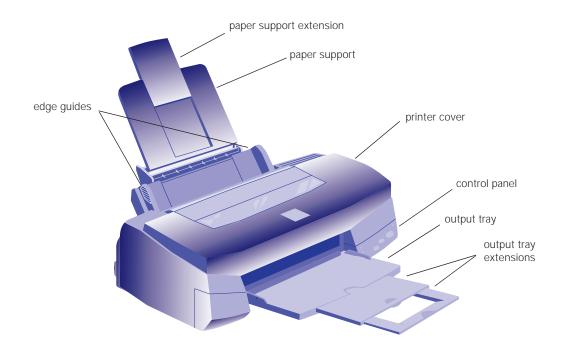
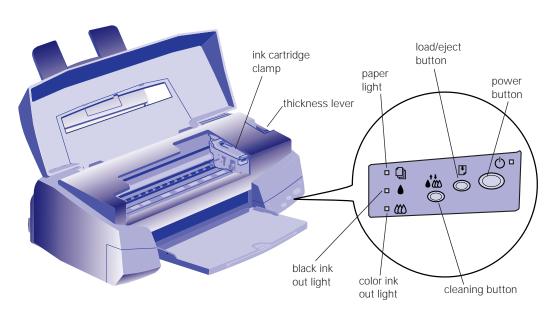


User's Guide





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## FCC Compliance Statement For United States Users

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

#### WARNING

The connection of a non-shielded equipment interface cable to this equipment will invalidate the FCC Certification of this device and may cause interference levels which exceed the limits established by the FCC for this equipment. It is the responsibility of the user to obtain and use a shielded equipment interface cable with this device. If this equipment has more than one interface connector, do not leave cables connected to unused interfaces. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

#### For Canadian Users

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le materiel brouilleur du Canada.

## **Contents**

//	ntroduction	
Wi	ndows System Requirements	2
Ma	cintosh System Requirements	2
Ho	w To Use Your Manuals	3
	Warnings, Cautions, Notes, and Tips	4
Wh	ere to Get Help	4
	Electronic Support Services	5
EN	ERGY STAR Compliance	6
	Energy-saving Tips	7
Imp	portant Safety Instructions	7
<b>1</b> E	Basic Printing	
Prii	nting from Windows	1-1
	Setting Printer Options from Windows Applications	1-2
	Setting Default Printer Options	1-4
	Checking Printer Status	1-5
Prii	nting from a Macintosh	1-6
Che	oosing Paper and Other Media	1-8
Wh	at To Do When the Printer Lights Flash	1-9

2	Custom Printing	
	Using Predefined Advanced Settings	2-1
	Customizing Print Quality and Special Effects	2-4
	Customizing Color Settings	2-7
	Using ColorSync on the Macintosh	2-9
	Saving Custom Settings	2-11
3	Printing on Special Media	
U	I Tillling on Special Ivieula	
	Using Special Media	3-1
	Letterhead, Pre-printed Forms, and Legal-size Paper EPSON 360 dpi, High Quality, and Photo Quality	3-3
	Ink Jet Paper	3-3
	EPSON 4 × 6 Photo Paper	3-4
	EPSON Photo Quality Glossy Paper, Film, and	
	Transparencies	3-5
	Envelopes	3-7
	EPSON Photo Quality Ink Jet Cards	3-8
	EPSON Iron-On Transfer Paper	3-8
	EPSON Photo Quality Self Adhesive Sheets	3-8
	Printing Panoramic Images and Other Custom Size	
	Projects	3-9
	Printing a Panoramic Image from Windows	3-10
	Printing a Panoramic Image from a Macintosh	3-11
4	Managing Print Jobs and Network Printing	
	Managing Print Jobs in Windows	4-1
	Using the Spool Manager	4-2
	Using the Status Monitor	4-4
	Managing Print Jobs on a Macintosh	4-6
	Using Monitor2	4-6
	Using the Macintosh Status Monitor	4-7

	Network Printing on a PC	4-9
	Setting Up the Host System	4-10
	Setting Up Remote Systems	4-10
	Setting Up Your Network Path in Windows 95	4-11
5	Maintenance and	
	Transportation	
	Cleaning the Print Heads	5-1
	Using the Head Cleaning Utility	5-2
	Using the Control Panel	5-2
	Examining the Nozzle Check Pattern	5-3
	Replacing an Ink Cartridge	5-3
	Removing an Empty Ink Cartridge	5-4
	Installing the New Cartridge	5-5
	Replacing an Outdated Ink Cartridge	5-7
	Aligning the Print Heads	5-8
	Cleaning the Printer	5-9
	Transporting the Printer	5-10
6	Troubleshooting	
	Diagnosing Problems	6-1
	Running a Printer Check	6-2
	Improving Print Quality	6-3
	The printed image has horizontal banding	6-3
	Vertical lines are misaligned or vertical banding	
	appears	6-4
	The printed image has incorrect or missing colors	6-4
	The printed image is faint or has gaps	6-5
	The printed image is blurry or smeared	6-5
	Photographic images look grainy or rough	6-6
	Color documents print in black and white	6-6
	Solving Printing Problems	6-6
	All lights are off	6-6

Only the $\circlearrowleft$ power light is on, but nothing prints	6-7
The 🗎 paper out light is flashing or on	6-7
A ♦ black or ♠ color ink out light is flashing or on	6-8
The □ and ∪ lights are flashing	6-8
All the lights are flashing	6-8
The printer has finished charging the ink cartridge,	0.0
but the O power light is still flashing	6-8
The printer software installed with Windows 3.1 does work correctly after you upgrade to Windows 95	s not 6-9
After you install your printing software, you see the Windows 95 New Hardware found window	6-9
You see a spooling error message (Windows)	6-9
In Windows 95, the Status Monitor box does not appear with the Despooler	6-9
You see a type 11 or memory error message (Macintosh)	6-9
A portion of your image doesn't print (Macintosh)	6-10
Printing is too slow	6-10
Your printer switches to the modem port or won't confirm on the printer port (Macintosh)	6-10
Your printer icon doesn't appear in the Chooser (Macintosh)	6-11
When you select your printer in the Chooser, you see a message that it can't be used	6-11
You get a type 39 error on the Macintosh	6-11
Fixing Paper Problems	6-11
Paper doesn't feed	6-12
Multiple pages feed at the same time	6-12
Paper jams inside the printer	6-12
Paper doesn't eject fully or is wrinkled	6-13
Solving Miscellaneous Printout Problems	6-13
Characters are incorrect or garbled	6-13
The margins are incorrect	6-14
The image is inverted as if viewed in a mirror	6-14
The printer prints blank pages	6-14
Something on the page is wrong or missing	6-15

# **A** Specifications

Printing	A-1
Paper	A-2
Ink Cartridge	A-4
Mechanical	A-4
Electrical	A-5
Environmental	A-5
Safety Approvals	A-5
Interface	A-5

Glossary

Index

## Introduction

Your EPSON Stylus<sup>®</sup> Photo printer is the ideal output device for full-color layout proofs, digital photography, photo editing—or any imaging project you create on your computer. The printer includes the following features:

- Exclusive Micro Piezo ink jet technology for smaller, cleaner dots
- Six-color printing for photo reproduction quality on plain paper or a variety of special media
- ▶ Fastest color print speeds in its class
- Compatibility with Microsoft® Windows® and Macintosh®
- PhotoEnhance for optimizing the contrast, saturation, and brightness of your pictures at the touch of a button
- $\blacktriangleright \quad \text{Resolutions up to } 720 \times 720 \; dpi$
- EPSON Digital Darkroom software, inclucing Live Picture<sup>®</sup> (Macintosh), LivePix<sup>™</sup> (Windows 95), and an outstanding collection of CD-ROM images

## Windows System Requirements

To use your printer and its software with a PC, your system should have:

- An IBM® compatible PC with at least a 486 DX2/66 MHz or faster processor
- DOS, Windows 3.1x, Windows for Workgroups 3.11, or Windows 95
- At least 16MB of RAM
- ▶ At least 50MB of free hard disk space for storing images
- ▶ VGA, Super VGA, or better display adapter and monitor
- Double-speed CD-ROM drive (quad-speed or faster recommended)
- A shielded, twisted-pair parallel cable (6 to 10 feet long) to connect your computer to the printer; the cable must have a D-SUB, 25-pin, male connector for your computer and a 36-pin, Centronics® compatible connector for the printer.



Note: If you don't have a CD-ROM drive, you can get the printer driver software on diskettes or download it through your modem. Contact EPSON as described on pages 4 and 5.

## **Macintosh System Requirements**

To use your printer and its software with a Macintosh, your system should have:

- Any Macintosh or Power Macintosh model except the Macintosh Classic, Macintosh +, Macintosh 512, or PowerBook<sup>™</sup> 100
- System 7.1 or later
- ▶ At least 16MB of built-in RAM
- At least 50MB of free hard disk space for storing images
- VGA (8-bit,  $640 \times 480$ ) or better display adapter and monitor

- Double-speed CD-ROM drive (quad-speed or faster recommended)
- Standard Apple® System Peripheral-8 cable or equivalent (RS-422, 8-pin mini DIN male/male, Belkin F2V024 recommended)

## **How To Use Your Manuals**

To set up your printer, see the *Quick Setup* guide. This *User's Guide* contains the following information:

**Chapter 1** covers the basics of printing with Windows or Macintosh.

**Chapter 2** tells you how to print special projects with custom settings for print quality and color management.

**Chapter 3** gives guidelines for selecting and using the right paper or other media for your print job and instructions for printing panoramic images.

