improved after repeating this procedure four or five times, follow the recommendations listed in this chapter. If the quality still has not improved, contact your dealer.

Aligning the Print Head

If you notice a misalignment of vertical lines, you may be able to solve these problems from your computer using the Print Head Alignment utility in the printer software.

Caution:
Before using this utility, make sure the paper loaded in the printer is at least 210 mm (8.27 inches) wide; for example, A4 size paper loaded short edge first. Otherwise, the print head will spray ink directly onto the platen, which could mar future printouts.

For Windows users:

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

2. Click the Utility tab in the printer software window. Then click the Print Head Alignment button.

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

For Macintosh users:

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

2. Choose `Utility` from the Print dialog box. Then click the `Print Head Alignment` button.

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

Ink Cartridge Problems

If output quality does not improve even after cleaning and aligning the print head, you may need to replace one or both of the ink cartridges.

To replace an ink cartridge while the 💧 and 💧💧 ink out lights are off, follow these steps.

Caution:

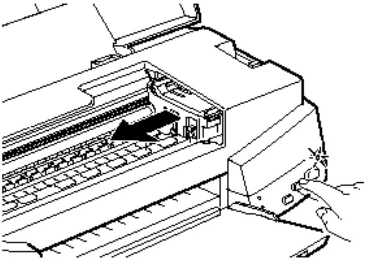
- *Once you remove an ink cartridge it becomes unusable and cannot be reinstall even if ink remains.*

- *Leave the old cartridge installed in the printer until you are ready to replace it with a new one.*

1. Make sure the printer is on. The ⏻ power light should be on, but not flashing.

2. Lower the output tray at the front of the printer; then open the printer cover.

3. Hold down the ⏏ load / eject button for three seconds. The print head moves to the replacement position. The ⏻ power light begins flashing.



Caution:
Do not move the print head by hand. Always use the ⏏ load/eject button to move it. Otherwise you may damage the printer.

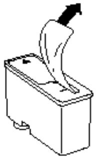
Note:
The printer automatically moves the print head back to its home (far right) position after 60 seconds if you have not started the replacement procedure.

4. Lift up the clamp that holds the cartridge you want to replace. When you do, the cartridge rises partly out of the cartridge holder. For color ink cartridge replacement, lift up the larger clamp on the right. For black ink cartridge replacement, lift up the smaller clamp on the left.

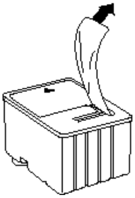
5. Lift the cartridge out of the printer and dispose of it properly. Do not take the used cartridge apart or try to refill it.

> ***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.*

6. Remove the ink cartridge from its protective bag. Next, remove only the yellow tape seal from the cartridge, as shown below.



black S020093

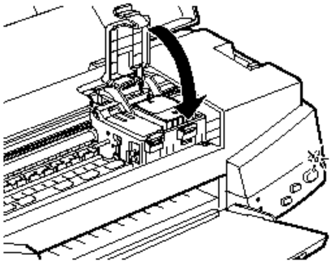


color S020110

> ***Caution:***
> - *You must remove the yellow tape seal from the cartridge. Leaving the tape on when you install the cartridge will permanently damage it.*
> - *Do not remove the tape seal from the bottom of the cartridge; otherwise, ink will leak.*

7. Lower the ink cartridge into the cartridge holder with the label on the cartridge face up and the arrow on the cartridge pointing to the rear of the printer.

8. Press the ink cartridge clamp down until it locks in place. The following illustration shows color ink replacement. For black ink replacement, press down the smaller clamp on the left.



Caution:
Once you install the cartridges, do not open their clamps again until you replace the ink cartridges. Otherwise, the cartridges may become unusable.

9. Press the ⏏ load/eject button then close the printer cover. The printer moves the print head and begins charging the ink delivery system. This operation takes about two minutes to complete.

   When the ink charging process is finished, the ⏻ power light stops flashing.

Caution:
The ⏻ power light continues to flash while the printer performs the ink charging operation. Never turn off the printer while this light is flashing. Doing so can result in incomplete charging of ink.

Note:
Even if you do not press the ⏏ load/eject button, the printer moves the print head and begins the ink charging process about 60 seconds after you replace the cartridge.

