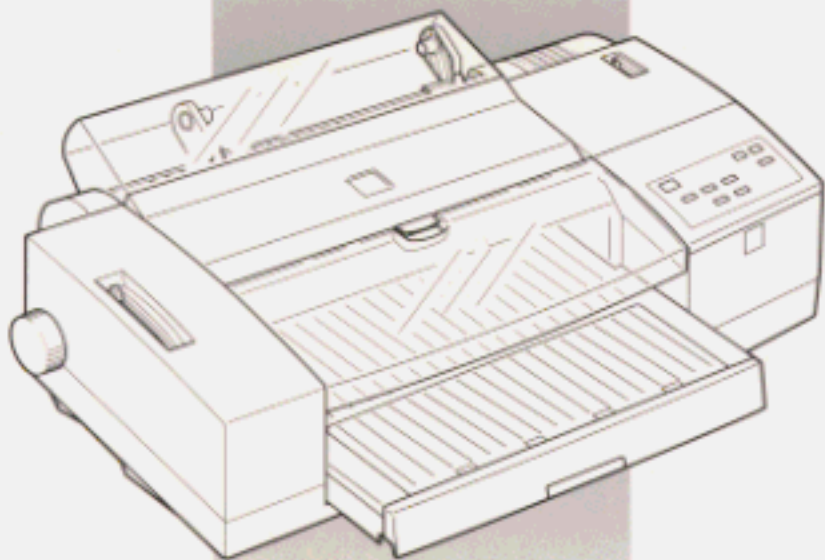


EPSON

Ink Jet Printer

EPSON *Stylus*™ COLOR 3000



User's Guide

Where to Find Information

This User's Guide

Provides you with all the information you need to use your EPSON Stylus COLOR 3000 and consumable products, from setting up to troubleshooting.

Online Help

Provides you with detailed information and instructions on the Windows-based printer software that controls your printer. See Chapter 3 for information on accessing online help.

Color Guide

Explains the ABC's of color printing and shows you how to get impressive results from your printer.

Customer Support

Contact Customer Support if your printer is not operating properly and you cannot solve the problem with the troubleshooting information in this guide and online help. See "Contacting Customer Support" in Chapter 8 for more information.

EPSON Stylus™ COLOR 3000

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
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Nagano-ken 392 Japan

Representative: EPSON EUROPE B.V.
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Declares that the Product:

Product Name: Ink Jet Printer
Model: P891A

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

Directive 89/336/EEC:

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

Directive 73/23/EEC:

EN 60950

March 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 cartridge during printing.
- ❑ Under normal circumstances, ink will not come out of the cartridge. 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 heads.

- ❑ 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.
- ❑ Always turn the printer off using the ⏻ Operate button. The Pause light flashes until the print heads are capped, which means they are in the home (far right) position. Do not unplug the printer or turn off the power to the outlet until the Pause light stops flashing and the ⏻ Operate light is off.
- ❑ Before transporting the printer, make sure the print heads are capped in the home 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 ($\perp$).

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.



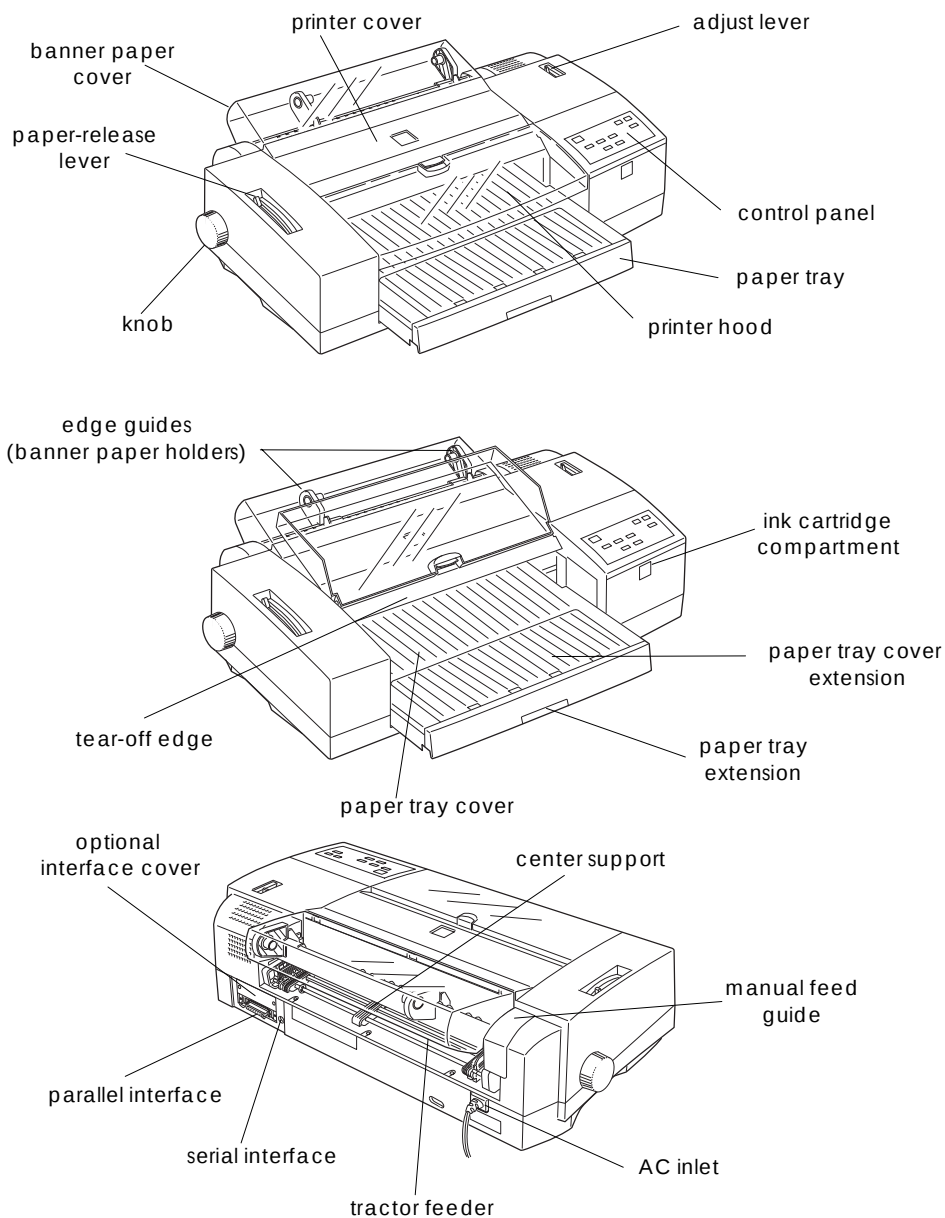
Cautions must be observed to avoid damage to your equipment.

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

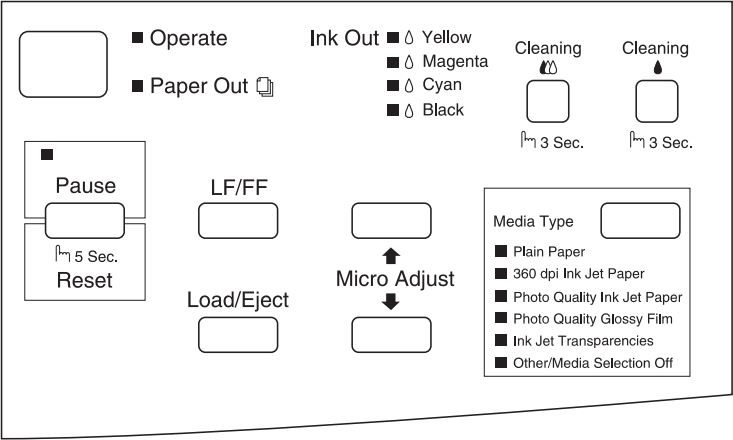
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Printer Parts and Control Panel Functions



Control Panel



Buttons

Buttons	Function
Operate	Turns the printer on and off.
LF/FF	Feeds paper line by line. Loads a single sheet or advances continuous or banner paper to the next top-of-form position if held down.
Load/Eject	When paper is not loaded: Loads a sheet of paper or a single sheet of continuous paper. When paper is loaded: Ejects a sheet of paper. Feeds continuous paper backward to the paper-park position. Ejects banner paper backward. Feeds continuous or banner paper to the tear-off position when pressed after printing and Auto tear-off mode is set to off in the default-setting mode.
Pause/Reset	Stops printing temporarily. Resumes printing when pressed again. Clears the printer buffer if pressed for five seconds.

Buttons	Function
Micro Adjust ↓ Micro Adjust ↑	Adjusts the loading position or tear-off position for continuous paper. Press the Micro Adjust ↓ button to feed paper forward or press Micro Adjust ↑ to feed paper backward. Micro Adjust settings are saved in the printer's memory. See Chapter 5 for details on adjusting the loading position or tear-off position.
Cleaning ●	Starts the black print head cleaning cycle if pressed for three seconds. See "Cleaning the Print Heads" on page 8-36 for details. Note: <i>Cleaning the print heads uses ink. Don't do it unless print quality declines.</i>
Cleaning ●●	Starts the color print head cleaning cycle if pressed for three seconds. See "Cleaning the Print Heads" on page 8-36 for details. Note: <i>Cleaning the print head uses ink. Don't do it unless print quality declines.</i>
Media Type	Determines whether the Media Type setting you make in the printer driver matches the type of media loaded in the printer. Note: <i>The printer's Media Type feature only works with Windows 95 and Macintosh.</i>

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.

Lights		Printer status
Operate ⏻	○	Printer is on.
	◐	Data remains in the printer's memory.
Paper Out 📄	○	Paper out. Load paper in the sheet feeder; then press the Load / Eject button to resume printing.
	◐	Paper jam. Turn off the printer and gently pull all the paper out of the printer.

Lights		Printer status
Ink Out  (Yellow)		Ink low. The yellow ink cartridge is nearly empty. Prepare and replace the yellow ink cartridge.
		Ink out. The yellow ink cartridge is empty. Replace the yellow ink cartridge.
Ink Out  (Magenta)		Ink low. The magenta ink cartridge is nearly empty. Prepare and replace the magenta ink cartridge.
		Ink out. The magenta ink cartridge is empty. Replace the magenta ink cartridge.
Ink Out  (Cyan)		Ink low. The cyan ink cartridge is nearly empty. Prepare and replace the cyan ink cartridge.
		Ink out. The cyan ink cartridge is empty. Replace the cyan ink cartridge.
Ink Out  (Black)		Ink low. The black ink cartridge is nearly empty. Prepare and replace the black ink cartridge.
		Ink out. The black ink cartridge is empty. Replace the black ink cartridge.
Pause		Printing is paused.
		Performing a special procedure such as replacing an ink cartridge, charging ink, or cleaning print heads.
Media Type-Plain Paper		Plain paper is selected for printing.
Media Type-360 dpi Ink Jet Paper		360 dpi Ink Jet Paper is selected for printing.
Media Type-Photo Quality Ink Jet Paper		Photo Quality Ink Jet Paper is selected for printing.
Media Type-Photo Quality Glossy Film		Photo Quality Glossy Film is selected for printing.
Media Type-Ink Jet Transparencies		Transparency Film is selected for printing.
Other/ Media Selection off		A media type not listed above is selected for printing, or the software does not verify that the media selected in the software matches the media loaded in the printer.

○ = on, ◐ = flashing

For details on paper handling, see Chapter 5. For details on replacing an ink cartridge, see page 7-2.

System Requirements

When using your printer with a PC

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

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

*The amount of required RAM varies depending on your system and the number and kind of applications you are running. If out of memory errors occur even though you have the amount of minimum RAM shown above, close other applications or install more RAM.

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 7.5 or later
3MB of available memory	8MB or more of available memory

Note:

- ❑ *The amount of available memory varies according to the number and kind of applications that are open. To see how much memory is available, choose About This Macintosh from the Apple menu and refer to the memory size (listed in kilobytes) under “Largest Unused Block” (1,024K=1MB).*
- ❑ *The memory requirements above are for printing on Letter size paper. These requirements may vary depending on the size of the paper, the type of application you are using, and the complexity of the document you want to print.*
- ❑ *You need an additional 1MB of available memory when background printing is turned on.*

In addition to these system and memory requirements, you also need 6MB of free hard disk space to install your printer software. To print, you need extra hard disk space amounting to about double the size of the file you want to print.

Options and Consumable Products

Options

The following options are available for use with your printer.

Interface cards

A number of optional interfaces are available to supplement the printer's built-in parallel interface. See Appendix B for details. If you are not sure whether you need an optional interface or if you want to know more about interfaces, contact your dealer.

Serial Interface Card C82305*/C82306*
32KB Serial Interface Card C82307*/C82308*
32KB Parallel Interface Card C82310*
32KB IEEE 488 Interface Card C82313*
Twinax Interface Card C82315*
Coax Interface Card C82314*
LocalTalk™ Interface Card C82312*
Ethernet Interface Card C82331*
Type B Bidirectional Parallel Interface Card C82345*

Note:

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

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 Amphenol 57 (printer)

Serial Interface Cable C83603*/C83604* from D-SUB 25-pin (computer) to D-SUB 25-pin (printer)

Serial Interface Cable C83605*/ C83606* from D-SUB 9-pin (computer) to D-SUB 25-pin (printer)

Banner Paper Cutter

Use of the EPSON Banner Paper Cutter is recommended for precisely and cleanly cutting off your printed continuous paper.

Banner Paper Cutter C81505*

Consumable Products

Ink cartridges

Yellow ink cartridge	S020122
Magenta ink cartridge	S020126
Cyan ink cartridge	S020130
Black ink cartridge	S020118

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
	S041028
EPSON 360 dpi Ink Jet Paper (A3)	S041065
	S041046
EPSON 360 dpi Ink Jet Paper (Super A3/B)	S041066
	S041047
EPSON 360 dpi Ink Jet Paper (A2)	S041078
EPSON Photo Quality Ink Jet Paper (A4)	S041061
	S041026
EPSON Photo Quality Ink Jet Paper (Letter)	S041062
	S041029

EPSON Photo Quality Ink Jet Paper (Legal)	S041067
	S041048
EPSON Photo Quality Ink Jet Paper (A3)	S041068
	S041045
EPSON Photo Quality Ink Jet Paper (B)	S041070
	S041044
EPSON Photo Quality Ink Jet Paper (Super A3/B)	S041069
	S041043
EPSON Photo Quality Ink Jet Paper (A2)	S041079
EPSON Photo Quality Ink Jet Card (A6)	S041054
EPSON Photo Quality Ink Jet Card (5 × 8 in.)	S041121
EPSON Photo Quality Ink Jet Card (8 × 10 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 Film (A3)	S041073
EPSON Photo Quality Glossy Film (B)	S041075
EPSON Photo Quality Glossy Film (Super A3/B)	S041074
EPSON Photo Quality Glossy Paper (A4)	S041126
EPSON Photo Quality Glossy Paper (Letter)	S041124
EPSON Photo Quality Glossy Paper (A3)	S041125
EPSON Photo Quality Glossy Paper (Super A3/B)	S041133
EPSON Photo Quality Glossy Paper (A2)	S041123
EPSON Ink Jet Transparencies (A4)	S041063
EPSON Ink Jet Transparencies (Letter)	S041064
EPSON Photo Quality Self Adhesive Sheet (A4)	S041106
EPSON 360 dpi Ink Jet Banner Paper	S041103
EPSON Photo Quality Banner Paper	S041102
EPSON Ink Jet Canvas Cloth	S041132
EPSON Ink Jet Back Light Film (A3)	S041131
EPSON Ink Jet Back Light Film (A2)	S041130

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, dry place.*

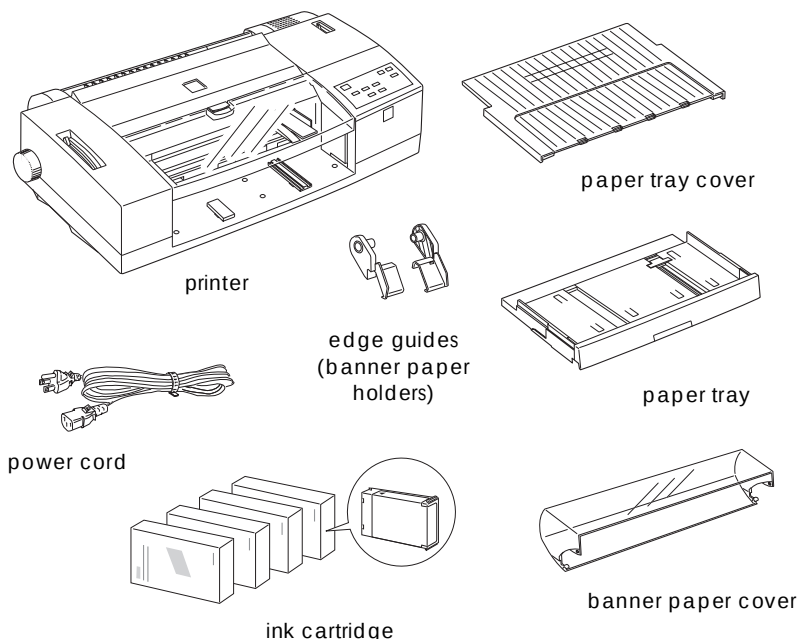
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Unpacking the Printer

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



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.

The cable cover is needed to prevent the interface cable and power cord from interfering with the paper supply when using continuous paper.

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

Choosing a Place for the Printer

Follow the guidelines listed below when selecting a location for your printer.

- ☐ Place the printer on a flat, horizontal, stable surface. The printer will not operate properly if it is tilted or at an angle.
- ☐ Place the printer so that it can be connected easily to the computer or the network interface cable.
- ☐ 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 contact 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.
- ☐ Clear the paper path of any obstruction before printing on continuous paper.

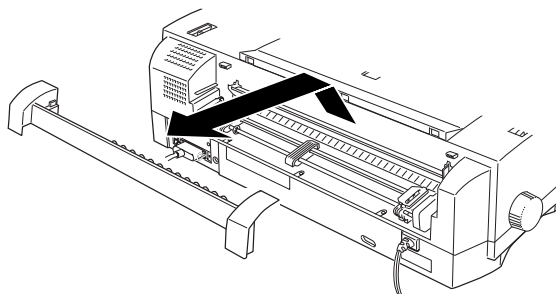
Note the following precautions when using a printer stand:

- ❑ Use a stand that can support at least 30.0 kg (66.0 lb) for this printer.
- ❑ Never use a stand that tilts the printer. The printer should always be kept level.
- ❑ Position your cables so they do not interfere with paper feeding; where possible, secure them to a leg of the printer stand.

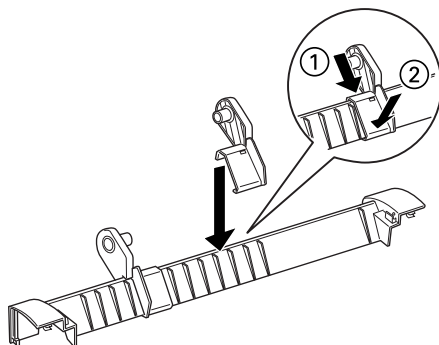
Installing the edge guides (banner paper holders)

Follow these steps to install the edge guides. The edge guides can be used to guide paper into the manual feed slot or to hold a roll of banner paper.

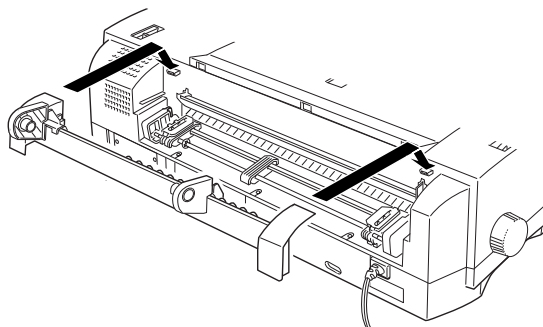
1. Grasp the bottom edge of the manual feed guide with both hands and gently lift it up and away from the printer.



2. Place the top edge of the right edge guide over the manual feed guide; then snap the bottom edge of the guide into place. Repeat this step for the left guide.

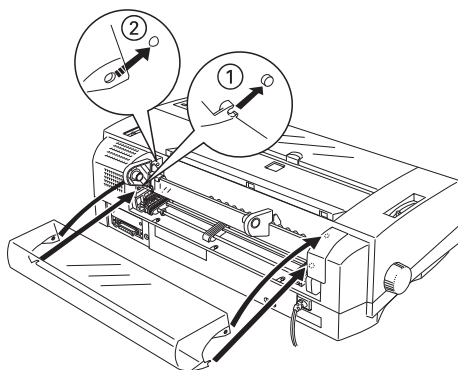


3. Position the manual feed guide so that the tabs on the back of the printer line up with the clips on the inside of the guide; then press on the back of the guide with both hands until it clicks into place.



Installing the banner paper cover

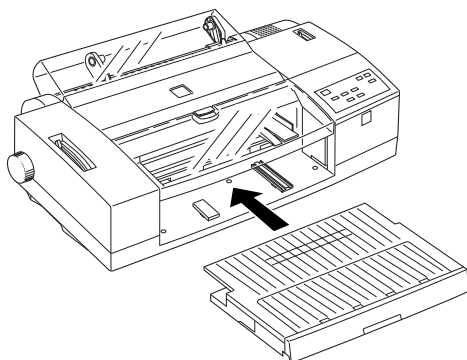
To install the banner paper cover, slide the clips on the bottom of the banner paper cover over the tabs on the bottom of the manual feed guide. Then, push the cover up until the holes fit over the tabs on the back of the printer to close the cover.



Installing the paper tray and cover

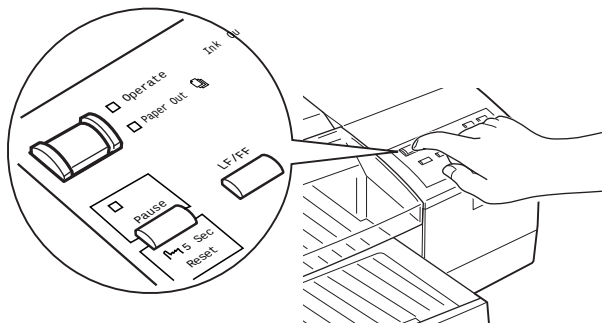
You need to install the paper tray and the paper tray cover before you begin using the printer.

First, place the paper tray cover on the paper tray so that it fits into the slots on the sides of the paper tray. Then insert the paper tray into the lower front opening of the printer and push it firmly into position.



Plugging In the Printer

1. Make sure the printer is turned off. It is off when the surface of the  Operate button is even with the button protectors beside the button, as shown.



2. 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.

3. If the power cord is not attached to the printer, connect it to the AC inlet on the back of the printer.
4. Plug the power cord into a properly grounded electrical outlet.

Installing Ink Cartridges for the First Time

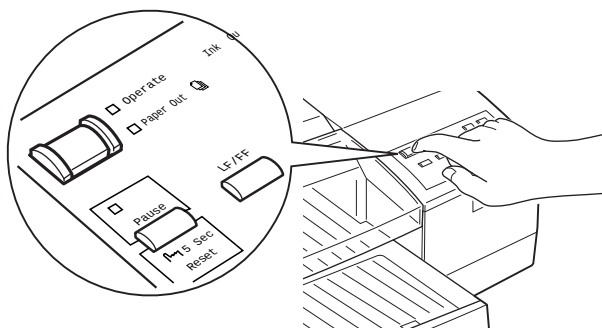


Warning:

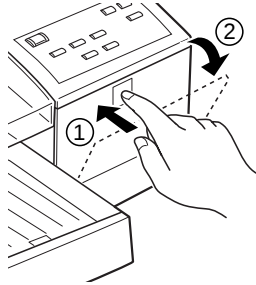
The ink cartridges are self-contained units. Under ordinary use, ink will not leak from a cartridge. If ink does get on your hands, wash them thoroughly with soap and water. If ink gets into your eyes, flush them immediately with water.

To install the ink cartridges for the first time, see the following. To replace an empty ink cartridge, see Chapter 7, “Maintenance and Transportation.”

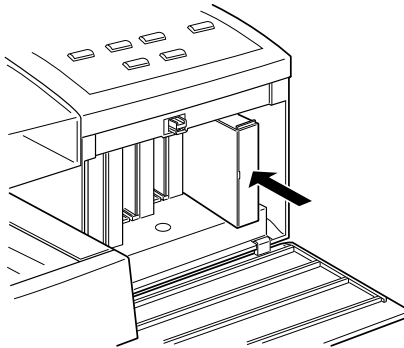
1. Press the  Operate button to turn on the printer. The Operate light and all Ink Out lights come on and the Pause light begins to flash.



2. Push the top of the ink compartment door, as shown below. You see four slots for the ink cartridges.



3. Remove the ink cartridges from their packages.
4. Follow the instructions printed on the cartridges, and insert the cartridges, foil plug first, into the proper ink cartridge slot. Push each cartridge all the way into its slot until it meets resistance. Repeat this for all four ink cartridges, making sure that each color is in the proper slot.



5. After you have installed all of the ink cartridges, the Pause light stops flashing. Close the ink compartment door.

The first time you install the ink cartridges, the printer automatically charges the ink delivery system. This operation takes about 8 minutes to complete.



Caution:

During the ink charging process, the Pause light continues to flash. Never turn off the printer while the Pause light is flashing. Also, never remove an ink cartridge while ink is being charged in the system.

6. When the Pause light stops flashing and stays on continuously, the ink charging process is finished. Press the Pause button to turn the Pause light off.