**Chapter 4** explains how to manage print jobs, check printer status, and set up your PC system for network printing.

**Chapter 5** gives instructions for replacing ink cartridges, cleaning and aligning the print heads, and cleaning and transporting the printer.

**Chapter 6** provides solutions for any problems you may have.

The **Appendix** provides the technical details on your printer, ink cartridges, and EPSON media.

A **Glossary** and an **Index** are included at the end of the book.

## Warnings, Cautions, Notes, and Tips

You'll find this information throughout your manual:



Warnings must be followed carefully to avoid bodily injury.



**Cautions** must be observed to avoid damage to your equipment.



**Notes** contain important information about your printer.



**Tips** contain additional hints for great printing.

## Where to Get Help

EPSON provides customer support and service through a network of authorized EPSON Customer Care Centers. Dial **(800) 922-8911** for the nearest location or the following services:

- Fax-on-Demand access to EPSON's technical information library
- ▶ Literature on current and new products
- The location of your nearest Authorized EPSON Reseller or Customer Care Center
- Technical information on the installation, configuration, and operation of EPSON products
- Customer relations

For answers to commonly asked questions about EPSON products 24 hours a day, seven days a week, call EPSON Sound Advice at (800) 442-2110.

You can purchase ink cartridges, paper, manuals, accessories, and parts from EPSON Accessories at **(800) 873-7766** (U.S. sales only). In Canada, please call **(800) 873-7766** for dealer referral.

If you need help using software with an EPSON product, see the documentation for that program for technical support information.

### **Electronic Support Services**

You can access helpful tips, specifications, DIP switch or jumper settings, drivers, FAQs, sample files, application notes, and EPSON product bulletins 24 hours a day, seven days a week, using a modem and one of the online services below.

#### World Wide Web

From the Internet, you can reach EPSON's Home Page at http://www.epson.com.

#### **EPSON Internet FTP Site**

If you have Internet FTP capability, use your Web browser (or other software for FTP downloading) to log onto **ftp.epson.com** with the user name **anonymous** and your e-mail address as the password.

#### **EPSON Download Service**

You can call the EPSON Download Service at **(800) 442-2007**. Set your communications software to 8 data bits, 1 stop bit, no parity. Modem speed can be up to 28.8 Kbps.

#### EPSON Fax-on-Demand Service

You can access EPSON's technical information library by calling **(800) 442-2110** or **(800) 922-8911** and selecting the appropriate phone option. You must provide a return fax number to use Fax-on-Demand.

#### EPSON Forum on CompuServe

Members of CompuServe® can type GO EPSON at the menu prompt to reach CompuServe's Epson America Forum. As an owner of an EPSON product, you are eligible for a free introductory CompuServe membership, which entitles you to an introductory credit and your own user ID and password. To take advantage of this offer in the U.S. or Canada, call **(800) 848-8199** and ask for representative #529.



## **ENERGY STAR Compliance**

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

The EPA 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.

## **Energy-saving Tips**

Here are a few tips you can use to be even more energy-wise:

- If your monitor isn't ENERGY STAR compliant, turn it off when you're not using it.
- Turn off your computer, printer, and monitor each day when you are done using them.
- Use the print preview option in your software so you can catch errors before you print something.
- ▶ Send e-mail rather than distributing memos. Not only is this faster, but you'll save paper and storage space too.

## **Important Safety Instructions**

Before using your printer, read the following safety instructions to make sure you use the printer safely and effectively.

- ▶ Turn off and unplug the printer before cleaning. Clean with a damp cloth only. Do not spill liquid on the printer.
- Do not place the printer on an unstable surface or near a radiator or heating vent.
- Do not block or cover the openings in the printer's cabinet or 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.
- Place the printer near a wall outlet where the plug can be easily unplugged.

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

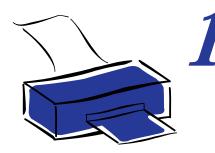
- Do not let the power cord become damaged or frayed.
- If you use an extension cord with the printer, make sure the total ampere rating of the devices plugged into the extension cord does not exceed the cord's ampere rating. Also, make sure the total of all devices plugged into the wall outlet does not exceed 15 amperes.
- Except as specifically explained in this *User's 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.

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 head.
- Once you install an ink cartridge, do not open the clamp or remove the cartridge except to replace it with a new one. The cartridge may become unusable otherwise.
- Install the ink cartridge immediately after you remove it from its package. Leaving the cartridge unpacked for a long time before use may result in reduced print quality.

- Do not use an ink cartridge beyond the date printed on the cartridge carton. For best results, use up the ink cartridges within six months of installing them.
- **D**o not shake an ink cartridge; this can cause leakage.
- ▶ Always turn the printer off using the 'D power button. When this button is pressed, the 'D power light flashes briefly then goes out. Do not unplug the printer or turn off the power to the outlet until the 'D power light is off.
- Before transporting the printer, make sure the print head is capped in the far right position and the ink cartridges are in place.



## Basic Printing

It's easy to print with your new EPSON Stylus Photo. First you have to set up your printer, following the instructions in the *Quick Setup* guide. Then install the printer driver software on your Digital Darkroom CD. Read this chapter to find out about the following:

- Printing from Windows
- Printing from a Macintosh
- Choosing paper and other media
- What to do when the printer lights flash



Note:
If you need driver
software for Windows
NT and it's not included in
your box, you can
download it from EPSON.
See page 5 in the
Introduction for more
information.

## **Printing from Windows**

When you want to print from your Windows application, you click the print icon or choose Print from the File menu. You can then choose which pages to print, the number of copies, and other options. The settings that describe your print job—whether you want to use full color or black ink only, for example—are part of your printer driver software.

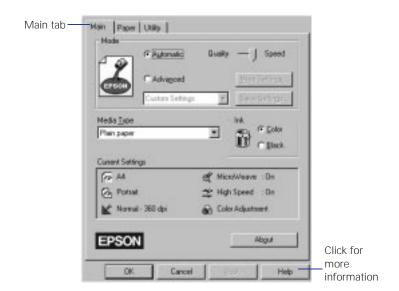
The following sections tell you how to set printer options from Windows applications, how to change the default printer settings, and how to check your printer's status.

## **Setting Printer Options from Windows Applications**

This section describes the preferences you'll need to set for all your everyday printouts. See Chapter 2 for information about special settings like PhotoEnhance.

Follow these steps to check printer settings from your graphics application or other Windows software:

- 1. Choose Print or Print Setup from the File menu. You see a printing dialog box.
  - If you choose Print, you first see a Print dialog box that contains the settings you change most often, including the number of copies and the pages you want printed.
- 2. Make sure your EPSON Stylus Photo printer is selected, and then click the Printer, Setup, Properties, or Options button. (You may have to click a combination of these buttons.) You see a dialog box like the following:



If you don't see the dialog box shown in step 2, click the Main tab.



For more information about printer settings, click the Help button. In Windows 95, you can right-click any item on the screen and then click What's This?



If you click Advanced instead of Automatic, you can choose PhotoEnhance from the list of modes. See Chapter 2 for more information.

- 3. Make sure the Mode option is set to Automatic. The printer software determines the best settings for your print job. This is the easiest way to get good printing results on all types of paper.
- 4. Choose the Media Type you want to print on from the following list (you may need to scroll through the list). If you are not sure which setting to select, refer to the table on page 3-2.
  - Plain paper
  - 360 dpi Ink Jet Paper
  - Photo Quality Ink Jet Paper
  - Photo Quality Glossy Paper
  - Photo Quality Glossy Film
  - Ink Jet Transparencies

The type of media you choose determines the print quality or resolution you can use.

- 5. Choose Color or Black ink. If you're printing grayscale images, choose Black for faster output.
- 6. Set the slider to Quality or Speed. This lets you choose between the highest resolution or the fastest printing for the media you're using. (The slider is not available for certain media types.)
- 7. If necessary, click the Paper tab and choose your paper size, number of copies, and orientation. If your software application lets you control these settings, you don't need to use the Paper tab.
- 8. Click OK when you're finished checking your settings.
- 9. In the printing dialog box, click Close, OK or Print. You may need to click a combination of these buttons.
  - While your document is printing, the EPSON Despooler dialog box appears, showing the printing progress and the status of your printer. (See page 1-5 for more information.)



Note: Some application settings override printer settings (such as Paper Size or Orientation), so it's a good idea to check the settings in your application before you print.

### **Setting Default Printer Options**

When you change printer settings through your software application, the settings apply only to the application you're using. If you want to adjust the default settings for all your Windows applications, you can access the dialog box through the Windows 95 Settings option or the Windows 3.1 Control Panel.

Make sure all your software applications are closed before you start. If not, you'll have to close and then reopen them to have the new default settings take effect.

#### Setting Default Options in Windows 95

Follow these steps:

- 1. Click Start, point to Settings, and then point to Printers.
- 2. Right-click the EPSON Stylus Photo icon.
- 3. Select Properties. Then click the Main tab.

You see the Main printer settings dialog box, as shown on page 1-2. Any changes you make will become the default settings for all your applications and documents.

### Setting Default Options in Windows 3.1

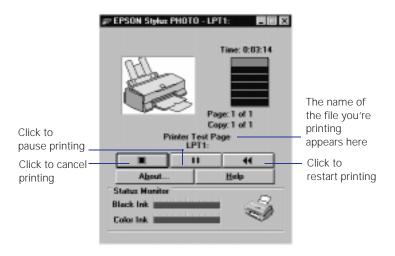
Follow these steps:

- 1. Double-click the Control Panel icon in the Main group.
- 2. Double-click the Printers icon.
- 3. Select EPSON Stylus Photo from the list of printers and click Setup.