Contacting Customer Support

If your printer is not operating properly and you cannot solve your problem with the troubleshooting information in this guide, online help, and EPSON Answers, contact customer support services for assistance.

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

Serial number of your printer:
(The serial number label is on the back of the printer.)

Printer model:

Brand and model of your computer:

Printer software version:
(See your Version menu.)

Version of Windows (95, 3.1, etc.) you are using now:

Version of software applications you normally use with your printer:

For United Kingdom and the Republic of Ireland users

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

Note:
For customers in the Republic of Ireland, please use the correct dialing codes when dialing the UK telephone numbers listed in the following sections. For example the Enquiry Desk fax number, 01442 227271, should be dialed as 0044 1442 227271 from the Republic of Ireland.

Enquiry Desk

The enquiry desk team can be contacted by calling 0800 220546 in the UK or 1 800 409132 from the Republic of Ireland, by faxing 01442 227271, and via the Internet at info@epson.co.uk. They can provide the following information:

- ☐ Information and literature on new EPSON products (also available from Faxon Epson)
- ☐ Where to purchase genuine EPSON consumables, accessories and options

Customer Support

Our Customer Support team can provide the following services:

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

For information on contacting our Customer Support team, please see the Service and Support Information booklet that came with your EPSON product.

If this booklet is not available, details can be found on Faxon Epson faxback service, EPtec Bulletin Board Service or on EPSON s World Wide Web site. See below for details.

Faxon Epson

Contact Faxon Epson faxback service for:

- ❑ Literature and specifications on the latest EPSON products
- ❑ Support information including troubleshooting tips, switch settings and driver information

To use Faxon Epson, call 01442 227332 using a touch-tone phone. You will be asked to follow a simple routine to register your document request, and once you have entered your telephone and fax numbers, Faxon Epson will fax a copy of the document catalogue to your fax machine.

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

EPtec - Bulletin Board Service

Call the Epson Bulletin Board Service on 01442 227479 for the latest drivers and utilities. No membership is required. Make sure that your communications software is set to 8 data bits, 1 stop bit, no parity bit, ANSI terminal mode emulation and a modem speed of up to 28.8 Kbps. Downloading protocols supported include Xmodem, Ymodem and Zmodem. See the documentation that came with your communications software and modem for more information.

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

World Wide Web

If you can connect to the Internet and have a Web Browser, you can access EPSON s World Wide Web site at http://www.epson.com. Here you will find information on the latest EPSON products, software drivers, and answers to frequently asked questions.

For Australian users

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

EPSON FAXBACK

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

EPSON Bulletin Board System

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

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

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

Your Dealer

Don t forget that your dealer can often help identify and resolve problems. The dealer should always be the first call for advice on problems. They can often solve problems quickly and easily as well as give you advice on the next step to take.

EPSON Helpdesk

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

Access to the Helpdesk is at no charge to purchasers of new products for the first 12 months of that product s life. After that period, a different phone number is used and charges are debited to your telephone account. The current charge rates are specified when you ring the chargeable support number. You are asked to signify your acceptance before any charges are incurred.

The Helpdesk numbers are:

first 12 months	(02) 9903 9040
after 12 months	1 902 263 192
fax number	(02) 9903 9189

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

For Singapore users

Contact the telephone and fax numbers below:

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

For Hong Kong users

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

Internet home page

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

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

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

Electronic bulletin board system

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

BBS:	(852) 2827-4244

Technical Support Hotline

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

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

For Philippines users

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

Phone:	(632) 813-6552
Fax:	(632) 813-6545
BBS:	(632) 814-0595

Appendix A

Tips for Color Printing

Basics of Color A-2

Image Resolution and Image Size A-5

Basics of Color Documents A-7

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. See also the *Color Guide*.

Synchronizing monitor colors and printer colors

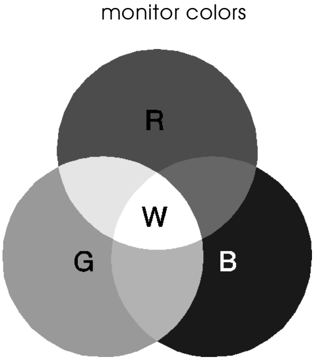
Your printer produces images by printing tiny patterns of ink dots on paper. It uses the colors cyan (C), magenta (M), yellow (Y), and black (K) to create a blending effect that makes you think you are seeing millions of colors. This type of color, produced by pigments that absorb some colors of light and reflect others, is called subtractive.