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 2-22.

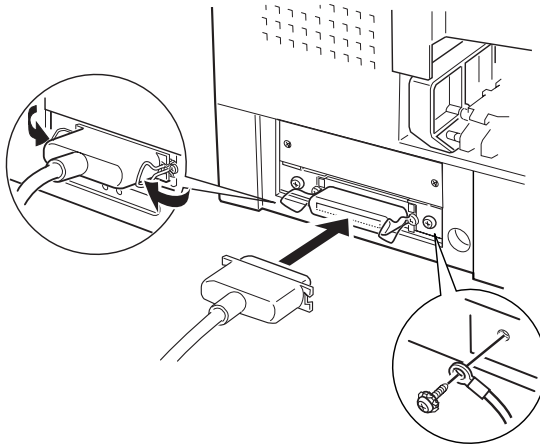
Note:

To replace an empty ink cartridge with a new one, see page 7-2.

Connecting the Printer to Your PC

Connecting the printer to your computer using the built-in parallel interface requires a shielded, twisted-pair parallel cable. Follow the steps below to make the connection:

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.

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 in the printer software CD-ROM(s) or floppy disks shipped with your printer.

Your printer software includes:

- ❑ **Printer Driver**
The printer driver gives you complete control over your printer. With it, you can fine-tune settings such as print quality and speed, media type, and paper size.
- ❑ **Utilities**
The Status Monitor utility helps you check the current status of your printer from your display. The Nozzle Check, Head Cleaning, and Print Head Alignment utilities help you keep your printer in top operating condition.
- ❑ **EPSON folder or program group**
The EPSON folder (Windows 95) or program group (Windows 3.1) contains the EPSON Stylus COLOR 3000 Help, Spool Manager 4, and EPSON ReadMe files. Help gives you instant on-screen access to detailed information and instructions on how to use your printer and printer software, Spool Manager 4 provides you with extra control over the printing process, and ReadMe contains the most up-to-date information available regarding your printer and printer software.
- ❑ **EPSON Plot!**
EPSON Plot! is software that allows CAD and graphics application users to print HPGL and HPGL/2 files with EPSON printers. For more information, see Appendix C.

If you are using the floppy disk version of the software, before you begin installation, make backup copies of the EPSON printer software disks. 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 2-16 for Windows 95, or page 2-19 for Windows 3.1.

The following section explains how to install the printer software for Windows 95. If you are using Windows 3.1, see page 2-19 for instructions.

Installing in Windows 95

Follow the steps below to install the printer software in Windows 95.

1. Make sure Windows 95 is running and the printer is off.
2. Insert the printer software CD shipped with your printer in the CD-ROM drive. Click Install in the dialog box that appears, shown below.



If this dialog box does not appear when you insert the printer software CD, double-click the My Computer icon, then double-click the CD-ROM drive icon (or floppy disk drive icon if using the floppy disk version). If the dialog box shown above still does not appear, double-click the Setup.exe icon. You may need to use the arrows to scroll through the folder to find it.

Note:

If you wish to make a floppy disk version of the printer software included on your CD-ROM, click the Driver disk creation utility button and follow the on-screen instructions.

3. Select your printer icon in the EPSON Printer Utility Setup dialog box.



4. Make sure Epson Stylus COLOR 3000 is selected, and click OK to start the printer software installation. Follow the on-screen messages and when the installation is complete, click OK again.

Your printer software is now installed. For information on opening and using the software, see Chapter 3, “Printing With Windows.”

Installing in Windows 95 (using plug-and-play)

Follow these steps to install the printer software using Windows 95 plug-and-play capabilities.

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 or if you run into any kind of problem, click Cancel and follow the installation procedure on page 2-13 instead.

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 does not appear, proceed to step 8. If an error message does appear, you have the multiple-language version and you need to 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.

The printer software that controls your printer is now installed. For information on accessing and using the software, see Chapter 3, “Printing With Windows.”

Using your printer on a network with Windows 95

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:



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

Note:

If you want to print from DOS applications as well as from Windows applications, click the Capture Printer Port button instead of the Add Port button. Click anywhere in the Device box and select the printer port your printer is connected to, then specify the network path to the printer. Make sure Reconnect at logon is selected, then 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 check box contains a check. Then click OK.

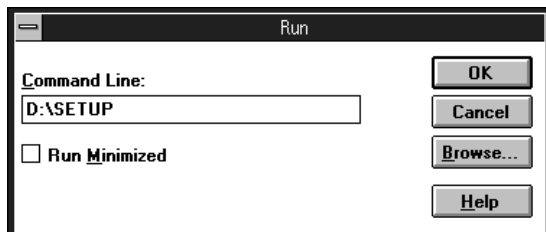
Now you can use your printer on a network.

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 Printer Software CD shipped with your printer in the CD-ROM drive. (If you use the floppy disk version, insert it in a floppy disk drive.)

3. In the File menu, select Run. You see the Run dialog box. In the Command Line box, type D:\SETUP. If the CD-ROM drive you are using is not drive D, substitute the correct letter. If you are installing from floppy disks, type A:\SETUP (or B:\SETUP).



Note:

If you wish to make a floppy disk version of the printer software included 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.



5. Select your printer name and click OK. The installation program begins copying the printer software files. Follow the message that appears if you are installing from floppy disks.

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

6. When the installation is complete, click OK to exit the installation program.

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

The printer software that controls your printer is now installed. For information on accessing and using the software, see Chapter 3, “Printing With Windows.”

For DOS users

Most DOS software programs include drivers for EPSON ESC/P 2™ printers. You can select these drivers and take advantage of your printer’s advanced built-in scalable fonts and graphics handling.

Most DOS programs require you to select from a list of printers in order to install the printer driver. You should select your printer to take advantage of all your printer’s advanced features. If your printer is not included in the list, contact your software manufacturer to obtain an update.

If your printer driver is not listed, pick from the first available printer in the list below.

When printing with black ink only:

LQ-870/1170
LQ-570 (+)/1070(+)
SQ-870/1070
LQ-850
LQ-500

When printing with black and color inks, choose one of the following:

EPSON Stylus 1500
EPSON Stylus COLOR 1520
EPSON Stylus COLOR 3000
EPSON Stylus PRO (XL / XL+)
EPSON Stylus COLOR (500 / II)
LQ-2550
LQ-1060
DLQ-3000

Note:

The printers listed above do not provide all EPSON Stylus COLOR 3000 features, such as 720-dpi printing and MicroWeave.

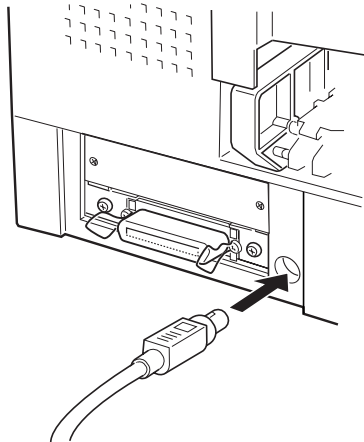
Connecting the Printer to Your Macintosh

The method you use to connect the printer to your Macintosh depends on whether you want to connect directly to the printer using the printer's built-in serial interface, or you want to connect the printer to a network using an optional interface card (see the next page).

Using the built-in serial interface

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



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



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 ⏻ Operate button.
5. Turn on your Macintosh.

See “Installing the Printer Software in Your Macintosh” on the next page for instructions on installing the printer software. You must install the printer software before using your printer.

Using an optional EPSON interface card

An optional LocalTalk™ or Ethernet interface card lets you use your printer on an AppleTalk network.

To use the LocalTalk Interface Card (C82312*), you will need two LocalTalk Locking Connector Kits (DIN-8 version). Attach a connector box to the AppleTalk interface on the printer and to the printer port on the Macintosh. Then attach the LocalTalk cable between the two connector boxes. See the user's guide that comes with the connector kits for more details.

To use the Ethernet Interface Card (C82331*), see the user's guide that comes with the card for setup information.

For information on installing these interface cards in the printer, see Appendix B, “Using Optional Interfaces.”

Note:

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

Installing the Printer Software in Your Macintosh

Always use the EPSON Stylus COLOR 3000 Macintosh-based printer software when printing with your printer. This software is specially designed to allow easy access to all of the printer's features.



Caution:

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

Installing the printer software

Note:

If you are using the floppy disk version of the software, before you begin installation, make a backup copy of the EPSON Macintosh-based printer software disk.

Follow the steps below to install the printer software procedure:

1. Turn on your Macintosh and 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.)

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.

- 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 the next page.



- If you want to install all of the printer software components included on your printer software CD-ROM or floppy disks, 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 plus any other components you need to install. The first time you install your printer software, you must at least select EPSON Stylus Printer Driver Package. If you are going to use your printer on an AppleTalk network, install EPSON Namer as well. Confirm the destination for installation, then click Install.

Note:

Click the  icon to get information on each component.

4. When installation finishes, click Restart to complete the installation and restart your computer and activate the new software.

If you use the optional LocalTalk Interface Card (C82312*) or Ethernet Interface Card (C82331*), you need to assign a name to your printer using the EPSON Namer utility as described on page 2-24. If you use a serial interface, skip to “Selecting your printer with the Chooser” on page 2-25.

Printer software components

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

EPSON Stylus Printer Driver Package

☐ **EPSON Stylus (EX)**

This is the printer driver software that runs your printer if you use the serial interface.

☐ **EPSON Stylus (AT)**

This is the printer driver software that lets you use the printer on an AppleTalk network.

☐ **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 4-31.

❑ **ColorSync™ 2.0 and Profiles**

Matches the colors in your printout with the colors displayed on your monitor 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 menu in the printer driver software. For more information, see “Using EPSON Printer Utilities” on page 4-27.

❑ **Nozzle Check**

Checks the print heads for clogging. You can open this utility from the Utility menu in the printer driver software. For more information, see “Using EPSON Printer Utilities” on page 4-27.

❑ **Head Cleaning**

Cleans the print heads to maintain the best print quality. You can open this utility from the Utility menu in the printer driver software. For more information, see “Using EPSON Printer Utilities” on page 4-27.

❑ **Print Head Alignment**

Adjusts the print heads so that vertical and horizontal lines are aligned. You can open this utility from the Utility menu in the printer driver software. For more information, see “Using EPSON Printer Utilities” on page 4-27.

Power Macintosh Extension Module

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

EPSON Namer

Assigns a unique name to the printer so that you can use it on an AppleTalk network.

Assigning a name to the printer

Use the following procedure to assign a name:

1. Double-click the EPSON Namer icon.

The EPSON Namer utility is located on your hard disk drive if installed. If it is not installed, insert the printer software CD-ROM into your computer's CD-ROM drive and open the utility from there. (If you use the floppy disk version, insert it in a disk drive and open the utility from there.)

2. Click the EPSON Stylus(AT) icon in the Device Types window.
3. If there are multiple AppleTalk zones at your site, select the zone in which the printer is located.
4. Under New Name, enter a name for your printer. You should assign a name that clearly distinguishes your printer from others on the network.
5. Click Rename and then click Done to quit EPSON Namer.

Selecting your printer with the Chooser

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.

If you are using the serial interface, choose your printer driver as described in the following section, “Using the serial interface connection.” If your system is connected to an AppleTalk network, see “Using the AppleTalk connection” on page 2-28.

Note:

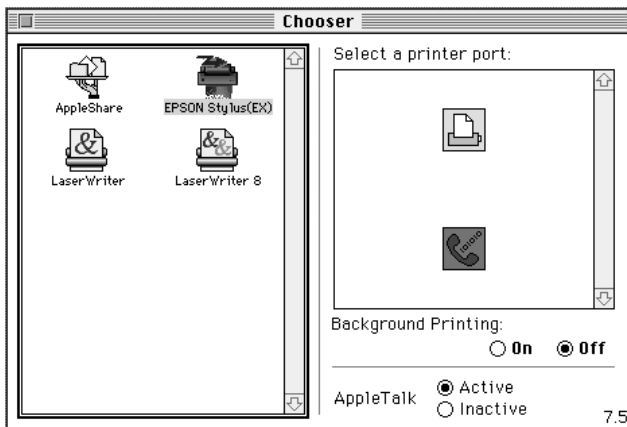
If you are using a Macintosh Quadra 950 or 900, you need to choose Compatible in the Serial Switch dialog box before selecting your printer from the Chooser. To open the Serial Switch dialog box, choose Control Panel from the Apple menu, then choose Serial Switch.

Using the serial interface connection

Follow the steps below to use the serial interface to send print data directly to the printer.

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

2. Select the Chooser desk accessory from the Apple menu. This brings up the Chooser dialog box. Then click the EPSON Stylus(EX) icon and the port you are using with your printer.



Note:

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

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 on the Inactive radio button. You may also need to restart your Macintosh to make AppleTalk inactive.

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



Caution:

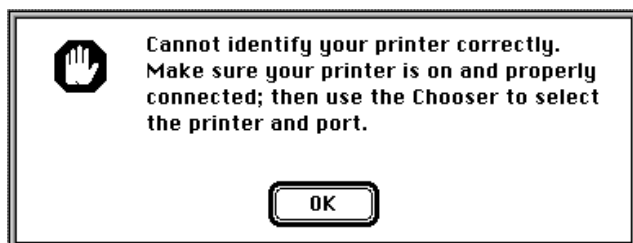
Do not make AppleTalk inactive if the Macintosh is connected to an AppleTalk network. See "Using the AppleTalk connection" on page 2-28 for details.

4. Click the Background Printing radio button 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 4-33.

5. Close the Chooser.

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



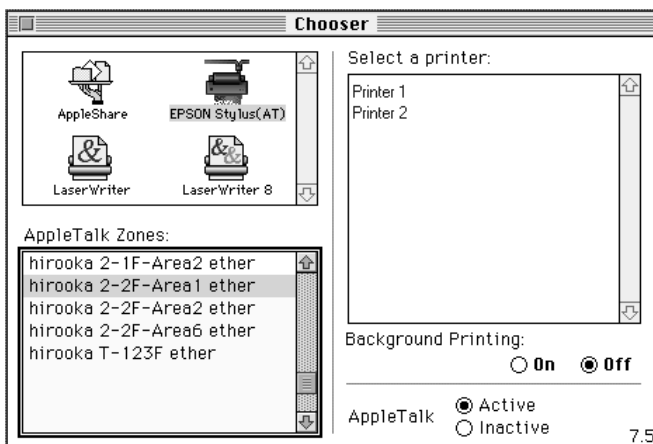
Using the AppleTalk connection

Follow the steps below to use an AppleTalk network connection to send print data to the printer.

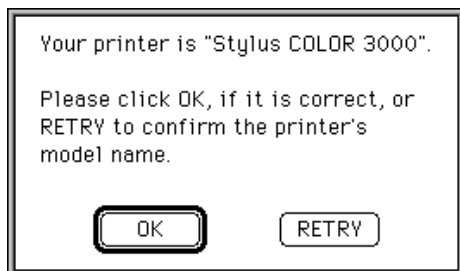
1. Turn on your printer.
2. Select the Chooser from the Apple menu. Click the EPSON Stylus(AT) icon. Select the AppleTalk zone you want to use. A list of all the printers connected to the selected zone appears on the right.

Note:

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



3. Click the name you assigned to your EPSON Stylus COLOR 3000. The following dialog box appears and prompts you to confirm the selected printer model name.



4. Click OK if the printer model name is correct.

If your printer name does not appear, make sure the printer is turned on and correctly connected, then click RETRY.

5. Click the Background Printing radio button 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 Monitor 2 utility to manage print jobs. For more information, see "Using the EPSON Monitor2 Utility" on page 4-31.

6. Close the Chooser.

Chapter 3

Printing With Windows

Loading Paper	3-2
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Using predefined settings	3-9
Customizing your print settings	3-11
Saving your settings	3-12
Making the Media Type Setting	3-13
Using EPSON Printer Utilities	3-17
EPSON Status Monitor	3-18
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Checking Printer Status	3-20
Understanding the Status Monitor	3-21
Understanding the Despooler	3-21
Understanding the EPSON Spool Manager	3-22

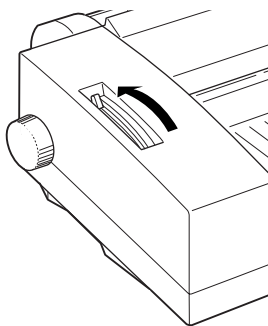
This chapter describes the steps you should take every time you print: load paper, check your print settings, then send your print job.

Loading Paper

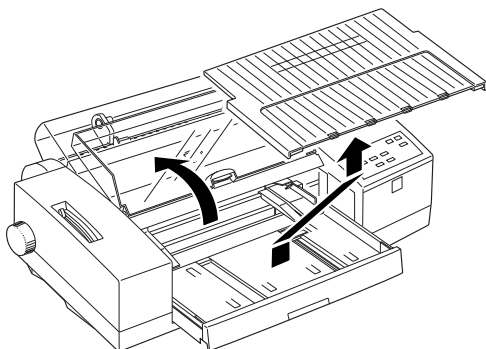
The following procedure describes how to load plain paper into the printer.

You can also print on ink jet paper, transparencies, photo-quality glossy film or paper, envelopes, index cards, continuous paper, banner paper, EPSON Ink Jet Back Light film, and adhesive sheets. For details on using such media, see Chapter 5, “Paper Handling.”

1. Make sure the paper-release lever is set to the single sheet position.

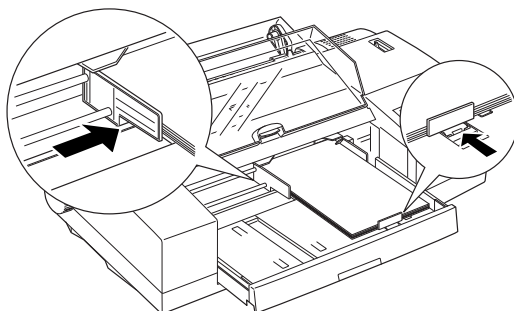


2. Lift up the printer hood and remove the paper tray cover.



3

3. Slide the left edge guide inside the paper tray all the way to the left. Then flip up the rear edge guide and slide it toward you as far as it will go.
4. Fan a stack of paper and tap it on a flat surface to even the edges.
5. Load the stack of paper, printable side down, so that its right edge is firmly against the right side of the paper tray. Slide the stack into the tray until you feel some resistance. Then slide the left edge guide against the left edge of the paper stack.



Windows

Note:

- ☐ *There are two right edge guide positions; use the far right position for paper larger than 420 mm wide (A2 size).*
- ☐ *Most paper packaging indicates the printable side of the paper with an arrow.*
- ☐ *The paper tray can hold up to 100 sheets of 17-lb. or 64g/m² plain paper. Do not load paper above the arrow mark on the inside surface of the right edge guide.*

6. Replace the paper tray cover.

To load oversized or special paper, see Chapter 5.

Getting Started Printing

To start printing right away, follow the basic printing method explained below, which is typical of many Windows-based applications. The actual way you print may vary depending on the application you use. See your application manual for details.

When Automatic is selected as the Mode setting on the Main menu, the printer driver determines the best settings according to the Media Type and Ink settings you make (see page 3-13 for details on the Media Type settings). Most Windows-based applications feature paper size and page layout settings which override similar settings on the Paper menu, but if your application does not, you need to make these settings on the Paper menu.

Note:

- ☐ *While many Windows-based applications override the settings made in the printer driver, some do not, so you need to verify the settings to get the results you expect.*
- ☐ *For detailed help, click the Help button at the bottom of the printer driver window.*

1. For Windows 95 users only, repeatedly push the Media Type button on the printer's control panel to cycle through the list of available media types until you select the media loaded in the printer. If you do not see your media in the list, select Other/Media Selection Off.

Note:

- ☐ *The printer's Media Type setting does not work with Windows 3.1, because Windows 3.1 does not support this function.*
 - ☐ *The media selection you make here can be overridden by the Media Type setting you make in your printer driver or application. The main purpose of this selection is to notify you in case the media loaded in the printer does not match the media you select in the software. You can turn off the notification function by selecting Other/Media Selection Off. For detailed information on the Media Type setting, see page 3-13.*
2. From your application, open the document you want to print.
 3. Click Print on the File menu. The Print dialog box (or a similar dialog box) appears.

4. 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.



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

Note:

- ❑ *When Automatic is selected, the printer software makes all of the detailed settings according to the Media Type and Ink settings you make.*
- ❑ *If you choose Plain Paper, Photo Quality Ink Jet Paper, Photo Quality Glossy Paper, or Photo Quality Glossy Film as the Media Type setting while Automatic is selected, a slide bar appears in the Mode box that lets you choose Quality or Speed. For most print jobs, leave this set to Speed. Select Quality when print quality is more important than speed.*
- ❑ *The Advanced settings are described in online help and on page 3-9.*

6. 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 3-13 for more information.
7. Select **COLOR** as the Ink setting if your document includes color. Select **Black** if you are printing black text only, a draft, or if you want colors to print as varying shades of gray.
8. Click the **Paper** tab. The Paper menu appears.



9. Select the paper source from which you are loading paper from the Paper Source list. Your printer has a built-in sheet feeder, tractor feeder, and manual feed slot. To print on EPSON banner paper, choose Manual Feed Slot (Banner).

10. 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.

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

Note:

Load envelopes flap edge first with the flap side down when loading from the manual feed slot. Load envelopes flap edge first with the flap side up when loading from the sheet feeder.

12. Click OK at the bottom of the window. You return to the Print dialog box (or a similar dialog box).
13. Click Close, OK, or Print to print. You may need to click a combination of these buttons.

If the Media Type setting you selected in the driver does not match the media selection you made with the printer's control panel, a dialog box appears. Load the correct media type (or select the correct setting in your software) and click Retry, Ignore, or Cancel. For detailed information on the Media Type setting, see page 3-13.

While your document is printing, the EPSON Despooler dialog box appears, 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.

Using the Advanced Settings

Basically, there are two setting modes in your printer driver: Automatic and Advanced. Automatic settings are described in the previous section, and Advanced settings are described in the following sections. The Advanced settings are divided into two categories: predefined and custom. The predefined settings are default settings that are optimized for certain document types. The custom settings are settings you make to fit your individual needs. The predefined settings are described below, and the procedure for making custom settings is described on page 3-11.

Using 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 between the More Settings button and the Save Settings button in the Print dialog box.

To select 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 made 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 3-13 for more information on the Media Type setting.

The printer driver provides the following predefined settings:

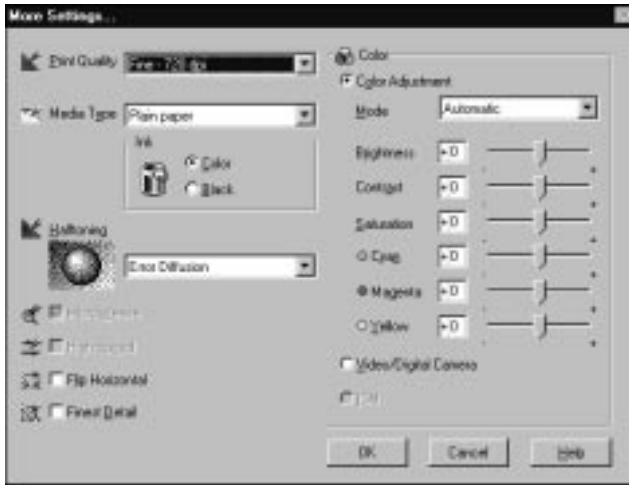
Photo	Good for printing scanned photos
Text / Graph	Good for printing presentation documents such as graphs and charts
Video / Digital Camera	Good for printing images captured using a video or digital camera
Economy	Good for printing drafts of text
ICM (Windows 95 only)	ICM means Image Color Matching. This feature automatically adjusts printout colors to match colors on your screen. Good for printing images, such as company logos, where exact matching of colors is most important.

Note:

Selecting ICM or Video/Digital Camera automatically sets the Ink option to Color. Also, some Media Type settings are not available depending on the selected predefined, Print Quality, or Ink setting.

Customizing your 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:

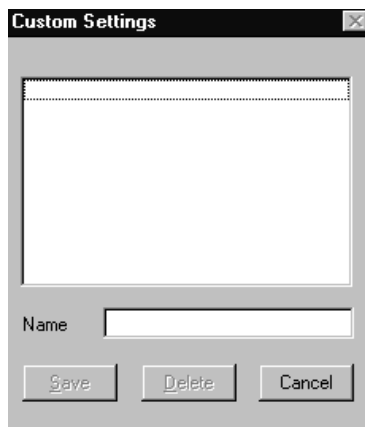


Some settings are enabled or disabled depending on the **Print Quality**, **Media Type**, and **Ink** settings you make. To save time and effort, always customize your settings in this order: **Print Quality**, **Media Type**, **Ink**, and then other settings. See page 3-13 for details about making the **Media Type** setting. For details about other settings, see online help.

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 settings, click **Cancel**.

Saving your settings

To save your custom settings as a group, 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 Advanced settings list under the **Advanced** button on the Main menu.

Note:

- ☐ *You cannot use a predefined settings 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

There are actually two Media Type settings; the setting in your printer driver and the setting on your printer's control panel. You need to make the Media Type setting in your driver every time, even if you select Automatic as the Mode setting. You do not have to make the Media Type setting on your printer's control panel, but it is recommended.

The printer's Media Type setting acts as a warning or reminder for when you or someone else selects the wrong Media Type in the software. To make the printer's Media Type setting, push the Media Type button repeatedly until the lights on the control panel indicate the type of media loaded in the printer. To disable this, select Other/Media Selection Off.