You see the Main printer settings dialog box, as shown on page 1-2. Any changes you make will become the default settings for all your applications and documents.

### **Checking Printer Status**

While your document is printing, the EPSON Despooler dialog box appears on your screen:





Note: The Status Monitor appears only if you're using Windows 95 and you're not printing over a network.

This dialog box shows the progress of your print job and the status of your printer. If you run out of paper while printing, for example, the Despooler warns you. You can use the buttons to cancel, pause, or restart your print job.

The Status Monitor at the bottom of the dialog box shows how much ink is left in your printer, along with these status icons:



The Status Monitor is checking the printer's status.



An error has occurred. Check your printer or see Chapter 6 for troubleshooting information.



The printer is ready to print.



The printer is currently printing.



The ink level is low or empty; check the  $\bullet$  or  $\lozenge$  Ink Out light on the control panel and replace the cartridge if necessary.

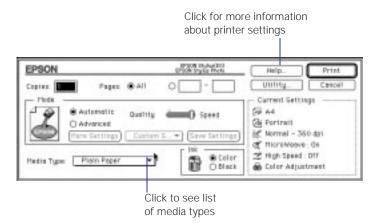
## Printing from a Macintosh

When you set up a new printer for your Macintosh, you need to check the page setup for documents in each application you use. You can then click the print icon or choose Print from the File menu. You see a dialog box that lets you choose the settings that describe your print job.

This section describes the preferences you'll need to set for all your everyday printouts. See Chapter 2 for information about special settings like PhotoEnhance.

Follow these steps to check printer settings from your word processor or other Macintosh application:

- Choose Page Setup from the File menu. You see the Page Setup dialog box.
- Choose your paper size and other page setup options and click OK.
- Choose Print from the File menu or click the print icon in your application. You see a dialog box like the following:



Choose the number of copies and indicate which pages you want to print.



Note: On the Macintosh, printer settings are saved with your document, but you can't save them from one application to another. You'll have to check your settings each time you print from a new application. If you want to reuse settings, you can create document templates for your favorite applications.



If you click Advanced instead of Automatic, you can choose PhotoEnhance from the list of modes. See Chapter 2 for more information.

- 5. Make sure the Mode option is set to Automatic. The printer software determines the best settings for your print job. This is the easiest way to get good printing results on all types of paper.
- 6. Choose the Media Type you want to print on from the following list. If you are not sure which setting to select, refer to the table on page 3-2.
  - Plain Paper
  - 360 dpi Ink Jet Paper
  - Photo Quality Ink Jet Paper
  - Photo Quality Glossy Paper
  - Photo Quality Glossy Film
  - Ink Jet Transparencies

The type of media you choose determines the print quality or resolution you can use.

- 7. Choose Color or Black ink. If you're printing grayscale images, choose Black for faster output.
- 8. Set the slider to Quality or Speed. This lets you choose between the highest resolution or fastest printing for the media you're using. (The slider is not available for certain media types.)
- 9. Click Print when you're finished checking your settings.

If you chose background printing when you set up your printer, you can continue working while your document is printing. See "Using Monitor2" in Chapter 4.

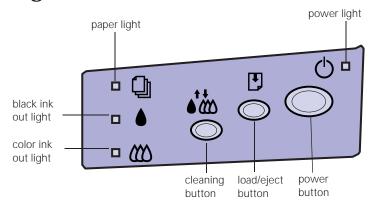
## **Choosing Paper and Other Media**

You can use most types of paper with your printer, but you'll get better results with specially designed EPSON ink jet paper or other media. Following is a list of the media available for EPSON ink jet printers. See Chapter 3 for more information on using special paper and other materials.

Media name	Size	Part number
EPSON 360 dpi Ink Jet Paper	A4 Letter	S041059 S041060
EPSON High Quality Ink Jet Paper	Letter	S041111
EPSON Photo Quality Ink Jet Paper	A4 Letter Legal	S041061 S041062 S041067
EPSON Photo Quality Glossy Paper	A4 Letter	S041126 S041124
EPSON Photo Quality Glossy Film	A4 Letter	S041071 S041072
EPSON Photo Paper	4 × 6	S041134
EPSON Ink Jet Transparencies	A4 Letter	S041063 S041064
EPSON Photo Quality Ink Jet Cards	A6 5 × 8 10 × 8	S041054 S041121 S041122
EPSON Iron-On Transfer Paper	Letter Letter	S041001 (10 sheets), S041002 (50 sheets)
EPSON Photo Quality Self Adhesive Sheets	A4	S041106

To order EPSON papers and other media, contact your dealer or call EPSON Accessories at (800) 873-7766 (U.S. sales only). In Canada, please call (800) 873-7766 for dealer referral.

# What To Do When the Printer Lights Flash



The four lights on your printer's control panel show the printer's status and alert you to problems like paper jams.

- When the paper light comes on, your paper ran out or is incorrectly loaded. Load paper in the feeder and then press the load/eject button.
- When an ink light comes on, you need to replace the ink cartridge. See Chapter 5 for instructions.
- When an ink light *flashes*, your ink supply is low. Make sure you have a replacement cartridge.
- When the paper light *flashes* and the ink out lights are on, you have a paper jam. Turn off the printer and gently pull out all jammed paper. Then press the Doad/eject button.
  - The power light is on when the printer is on. The power light *flashes* when the printer is receiving a print job or performing a maintenance operation.
- When the power and paper lights *flash* and the ink out lights are on, your printer has a carriage error. Press the  $\circlearrowleft$  button twice to reset the printer. See Chapter 6 for more information.
- When all the lights *flash*, your printer may have an internal error. See Chapter 6 for more information.



# 2

# Custom Printing

When your photographs or other projects have special printing requirements, you can use the custom settings in your EPSON Stylus Photo software. You can choose predefined settings like PhotoEnhance or adjust individual options like brightness, contrast, saturation, and halftoning. For professional-quality color accuracy, you can use Image Color Matching (ICM) under Windows 95 or ColorSync™ on the Macintosh.

This chapter includes the following information:

- Using predefined advanced settings
- Customizing print quality and special effects
- Customizing color settings
- Using ColorSync on the Macintosh
- Saving custom settings

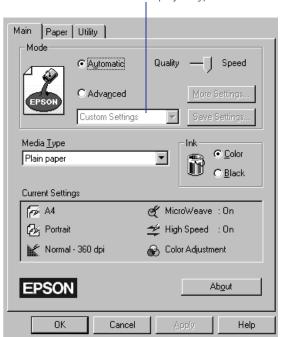
## **Using Predefined Advanced Settings**

Predefined settings provide an easy way to enhance your photos and fine-tune your printer's operation. Follow these steps to print with predefined settings:

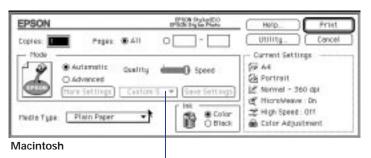
- 1. Create your image or project in your application software.
- 2. Access the Main printer settings dialog box as described on page 1-2 (Windows) or page 1-6 (Macintosh).

#### You see one of the following dialog boxes:

Click **Advanced**, then click here to see a list of project types



Windows



Click **Advanced**, then click here to see a list of project types



Note: When you use advanced settings, the Quality/Speed slider disappears.



The Photo setting and the PhotoEnhance setting have similar effects. However, PhotoEnhance intelligently analyzes your image data, and its effect varies widely depending on your image. The Photo setting consistently increases contrast. You may have to experiment to choose the best setting for your needs.

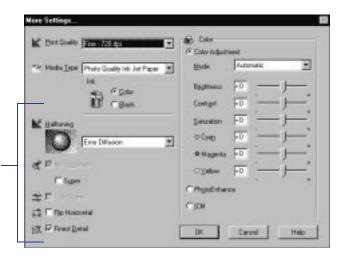
- 3. Select Color or Black Ink.
- 4. Click Advanced, and then Custom Settings. You see the list of project types.
- 5. Follow these guidelines to choose the right setting for your project:
  - Photo For printing scanned photographs with increased contrast.
  - Text/Graph For printing graphics-intensive documents like presentation pages with charts and graphs. Intensifies colors and lightens the midtones and highlights.
  - PhotoEnhance Produces sharper images and more vivid colors by automatically adjusting the contrast, saturation, and brightness. Corrects for under- and over-exposure of the original image.
  - ▶ Text For faster printing of text-only documents on plain paper.
  - EconomyFor rough drafts of text only, on plain paper. Saves ink.
  - ICM (Windows 95 only) Automatically adjusts printout colors to match the colors on your screen.
  - ColorSync (Macintosh only) Automatically adjusts printout colors to match the colors on your screen. For more information, see page 2-9.
- 6. Choose the Media Type you want to print on. (If you're not sure which setting to select, refer to the table on page 3-2.) The available media are limited by the project you choose. For example, you can't use plain paper or transparencies with the ICM or ColorSync settings.

- 7. If you're printing on envelopes, EPSON Photo Paper, or other special-size media, make sure you select the correct paper size. If you're using Windows, click the Paper tab. If you're using a Macintosh, choose Page Setup from the file menu of your application. See Chapter 3 for more information about printing on special media.
- 8. Click OK or Print. If you're using Windows, click any other buttons that your application uses for printing.