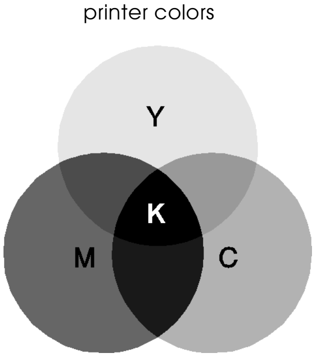
Note:
In theory, pure cyan, magenta, and yellow should produce black, but actually they produce a muddy brown and must be combined with black ink to produce a true black (K).

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).

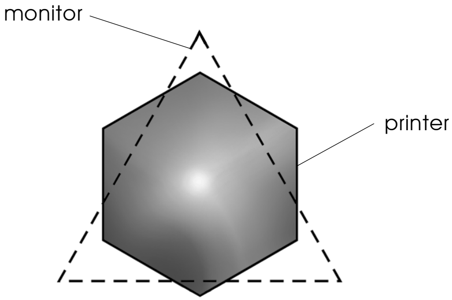
Since the printer and monitor produce color images differently, and also the available range of color produced by the monitor and printer are different, the image on the screen does not exactly match your printed output all of the time. If you want to adjust, or calibrate, the printed color to more closely 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 user s guide for information on color matching.





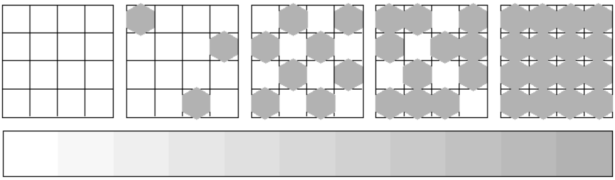
The range of colors that can be displayed:



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 neutral colors. This method is suitable for printing documents that contain large areas of solid color, such as bar charts and graphs.

Error diffusion

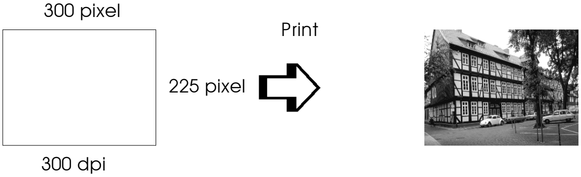
Error diffusion randomly places individual dots of different colors to create the appearance of neutral colors. By randomly placing dots, the printer can achieve excellent colors and subtle color gradation. This method is suited for printing documents that contain finely detailed graphics or photographic images.

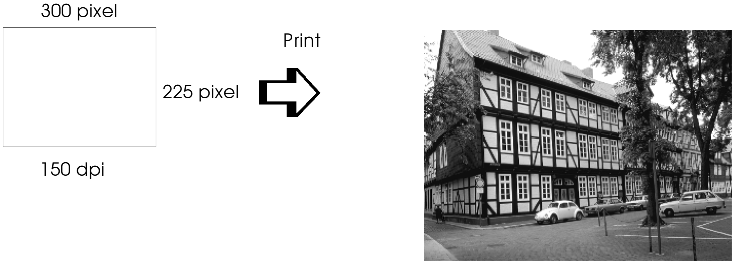
Image Resolution and Image Size

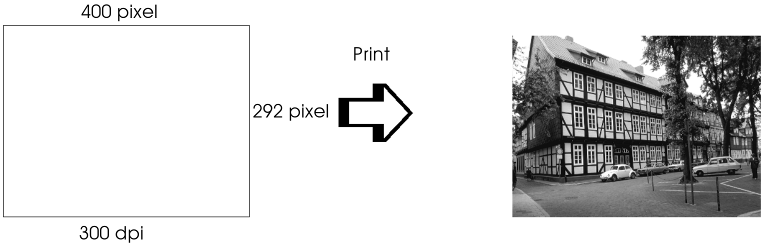
The resolution of your original image affects the quality of your printouts. Generally, the higher the resolution, the better the print quality. However, keep in mind that the higher the resolution, the longer the wait for processing and printing a document.