To make the Media Type setting in your software, access the printer software as described on page 3-4 and click the Main tab if necessary; then see the following to determine the Media Type setting (shown in bold) for your paper. First find your paper in the list below, then select the corresponding Media Type setting in your software.

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
	S041028
EPSON 360 dpi Ink Jet Paper (A3)	S041065
	S041046
EPSON 360 dpi Ink Jet Paper (Super A3/B)	S041066
	S041047
EPSON 360 dpi Ink Jet Paper (A2)	S041078
EPSON Special Coated Paper for 360 dpi Printing (A4)	S041059
	S041025
EPSON Special Coated Paper for 360 dpi Printing (Letter)	S041060
	S041028
EPSON Special Coated Paper for 360 dpi Printing (A3)	S041065
	S041046
EPSON Special Coated Paper for 360 dpi Printing (Super A3/B)	S041066
	S041047
EPSON Special Coated Paper for 360 dpi Printing (A2)	S041078
EPSON 360 dpi Banner Paper	S041103
EPSON 360 dpi Ink Jet Banner Paper	S041103

Photo Quality Ink Jet Paper

EPSON Photo Quality Ink Jet Paper (A4)	S041061
	S041026
EPSON Photo Quality Ink Jet Paper (Letter)	S041062
	S041029
EPSON Photo Quality Ink Jet Paper (Legal)	S041067
	S041048
EPSON Photo Quality Ink Jet Paper (A3)	S041068
	S041045

EPSON Photo Quality Ink Jet Paper (B)	S041070
	S041044
EPSON Photo Quality Ink Jet Paper (Super A3/B)	S041069
	S041043
EPSON Photo Quality Ink Jet Paper (A2)	S041079
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	S041106
EPSON Special Coated Paper	
for 720 dpi Printing (A4)	S041061
	S041026
EPSON Special Coated Paper	
for 720 dpi Printing (Letter)	S041062
	S041029
EPSON Special Coated Paper	
for 720 dpi Printing (Legal)	S041067
	S041048
EPSON Special Coated Paper	
for 720 dpi Printing (A3)	S041068
	S041045
EPSON Special Coated Paper	
for 720 dpi Printing (B)	S041070
	S041044
EPSON Special Coated Paper	
for 720 dpi Printing (Super A3/B)	S041069
	S041043
EPSON Special Coated Paper	
for 720 dpi Printing (A2)	S041079
EPSON Special Coated Index Card	
for 720 dpi Printing (A6)	S041054
EPSON 720 dpi Banner Paper	S041102
EPSON Photo Quality Banner Paper	S041102

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 Quality Glossy Paper (A3)	S041125
EPSON Photo Quality Glossy Paper (Super A3/B)	S041133
EPSON Photo Quality Glossy Paper (A2)	S041123

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 Photo Quality Glossy Film (A3)	S041073
EPSON Photo Quality Glossy Film (B)	S041075
EPSON Photo Quality Glossy Film (Super A3/B)	S041074
EPSON High Quality Glossy Paper (A4)	S041071
EPSON High Quality Glossy Paper (Letter)	S041072
EPSON High Quality Glossy Paper (A3)	S041073
EPSON High Quality Glossy Paper (Super A3/B)	S041074
EPSON High Quality Glossy Paper (B)	S041075

Ink Jet Canvas Cloth

EPSON Ink Jet Canvas Cloth	S041132
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Ink Jet Back Light Film

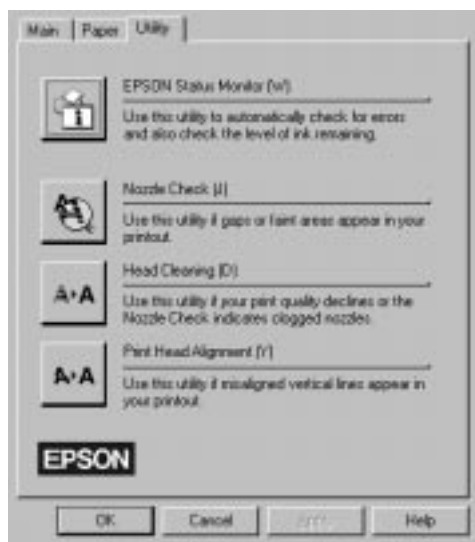
EPSON Ink Jet Back Light Film (A3)	S041131
EPSON Ink Jet Back Light Film (A2)	S041130

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.



Note:

- ❑ *The letter in parentheses after the utility name indicates the shortcut key for that utility. Press Alt and the shortcut key on the keyboard to open that utility.*
- ❑ *While printing is in progress, pressing any of the utility buttons, except the EPSON Status Monitor button, may mar your printout.*

EPSON Status Monitor

Note:

The Status Monitor is only available for Windows 95.

The Status Monitor utility helps you keep track of the printer, and it alerts you if it detects a printer error. You can use this utility to check the paper path, paper size, paper type, and you can check how much ink is remaining. When you install the printer software for Windows 95, the Status Monitor is automatically copied to your hard disk.

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. Also, it can only detect the paper size if you load paper only in the Auto Sheet Feeder.

When you send a print job to the printer, the Status Monitor automatically appears along with the Despooler dialog box in the lower right portion of your screen. For more information, see “Checking Printer Status” on page 3-20.

Nozzle Check

The Nozzle Check utility checks the print head nozzles for clogging. Use this utility when you notice a decline in print quality, and after cleaning a print head to confirm that the print head nozzles have been cleaned. If the nozzle check utility indicates the print heads need cleaning, you can access the Head Cleaning utility directly from the Nozzle Check utility. See Chapter 8, “Troubleshooting,” for more information.

Head Cleaning

The Head Cleaning utility cleans the color and black print heads. If print quality declines, use this utility to ensure the print head nozzles are delivering ink properly. Before and after print head cleaning, use the Nozzle Check utility to check whether the print heads need to be cleaned (again). You can access the Nozzle Check utility directly from the Head Cleaning utility. See Chapter 8, “Troubleshooting,” for more information.

Note:

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

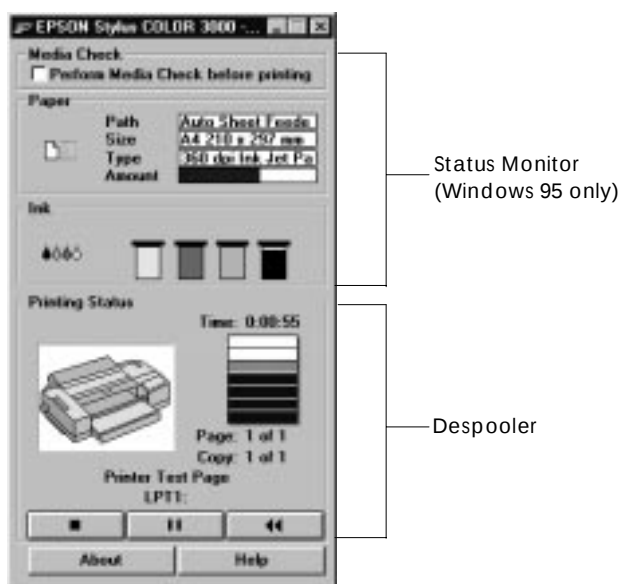
Print Head Alignment

The Print Head Alignment utility aligns the print heads so that images print clearly. Use this utility when you notice a misalignment of vertical or horizontal lines. See Chapter 8, “Troubleshooting,” for more information.

The Print Head Alignment utility includes both black and color print head alignment features. This utility affects only the print heads.

Checking Printer Status

When you send a print job to the printer, the EPSON Despooler and Status Monitor appear in the lower right portion of your screen. The Despooler shows the progress of the current print job and allows you to control the progress of the print job, as described below. For more details about the Despooler, see page 3-22. The status Monitor (Windows 95 only) provides printer status information. For more details about the Status Monitor, see the next section.



Note:

To scroll through the settings in the Paper box and see the full names of the listed options, click in a field, or press the Tab key to select a field, and use the arrow keys to view the whole option name.

Understanding the Status Monitor

The Status Monitor provides information about printer status as described below.

Media Check

The Media Check function is selected by default, and it automatically compares the media loaded in the printer with the media selected in the printer driver. A check in the Perform Media Check before printing box means this function is selected.

Paper

The Paper box displays information regarding the paper loaded in the printer. You select the paper feed path in the driver, and the Status Monitor checks the printer for the size, type, and amount. The size and amount are automatically supplied by the printer, but the media type is defined by the Media Type setting you make with the printer's control panel.

Ink

The Ink box displays the amount of remaining ink for each color. When an ink cartridge needs to be replaced, see page 7-2.

Understanding the Despooler

The Despooler provides you with information regarding how much time has elapsed since printing started and how far along your print job is.

Also, you can control printing from the Despooler using the stop, pause, and reprint buttons as explained below.



Stop Cancels printing



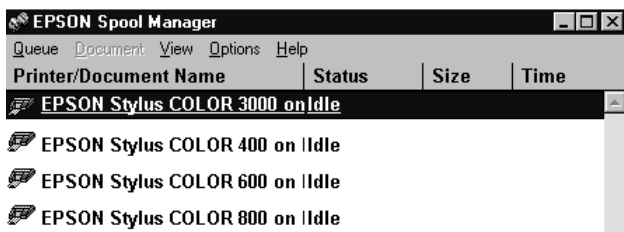
Pause Pauses printing until you press it again



Reprint Restarts printing from the current page, reprints the whole document, or holds the document for printing later

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 queue (also called the print queue) in the order received. When a print job reaches the top of the queue, 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.

Chapter 4

Printing With Macintosh

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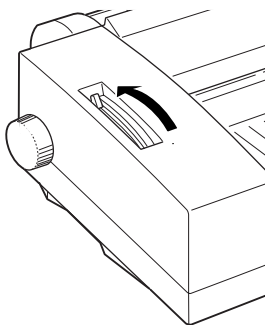
This chapter describes the steps you should take every time you print: load paper, check your print settings, then send your print job.

Loading Paper

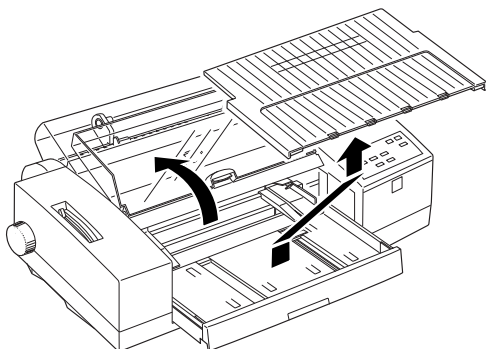
The following procedure describes how to load plain paper into the printer.

You can also print on ink jet paper, transparencies, photo-quality glossy film or paper, envelopes, index cards, continuous paper, banner paper, EPSON Ink Jet Back Light film, and adhesive sheets. For details on using such media, see Chapter 5, “Paper Handling.”

1. Make sure the paper-release lever is set to the single sheet position.

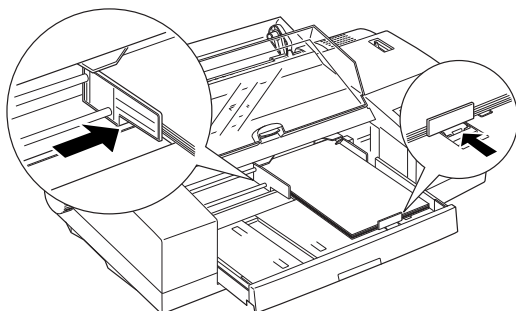


2. Lift up the printer hood and remove the paper tray cover.



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3. Slide the left edge guide inside the paper tray all the way to the left. Then flip up the rear edge guide and slide it toward you as far as it will go.
4. Fan a stack of paper and tap it on a flat surface to even the edges.
5. Load the stack of paper, printable side down, so that its right edge is firmly against the right side of the paper tray. Slide the stack into the tray until you feel some resistance. Then slide the left edge guide against the left edge of the paper stack



Macintosh

Note:

- ❑ *There are two right edge guide positions; use the far right position for paper larger than 420 mm wide (A2 size).*
- ❑ *Most paper packaging indicates the printable side of the paper with an arrow.*
- ❑ *The paper tray can hold up to 100 sheets of 17-lb. or 64g/m² plain paper. Do not load paper above the arrow mark on the inside surface of the right edge guide.*

6. Replace the paper tray cover.

To load oversized or special paper, see Chapter 5.

Getting Started Printing

To start printing right away, follow the basic printing method explained below, which is typical of many Macintosh-based applications. The actual way you print may vary depending on the application you use. See your application manual for details.

When Automatic is selected as the Mode setting in the Print dialog box, the printer driver determines the best settings according to the Media Type and Ink settings you make (see page 4-8 for details on the Media Type settings).

Note:

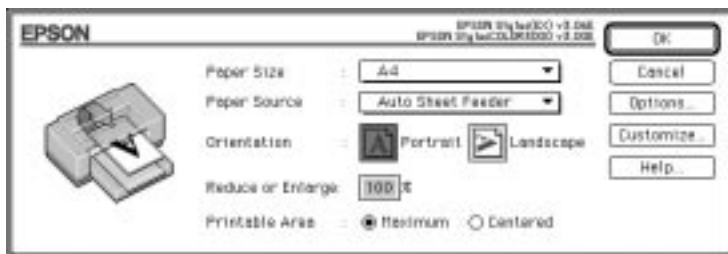
While many Macintosh-based applications override the settings made with the printer driver, some do not, so you must verify the settings to get the results you expect.

1. Repeatedly, push the Media Type button on the printer's control panel to cycle through the list of available media types until you select the media loaded in the printer. If you do not see your media in the list, select Other/Media Selection Off.

Note:

The media selection you make here can be overridden by the Media Type setting you make in your printer driver or application. The main purpose of this selection is to notify you in case the media loaded in the printer does not match the media you select in the software. You can turn off the notification function by selecting Other/Media Selection Off. For detailed information on the Media Type setting, see page 4-8.

2. From your application, open the document you want to print.
3. Choose Page Setup from the File menu. This brings up the dialog box shown below.



4. Select the paper size you loaded in the printer from the Paper Size list.
5. Select the paper source from which you are loading paper from the Paper Source list. Your printer has a built-in sheet feeder, tractor feeder, and manual feed slot. To print on EPSON banner paper, choose Manual Feed Slot (Banner).

6. Check the Orientation option for  Portrait or  Landscape orientation.

Note:

Load envelopes flap edge first with the flap side down when loading from the manual feed slot. Load envelopes flap edge first with the flap side up when loading from the sheet feeder.

7. 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.

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



9. 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.*
 - ☐ *If you choose Plain Paper, Photo Quality Ink Jet Paper, Photo Quality Glossy Paper, or Photo Quality Glossy Film as the Media Type setting while Automatic is selected, a slide bar appears in the Mode box that lets you choose Quality or Speed. For most print jobs, leave this set to Speed. Select Quality when print quality is more important than speed.*
 - ☐ *The Advanced settings are described on page 4-12.*
10. Select the type of paper you loaded in the printer from the Media Type list.
 11. Select Color as the Ink option if your document includes color. Select Black if you are printing black text only, a draft, or if you want colors to print as varying shades of gray.
 12. Click Print to start printing.

If the Media Type setting you selected in the driver does not match the media selection you made with the printer's control panel, a dialog box appears. Load the correct media type (or select the correct setting in your software) and click Retry, Ignore, or Cancel. For detailed information on the Paper Size setting, see page 4-25.

Media Type

There are actually two Media Type settings; the setting in your printer driver and the setting on your printer's control panel. You need to make the Media Type setting in your driver every time, even if you set the Mode to Automatic. You do not have to make the Media Type setting on your printer's control panel, but it is recommended.

The printer's Media Type setting acts as a warning or reminder for when you or someone else selects the wrong Media Type in the software. To disable this, select **Other/Media Selection Off** on the printer's control panel. To make the printer's Media Type setting, push the Media Type button repeatedly until the lights on the control panel indicate the type of media loaded in the printer.

To make the Media Type setting in your software, access the printer software as described on page 4-4 and see the following to determine the Media Type setting (shown in bold) for your paper. First find your paper in the list below, then select the corresponding Media Type setting in your software.

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
	S041028
EPSON 360 dpi Ink Jet Paper (A3)	S041065
	S041046
EPSON 360 dpi Ink Jet Paper (Super A3/B)	S041066
	S041047
EPSON 360 dpi Ink Jet Paper (A2)	S041078

EPSON Special Coated Paper for 360 dpi Printing (A4)	S041059 S041025
EPSON Special Coated Paper for 360 dpi Printing (Letter)	S041060 S041028
EPSON Special Coated Paper for 360 dpi Printing (A3)	S041065 S041046
EPSON Special Coated Paper for 360 dpi Printing (Super A3/B)	S041066 S041047
EPSON Special Coated Paper for 360 dpi Printing (A2)	S041078
EPSON 360 dpi Banner Paper	S041103
EPSON 360 dpi Ink Jet Banner Paper	S041103

Photo Quality Ink Jet Paper

EPSON Photo Quality Ink Jet Paper (A4)	S041061 S041026
EPSON Photo Quality Ink Jet Paper (Letter)	S041062 S041029
EPSON Photo Quality Ink Jet Paper (Legal)	S041067 S041048
EPSON Photo Quality Ink Jet Paper (A3)	S041068 S041045
EPSON Photo Quality Ink Jet Paper (B)	S041070 S041044
EPSON Photo Quality Ink Jet Paper (Super A3/B)	S041069 S041043
EPSON Photo Quality Ink Jet Paper (A2)	S041079
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	S041106

EPSON Special Coated Paper for 720 dpi Printing (A4)	S041061 S041026
EPSON Special Coated Paper for 720 dpi Printing (Letter)	S041062 S041029
EPSON Special Coated Paper for 720 dpi Printing (Legal)	S041067 S041048
EPSON Special Coated Paper for 720 dpi Printing (A3)	S041068 S041045
EPSON Special Coated Paper for 720 dpi Printing (B)	S041070 S041044
EPSON Special Coated Paper for 720 dpi Printing (Super A3/B)	S041069 S041043
EPSON Special Coated Paper for 720 dpi Printing (A2)	S041079
EPSON Special Coated Index Card for 720 dpi Printing (A6)	S041054
EPSON 720 dpi Banner Paper	S041102
EPSON Photo Quality Banner Paper	S041102

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 Quality Glossy Paper (A3)	S041125
EPSON Photo Quality Glossy Paper (Super A3/B)	S041133
EPSON Photo Quality Glossy Paper (A2)	S041123

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 Photo Quality Glossy Film (A3)	S041073
EPSON Photo Quality Glossy Film (B)	S041075
EPSON Photo Quality Glossy Film (Super A3/B)	S041074
EPSON High Quality Glossy Paper (A4)	S041071
EPSON High Quality Glossy Paper (Letter)	S041072
EPSON High Quality Glossy Paper (A3)	S041073
EPSON High Quality Glossy Paper (Super A3/B)	S041074
EPSON High Quality Glossy Paper (B)	S041075

Ink Jet Canvas Cloth

EPSON Ink Jet Canvas Cloth	S041132
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Ink Jet Back Light Film

EPSON Ink Jet Back Light Film (A3)	S041131
EPSON Ink Jet Back Light Film (A2)	S041130

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, select **Black**.

Using the Advanced Settings

Basically, there are two setting modes in your printer driver: Automatic and Advanced. Automatic settings are described in the previous section, and Advanced settings are described in the following sections. The Advanced settings are broken down into two categories: predefined and custom. The predefined settings are default settings optimized for certain document types, which can be determined by the setting name. The custom settings are settings you make to fit your individual needs. The predefined settings are described below, and the procedure for making custom settings is described on page 4-14.

Using 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 between the **More Settings** and **Save Settings** buttons in the **Print** dialog box. This list is called the **Advanced settings** list because it is enabled when you click the **Advanced** button.

To select 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 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 settings 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.

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.

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.

Video/Digital Camera

This setting is best for printing images captured using a video or digital camera. It increases the brightness and sharpness to make printed images clearer.

Note:

Selecting Video/Digital Camera automatically sets the Ink option to Color.

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.

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.

ColorSync™

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

Note:

Selecting ColorSync automatically sets the Ink option to Color.

Customizing your 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.

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 other settings. See page 4-8 for details about making the Media Type setting.

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 are explained in detail later in this chapter.



Note:

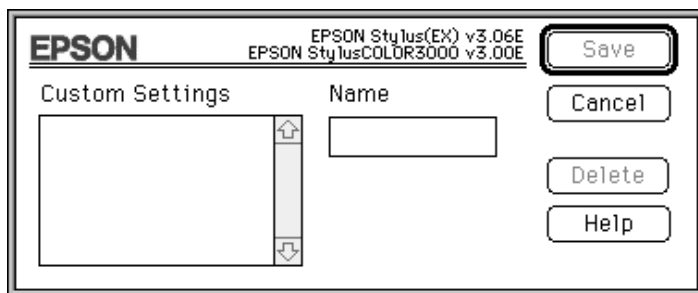
The Print Quality, Media Type, and Ink settings affect the availability of other options, so always make your settings in this order: Print Quality, Media Type, Ink, then other settings.

3. Make your settings, and then 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.



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 Advanced settings list in the Print dialog box.

Note:

- ❑ *You cannot use a predefined setting name for your custom settings.*
- ❑ *To delete a custom setting, select the setting in the Custom Settings dialog box and click Delete. You cannot delete the predefined settings.*

Choosing your settings

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

If you change the Media Type or Ink option when one of your saved settings is selected in the Advanced 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 setting, simply reselect it in the Advanced settings list.

Modifying visual effects

If you prefer to modify a document's color or grayscale value, you can adjust these settings and more with the Color settings in the More Settings dialog box.

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.

Color Adjustment

The Color Adjustment settings provide you with a level of control over printed colors that you can not 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, click and 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 or dark parts of an image.

Saturation

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

Cyan, Magenta, Yellow

Adjusts the amount of each of the three primary colors.

Video/Digital Camera

Increases the contrast and saturation to make printed images clearer using EPSON's intelligent color correction feature. Select this option when printing images taken with a video or digital camera.

When Video/Digital Camera is selected, other settings are dimmed, meaning you cannot change those settings.

Note:

Video/Digital Camera is only available when Color ink is selected.

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 ink is selected.

Profile

Matches the colors in your output with the colors displayed on your monitor. This software provides one profile; EPSON Standard. EPSON Standard is a custom-designed profile that works with your printer.

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. Colorimetric attempts to reproduce colors the way the eye distinguishes them. Keep in mind that Colorimetric, or any other color matching method, may not always reproduce colors perfectly due to the differences in the way scanners, printers, and other devices process color data. See Appendix A, “Tips for Color Printing,” for more information.

Controlling the printing quality

Use the 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:

SuperFine - 1440 dpi

Select this setting when you want the highest quality output at 1440 dpi. With this setting, we recommend the use of EPSON Photo Quality media. See page 1-9 for a complete list of EPSON special media.

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 1-9 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 1-9 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.

Media Type

The available Media Type options are determined by the Print Quality setting. Before selecting the Media Type, make the Print Quality setting.

See page 4-8 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 is selected as the predefined setting in the Print dialog box or as the Print Quality setting in the More Settings dialog box.*

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 printed vertical lines appear misaligned when High Speed is selected, you may need to align the print heads. For details, see “Aligning the Print Heads” on page 8-41.

Flip Horizontal

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

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.

Making the Color and Halftoning settings

The following settings control color quality and the halftone pattern.

Ink

Select **Color** if your printout includes color. Select **Black** if you are printing black text only, a draft, or if you want colors to print as varying shades of gray.

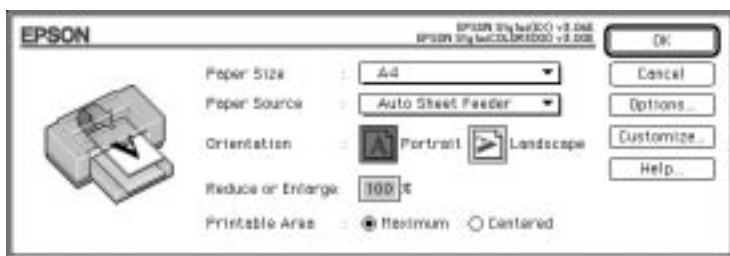
Halftoning

This setting lets you select one of four options: **No Halftoning**, **Error Diffusion**, **Coarse Dithering**, or **Fine Dithering**.

- ☐ Select **No Halftoning** when printing text only. Although this setting provides faster printing, it should never be used with color.
- ☐ Select **Error Diffusion** when printing photographic images to make edges and colors softer. Error diffusion blends every colored dot in your image with the surrounding colored dots.
- ☐ **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. Select **Coarse Dithering** for images with limited detail and shading. Select **Fine Dithering** for images with significant detail but limited shading.

Changing the Paper Size

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



Paper size

You can select any of the following predefined paper sizes. If you do not see your paper size in this list, see page 4-26 for details on defining a custom paper size.

Note:

The Paper Size and Media type settings automatically affect the paper source. The driver automatically selects the paper source that contains the selected paper size and media type.

A2	Ledger	A5 Index card
US C	Letter	A6 Index card
Super A3/B	Executive	Index card 5 × 8in
B3	Legal	Index card 8 × 10in
A3	Half Letter	Continuous Form 10"
B4	Envelope #10	Continuous Form 15"
A4	Envelope DL	
B5	Envelope C5	

Note:

Load envelopes flap edge first with the flap side down when loading in the manual feed slot. Load envelopes flap edge first with the flap side up when loading in the sheet feeder.