# **Customizing Print Quality and Special Effects**

If you need the maximum control over your photos, or you want to experiment with special effects, you can adjust individual settings in your printer software. Follow these steps:

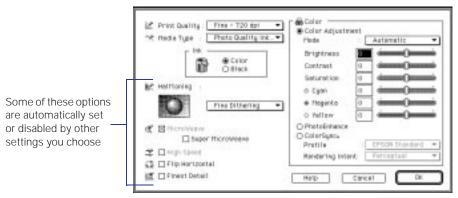
- 1. Create your image or project in your application software.
- 2. Access the Main printer settings dialog box as described on page 1-2 (Windows) or page 1-6 (Macintosh).
- 3. Click Advanced, and then click More Settings. You see the More Settings dialog box:





Note: After you customize your print settings for a special project, you can save them as a group. Then you can reuse them whenever you print a similar project. See page 2-11 for instructions.

Some of these options are automatically set or disabled by other settings you choose



Macintosh



Note: The Print Quality option you choose limits your choice of Media Types. Be sure to check both of these settings.

- 4. Choose one of the following Print Quality options:
  - Economy
     For low-resolution rough drafts on plain paper. Saves ink.
  - Normal 360 dpi
     For printing on plain paper, transparencies, or 360 dpi
     Ink Jet paper.
  - Fine 720 dpi
    For the highest-resolution output. Works best on photo quality media.
- 5. Choose the Media Type and Ink settings you want to use, following the guidelines in Chapters 1 and 3.
- 6. Choose one of the following Halftoning options:
  - No Halftoning For black text only.
  - Error Diffusion For photographic images. Blends each dot of color with surrounding dots.
  - ▶ Fine Dithering For charts, graphs, and other images that require precise, solid areas of bright colors. Arranges dots in orderly patterns.

#### Custom Printing



If vertical lines in your printout are misaligned when you use the High Speed setting, you may need to align the print heads. See Chapter 5 for instructions.

- 7. Choose any of the following options. Some of these settings are automatically selected or disabled by the Print Quality (resolution) you choose.
  - MicroWeave For improved print quality. Prints graphic data in finer increments to eliminate unwanted banding effects (light horizontal lines). Always use for color printing.
  - Super MicroWeave Use with Photo Quality media if MicroWeave doesn't completely eliminate banding in your printout. Printing is slower.
  - High SpeedFor fast, bidirectional printing at lower quality.
  - ▶ Flip Horizontal
    Prints a mirror image of your document. Use for printing with iron-on transfer paper. When you iron the printout onto a T-shirt or other item, it will read correctly.
  - ▶ Finest Detail For printing text, graphics, and line art with very sharp edges. Slows print speed and increases your system memory requirements.
- 8. Click OK if you're ready to print, or see the next section if you want to adjust your printer's color settings.

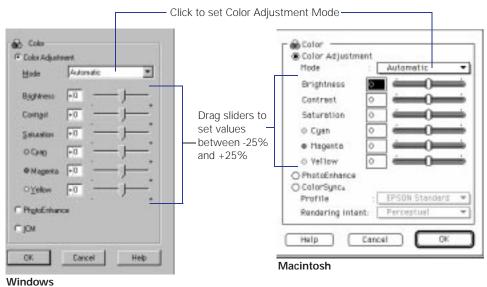
## **Customizing Color Settings**

You can choose from several color adjustment modes or manually adjust brightness, contrast, and saturation. For professional color correction, you can set individual CMY color values. To achieve the maximum color accuracy, you can use Image Color Matching (ICM) under Windows 95 or ColorSync on the Macintosh.

Follow these steps to customize your color settings:

1. Access the More Settings dialog box as described on page 2-4.

The color settings appear on the right side of the dialog box, as shown:



(ICM is available only for Windows 95)

#### **Custom Printing**



The Photo-realistic setting and the PhotoEnhance setting have similar effects. However, PhotoEnhance intelligently analyzes your image data, and its effect varies widely depending on your image. Photo-realistic consistently increases contrast. You may have to experiment to choose the best setting for your needs.

- 2. Choose one of the following Color Adjustment Modes:
  - Automatic
     Analyzes the color information in your image and optimizes color correction accordingly.
  - Photo-realisticFor increased contrast in color photographs.
  - Vivid For printing graphics-intensive documents like presentation pages with charts and graphs. Intensifies colors and lightens the midtones and highlights.
  - No Color Adjustment (Macintosh only)
    Choose this mode only if you're using ColorSync.
- 3. If you want to specify individual color correction values, use the sliders to increase (drag right) or decrease (drag left) the settings listed below. (If you want to use the options described in step 4, you won't be able to specify individual color correction values.)
  - BrightnessMakes your image lighter or darker.
  - Contrast Increases or decreases the difference between the bright or dark parts of an image.
  - Saturation
     Makes colors more vivid or less vivid.
  - Cyan, Magenta, Yellow Increases or decreases individual color values. The Cyan and Magenta settings also affect the light cyan and light magenta inks. Use these sliders to fine-tune the color balance in your printout.



Note: When you choose PhotoEnhance, ICM, or ColorSync, all the other color options are preset.

- 4. For even more fine-tuning, choose PhotoEnhance, ICM (Windows 95), or ColorSync (Macintosh).
  - PhotoEnhance Produces sharper images and more vivid colors by automatically adjusting the contrast, saturation, and brightness. Corrects for over- or under-exposure of the original photograph.
  - ▶ ICM (Windows 95 only) Automatically adjusts printout colors to match colors on the screen.
  - ColorSync (Macintosh only) Automatically adjusts printout colors to match colors on the screen. See "Using ColorSync on the Macintosh" for more information.
- 5. Click OK to return to the Main printer settings dialog box.
- Click Save Settings if you want to save your custom settings as a group that you can reuse for special projects.
   See page 2-11 for more information about saving settings.
- 7. Click OK (Windows) or Print (Macintosh). If you're using Windows, click any other buttons that your application uses for printing.

## **Using ColorSync on the Macintosh**

Every device you use for viewing or producing colors—your monitor, scanner, and printer—uses a different color technology. That's why it's difficult to get printed colors to match the colors displayed on your monitor.

Each device has its own gamut, or range of colors that it can reproduce. The Macintosh ColorSync system translates colors from one gamut to another so your monitor's colors match your printer's as closely as possible. ColorSync uses profile information from each device—including your EPSON Stylus Photo—to achieve accurate color matching. First you have to make sure your monitor's profile is set. Then you can use your printer software to specify the exact method of gamut mapping (color matching) you want to use.

Follow these steps to set your monitor's ColorSync profile and use your printer software's ColorSync features:

- 1. Open ColorSync System Profile under Control Panels on the Apple menu.
- 2. Click the Set Profile button.
- 3. Select your monitor from the list, and then click Select.
- 4. Close ColorSync System Profile.
- 5. Access the More Settings dialog box as described on page 2-4.
- 6. Click ColorSync.
- 7. For Profile, choose EPSON Standard.
- 8. Choose one of the following options for Rendering Intent:
  - Perceptual Scales the displayed colors to fit within the printer's gamut. Maintains the relationship between colors.
  - Saturation
     For printing graphics-intensive documents like presentation pages with charts and graphs (at Fine 720 dpi Print Quality on Photo Quality media only). Maintains the relative saturation of colors from one gamut to another.
  - Colorimetric
    For matching colors as precisely as possible (at Fine 720 dpi Print Quality on Photo Quality media only).
    Maintains colors that fall within the gamut of both the monitor and printer, but may lose some detail in areas where the colors are outside the printer's density range.



Note: The EPSON Standard profile is customdesigned for your printer. If you use a scanner or other color imaging equipment, you may have other profiles available.



Note: You can save up to 10 groups of settings.

9. Click OK, and then click Print.

### **Saving Custom Settings**

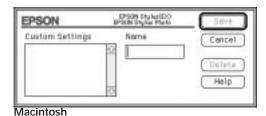
After you've fine-tuned your printer settings for a special project, you can save your settings as a group. Then you can easily select the settings the next time you print a similar project. Follow these steps:

- 1. Customize your printer settings as described in this chapter.
- 2. Click the Save Settings button on the Main printer settings dialog box.

You see one of the following:



Windows



3. Type a unique name for your settings (up to 16 characters) and click the Save button. The name you choose will now be available on the Main printer settings dialog box when you click Advanced, and then Custom Settings.





## Printing on Special Media

Your EPSON Stylus Photo lets you print on just about any kind of paper you want to use. You can get great results printing on various sizes of plain paper, letterhead, and envelopes. You'll get even better results with specially coated ink jet paper. For the best output, use EPSON's Photo Paper or other photo quality media.

For special projects, you can use a variety of EPSON media designed for ink jet printers, ranging from transparencies to iron-on transfer paper. You can even set up your printer to use custom paper sizes to print panoramic images. This chapter covers the following:

- Using special media
- Printing panoramic images and other custom size projects

### **Using Special Media**

When you print on special media, you need to be careful about choosing the correct Media Type and Paper Size settings in your printer software. Use the table on the next page to help you match the paper or media you loaded in the printer with the Media Type setting in the software.

For this media name	Select this Media Type setting
Plain paper	Plain paper
Envelopes	Plain paper
EPSON 360 dpi Ink Jet Paper	360 dpi Ink Jet Paper
EPSON Special Coated Paper for 360 dpi Printing	
EPSON High Quality Ink Jet Paper	Photo Quality Ink Jet Paper
EPSON Photo Quality Ink Jet Paper	
EPSON Special Coated Paper for 720 dpi Printing	
EPSON Photo Quality Ink Jet Cards	
EPSON 720 dpi Index Cards	
EPSON Photo Quality Self Adhesive Sheets	
EPSON Photo Paper	Photo Quality Glossy Paper
EPSON Photo Quality Glossy Paper	
EPSON Photo Quality Glossy Film	Photo Quality Glossy Film
EPSON High Quality Glossy Paper	
EPSON Iron-On Transfer Paper	
EPSON Ink Jet Transparencies	Ink Jet Transparencies

The type of paper or other media you use is one of the most important factors in determining the quality of your printed output. The following tips will help you get the best results on any type of paper or other media.