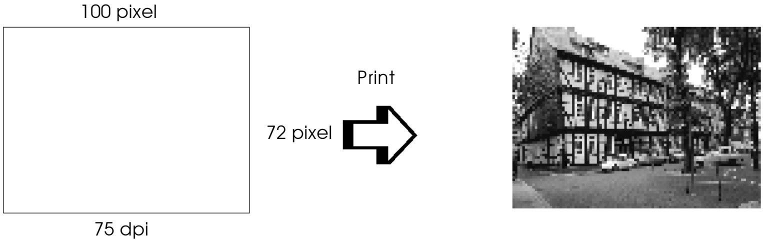
Generally, the printed image size is in inverse proportion to the image resolution, as shown below. The larger the image size, the lower the image resolution. Conversely, the smaller the image size, the higher the image resolution.

Note:
Some applications have a function that can correct this relationship.






400 pixel
Print
292 pixel
300 dpi


100 pixel
Print
72 pixel
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.

Basics of Color Documents

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.*

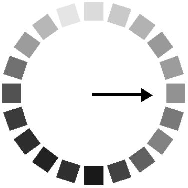
Know WHY you are using color

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.

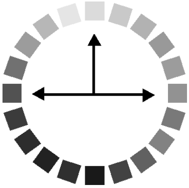
For example:
An overhead presentation of sales results by territory is far more interesting and memorable if you show the figures with colored charts and graphs.

Know How to select colors

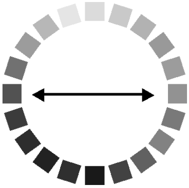
- ☐ *Use just one hue in the hue circle to make your document unified. Modify saturation or brightness to add interest.*



- ☐ *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.*

Note:
See the Color Guide *for the hue circle.*

Appendix B

Specifications

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Technical Specifications

Printing

Printing method:	On-demand ink jet
Nozzle configuration:	32 nozzles × 6 (black, cyan, magenta, yellow, light cyan, light magenta)

Printable columns and printing speeds:

Print quality	Printable area	Available dots	CR speed
180 dpi	8.26 inches	1488	20 ips
360 dpi	8.26 inches	2976	20 ips
720 dpi	8.26 inches	5952	20 ips

ips stands for inches per second.

Resolution:	Maximum 720 dpi × 720 dpi
Print direction:	Bidirectional with logic seeking
Control code:	ESC/P Raster
Line spacing:	1/6 inch or programmable in 1/360-inch increments
Paper feed speed:	66.6 milliseconds per 1/6-inch line
Input buffer:	64KB
Character tables:	The characters for PC437 (US, Standard Europe) and PC850 (Multilingual) can be selected using control panel buttons. While holding down the cleaning button, press the ⏻ power button. Then release both buttons.

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) Legal (216 mm × 356 mm) Half Letter (139.7 mm × 215.9 mm) Executive (190.5 mm × 254 mm)
Paper types	Plain bond paper, special papers distributed by EPSON
Thickness (for plain bond paper)	0.08 mm to 0.11 mm (0.003 to 0.004 inch)
Weight (for plain bond paper)	64 g/m^2 (17 lb) to 90 g/m^2 (24 lb)

Transparencies, glossy film, glossy paper:

Size	A4 (210 mm × 297 mm) Letter (216 mm × 279 mm) A6 (105 mm × 148 mm)* *Glossy film only
Paper types	Special papers distributed by EPSON

Adhesive sheets:

Size	A4 (210 mm × 297 mm)
Paper types	Special paper distributed by EPSON

Envelopes:

Size	No. 10 (240 mm × 104 mm) DL (220 mm × 110 mm) C6 (114 mm × 162 mm)
Paper types	Plain bond paper, air mail
Thickness	0.16 mm to 0.43 mm (0.006 to 0.017 inch)
Weight	45 g/m^2 (12 lb) to 75 g/m^2 (20 lb)

Index cards:

Size	A6 (105 mm × 148 mm) 5 × 8 inches (127 mm × 203 mm) 10 × 8 inches (254 mm × 203 mm)
Paper types	Special papers distributed by EPSON