Paper Source

Your printer has a built-in sheet feeder, tractor feeder, and manual feed slot. Select the appropriate paper source, or select the paper size and media type you have loaded and the driver will automatically select the correct paper source for you. If you plan to print on EPSON banner paper that is longer than 594 mm (length of A2 paper), choose Manual Feed Slot (Banner). The available settings are:

Auto Sheet Feeder
Manual Feed Slot
Manual Feed Slot (Banner)
Tractor Feeder

Orientation

Use this setting to specify the direction of printing on the page,

 Portrait or  Landscape.

Reduce or Enlarge

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

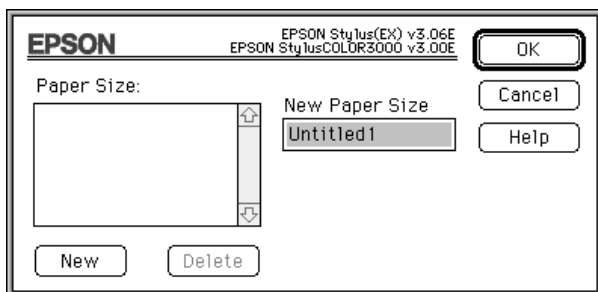
Printable Area

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 of the paper.

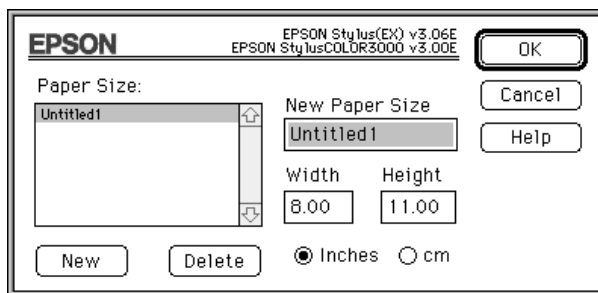
Defining a Custom Paper Size

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

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



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



3. Type a name for the paper size 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 the paper size 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, then click the button for the utility you want to use. The utilities are explained below.

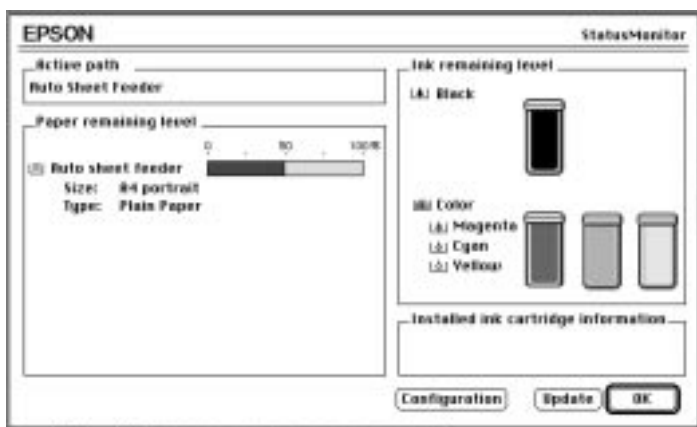


EPSON StatusMonitor

The StatusMonitor utility helps you keep track of the printer, and it alerts you if it detects a printer error.

You can use this utility to check the paper path, paper size, paper type, and you can also check how much ink is remaining before printing.

To use the StatusMonitor, click the EPSON StatusMonitor button in the Utility dialog box. The following dialog box appears:



The StatusMonitor checks the amount of ink remaining when opened. To recheck the ink-level information, click the Update button.

Active Path

The paper source is determined by the printer's paper-release lever position. If it is set to the single sheet position and paper is loaded in the manual feed slot, the StatusMonitor automatically selects and displays information according to the media loaded in the manual feed slot. If no paper is loaded in the manual feed slot, the StatusMonitor automatically selects and displays information according to the media loaded in the automatic sheet feeder. If the paper-release lever is set to the continuous paper position, no media information is displayed.

Paper remaining level

The amount of paper remaining is shown as the relative percent of paper loaded in the selected paper source.



Warning:

The number of sheets you can load varies by media type. See page 5-22 for details on loading special media.

Size

The paper size is determined by the selected Active Path setting.

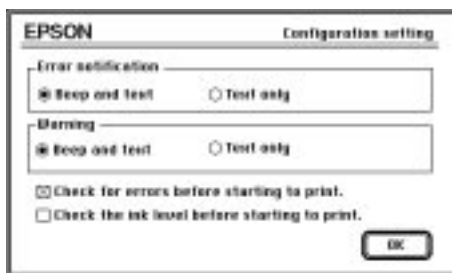
Type

The media type is determined by the Media Type setting on the printer's control panel.

Note:

If "Off" appears in the Type box, either the Media Check box is not selected or the Media Type setting on the control panel has been set to Other/Media Selection Off.

The StatusMonitor provides an error notification if a printer error occurs, and you can choose how that error notification will be given using the Configuration setting dialog box. Click the Configuration button while the StatusMonitor dialog box is open. The following dialog box appears:



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Choose the error notification method, warning method, and what kind of error(s) you want the StatusMonitor to check for; then click OK.

Nozzle Check

Checks the print head nozzles for clogging. Use this utility when you notice a decline in print quality, and after cleaning a print head to confirm that the print head nozzles have been cleaned. If the nozzle check utility indicates the print heads need cleaning, you can access the Head Cleaning utility directly from the Nozzle Check utility. See Chapter 8, “Troubleshooting,” for more information.

Head Cleaning

Cleans the color and black print heads. If print quality declines, use this utility to ensure the print head nozzles are delivering ink properly. Before and after print head cleaning, use the Nozzle Check utility to check whether the print heads need to be cleaned (again). You can access the Nozzle Check utility directly from the Head Cleaning utility. If print quality does not improve, repeat the print head cleaning. For detailed information on print head cleaning, see Chapter 8, “Troubleshooting.”

Note:

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

Print Head Alignment

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

The Print Head Alignment utility includes both black and color print head alignment features. This utility affects only the print heads.

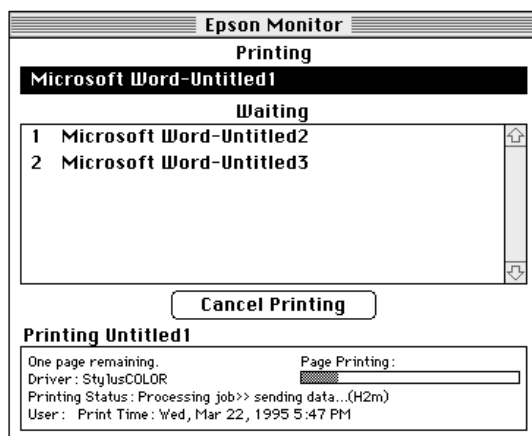
For more details on using this utility, see Chapter 8, “Troubleshooting.”

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:



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

Chapter 5

Paper Handling

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Printing on Single Sheets

You can load single sheets up to 432 mm (17 inches) wide using the paper tray. Before you load special paper, see “Printing on Special Paper” on page 5-18.

Tips on using the paper tray

Follow the tips below to get the best performance when printing from the paper tray.

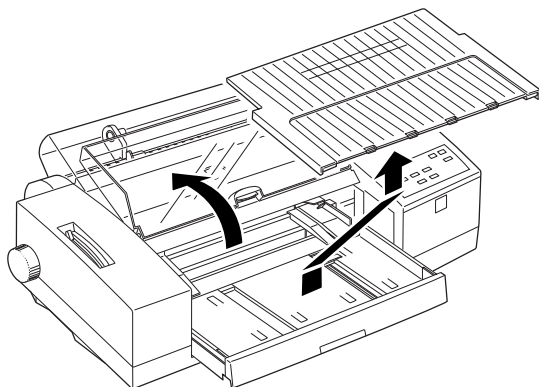
- ❑ Load paper into the paper tray before sending data to the printer. When the printer receives data from the computer, it loads a single sheet and begins to print.
- ❑ If the printer runs out of paper during a print job, reload the sheet feeder and then press the Pause button to continue printing.
- ❑ Press the Load/Eject button if you need to eject a sheet of loaded paper.
- ❑ Whenever possible, use your software to set the top and bottom margins.
- ❑ You can use the printer’s micro-adjust feature to make changes to the paper loading position.
- ❑ If ink smears on your documents, set the adjust lever to the + position. For more information, see “Setting the adjust lever” on page 5-19.

Loading Oversized Paper in the Paper Tray

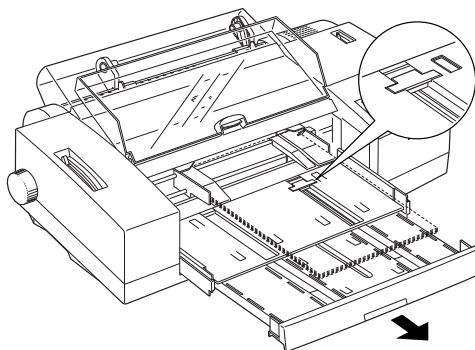
To load paper more than 420 mm wide or 297 mm long, you need to pull out the paper tray extension and / or move the edge guide to the right side as described below.

Note:

- ❑ *You can load paper up to 432 mm (17 inches) wide; however, the maximum printable width is 416 mm (16 inches).*
 - ❑ *When printing on banner paper, always load it in the manual feed slot. For more information on banner paper, see page 2-37.*
1. Make sure the paper-release lever is set to the single sheet position.
 2. Open the printer hood and remove the paper tray cover.

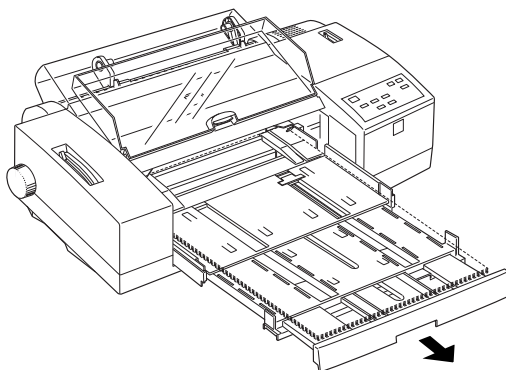


3. While holding the paper tray in place, gently pull out the paper tray extension until it is extended as shown below. The paper tray extension acts as the rear edge guide.



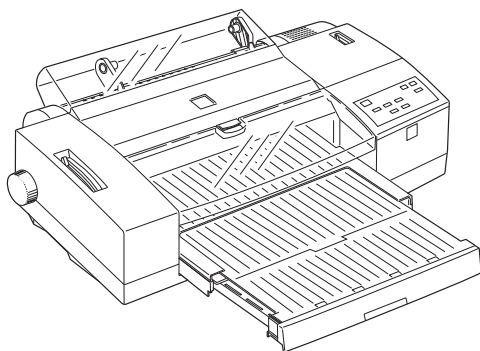
If you plan to print on large paper such as A2 or US C, pull out the paper tray extension until it is fully extended.

4. Slide the edge guides on the sheet feeder to the right match the paper's width.



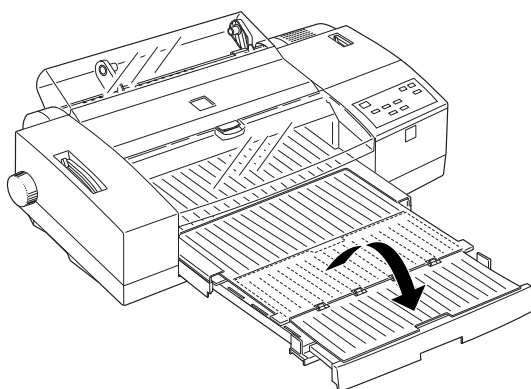
5. Fan a stack of paper and tap it on a flat surface to even the edges.
6. Insert the paper into the paper tray long edge first.

7. Slide in the paper tray extension to match the length of the paper stack. Next, replace the paper tray cover and push in the cover extension unit. Also close the printer hood.



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If you plan to print on paper such as A2 or US C slide the paper tray extension to match the length of the paper stack. Next, replace the paper tray cover and fold out the cover extension.



Note:

- ❑ *Do not load more than 30 sheets of oversized paper into the sheet feeder. Also do not load paper above the red line on the right edge guide, which is located on the inside surface of the edge guide. Otherwise, a paper jam may occur.*
- ❑ *The maximum width of paper you can load is 432 mm. Load Super A3/B, A2, and US C size paper short edge first.*

Loading paper manually

You can load single sheets of paper from the manual feed slot without removing the paper supply from the sheet feeder. This slot can accommodate single sheets of paper from 105 mm (4.1 inches) to 432 mm (17 inches) wide.

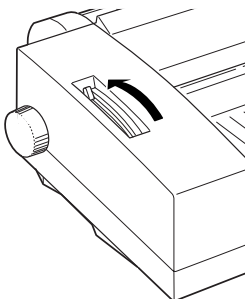
When you load paper manually, you can adjust the loading position using the micro-adjust mode. See “Adjusting the loading position” on page 5-9.

Note:

If you plan to print on banner paper, see “EPSON banner paper” on page 5-31.

Follow these steps to load a single sheet in the manual feed slot:

1. Turn on the printer. Make sure that the paper-release lever is set to the single sheet position.



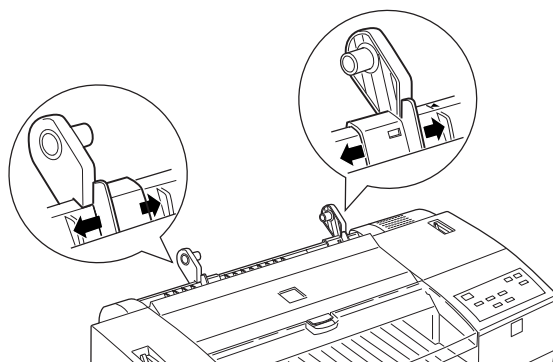
**Caution:**

Do not insert a sheet of paper before you turn on the printer.

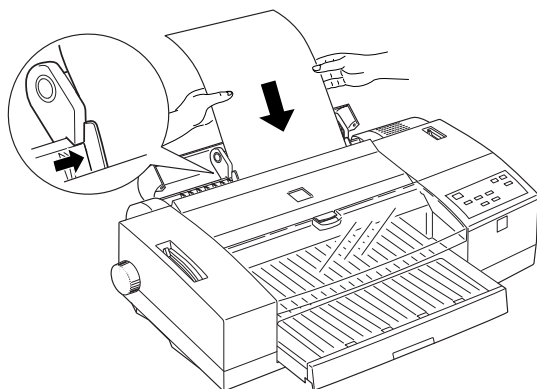
2. Position the right edge guide even with the arrow mark on top of the manual feed guide, and then slide the left edge guide to match the paper's width.

Note:

Before loading paper more than 364 mm wide, such as A2 or US C, move the right edge guide to the right as far as it will go.



3. While holding both edges of the paper, align the right edge of the paper with the right edge guide and load it printable side up in the manual feed slot until it meets resistance.



4. The printer feeds the sheet automatically.

Note:

If the sheet does not feed correctly, pull out the paper. Then try loading it again.

5. Send data from the computer to start printing.

When the printer finishes printing, it ejects the sheet. If the sheet does not eject completely, press the Load/Eject button.

To switch back to the sheet feeder, press the Load/Eject button or send data to the printer without inserting a sheet into the manual feed slot. The printer loads paper from the sheet feeder.

Adjusting the loading position

The loading position is the position of the paper after the printer loads it. If printing is too high or low on the page, change the loading position with the micro-adjust feature.



Caution:

Do not use the knob on the left side of the printer to adjust the loading position. Otherwise, you may damage the printer or cause it to lose the top-of-form position.

1. Make sure the printer is turned on.
2. Press the Load/Eject button to load a sheet of paper from the sheet feeder to the top-of-form position. (You can also adjust the loading position for continuous paper in the same way.)
3. Press the Micro Adjust  button to feed paper forward, or press Micro Adjust  to feed paper backward. (Press either button as many times as necessary until your page is positioned correctly.)
4. Send data from the computer to start printing.

Note:

- ☐ *Your setting remains in effect until you change it again, even if you turn off the printer.*
- ☐ *You can set a separate loading position for continuous paper or for paper loaded in the sheet feeder or the manual feed slot with banner mode on or off.*
- ☐ *The printer has a minimum and maximum loading position, beyond which the paper stops moving.*

Printing on Continuous Paper

The built-in tractor feeder lets you print on continuous paper from 102 mm (4 inches) to 406 mm (16 inches) wide.

You can use the built-in tractor feeder without removing paper from the sheet feeder.



Caution:

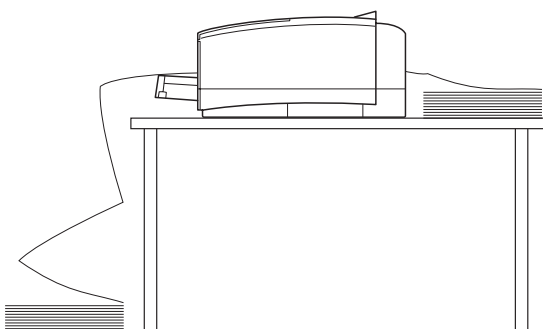
Use the knob on the left side of the printer only to clear paper jams and only when the printer is off. Otherwise, you may damage the printer or change the top-of-form position.

Loading continuous paper

1. Place the supply of continuous paper directly behind the printer so that paper can feed smoothly. Make sure the paper path is not obstructed, and allow enough room for printed pages to be stacked in front of the printer.

Note:

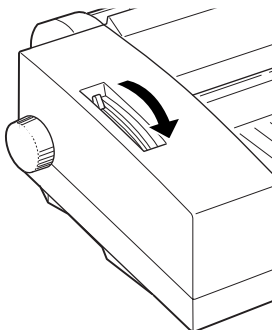
Make sure your paper supply is positioned within 1 meter (3 feet) of the printer.



2. Move the paper-release lever to the continuous-paper position.

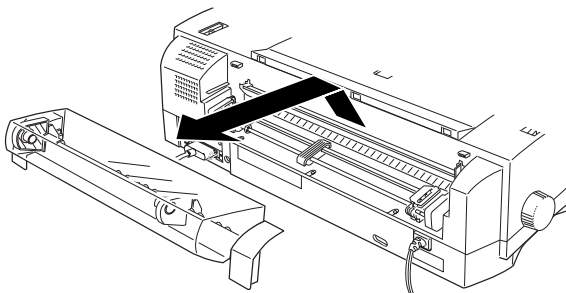
Note:

If a single sheet is in the paper path, press the Load/Eject button to eject it before moving the paper-release lever.

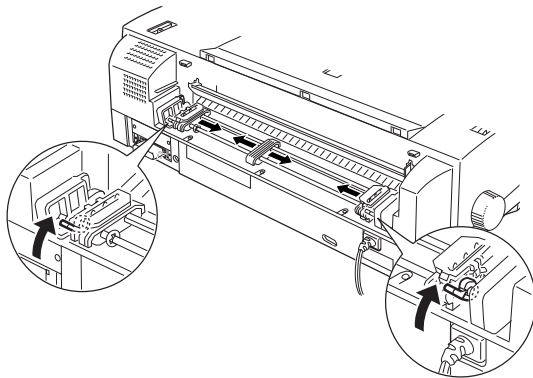


5

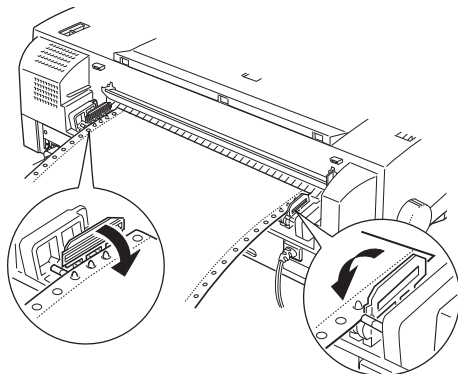
3. Lift up the banner paper cover and hold the manual feed guide with both hands and gently lift it up and off the printer.



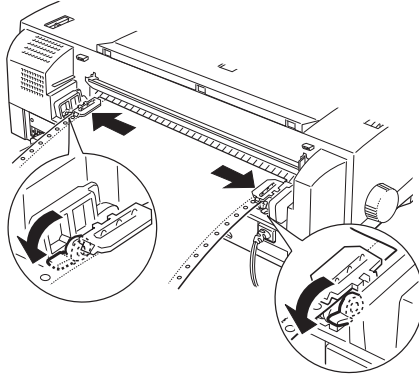
4. Release the sprocket units on the tractor by raising the sprocket-lock levers.



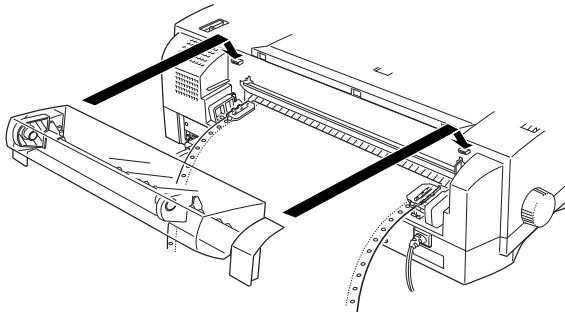
5. Move the sprocket units to match the paper's width, then position the center support midway between the two sprocket units.
6. Open both sprocket covers.
7. Make sure the printable side of the paper is up. Then fit the first four holes of the paper over the sprocket pins and close the sprocket covers.



8. Make sure the left sprocket unit is as far to the right as it will go. This places the left perforation at the left edge of the printable area. Then lower the sprocket-lock lever to lock the left sprocket unit.



9. Slide the right sprocket unit to remove any slack in the paper. Then lower the sprocket-lock lever into place.
10. Reattach the manual feed guide and banner paper cover to the printer. Match the holes of the guide to the pins on both sides of the printer and push until they click into place.



11. Open the printer hood and push in the paper tray all the way (you may have to remove paper to do this). This prevents continuous paper from jamming.
12. When you print your document, the printer advances the continuous paper to the loading position and starts printing.

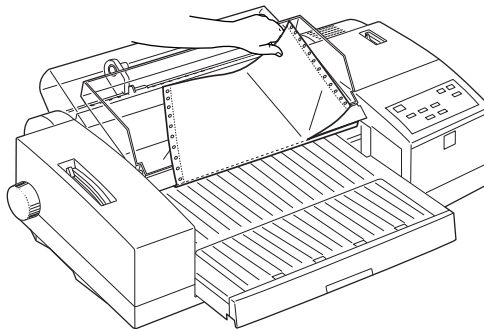
Removing continuous paper

1. After you finish printing, press the Load/Eject button. The printer advances the paper to the tear-off position.

Note:

When the auto tear-off feature is on, the printer advances the paper perforation to the tear-off position automatically. For more information on the auto tear-off feature, see “Using the Default-Setting Mode” on page 6-4.

2. Tear off the printed pages.



3. Press the Load/Eject button again. The printer feeds the continuous paper backward to the paper-park position.

Note:

If you are using continuous labels, see “Removing continuous labels from the printer” on page 5-30.

Tips on using continuous paper

Follow the tips below when printing on continuous paper.

- ❑ If the printer runs out of paper during a print job, load paper in the tractor feeder and press the Pause button to continue printing.
- ❑ You can use the micro-adjust feature to adjust the loading position or tear-off position. See “Adjusting the loading position” or “Adjusting the tear-off position” below. The settings you make remain in effect until you change them again, even if you turn off the printer.



Caution:

Do not use the knob on the left side of the printer to adjust the loading position. Otherwise, you may damage the printer or cause it to lose the top-of-form position.

- ❑ If paper slips out of the sprocket pins, re-insert the paper into the pins before feeding the paper backwards.

Adjusting the loading position

You can adjust the loading position of continuous paper using the micro-adjust feature. Before adjusting the loading position, load continuous paper to the top-of-form position using the Load/Eject button. See page 5-8 for details.

Adjusting the tear-off position

When you press the Load/Eject button after you have finished printing a page, you may find that the perforation is not aligned with the tear-off edge. You can use the micro-adjust feature to adjust paper to the tear-off edge. When you resume printing, the printer feeds paper back to the loading position.

**Caution:**

- ❑ *Do not use the knob on the left side of the printer to adjust the tear-off position. Otherwise, you may damage the printer or cause it to lose the top-of-form position.*
- ❑ *Never use the tear-off feature with labels. When fed backward, labels may come off the backing and jam the printer. When you use labels, always turn off the auto tear-off setting using the default-setting mode.*

Note:

- ❑ *When the auto tear-off feature is on, the printer advances the paper perforation to the tear-off position automatically after you have finished printing a page. For more information on the auto tear-off feature, see “Using the Default-Setting Mode” on page 6-4.*
- ❑ *The setting you make remains in effect until you change it again, even if you turn off the printer.*

To adjust the tear-off position, follow the steps below.

1. Make sure the printer is on and the paper is in the current tear-off position.
2. Press the Micro Adjust  button to feed paper forward, or press Micro Adjust  to feed paper backward. (Press either button as many times as necessary until the perforation is positioned correctly.)
3. Tear off any printed pages.

Note:

The printer has a minimum and maximum tear-off position, beyond which the paper stops moving.

Switching Between Continuous Paper and Single Sheets

When using the tractor feeder, you can easily switch to single-sheet printing without removing the continuous paper.

Switching to single sheets

To switch from continuous paper to single sheets, follow the steps below.

1. If any printed sheets remain in the printer, tear off the printed pages.

**Caution:**

- ☐ Always tear off paper before back-feeding; back-feeding too many sheets can cause a paper jam.
 - ☐ Never back-feed continuous labels. Labels can easily come off their backing and jam the printer. To remove continuous labels, see page 5-30.
2. Press the Load/Eject button. The printer feeds the continuous paper backward to the paper-park position.
 3. Move the paper-release lever to the single-sheet position.