#### Note:

When you load paper, make sure the printable side is facing up. Some special media have a cut corner that you need to position correctly; follow any instructions in the package. Always handle sheets by the edges, and don't touch the printable surface.

# Letterhead, Pre-printed Forms, and Legal-size Paper

Always load the top edge first.

If you're loading legal-size paper, pull out the paper support extension.





Caution:
Don't use the cleaning
sheets that may be
included with your special
media; they may damage
the printer.

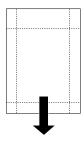
# EPSON 360 dpi, High Quality, and Photo Quality Ink Jet Paper

You can load paper up to the arrow mark on the left edge guide. If you use legal-size ink jet paper, don't load it more than half way to the arrow mark.

### **EPSON 4 × 6 Photo Paper**

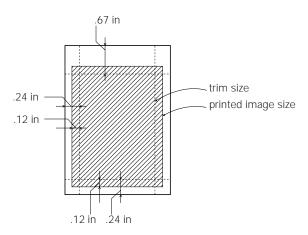
Photo paper  $(4 \times 6)$  is perforated around the edges, so you can trim your printouts and "bleed" the photo—extend it to the edge of the paper—on all sides. Follow these steps to print on EPSON Photo paper:

1. Load the paper with the whiter side facing up and the perforated margins positioned as shown:



You can load up to 20 sheets of Photo paper at a time. Make sure you place the included support sheet beneath the stack, but don't print on it.

- 2. Slide the left edge guide so it fits snugly against the paper.
- 3. When you create the image in your application software, size it to  $4.25 \times 6.25$  inches.



- 4. Choose EPSON Photo Paper  $4 \times 6$  in as the Paper Size setting and Maximum as the Printable Area setting.
- Choose Photo Quality Glossy Paper as the Media Type setting.
- 6. After you print your picture, fold the paper back and forth along the perforations and carefully tear the margins off.

To keep your printouts looking their best, store them in a resealable plastic bag or other airtight covering and protect them from heat, humidity, and direct sunlight.



#### Note:

Use ink jet papers within one year of purchase.
Use glossy media and transparencies within six months. Return unused sheets and envelopes to their original package as soon as possible and avoid exposing them to heat, humidity, and direct sunlight. See the Appendix for more storage information.

# **EPSON Photo Quality Glossy Paper, Film, and Transparencies**

Follow these steps to print on glossy media or transparencies:

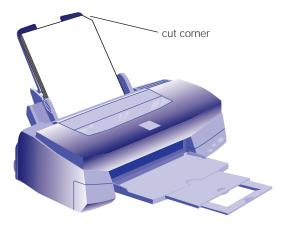
1. To print on transparencies only, remove the paper support and reinstall it in the rear paper support slot, as shown below. For glossy paper and film, leave the paper support in the normal position.



2. Before you load the media, place the included support sheet or a plain paper sheet beneath the stack.

You can load up to 20 sheets of glossy paper, 30 sheets of glossy film, or 10 transparencies. However, you may get better results by loading one sheet at a time. With multiple sheets loaded, the minimum top margin you can use is 1.2 inches.

3. Make sure you load the media with the printable side facing up. If the sheets have a cut corner, position them as shown:



4. Remember to choose the correct Media Type setting in your printer software, following the guidelines on page 3-2.



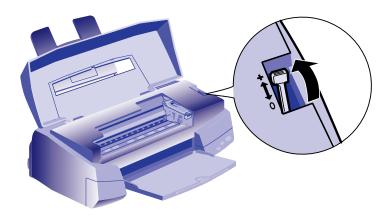
Note:
Before you print, make sure you set the Paper Size option for the type of envelope you're using. Set the Media Type to Plain paper.

### **Envelopes**

You can load up to 10 envelopes at a time. Adjust the left edge guide and load the envelopes as shown, flap edge first and printable side up:



Set the thickness lever to the + position when you print on envelopes or if ink smears when you print on other thick media. Open the printer cover and position the lever as shown below. Then close the cover and print. (Make sure you return the lever to the 0 position before you print on thin media.)



### **EPSON Photo Quality Ink Jet Cards**

Use these cards to print photos, postcards, or greeting cards.

You can load up to 30 cards at a time with the included support sheet or a sheet of plain paper beneath the stack. When you're ready to print, use your software to set the Paper Size option for the size card you're using and set the Media Type to Photo Quality Ink Jet Paper.

If ink smears on the cards, set the thickness lever to the + position as shown on page 3-7.



For iron-on transfers, make sure you reverse your image before you print it, especially if it includes text. Then the text will read correctly when it's transferred. You can use the Flip Horizontal option in your printer software.

### **EPSON Iron-On Transfer Paper**

You can print photos, company logos, or anything else you want on this paper, and then transfer your images to T-shirts or other cloth items. Load one sheet of transfer paper at a time, and set the Media Type option to 360 dpi Ink Jet Paper. After you print, follow the instructions that came with the paper to iron the image onto the shirt or other item.

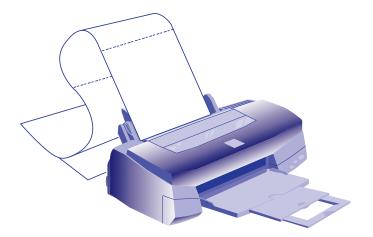
### **EPSON Photo Quality Self Adhesive Sheets**

Use these sheets to print labels or stickers. Load one sheet at a time, and set the Media Type option to Photo Quality Ink Jet Paper. Make sure your adhesive sheets are fully adhered to their backing sheet before you load them.

# Printing Panoramic Images and Other Custom Size Projects

You can use banner paper or ordinary (continuous-form) computer paper to print an image up to 44 inches long. You can also print on any size paper that fits into the printer (at least  $3.94 \times 3.94$ ), by using the custom page size feature of your printer software on either a Windows computer or a Macintosh.

- 1. To make a 44-inch print with continuous-form computer paper, first tear off four sheets and remove the perforations at the edges. If you are using non-perforated banner paper, cut the paper to the length you want for easier handling.
- 2. Insert the paper in the printer as shown. The right edge of the paper should be against the right edge guide.

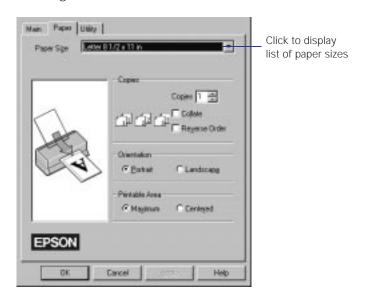


- 3. Slide the left edge guide next to the left edge of the paper.
- 4. Follow the instructions below to print your image on either a Windows computer or a Macintosh.

### **Printing a Panoramic Image from Windows**

Follow these steps to print a panoramic image or other custom-size project on a Windows computer:

- Create the project in your graphics application or other software. You can create it in either portrait or landscape orientation.
- 2. Click the print icon or choose Print or Print Setup from the File menu. You see a printing dialog box.
- 3. Make sure your printer is selected, and then click the Printer, Setup, Properties, or Options button. (You may have to click a combination of these buttons.) You see the Main printer settings dialog box, as shown on page 1-2.
- 4. Click the Paper tab. You see a dialog box like the following:



5. Choose User Defined from the Paper Size list.



#### The following dialog box appears:

- 6. Type 8.5 inches for the Paper Width and any size up to 44 inches for the Paper Height. (This works for both "landscape" and "portrait" style images.) Click OK.
- 7. Choose Portrait or Landscape if you haven't already specified the orientation in your application software. Set the printable area if necessary.
- 8. Click the Main tab to return to the Main printer settings dialog box. Make sure you choose the appropriate media type and the other settings you want to use, and then click OK.
- 9. Click Close, OK, or Print to print your image. You may need to click a combination of these buttons.

# Printing a Panoramic Image from a Macintosh

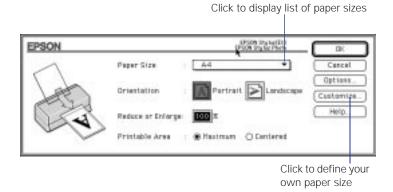
Follow these steps to print a panoramic image or other custom-size project on a Macintosh:

- Create the document in your graphics application or other software. You can create it in either portrait or landscape orientation.
- 2. Choose Page Setup from the File menu.



If you're using computer paper, choose Plain paper for the Media Type setting. If you're using coated banner paper, try the Photo Quality Ink Jet Paper setting.

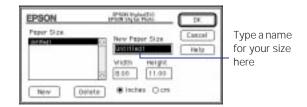
#### You see a dialog box like the following:



- 3. Choose Portrait or Landscape, depending on the orientation you want. Set the printable area if necessary.
- 4. Click the Customize button. The following dialog box appears:



5. Click the New button. The dialog box changes:

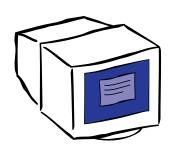


6. Type a name for your custom size in the New Paper Size box.



If you're using computer paper, choose Plain paper for the Media Type setting. If you're using coated banner paper, try the Photo Quality Ink Jet Paper setting.

- 7. To print a panoramic image, type 8.5 inches for the Width and up to 44 inches for the Height. (This works for both "landscape" and "portrait" style images.) Click OK, then OK again.
- 8. Choose Print from the File menu or click the print icon in your application. You see a printer settings dialog box like the one shown on page 1-6.
- 9. Make sure you choose the appropriate media type and the other settings you want to use, and then click Print to print your banner.