Note:

- *Poor quality paper may reduce print quality and cause paper jams and other problems. If you encounter problems, switch to a higher grade of paper.*
- *Do not load curled or folded paper.*
- *Special papers distributed by EPSON are only usable under normal conditions:*

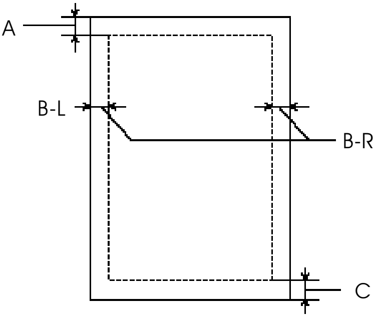
Temperature	*15 to 25°C (59 to 77°F)*
Humidity	*40 to 60% RH*

- *Printouts on EPSON Photo Quality Glossy Film should be stored under the following conditions:*

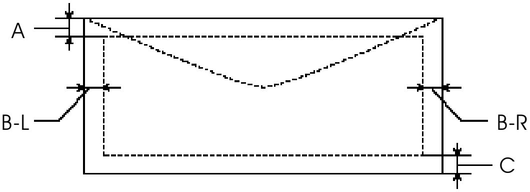
Temperature	*15 to 30°C (59 to 86°F)*
Humidity	*20 to 60% RH*

Printable area:

Single sheets / index cards



Envelopes



A: The minimum top margin is 3.0 mm (0.12 inch).

When loading multiple sheets of EPSON Photo Quality Film, the minimum top margin is 30 mm (1.2 inches).

B: The minimum left margin is 3.0 mm (0.12 inch).

The minimum right margin for single sheet paper is 3.0 mm (0.12 inch) except for letter and legal size paper. The minimum right margin for letter and legal size paper is 9.0 mm (0.35 inch).

The minimum right margin for envelopes is as follows:
7 mm (0.28 inch) for DL envelopes.
28 mm (1.10 inches) for No. 10 envelopes.
3 mm (0.12 inch) for C6 envelopes.

C: The minimum bottom margin is 14.0 mm (0.54 inch).

Note:
Always load paper into the sheet feeder short edge first. However, envelopes should be loaded long edge first.

Ink cartridges

Black ink cartridge (S020093):

Color	Black
Print capacity*	540 pages/A4 (ISO/IEC 10561 Letter Pattern at 360 dpi)
Cartridge life	2 years from production date if unopened; 6 months if opened at 25°C (77°F)
Temperature	Storage (installed): -20 to 40°C (-4 to 104°F) 1 month at 40°C (104°F) Storage (uninstalled): -30 to 40°C (-22 to 104°F) 1 month at 40°C (104°F) Transit: -30 to 60°C (-22 to 140°F) 1 month at 40°C (104°F) 120 hours at 60°C (140°F) Freezing:** -16°C (3.2°F)
Dimensions	19.8 mm (W) × 52.7 mm (D) × 38.5 mm (H)

Color ink cartridge (S020110):

Colors	Cyan, Magenta, Yellow, Light Magenta, Light Cyan
Print capacity*	190 pages (A4, 360 dpi, 5% duty each color)
Cartridge life	2 years from production date if unopened; 6 months if opened at 25°C (77°F)
Temperature	Storage (installed) : -20 to 40°C (-4 to 104°F) 1 month at 40°C (104°F) Storage (uninstalled): -30 to 40°C (-22 to 104°F) 1 month at 40°C (104°F) Transit: -30 to 60°C (-22 to 140°F) 1 month at 40°C (104°F) 120 hours at 60°C (140°F) Freezing:** -18°C (-0.4°F)
Dimensions	51.4 mm (W) × 52.7 mm (D) × 38.5 mm (H)

* The print capacity may vary depending on how often you use the print head cleaning function.