Note:

If the Pause and Paper Out  lights flash, you may have moved the paper-release lever before feeding the paper backward to the paper-park position. Lower the paper-release lever to the continuous-paper position and press the Load/Eject button; then raise the paper-release lever to the single-sheet position.

4. Start printing with single sheets fed from the sheet feeder or manual feed slot.

Switching to continuous paper

To switch from single sheets to continuous paper, follow the steps below.

1. If a single sheet is in the paper path, press the Load/Eject button to eject it.
2. Open the printer hood and push in the paper tray all the way (you may have to remove paper to do this). This prevents continuous paper from jamming.
3. Move the paper-release lever to the continuous-paper position.

Note:

If the Pause and Paper Out  lights flash, you may have moved the paper-release lever before ejecting a sheet of paper. Raise the paper-release lever to the single-sheet position and press the Load/Eject button; then lower the paper-release lever to the continuous-paper position.

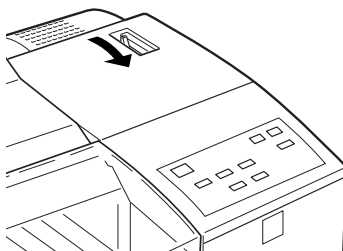
4. Start printing with continuous paper fed from the tractor feeder.

Printing on Special Paper

In addition to single sheets and continuous paper, your printer can print on a wide variety of media types, including special coated paper, high-quality glossy paper, transparency films, envelopes, index cards, and labels.

Setting the adjust lever

Be sure to check the adjust lever position if you print on thick paper such as envelopes or index cards, or if ink smears on your documents. If ink smears on your documents, set the adjust lever to the + position regardless of the paper type. To change the adjust lever position, open the printer cover and change the setting as shown below.



5

Paper type	Lever position
Standard paper (single sheet)	0
Envelopes	+
Index cards	+
Transparencies	0
Labels	0
Continuous paper	0
Banner paper	0

Set the adjust lever to the + position if ink smears your documents .

Choosing Special Paper and Other Media

You can use most plain bond paper with your printer and achieve good results. However, 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, but print quality can vary depending on the paper quality and manufacturer. Test the printout quality before purchasing large quantities of paper.

EPSON provides special media such as ink jet (coated) paper, transparencies, glossy paper, 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 the best results.

EPSON also provides special media that can enrich the usage and expressive power of the printing results, such as EPSON Ink Jet Canvas Cloth and EPSON Ink Jet Back Light Film. EPSON Ink Jet Canvas Cloth has a canvas-cloth like texture and is designed to give an oil-painted artistic impression to printed images. EPSON Ink Jet Back Light Film has a frosted-glass like printable surface and a glossy surface on its reverse side. Printing on this film gives a crisp, translucent image for use in back-lit displays.

When you use one of the following media types, make sure the appropriate settings are made in the printer driver as described in Chapter 3 (Windows) and Chapter 4 (Macintosh). Also be sure to load the paper according to the instructions in this chapter.

The product names of some EPSON media currently on the market may vary depending on when it was distributed. In the following table, the media names referred to 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, S041028 (A3) S041065, S041046 (Super A3/B) S041066, S041078 (A2) S041078	EPSON 360 dpi Ink Jet Paper
Special Coated Paper for 720 dpi Printing (A4) S041061, S041026 (Letter) S041062, S041029 (Legal) S041067, S041048 (A3) S041068, S041045 (B) S041070, S041044 (Super A3/B) S041069, S041043 (A2) S041079	EPSON Photo Quality Ink Jet Paper
Special Coated Index Card for 720 dpi Printing (A6) S041054	EPSON Photo Quality Ink Jet Card
360 dpi Banner Paper S041103	EPSON 360 dpi Ink Jet Banner Paper
720 dpi Banner Paper S041102	EPSON Photo Quality Banner Paper

Transparencies

Former name	Current name
Transparency Film (A4) S041067 (Letter) S041064	EPSON Ink Jet Transparencies

Glossy Film

Former name	Current name
High Quality Glossy Paper (A4) S041071 (Letter) S041072 (A6) S041107 (A3) S041073 (B) S041075 (Super A3/B) S041074	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.*

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 down when loading media into the sheet feeder, and when loading paper into the manual feed slot, the printable surface is face up. 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.

- ❑ Before you load Super A3/B or A2 size paper, see “Loading oversized paper into the sheet feeder” in this chapter. Note the following important precautions when handling such paper.
- ❑ Make sure the paper stack fits under the arrow mark, which is located on the inside surface of the 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 up to 70 sheets of special coated paper into the sheet feeder. If you plan to print on Super A3/B or A2 size special coated paper, do not load more than 30 sheets into the sheet feeder. Also, do not load paper in the sheet feeder above the red line on the right edge guide.
EPSON Photo Quality Ink Jet Card	You can load up to 30 index cards into the sheet feeder.
EPSON Photo Quality Glossy Paper	You can load up to 20 sheets. If you plan to print on paper larger than A3 size, you can load up to 5 sheets. Before loading glossy paper into the sheet feeder, always put a support sheet under the stack of glossy paper.

EPSON Photo Quality Glossy Film	For best results, you should load glossy film one sheet at a time. Before loading glossy film into the sheet feeder, always put a support sheet* under the glossy film. If you wish to load multiple sheets of glossy film, load only up to 30 sheets.
EPSON Ink Jet Transparencies	You can load up to 30 transparencies.
EPSON Photo Quality Self-Adhesive Sheets	You can load one sheet at a time from the manual feed slot.
Envelopes	You can load up to 10 envelopes.
EPSON 360 dpi Ink Jet Banner Paper EPSON Photo Quality Banner Paper EPSON Ink Jet Canvas Cloth	To ensure the professional appearance of your printout and for ease of use with banner paper, the optional Banner Paper Cutter is recommended.
EPSON Ink Jet Back Light Film	You can load one sheet at a time into the sheet feeder, or from the manual feed slot.

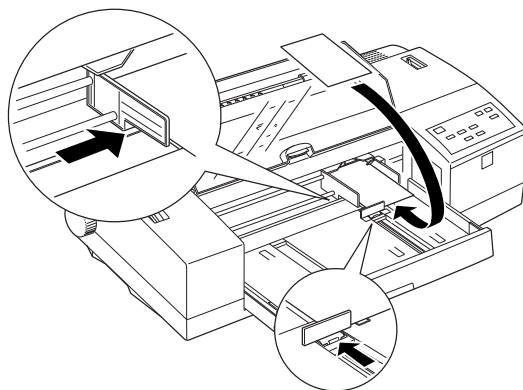
*If a support sheet is packed with the Photo Quality Glossy Film, load it underneath the glossy film, but do not print on it.

Photo Quality Ink Jet Cards

For best results when printing on index cards, you should use EPSON Photo Quality Ink Jet Cards.

When printing on index cards, please note the following:

- ☐ Make sure that the adjust lever is set to the + position before you load index cards. The adjust lever is located inside the printer. See “Setting the adjust lever” on page 5-19.
- ☐ You can insert up to 30 index cards into the sheet feeder. Load index cards short edge first with the printable side up.
- ☐ When you load index cards, remove the rear edge guide and re-install it to match the length of the cards as shown below.



- ❑ Make sure the printable side of the paper is loaded correctly. For the sheet feeder, load cards with the printable surface down; for the manual feed slot, load cards with the printable surface up.



Caution:

Do not touch the printable surface of the paper. Hold the cards by their edges. The moisture or oils on your fingers can decrease the print quality.

- ❑ You may be able to select 720 dpi if your DOS program supports 720-dpi printing. You can select from Bi-d, Uni-d, or Auto print directions using the default-setting mode. The Uni-d setting is recommended when printing at 720 dpi. See “Using the Default-Setting Mode” on page 6-4 for details.
- ❑ Do not load index cards that are curled or bent.
- ❑ Return unused cards to their original package as soon as possible after you finish printing. Unfavorable storage conditions, such as high temperature, humidity, or direct sunlight, can damage the paper.
- ❑ If your index cards don’t feed properly or jam, see Chapter 8.

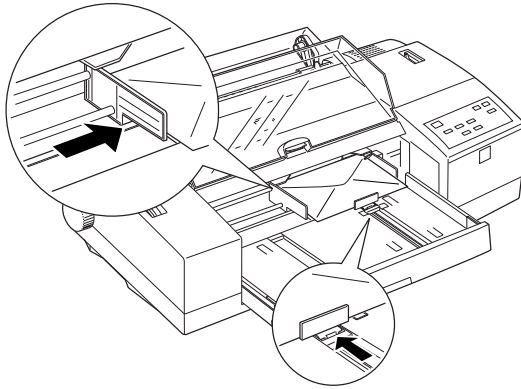
Envelopes

When printing on envelopes, note the following:

- ❑ Make sure that the adjust lever is set to the + position. The adjust lever is located inside the printer. See “Setting the adjust lever” on page 5-19.

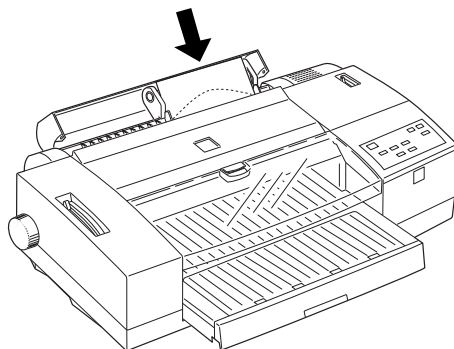
- ❑ Before printing on envelopes from a DOS application program using the sheet feeder, the printer must be in the envelope printing mode. To enter this mode, load a single envelope in the sheet feeder and then eject it by pressing the Load/Eject button. The printer will now feed envelopes correctly.
- ❑ You can load up to 10 envelopes in the sheet feeder. Load envelopes with the flap edge first and the printable surface face down.

When loading C5 envelopes, remove the rear edge guide and re-install it to match the length of the envelopes as shown below.



- ❑ EPSON recommends you set the top margin to 10 mm (0.14 inch) for envelopes (the minimum is 8.5 mm (0.12 inch))

- ❑ When you load envelopes into the manual feed slot, position the right edge guide so that its right edge is even with the arrow mark on top of the manual feed guide. Load envelopes flap side down with the flap edge first. See “Loading paper manually” on page 5-6.



- ❑ Do not print on the back side of envelopes.
- ❑ Do not use envelopes that are curled, folded, or partially sealed. 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 4 for Macintosh.
- ❑ Return unused envelopes to their original packages. Unfavorable storage conditions such as high temperature or humidity can damage them.
- ❑ If your envelopes jam or don't feed properly, see Chapter 8, “Troubleshooting.”

Labels

When printing on labels, please note the following:

- ☐ Do not use labels that are curled or folded. Also avoid using labels that are peeling off the backing.
- ☐ Return unused labels to their original packages. Unfavorable storage conditions such as high temperature, humidity, or direct sunlight can damage them.
- ☐ If your labels jam or don't feed properly, see Chapter 8, "Troubleshooting."

For single-sheet labels:

- ☐ Load sheets of labels into the manual feed slot one sheet at a time. Otherwise, they may not feed properly. See "Loading paper manually" on page 5-6. Also, see Appendix D for specifications.
- ☐ Only use labels that completely cover the backing sheet; otherwise, they may peel off and jam the printer.
- ☐ Make sure that the printable surface of the labels is face up.

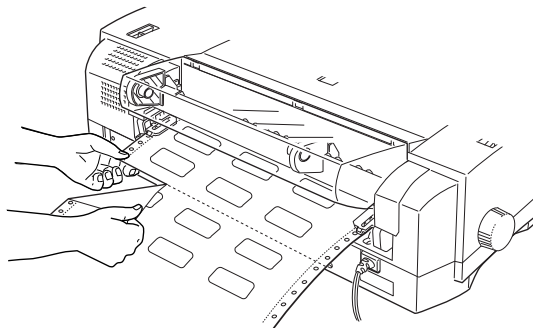
For continuous labels:

- ☐ Choose labels mounted on a continuous backing sheet with sprocket holes for use with the tractor feeder.
- ☐ Make sure the printing stays entirely within the printable area. See Appendix D for specifications.
- ☐ Make sure you load labels with the printable surface face up.
- ☐ Make sure the auto tear-off feature is set to off in the default-setting mode when using continuous labels.

- ❑ Do not leave labels loaded in the printer between jobs; they may curl around the platen and jam when you resume printing.

Removing continuous labels from the printer

1. Tear off the fresh supply of labels at the rear of the printer.



2. Press the LF/FF button to advance the remaining labels out of the printer.



Caution:

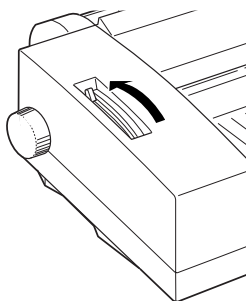
Never feed labels backward through the printer; they can easily peel off the backing and jam the printer. If a label does become stuck in the printer, contact your dealer.

EPSON banner paper

Loading banner paper

If you print on EPSON 360 dpi Ink Jet Banner Paper, EPSON Photo Quality Banner Paper, or EPSON Ink Jet Canvas Cloth, EPSON recommends you to use the optional Banner Paper Cutter, especially for EPSON Ink Jet Canvas Cloth. See your dealer for information about the Banner Paper Cutter.

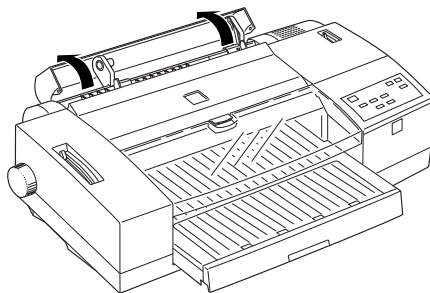
1. Hold down the Media Type **↓** button and turn on the printer to enter the default-setting mode. The printer prints a brief summary and instruction sheet.
2. Follow the instructions on the printed sheet, and print the current default settings. Using the default settings and printed instructions as guides, make sure that both the Banner mode and the Auto tear-off setting are on. See “Using the Default-Setting Mode” on page 6-4 for details.
3. When finished, turn off the printer and turn it back on again. Make sure that the paper-release lever is set to the single sheet position.



Caution:

Do not insert paper before you turn on the printer.

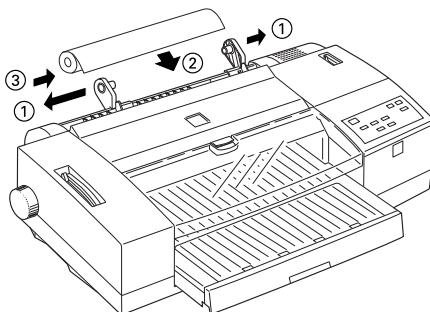
4. Open the banner paper cover.



5. Move the right and left banner paper holders all the way out to the sides and attach the banner paper roll to the roll paper holder. Then slide the left banner paper holder to match the paper roll's width.

Note:

- ☐ For best results, use banner paper distributed by EPSON.
- ☐ Make sure that the left and right holders are snug against the banner paper roll, but do not squeeze the paper too tightly; otherwise the roll will not rotate properly.
- ☐ Be sure to load the banner paper roll in the holder so that the paper feeds into the printer from the top of the roll.



6. While holding both ends of the roll, align the edges of the paper with the paper holders and load the paper in the manual feed slot until it meets resistance. The printer automatically feeds the paper to the loading position.

Note:

If the paper feeds unevenly, pull it out. Then load it again.

7. Close the banner paper cover.

Cutting off the printed banner paper

EPSON recommends use of the optional Banner Paper Cutter when cutting off banner paper. When your print job finishes printing, the printer feeds the paper to the default tear-off position (as long as the Auto tear-off feature is on in the default setting mode). Press the Micro Adjust $\blacktriangledown$ and $\blacktriangleup$ buttons to move the paper forward or back. See the user's guide that comes with the cutter for instructions on how to use the cutter. If you don't have the Banner Paper Cutter, use scissors to cut the paper.

Note:

The printer automatically saves the cut-off position and it remains in effect until you change it again, even after turning off the printer.

Removing banner paper

To switch to another type of paper or to remove banner paper temporarily, follow the steps below.

1. Make sure the banner paper is in the paper loading position (the position of the paper after the printer loads it). If the paper is in the cut-off position, press the Load/Eject button to feed it backward to the loading position.
2. Pull out the paper.

3. Take out the front edge of the banner paper from the manual feed slot and position the front edge so that the paper remains completely out of the feed slot.

Note:

If you do not use the remaining banner paper for a while, return the banner paper roll to its original package. Unfavorable storage conditions such as high temperature, direct sunlight, or humidity can damage the paper.

EPSON Ink Jet Back Light Film

When printing on EPSON Ink Jet Back Light Film, note the following:

- ☐ You can load only one sheet at a time into the sheet feeder or the manual feed slot.
- ☐ The EPSON Ink Jet Back Light Film tends to curl even under normal storage conditions. If it curls, flatten it before you load the film.
- ☐ Make sure to load the film with the printable side down when loading the film into the sheet feeder, or with the printable side up when loading the film from the manual feed slot.
- ☐ Before sending data, select Ink Jet Back Light Film as the Media Type setting on the Main menu in the printer driver.

Note:

EPSON Ink Jet Back Light Film is designed to print images backwards, using the printer driver's Flip Horizontal feature, so that viewing the printout from the unprinted side gives the correct image. To use the Flip Horizontal feature, select Ink Jet Back Light Film as the Media Type or select Flip Horizontal, but do not select both.

Chapter 6

The Control Panel

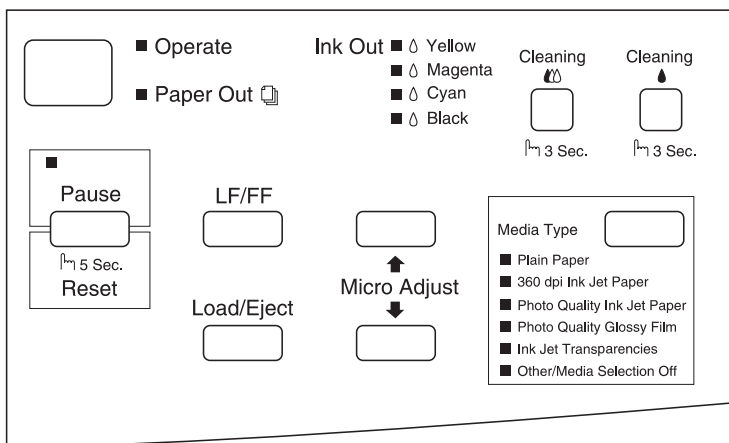
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Using Special Power-On Functions	6-3
Using the Default-Setting Mode	6-4
About the default settings	6-5
Changing the default settings	6-10
Selecting fonts	6-12
Scalable fonts	6-13

Using the Control Panel

The lights and buttons on the control panel help you easily control most common printer operations.

Note:

Software usually overrides control panel selections. Use your software to select print functions whenever possible.



Using Special Power-On Functions

The following functions are available if you hold down the corresponding button while turning on the printer:

LQ self test (LF/FF)

Checks the paper length and performs self-test printing at 360 dpi (dots per inch). See Chapter 8, “Troubleshooting.”

Draft self test (Load/Eject)

Checks the paper length and performs self-test printing at 180 dpi. See Chapter 8, “Troubleshooting.”

Hex dump (LF/FF + Load/Eject)

Prints the print data in hexadecimal code. See Chapter 8, “Troubleshooting.”

Default setting (Media Type)

Enters the default-setting mode. See “Using the Default-Setting Mode” on the next page for details.

Print head alignment (Pause)

Enters the printer-adjustment mode. See “Aligning the Print Heads” on page 8-41 for details.

Note:

To exit the hex dump, default-setting, or print head alignment mode, turn off the printer.

Using the Default-Setting Mode

You can change several printer settings that control a variety of functions such as print direction and loading position. Because these settings take effect each time you turn on the printer, they are called default settings.

The factory default settings are designed to meet the needs of most users, so you probably do not need to change them. The table below lists the features you can select in the default-setting mode.

Setting	Options
Print direction	Auto, Bi-D, Uni-D
Font	Courier, Roman, Sans Serif, Prestige, Script, Roman T, Sans Serif H, Draft
Pitch	10 cpi, 12 cpi, 15 cpi, 17.1 cpi, 20 cpi, Proportional
I/F mode	Auto, Parallel, Mac Serial, Option
Auto interface wait time	10 seconds, 30 seconds
Software	ESC/P 2, IBM XL24E
Auto CR*	Off, On
AGM*	Off, On
Character table	PC437, PC850, PC860, PC861, PC863, PC865, Abicomp, BRASCI, Roman 8, ISO Latin 1, PC437 Greek, PC853, PC855, PC852, PC857, PC866, PC869, MAZOWIA, Code MJK, ISO 8859-7, ISO Latin 1T, Bulgaria, PC774, Estonia, ISO 8859-2, PC866LAT, Italic.
International character set for Italic table	Italic U.S.A., Italic France, Italic Germany, Italic U.K., Italic Denmark 1, Italic Sweden, Italic Italy, Italic Spain 1
Auto line feed	Off, On
Network I/F mode	Off, On
0 slash	0, Ø
Page length for continuous paper	11 inch, 12 inch, 8.5 inch, 70/6 inch, Others

Setting	Options
Skip over perforation	Off, On
Auto tear off	Off, On
Banner mode	Off, On
Parallel I/F transfer rate	Fast, Normal

* IBM mode only

For details, see “About the default settings” below. To change a setting, see “Changing the default settings” on page 6-10.

Note:

Most software controls the character table and auto line feed. If your software controls these features, you may never need to set them with the control panel.

About the default settings

Print direction

Your printer has three direction settings: unidirectional (may appear as   on control panel), bidirectional ( ), and automatic ( .

Note:

Most software controls this setting. If your software does, you may never need to set it with the control panel.

The auto mat ic setting switches the printer automatically between bidirectional (for text data) and unidirectional (for graphics data) printing.

The bidirectional setting causes the print heads to print in both directions. This provides the fastest printing. If vertical or horizontal lines are not aligned, align the print heads as shown on page 8-41. If you can't use the calibration utility, you will need to align the print heads using the print head alignment mode.

The unidirectional setting causes the print heads to print in one direction only. This provides maximum alignment for both graphics and character printing.

Font

Use this setting to select which built-in font should be used as the default. For more details, see “Selecting fonts” on page 6-12.

Pitch

With this setting, you can specify the default character pitch to be used for printing.

I/F mode

Your EPSON printer has both a parallel and serial interface, allowing you to share the printer between two computers.

If you select **Auto**, the printer automatically selects the interface that is receiving data, and uses that interface until the end of the print job. (A print job ends when no data is received from the selected interface for the amount of time specified in the **Auto interface wait time** setting described below.)

Set this option to **Parallel** if you want the printer to ignore data from the serial interface or to **Serial** if you want the printer to ignore data from the parallel interface.

Select **Option** if you have installed an optional interface card and want the printer to ignore data from the built-in parallel or serial interface.

If you don't know what type of interface your computer requires, check your computer manual.

Auto interface wait time

If you select Auto as the I/F (interface) mode option, you can set the interface timeout to 10 seconds or 30 seconds.

The printer does not accept data from another interface unless no data is received from the current interface for the period set as the Auto interface wait time.

Software

Use this setting to specify the type of control codes you want to use to control the printer.

If you select ESC / P 2, the printer emulates an EPSON ESC / P 2 printer. If you select IBM XL24E, the printer operates as an IBM Proprinter™ XL24E. If possible, choose EPSON ESC / P 2 in your software applications. This will allow you to use the most advanced font and graphics handling available.

6

Auto CR

When Auto CR is on, the auto carriage return option performs a carriage-return line-feed (CR-LF) operation whenever the print position exceeds the right margin. If this is set to off, the printer does not print characters beyond the right margin and does not perform a line wrap until it receives a CR. This feature is available when you select IBM XL24E emulation as the control code setting.

AGM (Alternate Graphics Mode)

When AGM is on, the printer can use high-resolution 24-pin graphics commands. The default setting is off. This feature is available when you select IBM XL24E emulation as the control code setting.

Character table

Character tables contain the characters and symbols used by different languages. The printer prints text based on the selected character table. For a list of the available character tables, see page D-21.

International character set for Italic table

International character sets contain the italic characters and symbols used by different languages. The printer prints italic text based on the selected italic table. For a list of available character tables, see D-21.

Auto line feed

If the auto line feed feature is on, each carriage return (CR) code is accompanied by a line feed (LF) code. If your printed text is unexpectedly double-spaced, set this feature to off. If text lines print on top of each other, set it to on.

Network I/F mode

If your printer is connected to a single computer, leave this feature off. If you want to share the printer with another computer, turn this feature on.

When this feature is on, data may be present in the printer's buffer even though the printer is not printing. Always make sure all print jobs are finished before turning off the printer.

0 slash

This option determines whether the printer prints a slashed zero (Ø) or unslashed zero (0). This feature is useful for clearly distinguishing between an uppercase letter O and a zero when printing documents such as lists of codes.

Page length for continuous paper

This option is available only when you use continuous paper with the tractor. You can set the paper length to 11, 12, 8.5, or 70/6 (the length of A4 paper) inches.

Skip over perforation

If you turn on this feature, the printer skips over the perforations of continuous paper, providing a 1-inch margin between the last line printed on one page and the first line printed on the next. Because most software programs set their own top and bottom margins, you should use this feature only if your program does not provide them. This feature does not affect single-sheet paper.