4

# Managing Print Jobs and Network Printing

Your printer software includes several utilities for managing print jobs. You can use them to monitor your printer's status, set up large jobs to print later, and handle network printing. If you're using your printer on a network, you need to follow special setup procedures.

This chapter provides instructions for the following:

- Managing print jobs in Windows
- Managing print jobs on a Macintosh
- Network printing on a PC

### **Managing Print Jobs in Windows**

Your Windows printer software includes two management utilities: the Spool Manager and Status Monitor.

- The Spool Manager starts automatically when you send a job to the printer. It allows you to print in the background while you continue to work on your computer and to hold jobs to print at a later time. If you're using your printer on a network, it also handles multiple print jobs that come in at the same time.
- The Status Monitor, which is available only if you're using Windows 95, also starts automatically when you send a job to the printer. It displays on your screen to alert you about printer and ink status.



Note: The Status Monitor doesn't appear if you're printing over a network.



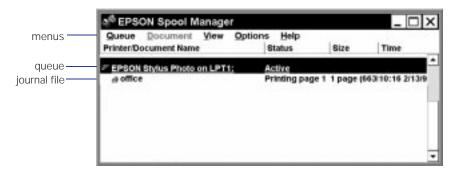
Note: In Windows 3.1, you may not see the Spool Manager icon if the Program Manager or current window is maximized. Make the window smaller to see the Spool Manager icon.

### **Using the Spool Manager**

The Spool Manager works like the Windows Print Manager. When you send a job to your printer, your printer software creates a temporary *journal* file, stores it in the C:\TEMP or C:\WINDOWS\TEMP folder or directory, and assigns it to a print queue. The software then sends the file to your printer at the right time.

- To open the Spool Manager while you're printing, click the Spool Manager icon that appears on the Taskbar (Windows 95) or at the bottom of your desktop (Windows 3.1).
- To open it at any time, double-click the Spool Manager4 icon in the EPSON program group or folder.

You see the Spool Manager window:



The Spool Manager window displays the status of your print queues and journal files and lets you control them.



For information about any of these procedures, use the Spool Manager Help menu.

Here are some of the things you can do:

- Hold or release a queue
- Send journal files to your printer over a network
- ▶ Hold, re-queue, or delete a journal file
- Select the information you want to see in the Spool Manager window
- Prevent the Despooler popup window from appearing on your screen whenever you print
- Change your default spool directory

#### Deleting a Stalled Print Job

If you're having trouble printing, it may be because of a stalled print job. Follow these steps to delete it so you can continue printing:

- 1. Open the Spool Manager as described on page 4-2.
- 2. Click on any print jobs marked Held, then open the Document menu and click Delete.
- Click Yes.
- 4. Exit Spool Manager and try printing again.

### Changing the Default Spool Directory

If you get an error message when you try to print, or printing is very slow, you can try changing your default spool directory. Follow these steps:

- Make a directory on your hard disk where you want Spool Manager to store journal files, for example, C:\SPLTEMP.
- 2. Open the Spool Manager as described on page 4-2.
- 3. Choose Default Spool Directory from the Options menu.

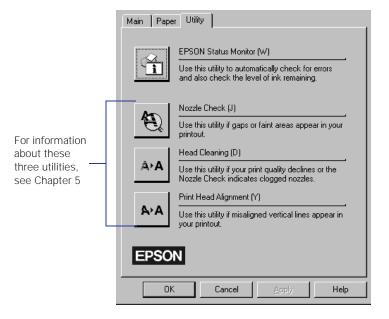
- 4. In the dialog box, change the spool directory to the one you created in step 1. Then click OK.
- Make sure EPSON Stylus Photo is selected, and then choose Setup from the Queue menu. The Queue Setup dialog box appears.
- 6. Make sure the spool directory is the one you created in step 1. Also make sure Use Print Manager for this port is checked. Then click OK. (If you are using Windows 95 and don't see the Status Monitor when you print, make sure it's unchecked.)
- 7. Close Spool Manager.

### **Using the Status Monitor**

The Status Monitor, available only if you're using Windows 95, displays automatically when you send a job to the printer. However, you can use it at any time to see how much ink you have left. Follow these steps:

- 1. Access the Main printer settings dialog box as described on page 1-2.
- 2. Click the Utility tab.

#### You see the Utility menu:



3. Click the EPSON Status Monitor icon. You see the Despooler window with the Status Monitor at the bottom:



4. Check the amount of ink you have left. For more information about the Despooler window, see page 1-5.

# Managing Print Jobs on a Macintosh

Your Macintosh printer software includes two management utilities: Monitor2 and Status Monitor.

- If you're using background printing, Monitor2 starts automatically when you send a job to the printer. It handles printing while you continue to work on your Macintosh and lets you track documents that are waiting to be printed.
- The Status Monitor alerts you to any problems that occur during printing. You can also use it at any time to see how much ink you have left.

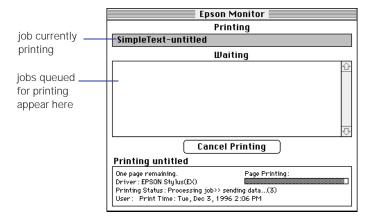
### **Using Monitor2**

The Monitor2 utility lets you continue to work on your Macintosh while your document is printing. However, background printing is slower and may also slow down your system.

If you want to use this utility, you need to turn on background printing in the Chooser and increase the memory allocation for Monitor2. Follow these steps:

- Open the Chooser from the Apple menu and select the EPSON Stylus(EX) icon. Then click either the printer or modem icon.
- 2. Under Background Printing, click On and close the Chooser.
- 3. To increase the memory allocated to Monitor2, select EPSON Monitor2 in the Extensions folder in your System folder.
- 4. Choose Get Info from the File menu.

- 5. Under Memory Requirements, set the Prefered Size to 3000K.
- 6. While you're printing, click the EPSON Monitor2 icon on the Application menu at the right end of the menu bar. You see a dialog box like the following:



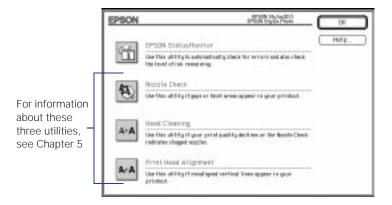
7. You can select a job and cancel it or just use this window to track the printer's progress.

### **Using the Macintosh Status Monitor**

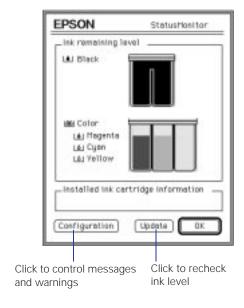
You can use the Status Monitor to check the level of ink in your printer and to control the way your software warns you about printer problems. Follow these steps:

1. Choose Print from the File menu or click the print icon in your application. You see the printer settings dialog box.

2. Click the Utility button. You see the Utility menu:

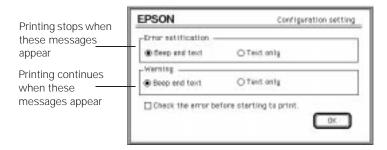


3. Click the Status Monitor icon. The software checks the amount of ink remaining in the printer and displays the Status Monitor window:



4. If you want to change printer messages and warnings, click the Configuration button.

#### You see the following dialog box:



5. Choose the options you want and click OK.

### **Network Printing on a PC**

You can use your printer on a network under Windows 95 or other network operating systems. The Spool Manager sends journal files from your computer to a shared directory on a network server. These files can then be printed from another computer attached to the printer.

First you need to install the EPSON Stylus Photo printer software on each computer that is going to print on the network. Then run Spool Manager and identify the shared directory to use for journal files. After you set this up on the system connected to the printer (the host system), you need to perform a similar procedure on each remote system on the network.

Under Windows 95, you also need to specify the port and network path to the printer.

### **Setting Up the Host System**

Follow these steps to set up the computer connected to the printer:

- Create an icon for the EPSON Spool Manager (EPSPMGR4.EXE) in the \WINDOWS\SYSTEM folder.
- 2. Place this icon in the Startup folder.
- 3. Open the Spool Manager window as described on page 4-2.
- 4. In the Spool Manager window, double-click the queue you want to use for network printing. The Queue Setup dialog box appears.
- 5. Click the Remote Despool tab and then click the Printing from remote queues option.
- 6. Click the Browse button and select the remote server directory that will receive journal files.
- 7. Click OK and minimize the Spool Manager.

### **Setting Up Remote Systems**

Follow these steps to set up computers on the network:

- 1. Create an icon for the EPSON Spool Manager (EPSPMGR4.EXE) in the \WINDOWS\SYSTEM folder.
- 2. Open the Spool Manager window as described on page 4-2.
- 3. In the Spool Manager window, double-click the queue you want to use for network printing. The Queue Setup dialog box appears.
- 4. Click the Spool to remote printer button.

- 5. Click the Browse button and select the directory you're using for journal files on the remote server.
- 6. Click OK and minimize the Spool Manager.

### **Setting Up Your Network Path in Windows 95**

If you want to use your printer on a network running Windows 95, you need to set up the port and network path on the computer connected to the printer. Follow these steps:

- 1. Click Start, point to Settings, and then point to Printers.
- 2. Right-click the EPSON Stylus Photo icon and choose Properties.

Click the Details tab. You see the dialog box shown below:



3. Click the Add Port button, then specify the network path to the printer and click OK.

#### Managing Print Jobs and Network Printing

- 4. Open the Spool Manager window as described on page 4-2.
- 5. In the Spool Manager window, double-click your printer's queue. The Queue Setup dialog box appears.
- 6. Make sure the Use Print Manager for this port option is checked. Then click OK.