** It thaws and is usable after approximately 3 hours at 25°C (77°F).

Caution:

- *EPSON recommends the use of genuine EPSON ink cartridges. 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.*

Mechanical

Paper feed method:	Friction
Paper path:	Sheet feeder, rear entry
Sheet feeder capacity:	100 sheets at 64 g/m^2 (17 lb) paper
Dimensions:	Storage Width: 429 mm (16.9 inches) Depth: 275 mm (10.8 inches) Height: 168 mm (6.6 inches) Printing (standard) Width: 429 mm (16.9 inches) Depth: 613 mm (24.1 inches) Height: 309 mm (12.2 inches) Printing (on transparencies) Width: 429 mm (16.9 inches) Depth: 695 mm (27.4 inches) Height: 196 mm (7.7 inches)
Weight:	5.2 kg (11.5 pounds) without the ink cartridges

Electrical

	120V Model	**220–240V Model**
Input voltage range	103.5 to 132V	198 to 264V
Rated frequency range	50 to 60 Hz	
Input frequency range	49.5 to 60.5 Hz	
Rated current	0.4A	0.2A
Power consumption	Approx. 15W (ISO/IEC 10561 Letter Pattern)	

Note:
Check the label on the back of the printer for the voltage of your printer.

Environmental

Temperature:
Operation: 10 to 35°C (50 to 95°F)
Storage:* -20 to 60°C (-4 to 140°F)
1 month at 40°C (104°F)
120 hours at 60°C (140°F)

Humidity (without condensation):
Operation: 20 to 80% RH
Storage:* 5 to 85% RH

*Stored in shipping container

Initialization

The printer can be initialized (returned to a fixed set of conditions) in these ways:

Hardware initialization	∗ The printer is turned on. ∗ The printer receives an $\overline{\text{INIT}}$ signal from the parallel interface.
Software initialization	∗ Software sends the ESC @ (initialize the printer) command.

Hardware initialization

When the printer is turned on, the printer mechanism is initialized and the input data buffer and print buffer are cleared. Printer settings are returned to their default values. However, the printer mechanism is not initialized if the printer is turned on within ten seconds after turning it off. In this case, the printer caps the print head, and ejects any paper in the paper path.

Software initialization

Clears the print buffer and returns printer settings to their default values. However, software initialization does not initialize the printer mechanism or clear the data buffer.

Safety approvals

Safety standards:	
U.S. model	UL 1950 with D3, CSA C22.2 No.950 with D3
European model	EN60950 (VDE and NEMKO)
EMC:	
U.S. model	FCC part 15 subpart B class B CSA C108.8 class B
European model	EN 55022 (CISPR Pub. 22) class B EN 61000-3-2 EN 61000-3-3 EN 50082-1 IEC801-2 IEC801-3 IEC801-4
Australian model	AS/NZS 3548 class B

Interface Specifications

Your printer is equipped with an 8-bit parallel interface and a serial interface.

Parallel interface

The built-in parallel interface has the following characteristics:

Foward channel

Data format:	8-bit parallel, IEEE-1284 compatibility 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
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

Serial interface

The printer s built-in serial interface is based on the RS-423 standard. This interface has the following characteristics:

Standard:	Based on RS-423
Synchronization:	Synchronous
Bit rate:	Approx. 900K bps
Handshaking:	X-ON/X-OFF DTR protocol
Word format:	
Data bit	8 bits
Parity bit	None
Start bit	1 bit
Stop bit	1 bit
Connector:	8-pin mini-circular connector
Recommended cable:	Apple System Peripheral-8 cable (Part number M0197)

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 carriage return is misaligned. See also *MicroWeave*.

bidirectional printing
Printing in which the print heads print in both directions. This increases the speed of printing.

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.

character table
A collection of letters, numbers, and symbols that provides you with the characters used in a particular language.

CMYK
Cyan (blue-green), magenta, yellow, and black. These colored inks are used to create the subtractive system array of printed colors.

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.

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*.

dot matrix

A method of printing in which each letter or symbol is formed by a pattern (matrix) of individual dots.

dpi

Dots per inch. The dpi measures the resolution. See also *resolution*.

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 processing 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.

EPSON PhotoEnhance

An advanced image enhancement feature developed by EPSON. Selecting PhotoEnhance in your printer driver produces sharper images and more vivid colors by automatically adjusting the contrast, saturation, and brightness of the original image data.

Error Diffusion

This halftoning setting smooths out edges by randomly placing dots of varying colors. This has the opposite effect of the Finest Detail setting.