Auto tear off

When you use continuous paper with the tractor or banner paper, this feature advances the paper perforation or end of printed page to the tear-off position where you can easily tear off or cut off the printed pages. When the printer receives data, it automatically feeds the paper to the top-of-form position and starts printing, so you can use all of the next sheet.



Caution:

If you use the tractor feeder to print labels, set this feature to off. Otherwise labels may come off the backing and jam the printer.

Banner mode

If you turn on this mode, the banner paper is not recognized as single-sheet paper even if the paper-release lever is set to the single-sheet position. Therefore, paper is not ejected and advanced forward to the next page with the LF/FF button.

Parallel I/F transfer rate

This setting specifies the I/F (interface) transfer rate for the parallel interface. For most printing, leave this setting set to Fast. If you encounter problems, set it to Normal.

Changing the default settings

To change the printer's default settings, use the control panel buttons; the control panel lights show your selections.

1. Make sure the printer is turned off and at least 4 sheets of A4 (210 mm) size or wider paper are loaded printable side down in the sheet feeder.

Note:

You can also load paper from the manual feed slot or the tractor feeder.

2. Hold down the Media Type button and turn on the printer to enter the default-setting mode.

The printer loads a sheet of paper and prints a brief summary and instructions. It instructs you to select the language that you want messages printed in (English, French, German, Italian, Spanish, or Portuguese).

3. Press the Micro Adjust  button until the following lights indicate the language of your choice; then press the Pause button to make your selection.

Language	Ink Out 	Ink Out Magenta
English	●	●
French	○	●
German	◐	●
Italian	●	○
Spanish	○	○
Portuguese	◐	○

○ = On, ● = Off, ◐ = Flashing

After you press the **Pause** button, the printer prints the current default settings and the next instructions in the language you selected. The printed instructions include submenu tables that list all of the settings you can change and show you how the control panel lights appear for each selection. Use the instruction sheets to change the settings from the control panel.

4. After making your changes, exit the default-setting mode by turning off the printer.

Note:

- ❑ *You may exit the default-setting mode at any time by turning off the printer while the printer is paused. Any changes you have made remain in effect until you change them again.*
- ❑ *If you want to check the new default settings, enter the default-setting mode again and print the current settings. If you want to stop printing the instruction sheets and exit the default-setting mode without making any changes, press the **Pause** button. Next, press the **Load/Eject** button to eject the current page, if necessary, and then turn off the printer.*

Selecting fonts

Your printer has eight built-in character fonts including two EPSON fonts: EPSON Roman T and EPSON Sans Serif H. (Roman T is similar to the Times™ font; Sans Serif H is similar to Helvetica™.)

To select a font, enter the default-setting mode. See “Changing the default settings” on page 6-10.

Note:

Font selections you make with your software override your printer’s control panel selections. For best results, use your software to select fonts.

The table below shows the available fonts.

Fonts	Sample
EPSON Courier	
EPSON Roman T	
EPSON Sans Serif H	
EPSON Roman	
EPSON Sans Serif	
EPSON Prestige	
EPSON Script	
Draft	

Note:

- ☐ *Roman T and Sans Serif H fonts are available in proportional spacing only.*
- ☐ *Some of the character tables might not be able to print with EPSON Roman T and EPSON Sans Serif H fonts. In these cases, selected character tables are printed with EPSON Roman.*

Scalable fonts

The size of the Roman, Sans Serif, Roman T, and Sans Serif H fonts can be selected from 8 to 32 points in 2-point increments through your software or by sending an ESC / P 2™ command. See the documentation that came with your software for information on selecting the size of scalable fonts.

EPSON
Roman

EPSON
Roman T

EPSON
Sans Serif

scalable sample

EPSON
Sans Serif H

Chapter 7

Maintenance and Transportation

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Replacing an Ink Cartridge

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

Note:

If you remove an ink cartridge and then reinstall it, the printer cannot determine the correct level of ink remaining and the Ink Out light may not flash or come on when the cartridge runs out of ink.

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 (Black) is

- ☐ flashing obtain a replacement black ink cartridge (S020118).
- ☐ on replace the empty black ink cartridge.

When the Ink Out light (Cyan) is

- ☐ flashing obtain a replacement cyan ink cartridge (S020130).
- ☐ on replace the empty cyan ink cartridge.

When the Ink Out light (Magenta) is

- ☐ flashing obtain a replacement magenta ink cartridge (S020126).
- ☐ on replace the empty magenta ink cartridge.

When the Ink Out light (Yellow) is

- ☐ flashing obtain a replacement yellow ink cartridge (S020122).
- ☐ on replace the empty yellow ink cartridge.

Note:

When the color ink cartridge is empty, the printer can continue to work using only black ink. To continue printing with black ink only, see “Printing with an empty color ink cartridge” on page 7-5.



Caution:

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

To replace an ink cartridge, follow the steps below.

1. Make sure the printer is on. Determine which cartridge needs to be replaced as indicated by the Ink Out  light that is flashing or on.
2. Push the top of the ink compartment door to open it. Then carefully pull the used ink cartridge straight out of the printer.

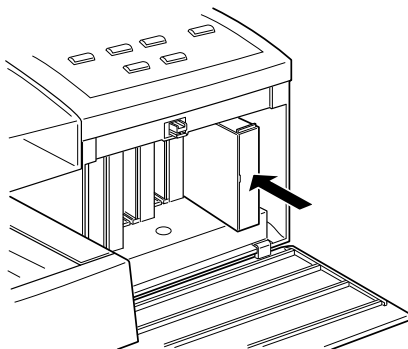


Warning:

If ink gets on your hands, wash them thoroughly with soap and water. If ink gets into your eyes, flush them immediately with water.

3. Make sure the replacement ink cartridge is the correct color, and remove it from its package.

4. Insert the end of the cartridge with the foil plug into the ink compartment following the directions on the cartridge label.



5. Push the cartridge firmly all the way into the compartment until the cartridge meets the back of the ink compartment. Make sure the corresponding Ink Out light goes off.

Note:

If the Ink Out light remains on, the ink cartridge may not be installed correctly. Remove the ink cartridge and then reinsert it as described above.

6. Close the ink compartment door.
7. Press the Pause button to resume printing.

Printing with an empty color ink cartridge

If one or more of the color ink cartridges is empty, you can still print documents with black ink as long as all cartridges are still installed. To continue printing when one of the color Ink Out lights is lit continuously, turn the printer off and back on again. Be aware that any data you sent to the printer before turning it off will be lost.

Note:

The empty color ink cartridge must remain installed.

Before sending data to the printer, choose Black as the Ink setting in the printer driver. For details on the printer driver settings, see online help for Windows or Chapter 4 for Macintosh.

To switch back to color printing, you must install a new color ink cartridge as described in this chapter, and then turn the printer on.

If the black ink runs out, you cannot continue printing until you replace it even though the color ink cartridges still contain ink.

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 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 alcohols 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. Turn on the printer.
2. Remove all four of the ink cartridges and store them in separate plastic bags.

Note:

If you only need to transport your printer a short distance, do not remove the ink cartridges.

3. Turn off the printer and make sure the print heads are in the home (far right) position. If they are not, turn the printer back on, wait until they stop moving and are in the home position; then turn off the printer.

Note:

After turning off the printer, the Pause light flashes for about one minute.

4. Unplug the power cord from the electrical outlet; then disconnect the interface cable from the printer.
5. Remove any paper from the sheet feeder and remove the paper support, output tray, and cable cover.
6. Attach the protective materials you removed when you unpacked the printer.
7. Repack the printer, paper tray cover, paper tray, banner paper cover, and power cord in the original box.
8. Remember to keep the printer level during transport.

Chapter 8

Troubleshooting

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Diagnosing a Problem

Troubleshooting printer problems is best handled in two easy steps: 1) diagnose the problem and 2) 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 printing a self test. Experienced users may also want to use the printer's hex dump mode to pinpoint communication problems.

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.

State of Panel Light	Problem and Solution
○ Paper Out 	No paper is loaded in the printer.
	Load paper in the sheet feeder; then press the Load/Eject button to turn the Paper Out  light off. The printer resumes printing.
	The paper is not loaded correctly.
	Remove and reload paper correctly. See “Loading Paper” in Chapter 3 (Windows) or Chapter 4 (Macintosh).
	The paper-release lever may be set to the wrong position.
	Match the paper-release lever position with the kind of paper and paper source you use.
⦿ Paper Out 	Paper has jammed in the printer.
	To clear the paper jam, see “Clearing a paper jam” on page 8-24. If you have frequent paper feed or paper jam problems, see “Preventing paper feed and paper jam problems” on page 8-25.
⦿ Ink Out  (Black)	The black ink cartridge is nearly empty.
	Obtain a replacement black ink cartridge (S020108).
○ Ink Out  (Black)	The black ink cartridge is empty.
	Replace the black ink cartridge with a new one (S020108).
⦿ Ink Out  (Yellow)	The yellow ink cartridge is nearly empty.
	Obtain a replacement yellow ink cartridge. (S020122)
○ Ink Out  (Yellow)	The yellow ink cartridge is empty.
	Replace the yellow ink cartridge with a new one (S020122).
⦿ Ink Out  (Magenta)	The magenta ink cartridge is nearly empty.
	Obtain a replacement magenta ink cartridge. (S020126)
○ Ink Out  (Magenta)	The magenta ink cartridge is empty.
	Replace the magenta ink cartridge with a new one (S020126).

○ = on, ⦿ = flashing

State of Panel Light	Problem and Solution
 Ink Out  (Cyan)	The cyan ink cartridge is nearly empty.
	Obtain a replacement cyan ink cartridge. (S020130)
 Ink Out  (Cyan)	The cyan ink cartridge is empty.
	Replace the cyan ink cartridge with a new one (S020130).
 Plain Paper  360 dpi Ink Jet Paper  Photo Quality Ink Jet Paper  Photo Quality Glossy Paper  Ink Jet Transparencies  Other/Media Selection Off	The paper-release lever is not in the correct position. ¹
	Match the paper-release lever position with the kind of paper and paper source you use.
 Operate  Paper Out   Ink Out  (Yellow)  Ink Out  (Magenta)  Ink Out  (Cyan)  Ink Out  (Black)  Plain Paper  360 dpi Ink Jet Paper  Photo Quality Ink Jet Paper  Photo Quality Glossy Paper  Ink Jet Transparencies  Other/Media Selection Off	An unknown printer error has occurred.
	Turn off the printer, and contact your dealer.

○ = on,  = flashing

Status Monitor

If you are printing with Windows 95 or a Macintosh, you can use the Status Monitor to check the printer's current status. For more details, see page 3-20 (Windows) or page 4-29 (Macintosh).

Printing a self test

Performing a self test on the printer can help you determine whether the problem comes from the printer or the computer.

To perform a self test, follow these steps:

Note:

- ☐ *Make sure that paper is loaded in the sheet feeder before starting the self test.*
 - ☐ *Make sure the paper-release lever is set to the single sheet position.*
 - ☐ *Use paper 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.*
1. Make sure the printer is turned off.
 2. While holding down the Load/Eject button, press the  Operate button to turn on the printer.

The self test begins by printing on the first and last lines of the first sheet of paper to measure the page length. Then the printer prints character samples on the next sheet of paper.

The test is printed using the available fonts at 360 dpi (dots per inch). Here is part of a typical self test:

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

Note:

If you want to print a self-test at 180 dpi, turn on the printer while holding down the LF/FF button.

3. The test continues until the paper in the sheet feeder runs out or until you press the **Pause** button. To stop the test, press the **Pause** button. To resume the test, press the **Pause** button again.
4. To end the self test, press the **Pause** button to stop printing. Press the **Load/Eject** button to eject the page if necessary, and turn off the printer.



Caution:

*Do not turn off the printer while it is printing. Always press the **Pause** button to stop printing and then turn off the printer.*

- ❑ If the self test results are satisfactory, 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 self test does not print satisfactorily, this tells you there is a problem with the printer, such as an empty ink cartridge or dirty print head. See “Problems and Solutions” on the next page for possible causes and answers to the problem, or go directly to “Cleaning the Print Heads” on page 8-36.

Hex dump mode

Experienced users can use the hex dump mode to pinpoint communication problems between the printer and a software program. To enter the hex dump mode, follow these steps.

1. Make sure the printer is turned off and paper is loaded in the sheet feeder.



Caution:

Use paper 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.

2. Hold down the LF/FF and Load/Eject buttons and press the ⏻ Operate button to turn on the printer.
3. Send data from the computer.

The printer prints the exact code it receives from the computer in hexadecimal format.

Problems and Solutions

This section divides printer problems into six categories:

- Power supply page 8-8
- Operation page 8-9
- Paper handling . . . page 8-17
- Printing quality . . . page 8-26
- Printer utilities . . . page 8-33
- Interface page 8-34

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's voltage rating and the outlets voltage rating. 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 the matching voltage.

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

Cause	What to do
The power cord is not properly plugged into the electrical outlet.	Press the  Operate button to turn off the printer, make sure the power cord is firmly plugged into the electrical outlet, and press the  Operate button to turn on the printer. If the control panel lights still don't come on, contact your dealer.
The printer is turned off.	Press the  Operate button to turn on the printer. The Operate light will come on.
The electrical outlet is controlled by an outside switch or automatic timer.	Use a different outlet.
The 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 Operate light is on but nothing prints.

Cause	What to do
The interface cable is not plugged in securely.	Confirm that both ends of the cable between the printer and the computer are fastened securely. If the cable is connected correctly, run a self test as described on page 8-5.
Your interface cable does not meet both the printer and computer specifications.	Use an interface cable that meets both printer and computer specifications. See pages 1-7 and D-12 (Windows) or 1-8 and D-17 (Macintosh).

Your software is not properly set up for your printer.

Make sure that your printer is properly selected in your software.

Install or re-install the printer driver software as described in Chapter 2.

An ink cartridge may be too old. Cartridges are too old if they have been used longer than six months or beyond the date on their packaging.

First try cleaning the print heads as described in “Cleaning the Print Heads” on page 8-36. If print does not appear after several cleaning tries, you may need to replace a cartridge(s) as described on page 8-44.

Nothing prints and the lights are on or flashing.	
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Cause	What to do
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Several common printer errors have occurred at once.	Use the table in “Error indicators” at the beginning of this chapter to determine what combination of errors may have occurred, and apply the recommended solutions.
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The printer sounds like it is printing, but nothing prints.	
--	--

Cause	What to do
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The print head nozzles are clogged.	Clean the print heads as described in “Cleaning the Print Heads” on page 8-36. If this does not work after several trials, contact your dealer.
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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 heads. If that does not solve the problem, replace ink cartridges as needed. If none of the Ink Out lights are on or flashing, see “Ink Cartridge Problems” on page 8-44.
--	--

The self test 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 "Interface cables" on page 1-7.
(For Windows users) Your computer is not 100% IBM [®] AT compatible.	Select Use Print Manager for this port in the Queue Setup window. To access this window, double-click the EPSON Spool Manager4 icon in the EPSON folder (Windows 95) or 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 possible. 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.

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.

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

The “Sorry, EPSON Stylus COLOR cannot be used” error appears. (Macintosh only)

Cause	What to do
The printer driver has been corrupted.	Remove and reinstall the driver: From the printer software floppy disk or CD-ROM, click Installer, click Continue, and select Custom Remove from the pop-up list that displays “Easy Install.” Then select EPSON Stylus Series Printer Driver, and click Remove. Click Continue, if necessary, and click Restart. See page 2-20 for instructions on installing the printer driver.

Color documents print out in black and white.

Cause	What to do
Your printer is not selected in your software.	Select your printer by clicking the Print command on the File menu of your application program, and then selecting it in the following dialog box(es).
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 software manufacturer of the application you had trouble with.
The printer is being used with an empty color ink cartridge installed.	Replace the color ink cartridge, then turn the printer off and back on. Any data sent to the printer will be lost. See “Printing with an empty color ink cartridge” on page 7-5.

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 “Printable area” on page D-7.
The size of the paper loaded in the printer does not match the paper size setting within your application program.	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
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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” later in this chapter.
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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
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Unknown problem has occurred.	Disconnect the interface cable from the computer; then try the self test as described on page 8-5.
-------------------------------	--

The printer settings within your application are incorrect.	Adjust the printer settings within your application and print again.
---	--

The interface cable is not plugged in securely.	Check that both ends of the cable connecting the printer and the computer are securely plugged in.
---	--

The data transfer speed does not match your computer.	Set Parallel I/F (interface transfer rate) setting to Normal in the default-setting mode. See “Changing the default settings” on page 6-10.
---	---

Software settings override those made in the default-setting mode.

Always try making a setting in your application first. If that is not possible, use the printer driver. If that is also impossible, see “Using the Default-Setting Mode” on page 6-4.

For DOS users:

The Network I/F (interface) mode is set to off.

Turn the Network I/F mode on in the default-setting mode. To enter the default-setting mode, see “Changing the default settings” on page 6-10.

All the text prints on the same line.

Cause

What to do

For DOS users:

Auto line feed is set to off in the default-setting mode.

Make sure that auto line feed is set to on in the default-setting mode so that the printer automatically adds a line-feed code to each carriage return. See “Using the Default-Setting Mode” on page 6-4.

An extra blank line prints between each text line.

Cause

What to do

For DOS users:

Auto line feed is set to on in the default-setting mode.

Make sure that auto line feed is set to off in the default-setting mode so that two line-feed signals are not sent. See “Using the Default-Setting Mode” on page 6-4.

Line spacing is incorrect.

Cause	What to do
The line-space setting in your software is wrong.	Adjust the line-space setting with your software.

The typesyles or characters set with your software do not print.

Cause	What to do
Your software is not correctly configured.	Make sure that your software is correctly configured for your printer.

The font selected in the default-setting mode or from the control panel does not print.

Cause	What to do
Software settings override those made in the default-setting mode or from the control panel.	Use your software to select the font.

The wrong characters are printed.

Cause	What to do
The wrong character table is selected.	Check your software settings, and change the character table as necessary. See “Changing the default settings” on page 6-10.

Paper handling

Single sheets do not feed properly

Single sheets do not feed properly from the sheet feeder.

Cause	What to do
Too many sheets may be loaded in the sheet feeder.	Remove the paper from the feeder and reload up to 100 plain paper sheets (or up to 70 special coated sheets, or up to 30 sheets of oversized paper).
Paper is curled or folded.	Use flat, non-damaged paper.
The paper may be too thick or too thin to be fed.	See “Paper” on page D-4.
The edge guides are not set correctly.	Adjust the guides against the stack of paper.
Continuous paper may be left in the paper path.	Remove the continuous paper.
The paper-release lever may be set to the wrong position.	Set the paper-release lever to the single-sheet position.
The rear edge guide may not be correctly placed under the output tray.	Fit the rear edge guide under the output tray to match the paper loaded in the sheet feeder.
The rear edge guide does not match the length of index cards loaded.	Position the rear edge guide as shown in “Photo Quality Ink Jet Card” on page 5-25.
Paper has been compressed and is sticking together.	Fan your stack of paper before loading it into the sheet feeder.

You are printing on oversized paper, and the paper may be obstructed by the output tray.	Raise the output tray by extending the legs under both sides of the tray to keep enough clearance between the output tray and paper support. See “Loading oversized paper in the sheet feeder” on page 5-3.
Paper may be jammed in the paper path.	Turn off the printer and open the printer cover using the notch on the cover; then gently pull out the paper by turning the knob toward you. Remove any remaining pieces of paper. See “Clearing a paper jam” on page 8-24.

Single sheets do not feed properly from the manual feed slot.
--

Cause	What to do
Paper is curled or folded.	Use flat, non-damaged paper.
The paper may be too thick or too thin to be fed.	See “paper” on page D-4.
Continuous paper may be left in the paper path.	Remove the continuous paper.
The paper-release lever is set to the wrong position.	Make sure that the paper-release lever is set to the single-sheet position. See page 3-2 (Windows) or 4-2 (Macintosh).
The single sheets are not loaded deeply enough.	Load single sheets into the manual feed slot until they meet resistance.

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, check the amount of paper you can load in the sheet feeder; see “Loading Special Paper and Other Media” on page 5-22.
Paper has been compressed and is sticking together.	Fan your stack of paper before loading it in the sheet feeder.
The paper is too thin.	Make sure the paper meets the paper requirements. See “Paper” on page D-4.

Ejected paper is wrinkled.

Cause	What to do
The paper is too thin or damp.	Do not store your paper in a damp or humid environment. Store paper in its original packaging. See “Paper” on page D-4.

Single sheets do not fully eject.

Cause	What to do
Paper gets stuck.	Use the Load/Eject button to eject the paper. If this occurs often, see “Cleaning the Printer” on page 7-6.
Page length setting is wrong.	Check the page length set by your software and adjust it if necessary.
The paper may be too long.	Use paper that is within the specified size. See “Paper” on page D-4.

The banner mode setting is on.

Make sure the banner mode setting is off. If this setting is on, the printer feeds paper a specified length. Change this setting using the default-setting mode. See “Using the Default-Setting Mode” on page 6-4.

Paper feeding is crooked.

Cause**What to do**

The edge guide of the sheet feeder may not match the paper's width.

Adjust the edge guides.

There may be too much paper in the sheet feeder.

Remove some paper.

You are printing on oversized paper, and the paper may be obstructed by the output tray.

Raise the output tray by extending the legs under both sides of the tray to keep enough clearance between the output tray and paper support. See “Loading oversized paper into the sheet feeder” on page 5-3.

Single sheets are not loaded deeply enough.

Load single sheets in the manual feed slot until they meet resistance.

The paper may be old or creased.

Use only new, smooth sheets of paper.

The paper does not meet the requirements of this printer.

Make sure that your paper is the proper size and quality. See page D-4.

Continuous paper does not feed properly

Regular gaps occur in the printout.

Cause	What to do
The skip-over-perforation setting may be on.	Set skip-over-perforation to off in the default-setting mode. See “Using the Default-Setting Mode” on page 6-4.

The perforation is not aligned with the tear-off position.

Cause	What to do
The tear-off position is not properly set.	Adjust the tear-off position using a Micro Adjust button. To use the micro-adjust feature, see “Adjusting the tear-off position” on page 5-15.
The auto tear-off setting may be turned on in the default-setting mode.	Turn this setting off. See “Using the Default-Setting Mode” on page 6-4.
The page length setting for continuous paper is not correct in the default-setting mode.	Change the setting using the default-setting mode. See “Using the Default-Setting Mode” on page 6-4.

The tractor does not feed the paper.

Cause	What to do
The paper-release lever may be set to the wrong position.	Move the paper-release lever to the continuous-paper position.
The paper has come off the tractor feeder.	Reattach the paper to the tractor.

Paper feeding is crooked or the paper jams.

Cause	What to do
The paper supply is obstructed.	Make sure the paper supply is not obstructed by a cable or some other object.
The paper supply is placed too far away.	Make sure that your paper supply is positioned within 1 meter (3 feet) of the printer.
The holes on the sides of the paper are misaligned.	Make sure that the holes on the sides of the paper are even with each other. Also, make sure the sprocket units are locked and their covers are closed.
The paper size or thickness is out of the specified range.	Make sure that the paper size and thickness are within the paper specification limits. See page D-4.
There may be some slack in the paper.	Adjust the position of the sprocket units.

Continuous paper does not eject properly.

Cause	What to do
The page is too long.	Tear off the last printed page and press the Load/Eject button to feed the paper backward. However, if you are printing on labels, tear off the last sheet that has partially entered the printer, and then press the LF/FF button to feed it forward.
The paper length is out of the paper specification limits.	Use paper that is within the specification limits. See page D-4.

The page length setting for continuous paper in the default-setting mode is not correct.

Change the page length setting for continuous paper in the default-setting mode. See “Using the Default-Setting Mode” on page 6-4.

The paper is jammed inside the printer.

See the following section to clear the paper jam.



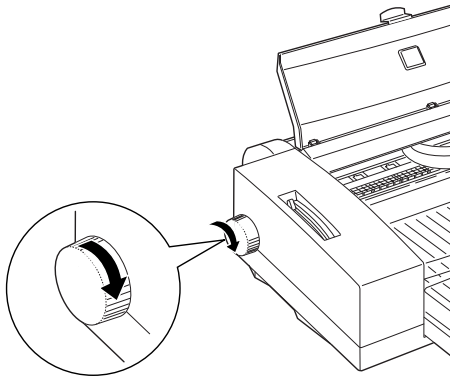
Caution:

Use the knob on the left side of the printer only to clear paper jams and only when the printer is off. Otherwise, you may damage the printer or change the top-of-form position.

Clearing a paper jam

To clear a paper jam, follow the steps below:

- 1 Turn off the printer.
- 2 Open the printer cover.
- 3 Remove continuous paper from the printer if it is loaded. If continuous paper is jammed in the printer, tear off the unused paper at the rear of the printer.
- 4 Turn the knob on the left side of the printer toward you to remove the paper. Remove any remaining pieces.



- 5 If the paper is caught in the paper ejection area, gently pull it out of the printer.
- 6 Close the printer cover and turn the printer back on. Make sure the Paper Out  light is not flashing.