# 5

## Maintenance and Transportation

It's easy to keep your EPSON Stylus Photo printer working at its best. All you have to do is follow the simple instructions in this chapter for replacing ink cartridges, moving the printer, and performing routine maintenance.

This chapter covers the following procedures:

- Cleaning the print heads
- Replacing an ink cartridge
- Aligning the print heads
- Cleaning the printer
- ▶ Transporting the printer

### **Cleaning the Print Heads**

If your printed image is unexpectedly light or faint, or dots are missing from the image, you may need to clean the print heads. This unclogs the nozzles so they can deliver ink properly.

Cleaning the print heads uses ink, so clean them only if print quality declines. You can use either of the following to clean the print heads:

- The Head Cleaning utility in your printer software (if the printer is on a local port rather than a network)
- ▶ The printer's control panel buttons.



Caution: Don't use the cleaning sheets that may be included with your special media; they may damage the printer.

### **Using the Head Cleaning Utility**

Follow these steps to run the utility from a Windows computer or a Macintosh:

- Make sure the printer is turned on but not printing, and the **♦** black and **♦** color ink out lights are off.
- 2. Access the Main printer settings dialog box as described in Chapter 1.
- 3. Click the Utility tab (Windows) or the Utility button (Macintosh). You see the Utility menu.
- 4. Click the Head Cleaning icon.
- 5. Follow the instructions on the screen to clean the print heads. Cleaning takes about two minutes, during which the printer makes some noise and the  $\circlearrowleft$  power light flashes.
  - When the  $\circlearrowleft$  power light stops flashing, you need to run a nozzle check.
- 6. Make sure paper is loaded in the printer and click Print nozzle check pattern (Windows) or Confirmation (Macintosh). See page 5-3 for instructions on examining the nozzle check pattern.

If your print quality has not improved, repeat the steps above. If you don't notice any improvement after doing this four or five times, check the print quality solutions in Chapter 6.

### **Using the Control Panel**

- 1. Make sure the printer is turned on and not printing, and that the **♦** black and **♦** color ink out lights are off.
- 2. Press the cleaning button and hold it for three seconds. Cleaning takes about two minutes, during which the printer makes some noise and the  $\circlearrowleft$  power light flashes.



Never turn off the printer while the Opower light is flashing, unless the printer hasn't moved or made any noise for more than 5 minutes.

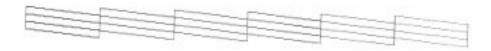
After the cleaning cycle is complete and the  $\circlearrowleft$  power light stops flashing, you need to run a nozzle check.

- 3. Access the Main printer settings dialog box as described in Chapter 1.
- 4. Click the Utility tab (Windows) or the Utility button (Macintosh). You see the Utility menu.
- 5. Click the Nozzle Check icon. See the next section for instructions on examining the nozzle check pattern.

If your print quality has not improved, repeat the steps above. If you don't notice any improvement after doing this four or five times, check the print quality solutions in Chapter 6.

### **Examining the Nozzle Check Pattern**

Examine the nozzle check pattern you print. It should look something like this, with each of the six sections showing one of the ink colors:



Each staggered horizontal and straight vertical line should be complete, with no gaps in the dot pattern. If your printout looks okay, you're done. If any dots are missing, clean the print heads again, as explained in the previous sections.



# Caution: To ensure good results, use genuine EPSON cartridges and do not refill them. Other products may cause damage to your printer not covered by EPSON's warranty.

### Replacing an Ink Cartridge

When a • black or • color ink out light flashes, the indicated cartridge is low on ink. This is a good time to make sure you have a new cartridge. When the light stays on, the cartridge is empty and you need to replace it.

Use these EPSON ink cartridges within six months of installing them and before the expiration date on the package:

▶ Black ink cartridge: S020093

Color ink cartridge: S020110

When you need new ink cartridges, contact your dealer or call EPSON Accessories at (800) 873-7766 (U.S. only). In Canada, please call (800) 873-7766 for dealer referral.

### Removing an Empty Ink Cartridge

You can replace a cartridge when the ♠ black or ♠♡ color ink out light is either flashing or on. Follow these steps:

- 1. Make sure the printer is turned on and not printing.
- 2. Determine which cartridge needs to be replaced.
- 3. Lower the output tray and raise the printer cover.
- 4. Press the cleaning button and hold it for three seconds.

  The print heads move slightly left and the  $\circlearrowleft$  power light begins flashing. (The print heads return to their home position if you don't proceed to step 5 within 60 seconds.)
- 5. Pull up the ink cartridge clamp. The cartridge rises up from its holder. (Although the illustration shows the color ink cartridge, the procedure is the same for replacing the black ink cartridge.)

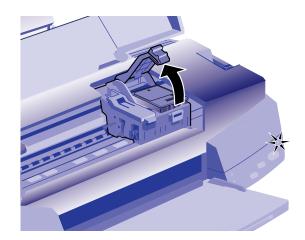


Caution:

If you press the to cleaning button when no ink out light is flashing or on, the printer cleans the print heads as described on page 5-2. If you need to replace an ink cartridge before the lights flash (because the ink is too old, for example) follow the instructions on page 5-7.



Caution:
Don't open the clamp or remove a cartridge except to replace it with a new one. Once you remove a cartridge, you can't reuse it. Even if the cartridge contains ink, reusing it may damage the print head.



- 6. Lift the cartridge out of the printer and dispose of it carefully.
- 7. Follow the steps in the next section to install the new ink cartridge.

### **Installing the New Cartridge**

Once you have removed the empty cartridge, you're ready to install the new one. Follow these steps:

1. Remove the new ink cartridge from its packaging.



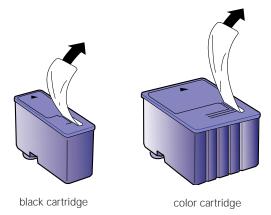
Warning: If ink gets on your hands, wash them thoroughly with soap and water. If ink gets into your eyes, flush them immediately with water.

#### Maintenance and Transportation

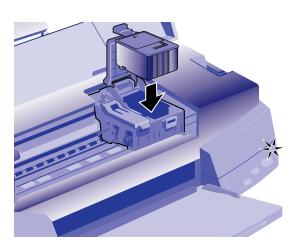


Caution:
You must remove the tape seal from the top of the cartridge; leaving the tape on will permanently damage it. Do not remove the clear seal from the bottom of the cartridge; ink will leak out.

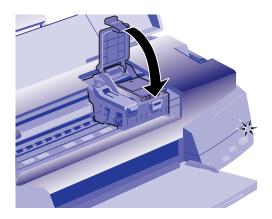
2. Remove the yellow tape seal as shown:



3. Lower the ink cartridge into its holder with the label facing up and the arrow pointing to the back of the printer. The larger cartridge (color) goes on the right, the black ink cartridge on the left.



4. Press down the ink cartridge clamp until it locks in place.



- 5. If you need to replace the other ink cartridge, remove it as described in "Removing an Empty Ink Cartridge" on page 5-4. Then follow steps 1 through 4 in this section.
- 6. Press the 🗞 cleaning button and close the printer cover.

The printer moves the print heads and begins charging the ink delivery system. (Even if you don't press the button, ink charging begins 60 seconds after you close the clamp.)

The  $\circlearrowleft$  power light flashes and the printer makes various sounds. Charging takes about two minutes. When it's finished, you can print again.



If an ink cartridge is more than six months old, you may need to replace it. How can you tell? You may notice that your printouts don't look as good as they used to. If print quality doesn't improve after cleaning and aligning the print heads, you can replace one or both cartridges.





Caution: To avoid damaging the printer, never move the print heads by hand.

Follow these steps to replace an ink cartridge before the ♠ black or ♠ color ink out light is flashing or on:

- 1. Make sure the printer is turned on and not printing.
- 2. Lower the output tray and raise the printer cover.
- 3. Press the Doad/eject button and hold it down for a few seconds until the print heads move to the left.
- 4. Pull up the ink cartridge clamp. The cartridge rises up from its holder.
- 5. Lift the cartridge out of the printer and dispose of it carefully.
- 6. Follow the steps in the previous section, "Installing the New Cartridge," to install the new ink cartridge.

### **Aligning the Print Heads**

If your printouts contain misaligned vertical lines, you may need to align the print heads. Follow these steps:

- 1. Make sure the printer is turned on and paper is loaded.
- 2. Access the Main printer settings dialog box as described in Chapter 1.
- 3. Click the Utility tab (Windows) or the Utility button (Macintosh). You see the Utility menu.
- 4. Click the Print Head Alignment icon.
- 5. Follow the instructions on the screen to print a test page and select the correct alignment.



Caution:
Don't touch the gears
inside the printer.

Never use alcohol or thinner for cleaning; they can damage the printer components and case.

Don't use a hard or abrasive brush.

Don't get water on the printer components.

Don't spray lubricants or oils inside the printer.

### **Cleaning the Printer**

To keep your printer working at its best, you should clean it several times a year, following these steps:

- 1. Turn off the printer, unplug the power cord, and disconnect the printer cable.
- 2. Remove all the paper from the sheet feeder.
- 3. Carefully clean away dust and dirt with a soft brush.
- 4. Clean the exterior of the printer with a soft, damp cloth. Keep the printer cover closed so water doesn't get inside.
- 5. Clean ink out of the printer's interior with a damp cloth.



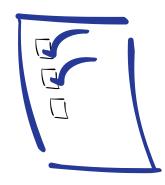
Caution: To avoid damage, always leave the ink cartridges installed when transporting the printer.