ESC/P

Abbreviation for Epson Standard Code for Printers. This system of commands gives you control of your printer from your computer. It is standard for all EPSON printers and supported by most application programs for personal computers.

ESC/P Raster

A command language that gives you control of your printer from your computer. Commands in this language produce laser-like features, such as enhanced graphics printing.

Finest Detail

This printer driver setting automatically makes your printed images sharper and clearer. This has the opposite effect of the Error Diffusion setting. 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
A 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.

high speed printing
Printing in which images are printed in both directions. This provides faster printing. This is also called bidirectional printing.

ICM
Image Color Matching. This setting uses the Windows 95 color matching method to automatically match the colors in your printout with the colors displayed on your screen.

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 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 a peripheral such as a printer. Generally, printers have two interfaces, parallel and serial. A parallel interface transmits data one byte, or eight bits, at a time. A serial interface transmits data one bit at a time.

loading position
The position to which the paper is automatically loaded.

IPS
Inches per second. This scale is used to measure the print head speed.

media
Materials upon which data is printed, such as envelopes, plain paper, special paper, and transparency film.

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.

parallel interface
See *interface.*

power-on functions
These are special functions, such as a printer operation check, that you can perform by holding down a control panel button while turning on the printer.

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. See also *driver*.

printer 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.

print head alignment
A maintenance procedure you should perform when the black and color inks on your printout are misaligned or the printout seems fuzzy.

print server
The print server acts as a post office for all print jobs sent over a network. It receives the jobs and then distributes them to the assigned printer. It also holds extra print jobs while the printer is busy. See also *print queue*.

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. All data stored in RAM is lost when the printer is turned off.

reset
To return a printer to its defaults either by sending a command, an $\overline{\text{INIT}}$ signal, or 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.

screen pattern
This feature prints shaded areas as they appear on screen, instead of printing them as halftones.

serial interface
See *interface*.

spool

The process by 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

A software program that converts print data into codes that your printer understands. See also *spool*.

status monitor

A software program that allows you to check the printer s status, such as the amount of ink remaining before printing.

subtractive colors

Colors produced by pigments that absorb some colors of light and reflect others. See also *CMYK*.

unidirectional printing

Printing in which the print head prints in one direction only. Unidirectional printing is useful for printing graphics because it allows more precise vertical alignment than bidirectional printing.

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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*Macintosh only
†Windows only

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EPSON OVERSEAS MARKETING LOCATIONS

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

EPSON UK LTD.
Campus 100, Maylands Avenue,
Hemel Hempstead, Herts,
HP2 7TJ, U.K.
Phone: (+44) 01442 61144
Fax: (+44) 01442 227227

EPSON DEUTSCHLAND GmbH
Zülpicher Straße 6,
40549 Düsseldorf Germany
Phone: (0211) 56030
Telex: 8584786

EPSON FRANCE S.A.
68 bis, rue Marjolin
92300, Levallois-Perret, France
Phone: 33.1.40.87.37.37
Telex: 610657

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

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

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

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

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

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

SEIKO EPSON CORPORATION (Hirooka Office)
80 Harashinden, Hirooka
Shiojiri-shi, Nagano-ken
399-07 Japan

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

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EPSON OVERSEAS MARKETING LOCATIONS

EPSON AMERICA, INC.
20770 Madrona Ave.
P.O. Box 2842
Torrance, CA 90509-2842
Phone: (800) 922-8911
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EPSON UK LTD.
Campus 100, Maylands Avenue,
Hemel Hempstead, Herts,
HP2 7TJ, U.K.
Phone: (+44) 01442 61144
Fax: (+44) 01442 227227

EPSON DEUTSCHLAND GmbH
Zülpicher Straße 6,
40549 Düsseldorf Germany
Phone: (0211) 56030
Telex: 8584786

EPSON FRANCE S.A.
68 bis, rue Marjolin
92300, Levallois-Perret, France
Phone: 33.1.40.87.37.37
Telex: 610657

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

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

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

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Phone: (02) 717-7360
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20099 Sesto S.Giovanni
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Fax: 2-2440750

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Av. de Roma, 18-26
08290 Cerdanyola del Valles
Barcelona, Spain
Phone: 582. 15.00
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80 Harashinden, Hirooka
Shiojiri-shi, Nagano-ken
399-07 Japan