Preventing paper feed and paper jam problems

If you have frequent paper feed or paper jam problems, try these corrective measures:

- ☐ Use a higher-quality paper, one that is not too thin or rough. Make sure it is suitable for ink jet printers. If paper still does not feed properly, you may need to use paper from a different vendor. Also, some types of paper must be fed one sheet at a time.
- ☐ Fan the stack of paper and straighten it before loading.
- ☐ Adjust the edge guides against the stack of paper.
- ☐ Position the output tray properly to keep the paper path clear.
- ☐ Be sure that you do not load too much paper in the sheet feeder. You can load up to 100 sheets of plain paper, 70 sheets of special coated paper, 30 sheets of transparency film, or 5 sheets of Photo-quality glossy paper. For oversized paper, load up to 30 sheets, depending on the Media Type.
- ☐ Try turning the stack of paper over. Most packages of paper indicate the best side for printing with an arrow on the end of the package. Make sure the best side is loaded printable side down the sheet feeder or loaded printable side up in the tractor feeder.
- ☐ When you use the tractor to print on labels, set the auto tear-off feature to off. Otherwise continuous labels may come off the backing and jam the printer.
- ☐ Load sheets of labels in the manual feed slot one at a time. Otherwise, they may not feed properly.

Printing quality

The printed image has gaps or faint areas.

Cause	What to do
The print head nozzles are clogged.	Clean the print heads as described in “Cleaning the Print Heads” on page 8-36.
The paper quality has been reduced 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 in the 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 moist or 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 in the Print dialog box (Macintosh), and make sure the Media Type setting is appropriate for the type of paper loaded in the printer.

The printer driver's Ink setting is set to **Color** even though the printer is being used with an empty color ink cartridge installed.

Select **Black** as the Ink setting in your printer driver. See "Printing with an empty color ink cartridge" on page 7-5.

Replace the color ink cartridge.

For DOS users:

The print direction setting is set to **bidirectional (Bi-D)** in the default-setting mode.

Set the print direction to **unidirectional (Uni-D)** in the default-setting mode. To enter the default-setting mode, see "Changing the default settings" on page 6-10.

The printed image is smeared.

Cause

What to do

The paper you loaded is too thick.

Set the adjust lever to the "+" position. See Chapter 5, "Paper Handling."

Special paper was loaded without the support sheet or a regular sheet of paper under it. Glossy film, glossy paper, and transparencies should be loaded with the support sheet or a piece of plain paper under them.

Load the support sheet or a piece of plain paper under the special paper. See Chapter 5, "Paper Handling," or the instructions packed with your paper.

Multiple sheets of EPSON Photo Quality Glossy Film are loaded.

If you need to load multiple sheets of glossy film, load up to 30 sheets and do not load paper above the red line on the right edge guide.

Ink has leaked on the platen.	Open the cover and wipe the black section inside the printer with a soft, clean cloth.
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Warning:

Be careful not to touch the gears inside the printer.

The print head nozzles are clogged.	Clean the print heads “Cleaning the Print Heads” on page 8-36.
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White horizontal lines appear through the text.
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Cause	What to do
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The print head nozzles are clogged.	Clean the print heads as described in “Cleaning the Print Heads” on page 8-36.
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One of the ink cartridges is low on ink.	Check the control panel to confirm which Ink Out light is flashing or on, and replace the appropriate ink cartridge.
--	--

The MicroWeave option in your printer driver is not selected.	Turn on MicroWeave in your printer driver.
---	--

The Media Type setting in the printer driver is incorrect.	Make sure the Media Type setting in the printer driver matches the type of paper loaded in the printer.
--	---

**Vertical or horizontal printed lines do not align.
White banding appears between color and black graphics.**

Cause	What to do
The print heads are misaligned.	Align the print heads with the Print Head Alignment utility as described in “Aligning the Print Heads” on page 8-41.
The printing position is misaligned.	Make sure the High Speed option in your printer driver is not selected.
For DOS users:	
The print direction setting is set to bidirectional (Bi-D) in the default-setting mode.	Set the print direction to unidirectional (Uni-D) in the default-setting mode as described in “Changing the default settings” on page 6-10.

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 driver software.
	Make sure you are using paper that meets the paper requirements for this printer. See “Paper” on page D-4.
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 down in the sheet feeder. When using the manual feed slot or tractor feeder, load paper printable side up.

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 driver settings are overridden by application settings. For more information on making driver settings, see Chapter 3 for Windows, or Chapter 4 for Macintosh.
--	--

High Speed mode is selected in the printer driver.	To obtain higher quality output, make sure High Speed mode is not selected.
--	---

For DOS users:

The print direction setting is set to bidirectional Bi-D in the default-setting mode.	To obtain higher quality output, set the print direction to unidirectional (Uni-D) in the default-setting mode as described in “Changing the default settings” on page 6-10.
---	--

Colors are different than you expect.
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Cause	What to do
The color print head nozzles are clogged.	Clean the color print heads as described in “Cleaning the Print Heads” on page 8-36.
Black ink is selected in your printer driver.	Set the Ink setting to Color.
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 down in the sheet feeder. When using the manual feed slot or tractor feeder, load paper printable side up.
The Media Type setting does not match the loaded paper.	Change the Media Type setting in your printer driver to match the type of media you have loaded.

The print head nozzles for a particular color of ink are clogged.	Clean the color print head as described in “Cleaning the Print Heads” on page 8-36.
The ICM (Windows) or ColorSync (Macintosh) setting in your driver is not appropriate for your document.	Set the driver to Automatic.
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 later in this chapter.
The Media Type setting in the printer driver is incorrect.	Make sure the Media Type setting matches the type of paper loaded in the printer. See page 3-13 (Windows) or 4-8 (Macintosh).

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

Cause	What to do
The color print head nozzles are clogged.	Clean the color print head as described in “Cleaning the Print Heads” on page 8-36.

For DOS users:

The Network I/F (interface) mode is turned off.	Turn on the Network I/F mode in the default-setting mode as described in “Changing the default settings” on page 6-10.
---	--

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

Cause	What to do
The black print head nozzles are clogged.	Clean the black print head as described in “Cleaning the Print Heads” on page 8-36.

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 as described in “Aligning the Print Heads” on page 8-41.
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.

Dots are missing in printed characters or graphics.

Cause	What to do
For DOS users:	
The Network I/F (interface) mode is turned off.	Turn on the Network I/F mode in the default-setting mode as described in “Changing the default settings” on page 6-10.

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 checked in the Queue Setup window.	Make sure Use Print Manager for this port box is not checked. 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.
Enable bi-directional support for this printer 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 heads using the Head Cleaning utility, the output quality does not improve.

Cause	What to do
You attempted to clean the print heads while an ink cartridge was low or out of ink.	Check the Ink Out lights. When one of the ink cartridges is low or out, the Head Cleaning utility has no effect. Replace ink cartridges as needed. See page 7-2.

Interface

When using an optional interface card, the printer does not print or the printout is not what you expected.

Cause	What to do
The optional interface may not be selected with the interface mode setting.	See “Using the Default-Setting Mode” on page 6-4.
You may be trying to use an interface card or cable with the wrong specification.	Check the specifications to make sure you can use the interface card or cable with this printer. See Appendix B.
The computer and printer interface settings may not match.	Check your computer user’s guide for the correct settings.

Increasing the Print Speed

Just as printing at a high resolution requires more processing time, printing in color takes longer than printing in black and white 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	SuperFine
MicroWeave	Off	On
High Speed	On	Off
Halftoning	No halftoning	Error Diffusion
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
Reverse Order*	Off	On
Flip Horizontal*	Off	On
Data characteristics		
Variety of colors	Grayscale **	Full color
Hardware resources		
System speed	Fast	Slow
HDD free space	Large	Small
Memory free space	Large	Small
Software status		
Running applications	One	Many
Virtual memory	Not in use	In use

*Varies depending on the printer 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 Heads

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 heads, which ensures that the nozzles are delivering ink properly.

You can clean the print heads from your computer using the Head Cleaning utility in the printer software.

If you are using DOS or you cannot clean the print heads with this utility, you can use the printer's control panel instead. For more details, see "Cleaning the print heads with the printer's control panel buttons" on page 8-40.

Note:

- ❑ *Print head cleaning uses ink. To avoid wasting ink, clean the print heads only if print quality declines.*
- ❑ *Use the Nozzle Check utility to confirm whether the print heads need to be cleaned. This saves ink.*
- ❑ *Do not start the Head Cleaning or Nozzle Check utility while printing is in progress; otherwise your printout may be marred.*

To clean the print heads, follow the steps below for Windows or see page 8-38 for Macintosh.

For Windows Users:

1. To clean the black print head, make sure the Ink Out  (black) light is off. If it is on or flashing, see "Replacing an Ink Cartridge" on page 7-2.
2. Access the Utility menu as described in Chapter 3.
3. Click the Head Cleaning button.
4. Follow the on-screen messages, and print a nozzle check pattern.

Nozzle check pattern:

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

If any segments in the pattern are missing from the test lines, you need to clean the print heads and print the nozzle check pattern again. Proceed to step 5.

If the check pattern prints correctly, you do not need to clean the print heads. Click **Cancel**, and see “Printing quality” on page 8-26 if a problem exists.

5. Follow the on-screen instructions to clean the print heads.

While the printer performs the cleaning cycle, the Pause light flashes.



Caution:

Never turn off the printer while the Pause light is flashing. Doing so may damage the printer.

After finishing the cleaning, click **Print nozzle check pattern** in the Head Cleaning dialog box, or print a few lines from a document to confirm that the heads are clean and to reset the cleaning cycle.

6. If print quality hasn't improved after repeating steps 4 and 5 up to five times, try other recommendations listed in “Printing quality” on page 8-26. If print quality still has not improved, contact your dealer.

For Macintosh Users:

1. When cleaning the black print head, make sure the Ink Out  Black light is off. When cleaning the color print head, make sure the color Ink Out lights are off. If the corresponding light for the print head you want to clean is on or flashing, see “Replacing an Ink Cartridge” on page 7-2.
2. Choose **Utility** from the Print dialog box as described in Chapter 4.
3. Click the **Head Cleaning** button.

4. Follow the on-screen messages, and print a nozzle check pattern. See page 8-37 to see a sample of the nozzle check pattern.

If any segments in the pattern are missing from the test lines, you need to clean the print heads and print the nozzle check pattern again. Go to step 5.

If the check pattern prints correctly, you do not need to clean the print heads. Click **Cancel**, and see “Printing quality” on page 8-26 if a problem exists.

5. Follow the on-screen instructions to clean the print heads.

While the printer performs the cleaning cycle, the Pause light flashes.



Caution:

Never turn off the printer while Pause light is flashing. Doing so may damage the printer.

After finishing the cleaning, click the confirmation button in the Head Cleaning dialog box, or print a few lines to confirm that the heads are clean and to reset the cleaning cycle.

6. If print quality hasn't improved after repeating steps 4 and 5 up to five times, try other recommendations listed in “Printing quality” on page 8-26. If print quality still has not improved, contact your dealer.

Cleaning the print heads with the printer's control panel

To clean the print heads with the software utilities, see page 8-36. To clean the heads using the printer's control panel, read the following.

Note:

If a color Ink Out light is flashing or on, you cannot clean the color print head. If the black Ink Out light is flashing or on, you cannot clean the color print head. See "Replacing an Ink Cartridge" on page 7-2.

1. Make sure the printer is on.
2. Press the Pause button to turn the Pause light on.
3. Make sure the corresponding Ink Out light for the print head you want to clean is off.
4. Press the Cleaning  (black) or Cleaning  (color) button to clean the corresponding print head. The printer starts cleaning the print head and the Pause light begins to flash. If you want to clean the other print head, wait until the Pause light stops flashing. It takes about two minutes to clean each print head.



Caution:

Never turn off the printer while the Pause light is flashing. Doing so may damage the printer.

Note:

You cannot clean both black and color print heads at the same time.

5. After the Pause light stops flashing, resume printing (you may need to press the Pause button).

Note:

You must print a few lines after each print head cleaning in order to reset the cleaning cycle.

If print quality does not improve, repeat step 4, then print a few lines to check the output. If print quality doesn't improve after repeating this procedure four or five times, see "Printing quality" on page 8-26. If print quality still does not improve after following the recommendations, contact your dealer.

Aligning the Print Heads

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

Note:

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

For Windows users:

1. Make sure paper is loaded in the sheet feeder.

**Caution:**

Use paper at least 210 mm (8.27 inches) wide; for example, A4 size paper loaded short edge first.

2. Open the printer driver and click the Utility tab.
3. Click the Print Head Alignment button.
4. Follow the messages on your screen to align the print heads.

For Macintosh users:

1. Make sure paper is loaded in the sheet feeder.



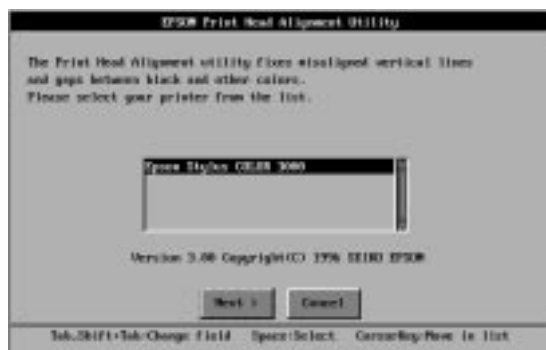
Caution:

Use paper 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.

2. Open the printer driver and choose Utility from the Print dialog box. You see the Utility dialog box.
3. Click the Print Head Alignment button.
4. Follow the messages on your screen to align the print heads.

Using the print head alignment utility for DOS

The print head alignment utility includes both black and color alignment features. To install this utility on your hard drive, insert the EPSON Printer Software CD-ROM into your CD-ROM drive and then type D:\SETUP (If your CD-ROM drive uses a different drive letter or you are using the floppy version, substitute it for D:\) at the DOS prompt. Follow the directions on the screen. After running the setup program, change to the drive and directory that contains the utility (or set the path to the directory). Then type EPCALIB and press Enter. The following window appears:



Make sure your printer is selected. Click Next, then follow the directions on the screen.

Note:

This utility is designed to be run in DOS with or without a mouse.

Using the printer's control panel buttons

If you cannot use the print head alignment utility program that came with your printer, then follow these steps to align the print heads.

1. Make sure that the printer is off and paper is loaded in the sheet feeder.



Caution:

Use paper at least 210 mm (8.27 inches) wide; for example, A4 size paper loaded short edge first. Otherwise, the print heads will spray ink directly onto the platen.

2. Hold down the Pause button and turn on the printer to enter the print head alignment mode. Release the buttons.

The printer prints an instruction sheet in English, French, German, Italian, Spanish, and Portuguese that shows you how to align the print heads. Follow these instructions.

3. After aligning the print heads, exit the print head alignment mode by turning off the printer.

Ink Cartridge Problems

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

To replace an ink cartridge before the corresponding Ink Out light is on or flashing, follow these steps.



Caution:

Once you remove an ink cartridge, it becomes unusable and cannot be reinstalled even if ink remains.

1. Make sure the printer is on. Determine which ink cartridge needs to be replaced from the missing ink color on your printout or the printer self test. See page 8-5 for details on printing a self test.
2. Complete the ink cartridge replacement procedure as described from step 2 of “Replacing an Ink Cartridge” on page 7-2.

Contacting Customer Support

If your printer is not operating properly and you cannot solve your problem with the troubleshooting information in this guide and online help, 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:

(The version number is usually found by clicking About, or a similar button, on the Help 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 dialled 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, or 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 for latest drivers and utilities

You can call the Epson Bulletin Board Service on 01442 227479. 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 Epsons 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 Hong Kong and Singapore users

Contact the phone or fax number shown below for your area:

Hong Kong

Phone:	2585 4300
Fax:	2827 7083

Singapore

Phone:	3377911
Fax:	3341185

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

A

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. Also see 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.

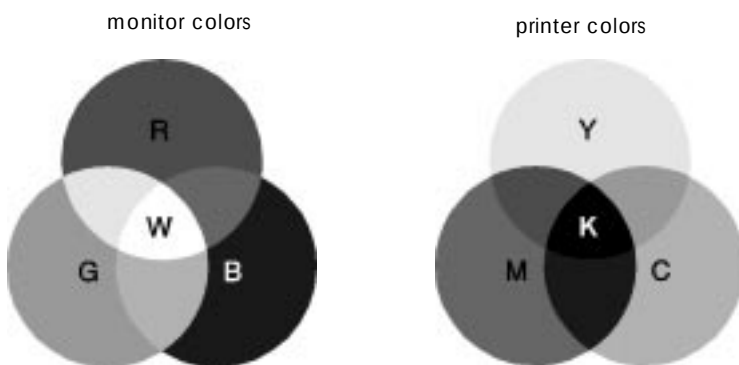
Note:

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).

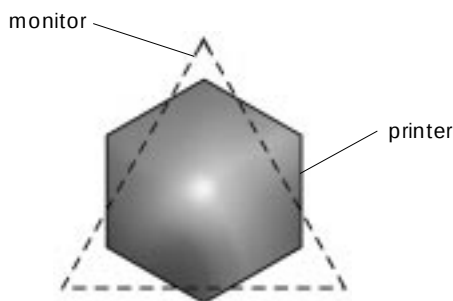
Your monitor produces images by illuminating color phosphors on the screen with an electron gun. (A phosphor is a substance that gives off light when irradiated.) Each screen point (pixel) has three colored phosphors: red (R), green (G), and blue (B).

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. Dithering is suitable for printing a variety of documents, from presentation graphics such as bar charts and graphs to photos.

Error diffusion

Error diffusion blends individual colored dots with the colors of the surrounding dots to create the appearance of natural colors. By blending colored dots, the printer can achieve excellent colors and subtle color gradation. This method is best suited for printing documents that contain detailed graphics or photographic images.

Image Resolution and Image Size

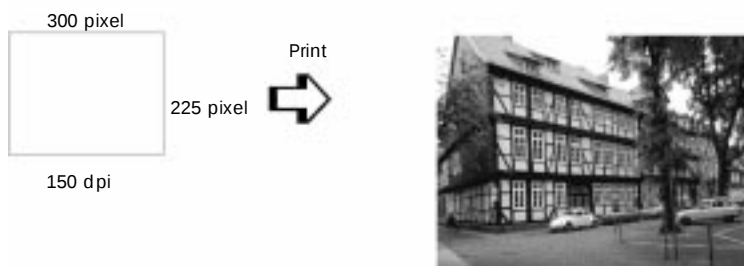
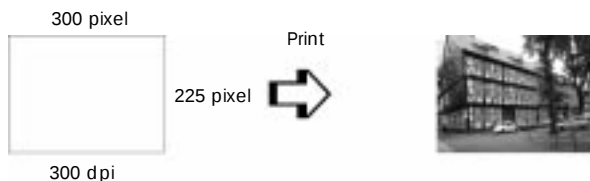
The resolution of your original image affects the quality of your printouts. Generally, the higher the resolution, the better the print quality. However, keep in mind that the higher the resolution, the longer the wait for processing and printing a document.

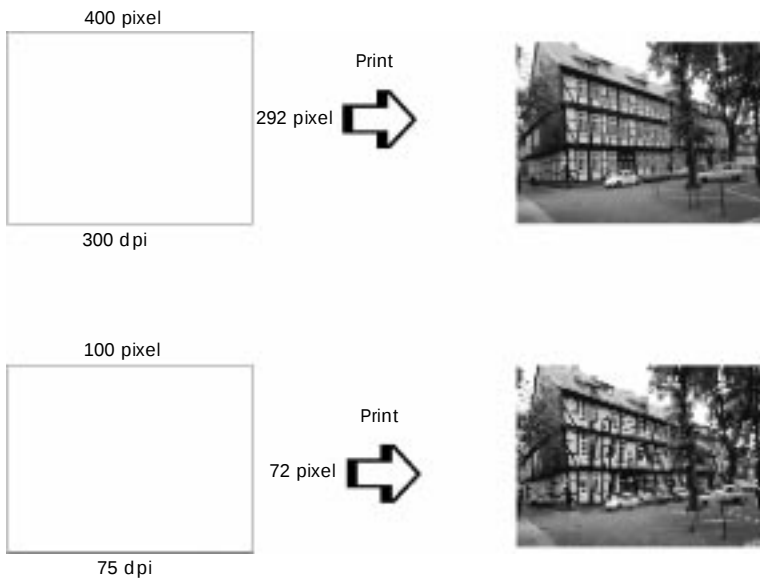
Generally, the printed image size is in inverse proportion to the image resolution, as shown below. The larger the image size, the lower the image resolution. Conversely, the smaller the image size, the higher the image resolution.

Note:

Some applications have a function that can correct this relationship.

A





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.

A

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

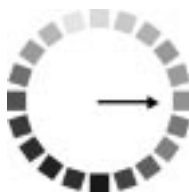
Color adds interest and clarity, and makes documents appear easier to understand. Just as you use fonts and graphics to create appeal and capture attention, color provides an additional visual interpretation of a document that influences the reader.

For example:

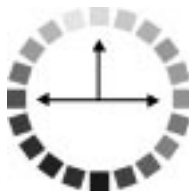
An overhead presentation of sales results by territory is far more interesting and memorable if you show the figures with colored charts and graphs.

Know HOW to select colors

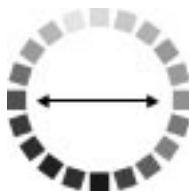
- ☐ *Use just one hue in the hue circle to make your document unified. Modify saturation or brightness to add interest.*



- ☐ *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

Using Optional Interfaces

Available Interfaces	B-2
Installing Optional Interfaces	B-3
The C82305*/C82306* serial interface card	B-5



Available Interfaces

You can use various interface cards to supplement the capabilities of your printer's built-in hardware interface. The following EPSON interface cards are compatible with your printer:

Interface card	Model number
Serial Interface Card	C82305*/C82306*
32KB Serial Interface Card	C82307*/C82308*
32KB Parallel Interface Card	C82310*
32KB IEEE 488 Interface Card	C82313*
LocalTalk™ Interface Card	C82312*
Twinax Interface Card	C82315*
Coax Interface Card	C82314*
Ethernet Interface Card	C82331*
Type B Bidirectional Parallel Interface Card	C82345*

*The asterisk is a substitute for the last digit, which varies by country.

If you are not sure whether you need an optional interface or if you want to know more about interfaces, contact your dealer.

If you are planning to install the LocalTalk interface card in your printer, you will need two LocalTalk Locking Connector Kits (DIN-8 version). Attach one connector box to the AppleTalk interface on the printer and the other box to the printer port on the Macintosh. Then attach the LocalTalk cable between the two connector boxes. See the owner's guide that comes with the connector kits for more details.

Installing Optional Interfaces

To install an optional interface, read the following.

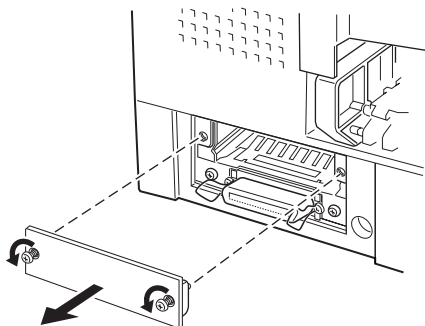
1. Turn off the printer.
2. Unplug the power cord from the electrical outlet (and from the back of the printer, if your printer's power cord is removable).



Warning:

Do not install the interface card when the printer is connected to an electrical outlet. If you do, you may damage the printer or your computer.

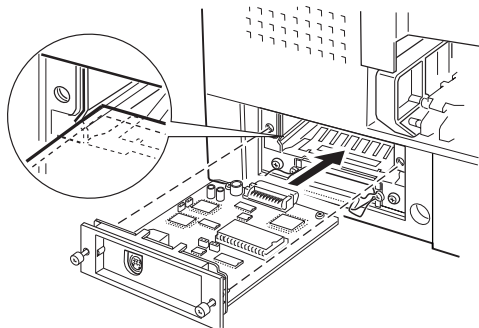
3. Turn the printer around so that its back faces you, and disconnect any existing interface cable.
4. Use a cross-head screwdriver to remove the two screws securing the shield plate to the optional interface slot; then lift off the plate. Be sure to keep both screws; you may need to use them again when you re-install the shield plate.



5. Be sure to set any switches and jumpers on the card. See the interface card's manual for details. If your interface card has a jumper named JG, make sure that you set it to on, or the card will not work properly.

B

6. Slide the interface card along the slots on both sides of the interface compartment. Push it in firmly to fully insert the connector at the rear of the interface card into the printer's internal socket.



7. Secure the interface card in the slot with the two screws included with the interface card.
8. Connect the proper interface cable to the interface card and to your computer. If the cable has a grounding wire, connect it with one of the screws securing the parallel interface.

Also, if you are using more than one computer, reconnect the other interface cable.

9. Make sure the printer is turned off. Then plug in the power cord.

Before you use the optional interface, you may need to change the settings for the interface option in the default-setting mode. If you need to change any settings, see “Changing the default settings” on page 6-10 for instructions.

To remove an interface card, follow the above steps in reverse order.

The C82305*/C82306* serial interface card

To use the C82305*/C82306* interface card, see the sections below to set the correct baud rate, handshake timing, and error handling.

For all other data transfer conventions, such as word structure and communications protocol, see the C82305*/C82306* interface card manual.

Selecting the baud rate

You can select from the following baud rates: 600, 1200, 2400, 4800, 9600, and 19200 bps (bits per second). To set the baud rate, see the bit-rate selection table in the C82305*/C82306* interface card manual.

Handshake timing

When the vacant area for data in the input buffer drops to 256 bytes, the printer outputs an X-OFF code or sets the DTR flag to 1 (MARK) to indicate that it cannot receive data. When the vacant area for data in the buffer increases to 512 bytes, the printer outputs an X-ON code or sets the DTR flag to 0 (SPACE) to indicate that it is ready to receive data.

Error handling

When the printer detects a parity error, it prints an asterisk (*). The printer ignores all other errors, including framing and overrun errors.

B

Appendix C

EPSON Plot!

Introduction	C-2
Installing EPSON Plot!	C-2
Opening EPSON Plot!	C-2
Uninstalling EPSON Plot!	C-2

Introduction

EPSON Plot! is a Microsoft Windows-based utility program that lets you print HPGL and HPGL/2 files to your EPSON printer using an EPSON printer driver. Once you create an image in HPGL or HPGL/2 file format with your CAD or graphics application program, you can use EPSON Plot! to open the file, view the file, and print the file to your EPSON printer. The opened file is displayed as a print preview in the EPSON Plot! window and you can scale and position the image before printing.

Installing EPSON Plot!

To install EPSON Plot!, verify that the EPSON Stylus COLOR 3000 printer driver is installed and read the following.

1. Insert the CD-ROM containing EPSON Plot! in your CD-ROM drive, or if you have the utility on floppy disks, insert Disk 1 in your floppy disk drive.
2. From Windows 3.0 or later or Windows NT 3.51 Program Manager screen, select Run from the File menu. In Windows 95 or Windows NT 4.0, click the Start button, and then click Run.

If you are installing from CD-ROM, type D:\SETUP. If the CD-ROM drive you are using is not drive D, substitute the correct letter. If you are installing from floppy disks, type

A:\SETUP (or B:\SETUP).

3. Click OK and follow the on-screen instructions.

Opening EPSON Plot!

To open EPSON Plot!, double click its icon in the EPSON Plot! program group or folder (depending on your Windows version).

Uninstalling EPSON Plot!

To uninstall EPSON Plot!, click the Uninstaller icon in the EPSON Plot! program group or folder.

Appendix D

Specifications

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Technical Specifications

Printing

Printing method:	On-demand ink jet
Nozzle configuration:	Monochrome (black) 128 nozzles Color (cyan, magenta, yellow) 192 nozzles (64 (each color) × 3)

Printable columns and printing speeds:

Character Pitch (characters per inch)	Printing Column	LQ Printing Speed (characters per second)	Draft Printing Speed (characters per second)
10	161	400	800
12	193	480	960
15	242	600	1200
17 (10 condensed)	276	684	1368
20 (12 condensed)	322	800	1600

Resolution:	Maximum 1440 dpi × 720 dpi
Print direction:	Bidirectional with logic seeking for text and graphics. (Auto print direction can be set in the default-setting mode.)
Control code:	ESC / P 2 and expanded raster graphics code IBM XL24E emulation code
Line spacing:	1/6 inch, 1/8 inch, or programmable in 1/360-inch increments
Paper feed speed:	100 milliseconds per 1/3-inch line
Input buffer:	64KB

Bitmap fonts:

Font	10 cpi	12 cpi	15 cpi	Proportional
EPSON Roman	○	○	○	○
EPSON Sans Serif	○	○	○	○
EPSON Courier	○	○	○	—
EPSON Prestige	○	○	○	—
EPSON Script	○	○	○	—

You can select other font/pitch combinations using ESC/P 2 commands. See "Command List" on page D-21 for more information.

Scalable fonts:

Font	Minimum Point Size	Maximum Point Size	Increments
EPSON Roman	8	32	2
EPSON Sans Serif	8	32	2
EPSON Roman T	8	32	2
EPSON Sans Serif H	8	32	2

Character tables:

1 italic and 26 graphics character tables

Character sets:

14 international character sets and 1 legal character set

D

Paper

Note:

Since the quality of any particular brand or type of paper may be changed by the manufacturer at any time, EPSON can not attest to the quality of any non-EPSON brand or type of paper. Refer to the specifications below and test samples of paper stock before purchasing large quantities or printing large jobs.

Single sheets:

Size	A2 (420 × 594 mm) Super A3 / B (13 × 19 inches) A3 (297 × 420 mm) Ledger (11 × 17 inches) US C (17 × 22 inches) A4 (210 × 297 mm) Letter (8.5 × 11 inches) Legal (8.5 × 14 inches) Half Letter (5.5 × 8.5 inches) Executive (190.5 × 254 mm) B3 (364 × 514 mm) B4 (257 × 364 mm) B5 (182 × 257 mm)
Paper types	Plain bond paper
Thickness	0.065 mm to 0.11 mm (0.0025 to 0.004 inch)
Weight	64 g / m ² (17 lb) to 90 g / m ² (24 lb) for sheet feeder 52 g / m ² (14 lb) to 90 g / m ² (24 lb) for manual feed slot

Transparencies, Glossy film:

Size	Super A3 / B (13 × 19 inches)* A3 (297 × 420 mm)* A4 (210 × 297 mm) Letter (216 × 279 mm) A6 (105 × 148 mm)* *Glossy film only
Paper types	Special papers distributed by EPSON

Glossy paper:

Size	A2 (420 × 594 mm) Supre A3 (13 × 19 inch) A3 (297 × 420 mm) A4 (210 × 297 mm) Letter (216 × 279 mm)
Paper types	Special papers distributed by EPSON

Envelopes:

Size	No. 10 (240 × 104 mm) DL (220 × 110 mm) C5 (229 × 162 mm)
Paper types	Plain bond paper, air mail

Index cards:

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

Self Adhesive sheets:

Size:	A4 (210 × 297 mm) Letter (216 × 279 mm)
Paper types:	Plain paper (use labels that completely cover the backing sheet), special papers distributed by EPSON.

Continuous paper:

Size:	101.6 mm to 406.4 mm × 101.6 mm (minimum folding length)
Paper types:	Plain paper
Thickness:	0.065 mm to 0.1 mm
Weight:	52 g / m ² to 82 g / m ² (14 lb to 22 lb)

Continuous labels:

Size:	Backing sheet: 101.6 mm to 406.4 mm × 101.6 mm (minimum folding length) Label sheet: Minimum 63.5 mm × 23.9 mm
Paper types:	Plain paper
Thickness:	Total thickness: Maximum 0.2 mm Label thickness: Maximum 0.12 mm

Banner paper:

Size:	210 mm to 432 mm × 15 m
Paper types	Plain paper, special papers distributed by EPSON

Back Light Film:

Size:	A2 (420 × 594 mm) A3 (297 × 420 mm)
Paper types	Special papers distributed by EPSON

Canvas Cloth:

Size:	420mm × 3 m
Paper types:	Special papers distributed by EPSON

Note:

- ☐ *Poor quality paper may reduce print quality and cause paper jams or other problems. If you encounter problems, switch to a higher grade of paper.*
- ☐ *Do not load curled or folded paper.*
- ☐ *Ink jet paper, envelopes, glossy film, glossy paper, transparencies, continuous or single self adhesive sheets, Back Light Film, and Canvas Cloth are only usable under normal conditions:*

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

- ❑ *EPSON Photo Quality Glossy Film and Self Adhesive sheets should be stored under the following conditions:*

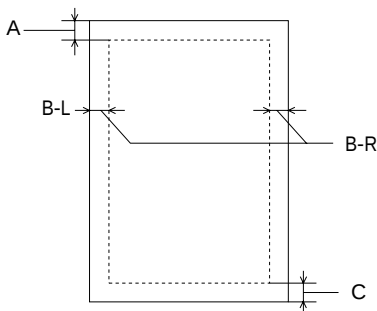
Temperature: 15 to 30°C (59 to 86°F)

Humidity 20 to 60% RH

- ❑ *The Banner Paper Cutter is required for use with EPSON Banner Paper.*

Printable area:

Single sheets/index cards



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

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

*For oversized paper, this margin is 25 mm for A3 landscape, A2 portrait, US B landscape, and US C portrait.

Move the right edge guide to the right as far as it will go; then load paper against the right side of the sheet feeder.

The minimum right margin* is 3 mm (0.12 inch).

*For oversized paper, this margin is 50 mm for A3 landscape and A2 portrait, and 62 mm for US B landscape and US C portrait.

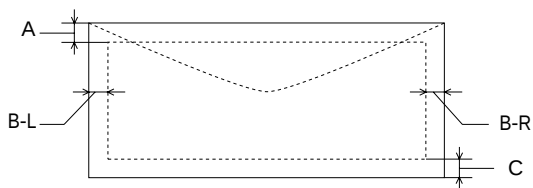
Note:

The maximum printable width is 410 mm (16 inches).

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

D

Envelopes



A: The minimum top margin is 8.5 mm (0.12 inch).

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

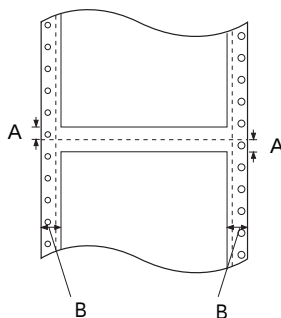
The minimum right margin is 3.0 mm (0.12 inch).

C: The minimum bottom margin is 14.0 mm (0.55 inch).

Note:

Load envelopes flap edge first.

Continuous paper



A The minimum top and bottom margins above and below the perforation are 9.0 mm (0.35 inch).

B The minimum left and right margins are 13 mm (0.51 inch).

Note:

The maximum printable width is 381 mm (15 inches).

Ink cartridges

Black ink cartridge:	(S020118)
Color	Black
Print capacity*	3800 pages / A4 (ISO / IEC 10561 Letter Pattern at 360 dpi)
Cartridge life	2 years from production date
Temperature	Storage: -30 to 40°C (-22 to 104°F) 1 month at 40°C (104°F) Transit: -30 to 50°C (-22 to 122°F) 1 month at 40°C (104°F) 120 hours at 50°C (122°F) Freezing:** -16°C (3.2°F)
Dimensions	25.1 mm (W) × 139.6 mm (D) × 105.3 mm (H)
Color ink cartridges	yellow (S020122), magenta (S020126), cyan (S020130):
Colors	cyan, magenta, and yellow
Print capacity*	2100 pages (A4, 360 dpi, 5% duty each color)
Cartridge life	2 years from production date
Temperature	Storage: -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) cyan -18.5°C (-1.3°F) magenta -21°C (-5.8°F) yellow -18°C (-0.4°F)
Dimensions	25.1 mm (W) × 139.6 mm (D) × 105.3 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).

D

**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, tractor feeder
Paper path:	Sheet feeder, front entry Manual feed slot, rear entry Tractor feeder, rear entry
Sheet feeder capacity:	100 sheets at 64 g / m ² (17 lb) paper 5 to 70 sheets* of EPSON special paper 30 sheets of transparency film *For oversized special paper such as Super A3/B and A2, the sheet feeder capacity is 30 sheets.
Total print volume:	75,000 pages (A3, text only)
Dimensions:	Width: 810 mm (31.9 inches) Depth: 565 mm (22.3 inches maximum) Height: 240 mm (9.4 inches)
Weight:	17.2 kg (37.8 lbs) 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	0.7A	0.4A
Power consumption	Approx. 21W (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:^{*1} -20 to 60°C (14 to 140°F)
1 month at 40°C (104°F)
120 hours at 60°C (140°F)

Humidity:

Operation: 20 to 80% RH
Storage:^{*1*2} 5 to 85% RH

^{*1}Stored in shipping container
^{*2}Without condensation



Safety approvals

Safety standards:

U.S. model UL 1950 with D3, CSA 22.2 950 with D3

European model EN60950 (VDE, NEMKO)

EMC:

U.S. model FCC part 15 subpart B class B

European model EN 55022 (CISPR Pub. 22) class B
EN 50082-1
IEC 801-2
IEC 801-3
IEC 801-4
EN 61000-3-2
EN 61000-3-3
AS/ NZS 3548 Class B

Interface Specifications

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

Parallel interface

The built-in parallel interface has the following characteristics:

Forward channel

Data format: 8-bit parallel, IEEE 1284 Compatibility Mode

Synchronization: STROBE pulse

Handshake timing: BUSY and ACKNLG signals

Signal level: TTL compatible (IEEE 1284 level 1 device)

Connector: 36-pin 57-30360 Amphenol connector or equivalent

Pin assignments

The parallel interface connector pin assignments and a description of the interface signals are shown in the table below.

Signal Pin	Return Pin	Signal	Direction	Description
1	19	$\overline{\text{STROBE}}$	IN	$\overline{\text{STROBE}}$ pulse to read data.
2	20	DATA 0	IN	These signals represent information in bits 0 to 7 of parallel data respectively. Each signal is at HIGH level when data is logical 1 and LOW when it is logical 0.
3	21	DATA 1	IN	
4	22	DATA 2	IN	
5	23	DATA 3	IN	
6	24	DATA 4	IN	
7	25	DATA 5	IN	
8	26	DATA 6	IN	
9	27	DATA 7	IN	
10	28	$\overline{\text{ACKNLG}}$	OUT	About a 5- μ s pulse. LOW indicates data has been received and the printer is ready to accept more data.
11	29	BUSY	OUT	A HIGH signal indicates the printer can not receive data. The signal goes HIGH in the following cases: 1) During data entry (for each character) 2) During initialization 3) During self test, demonstration, and default-setting printing 4) During a printer-error state
12	28	PE	OUT	A HIGH signal indicates the printer is in a paper-out state or in an error state.
13	28	SLCT	OUT	Pulled up to +5 V through 1 k Ω resistance
14	30	$\overline{\text{AUTO FEED XT}}$	IN	Not used
15	-	NC	-	Not used
16	-	GND	-	Logic ground level
17	-	CHASSIS GND	-	Printer's chassis ground, which is connected to the logic ground.

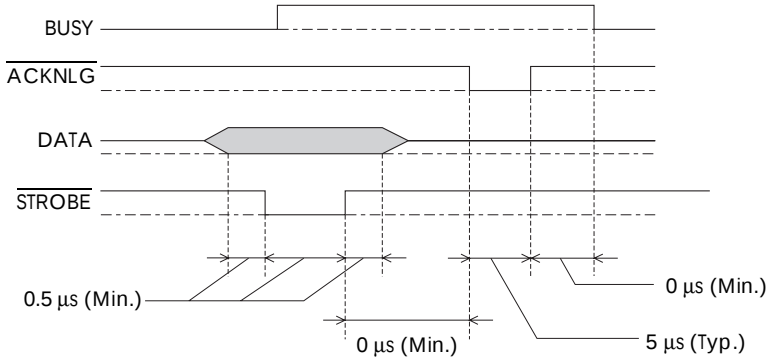
Signal Pin	Return Pin	Signal	Direction	Description
18	-	Logic H	OUT	Pulled up to +5 V through 3.9 k Ω resistance
19-30	-	GND	-	Twisted-pair return signal ground level
31	30	$\overline{\text{INIT}}$	IN	When this signal goes LOW, the printer controller is reset to its state when the power is first turned on and the print buffer is cleared. This level is normally HIGH; its pulse width must be more than 50 μs at the receiving terminal.
32	29	$\overline{\text{ERROR}}$	OUT	This signal level goes LOW when the printer: 1) is out of paper 2) has jammed paper 3) is in an error state 4) is out of ink
33	-	GND	-	Same as for Pins 19-30
34	-	NC	-	Not used
35	-	+5 V	OUT	Pulled up to +5 V through 3.3 k Ω resistance
36	30	$\overline{\text{SLIN}}$	IN	Not used

Note:

- ☐ The column heading “Direction” refers to the direction of signal flow as viewed from the printer.
- ☐ “Return” denotes the twisted-pair return to be connected at signal ground level. For the interface wiring, be sure to use a twisted-pair cable for each signal and to complete the connection on the return side.
- ☐ All interface conditions are based on TTL level. Both the rise and fall times of each signal must be less than 0.2 microseconds.
- ☐ Data transfer must be carried out by observing the $\overline{\text{ACKNLG}}$ or $\overline{\text{BUSY}}$ signal. Data transfer to this printer can be carried out only after receipt of the $\overline{\text{ACKNLG}}$ signal or when the level of the $\overline{\text{BUSY}}$ signal is LOW.

Timing chart

The figure below shows the timing chart for the parallel interface.



Transition time (both the rise and the fall) of every signal must be less than 0.2 μs .

Reverse channel

Transmission mode:	IEEE 1284 Nibble Mode
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
Connector:	36-pin 57-30360 Amphenol connector or equivalent

D

Pin assignments

The parallel interface connector pin assignments and a description of the interface signals are shown in the table below.

Signal Pin	Return Pin	Signal	Direction	Description
1	19	HostClk	IN	Host clock signal.
2	20	DATA 0	IN	These signals represent information in bits 0 to 7 of parallel data respectively. Each signal is at HIGH level when data is logical 1 and LOW when it is logical 0. These signals are used to transfer the 1284 extensibility request values to the printer.
3	21	DATA 1	IN	
4	22	DATA 2	IN	
5	23	DATA 3	IN	
6	24	DATA 4	IN	
7	25	DATA 5	IN	
8	26	DATA 6	IN	
9	27	DATA 7	IN	
10	28	PtrClk	OUT	Printer clock signal.
11	29	PtrBusy/ DataBit - 3, 7	OUT	Printer busy signal and reverse channel transfer data bit 3 or 7.
12	28	AckDataReq/ DataBit - 2, 6	OUT	Acknowledge data request signal and reverse channel transfer data bit 2 or 6.
13	28	Xflag/ DataBit - 1, 5	OUT	X-flag signal and reverse channel transfer data bit 1 or 5
14	30	HostBusy	IN	Host busy signal.
15	-	NC	-	Not used
16	-	GND	-	Logic ground level
17	-	CHASSIS GND	-	Printer's chassis ground, which is connected to the logic ground.
18	-	Logic H	OUT	Pulled up to +5 V through 3.9 k Ω resistance
19-30	-	GND	-	Logic ground level
31	30	$\overline{\text{INIT}}$	IN	Not used.

Signal Pin	Return Pin	Signal	Direction	Description
32	29	DataAvail/ DataBit - 0, 4	OUT	Data available signal and reverse channel transfer data bit 0 or 4.
33	-	GND	-	Same as for Pins 19-30
34	-	NC	-	Not used
35	-	+5 V	OUT	Pulled up to +5 V through 3.3 K Ω resistance.
36	30	1284-Active	IN	1284 active signal.

Note:

The column heading “Direction” refers to the direction of signal flow as viewed from the printer.

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:	Max. 1.8 Mbps.
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)

Initialization

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

Hardware initialization	* The printer is turned on.
Control panel initialization	* Hold down the Pause button for five seconds. * The printer receives an $\overline{\text{INIT}}$ signal from the parallel interface: pin 31 goes LOW.
Software initialization	* Software sends the ESC @ (initialize the printer) command.

Each kind of initialization has slightly different effects. All three methods reset the font according to the default settings selected using the control panel. However, the control panel initialization does not initialize the printer mechanism, ESC @ does not initialize the printer mechanism, clear the input data buffer, or clear the user-defined character set.

Note:

When the printer initializes, all lights on the control panel come on for a moment and they return to their previous status.

Command List

This section lists the available printer commands by topic. Your printer works with the following commands.

ESC/P 2 control codes

Selecting EPSON ESC/P 2 printer in your software allows you to use the most advanced font and graphics handling available. See the *ESC/P Reference Manual* for details.

General operation:

ESC @, ESC U, ESC EM

Paper feeding:

CR, FF, LF, ESC 0, ESC 2, ESC 3, ESC +

Page format:

ESC (C, ESC C, ESC C 0, ESC Q, ESC l, ESC (c, ESC N, ESC O

Print position motion:

ESC \$, ESC \, ESC (V, ESC (v, ESC D, HT, ESC B, ESC J, VT

Font selection:

ESC k, ESC x, ESC X, ESC P, ESC M, ESC g, ESC p, ESC 4, ESC 5, ESC E,
ESC F, ESC !

Font enhancement:

ESC W, DC 4, SO, DC2, SI, ESC w, ESC G, ESC H, ESC T, ESC S, ESC -,
ESC (-, ESC q

Spacing:

ESC SP, ESC c, ESC (U

Character handling:

ESC t, ESC (t, ESC R, ESC %, ESC &, ESC :, ESC 6, ESC 7, ESC (^

Bit image:

ESC *

Graphics:

ESC (G, ESC ., ESC (e, ESC (i, ESC (\, ESC (s

Color:

ESC r, ESC (r

Printing mode:

ESC (K

IBM XL24E emulation control codes

This printer emulates the IBM Proprinter with the following commands.
For detailed information, see IBM's X24 / X24E reference manual.

General operation:

NUL, DC3, ESC j, BEL, CAN, DC1, ESC Q, ESC [K, ESC U

Paper feeding:

FF, LF, ESC 5, ESC A, ESC A (AGM^{*1}), ESC 0, ESC 1, ESC 2, ESC 3,
ESC 3 (AGM^{*1}), CR

Page format:

ESC C, ESC X, ESC N, ESC O, ESC 4

Print position motion:

ESC d, ESC R, ESC D, HT, ESC B, VT, ESC J, ESC J (AGM^{*1})

Font selection:

DC2, ESC P, ESC :, ESC E, ESC F, ESC I

Font enhancement:

DC4, SO, ESC SO, ESC W, ESC [@, SI, ESC SI, ESC G, ESC H, ESC T,
ESC S, ESC -, ESC _

Spacing:

BS, SP, ESC [\

Character handling:

ESC 6, ESC 7, ESC [T, ESC ^, ESC \

Bitimage:

ESC K, ESC L, ESC Y, ESC Z, ESC [g, ESC * (AGM^{*1})

^{*1} Alternate Graphics Mode

Character Tables

These character tables are selected with the default-setting mode or by using software commands.

Note:

Most of the tables are the same as the PC437 table for hex codes 00 through 7F and only the characters for hex codes 80 through FF are shown for that kind of tables.

PC437 (U.S., Standard Europe)

D

PC437 Greek (Greek)

PC850 (Multilingual)

PC853 (Turkish)

PC855 (Cyrillic)

PC852 (East Europe)

PC857 (Turkish)

PC860 (Portuguese)

PC863 (Canadian-French)

D

PC865 (Norwegian)

PC866 (Russian)

PC861 (Icelandic)

PC869 (Greek)

BRASCI
(Brazilian, Portuguese)

Abicomp
(Brazilian, Portuguese)

Roman 8

D

ISO Latin 1

MAZOWIA (Poland)

Code MJK (CSFR)

ISO 8859-7 (Latin/Greek)

ISO Latin 1T (Turkish)

Bulgaria (Bulgaria)

PC774 (LST 1283:1993)

Estonia (Estonia)

D

ISO8859-2

PC866 LAT. (Latvian)

Italic

No characters are available for hex code 15 in the italic character table.

D

International character sets

You can select one of the following international character sets with the default-setting mode or the ESC R command. For example, when you select “Italic France,” the characters in the “France” row on the table below are used in the italic character table.

The following eight international character sets can be selected with the default-setting mode or with the ESC R command.

The following seven additional sets can be selected only with the ESC R command.

Characters available with ESC (^ command

To print the characters in the table below, use the ESC (^ command.



Glossary

The following definitions apply specifically to printers.

AGM (Alternate Graphics Mode)

An option that improves the quality of your printout when using the printer in IBM X24E emulation mode.

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.

auto line feed

When this feature is selected in the default-setting mode, each carriage-return code (CR) is automatically followed by a line-feed (LF) code.

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.

characters per inch (cpi)

A measure of the size of text characters, sometimes referred to as pitch.

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 WYSIWYG (what you see is what you get) color output. This software prints colors as you see them on your screen.

control code

Special codes used to control printer functions, such as performing a carriage return or line feed.

cpi (characters per inch)

A measure of the size of text characters, sometimes referred to as pitch.

default

A value or setting that takes effect when the equipment is turned on, reset, or initialized.

default-setting mode

A feature that allows experienced users to make special settings that they may not be able to make in their software or the driver.

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.

emulation

Emulation means using the control codes of another kind of printer. Most users will never need to make this setting but some experienced users may find this helpful.

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.

EPSON Plot!

EPSON Plot! is software that allows you to print HPGL or HPGL/2 files to your EPSON printer. These files are most often created in CAD or graphics application programs.

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 2

The enhanced version of the ESC/P printer command language. Commands in this language produce laser-like features, such as scalable fonts and 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.

hex dump

A troubleshooting feature that helps advanced users find the cause of communication problems between the printer and the computer. When the printer is in hex dump mode, it prints each code it receives in hexadecimal notation and ASCII characters. Also called data dump.

high speed printing

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

initialization

Returns the printer to its defaults (fixed set of conditions). This happens every time you turn on the printer or reset the printer.

ink 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.

italic

A typestyle in which the characters slant. *This sentence is italicized.*

line feed

A control code that advances the paper one line space.

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, like a self test, that you can do 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*.

print head alignment mode

This feature allows you to align the print heads if you can’t use the print head alignment utility. See also *print head alignment*.

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.

proportional printing

Printing in which the width of the character varies from character to character. For example, a capital W receives much more space than a lowercase i. The result looks more like a typeset book than a typewritten draft.

RAM

Random Access Memory. The portion of the printer's memory used as a buffer and for storing user-defined characters. All data stored in RAM is lost when the printer is turned off.

reset

To return a printer to its defaults either by sending a command, an 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.

sans serif

A type of font that does not have serifs, or lines crossing the ends of characters to enhance readability. The entries in the index are printed in a sans serif font, but the explanations are printed in a font with serifs.

scalable fonts

Fonts that can be enlarged or shrunk. Non-scalable fonts are called bitmap fonts and they can't change in size.

Screen Pattern

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

self test

A method for checking the operation of the printer. When you run the self test, the printer prints the characters stored in its ROM.

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.

user-defined characters

Characters that are defined and stored in the printer by the user. Also called downloaded characters.

WYSIWYG

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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†Windows only

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