EPSON PORTUGAL, S.A.
R. do Progresso, 471, 1º Perafita
4460 Matosinhos, Portugal
Phone: (02) 996 14 02
Fax: (02) 996 14 11

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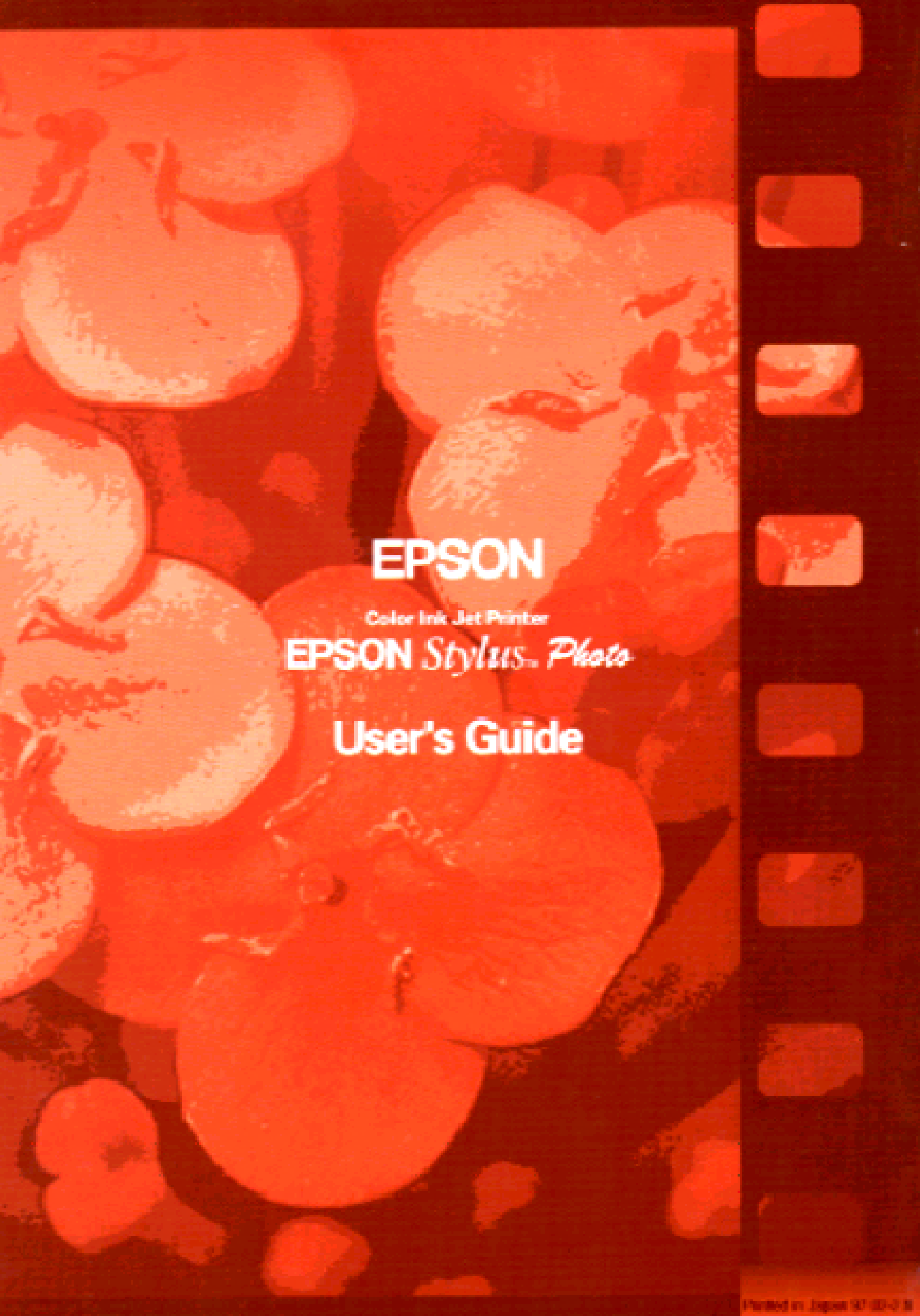

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