### **Transporting the Printer**

If you want to move your printer some distance, you need to prepare it for transportation and repack it in the original box. Follow these steps:

- 1. Turn on the printer and wait until the print heads lock in the far right position. Then turn off the printer.
- 2. Unplug the power cord from the electrical outlet. Then disconnect the interface cable from the printer.
- 3. Remove any paper from the sheet feeder and remove the paper support.
- 4. Push in the output tray extensions and close the tray.
- 5. Repack the printer and attachments in the original box using the protective materials that came with it. See the Notice Sheet that was packed with the printer.

Be sure to keep the printer flat as you transport it. If you notice a decline in print quality after transporting the printer, clean the print heads; if output is misaligned, align the print heads. See the instructions in this chapter.



6

## Troubleshooting

As you use your printer, you may occasionally experience a paper jam or other problem. The first thing you should do is diagnose the problem, following the guidelines in this chapter. Then try the most likely solutions until the problem is fixed.

This chapter tells you everything you need to know about the following:

- Diagnosing problems
- Improving print quality
- Solving printing problems
- **▶** Fixing paper jams and other paper problems
- Solving miscellaneous printout problems

## **Diagnosing Problems**

Your printer includes a number of ways to help you diagnose problems:

- To identify the most common problems, check the lights on the printer's control panel. See "What To Do When the Printer Lights Flash" on page 1-9.
- You can also use the Status Monitor utility to identify common problems. For instructions, see page 4-4 (Windows 95) or page 4-7 (Macintosh).

- To determine whether the problem is caused by the printer itself, run a printer operation check. See "Running a Printer Check" for instructions.
- For the latest information, check the EPSON Stylus Photo Help program and the ReadMe file in the EPSON program group or folder.
- If none of the suggested solutions in this chapter solve your problem, contact EPSON as described under "Where to Get Help" in the Introduction.

#### **Running a Printer Check**

You can run a printer check to determine whether the problem comes from the printer itself or some other source.

- If the results are satisfactory, the problem lies in software settings, the interface cable, or your computer.
- If the printer check does not print correctly, you have a problem with your printer. See the suggestions in this chapter for possible solutions.

Follow these steps to check the printer:

- 1. Make sure both the printer and computer are turned off.
- 2. Disconnect the interface cable from the printer.
- 3. Make sure paper is loaded in the printer.
- 4. Hold down the □ load/eject button and press the ∪ power button. Hold down the buttons until the ∪ power light starts to flash. Then release both buttons.
  - The printer prints one page containing a nozzle check pattern (shown on page 5-3), the printer's ROM version, ink counter code, and character table.
- 5. After it prints the page, turn off the printer. Remember to reconnect the interface cable, then turn on the printer and your computer.

## **Improving Print Quality**

You can often improve print quality by doing one of the following:

- Clean the print heads (see Chapter 5 for instructions).
- Use higher quality paper appropriate for your print job (see Chapter 3 for a list of EPSON papers).
- Match the Media Type setting in the Main printer settings dialog box to the type of media you loaded in the printer (see Chapter 3 for details).
- Make sure High Speed mode is off (see Chapter 2 for details).
- Make sure Economy mode is off (see Chapter 2 for details).
- Replace the ink cartridges. (Check the status of the black and to color ink out lights first. See Chapter 5 for instructions.)

Here are some detailed solutions to specific print quality problems.

#### The printed image has horizontal banding

	_
Possible cause	Solution
The Media Type setting doesn't match the loaded paper.	Make sure the <b>Media Type</b> setting matches the loaded paper or other media. Then the printer software can automatically select other settings for the best quality. See Chapters 1 and 3.
The printable side of the paper is face down.	Remove the paper and reload it with the printable side face up. See Chapter 3 for instructions.
The print head nozzles are clogged.	Clean the print heads. See Chapter 5 for instructions.
The ink cartridges are low on ink.	Check the ♦ black and ♠ color ink out lights to see which cartridge you may need to replace. See Chapter 5.
The MicroWeave (or Super MicroWeave) option is not set.	Turn on MicroWeave (or Super MicroWeave) in the advanced printer settings dialog box. See Chapter 2 for more information.

#### **Troubleshooting**

#### Vertical lines are misaligned or vertical banding appears

Possible cause	Solution
The print head nozzles are clogged.	Clean the print heads. See Chapter 5 for instructions.
High Speed mode is turned on.	Turn off <b>High Speed</b> mode if vertical lines are misaligned. See Chapter 2 for information.
The print heads are misaligned.	Run the Print Head Alignment utility. See Chapter 5 for instructions.

#### The printed image has incorrect or missing colors

Possible cause	Solution
The Ink option is set to Black.	Change the Ink setting to Color. See Chapter 1 for instructions.
The Media Type setting doesn't match the loaded paper.	Make sure the <b>Media Type</b> setting matches the paper or media you're using. Then the printer software can automatically select other settings for the best quality. See Chapters 1 and 3.
The printable side of the paper is face down.	Remove the paper and reload it with the printable side face up. See Chapter 3 for instructions.
The Halftoning and Color Adjustment Mode options are set incorrectly for your document type.	Use the correct settings for the project you're printing, following the instructions in Chapter 2.
The print head nozzles are clogged.	Clean the print heads. See Chapter 5 for instructions.
The ICM (Windows 95) or ColorSync (Macintosh) settings are incorrect for your document.	Use the <b>Automatic</b> mode setting or choose a different project type or <b>Rendering Intent</b> setting. See Chapter 2 for more information.
The ink cartridges are low on ink or one or more ink colors are empty.	Check the ♦ black and ♠ color ink out lights to see which cartridge you may need to replace. See Chapter 5 for instructions.
The colors displayed on your monitor don't match the printed colors.	Because your monitor and printer use different technologies to represent colors, your printed colors cannot exactly match the colors you see on your monitor screen. Use the ICM (Windows 95) or ColorSync (Macintosh) settings. See Chapter 2 for more information.
The color settings in your application software need adjustment.	You may be able to adjust various color settings in your application software. See your software documentation for more information.

#### The printed image is faint or has gaps

Possible cause	Solution
The print head nozzles are clogged.	Clean the print heads. See Chapter 5 for instructions.
The Media Type setting doesn't match the loaded paper.	Make sure the <b>Media Type</b> setting matches the loaded paper or other media. Then the printer software can automatically select other settings for the best quality. See Chapters 1 and 3.
The loaded paper is damaged, old, or dirty.	Remove the paper and reload a new stack with the printable side face up. See Chapter 3 for instructions.
The ink cartridges are low on ink.	Check the ♦ black and ♠ color ink out lights to see which cartridge you may need to replace. See Chapter 5 for instructions.

#### The printed image is blurry or smeared

Possible cause	Solution
The printer's thickness lever is in the 0 position.	Set the thickness lever to the + position and try printing again. See Chapter 3 for instructions.
The paper is damp or the printable side is face down.	Remove the paper and reload a new stack with the printable side face up. See Chapter 3 for instructions.
You loaded special media without a support sheet.	Follow the special media loading instructions in Chapter 3 and on the paper packaging for media that require support sheets. Also try loading your media one sheet at a time.
You tried to print on cardboard or other non-recommended media.	Make sure your paper or media meets the specifications listed in the Appendix. If your printouts are still blurry after you change paper, clean the print heads as described in Chapter 5.
The Media Type setting does not match the loaded paper.	Make sure the <b>Media Type</b> setting matches the media you loaded. Then the printer software can automatically select other settings for the best quality. See Chapter 3 for information.
The sheets entering the output tray are smearing the ink on ejected pages.	Remove each sheet from the output tray as soon as it is printed to prevent smearing, especially if you use transparencies.
Ink has leaked inside the printer.	Clean carefully inside the printer to remove spilled ink. See Chapter 5 for instructions.
The color ink cartridge is empty.	Replace the color ink cartridge following the instructions in Chapter 5 or choose <b>Black</b> ink in your printer software.
You're using the High Speed and MicroWeave settings with a misaligned print head.	Turn off <b>High Speed</b> following the instructions in Chapter 2. Run the Print head Alignment utility following the instructions in Chapter 5.

#### Photographic images look grainy or rough

Possible cause	Solution
The print heads are misaligned.	Run the Print Head Alignment utility. See Chapter 5 for instructions.
The resolution of your image may be too low.	Use the <b>PhotoEnhance</b> setting. You can also try to increase the image resolution using your image-editing software or decrease the size of the image.

#### Color documents print in black and white

Possible cause	Solution
Your printer is not selected in your application.	Select your printer and port in your software application.
Color printing is not selected.	Select color printing in your application and the printer software.

## **Solving Printing Problems**

If the printer won't print, first check that:

- **)** The printer is turned on and the  $\circlearrowleft$  power light is on.
- Paper is loaded in the printer.
- The printer is plugged into a working electrical outlet that's not controlled by a switch or timer.
- The interface cable is securely connected to the printer and computer and both are turned on.

If you still can't print, check the following solutions.

#### All lights are off

Possible cause	Solution
The printer is not receiving	Try these solutions:
power.	Make sure the printer is turned on.
	Turn off the power and plug in the power cord securely.
	Make sure the outlet is not controlled by a switch or timer and is operable.

#### Only the $\circlearrowleft$ power light is on, but nothing prints

Possible cause	Solution
The interface cable is not connected securely.	Turn off your printer and computer. Then make sure the cable is connected securely and meets the printer's specifications. (Use a fully shielded parallel cable on a PC or a Macintosh serial cable.)
The printer has an internal problem.	Turn off the printer and computer, disconnect the interface cable, and run a printer check as described on page 6-2.
Your printer software or application software is installed incorrectly.	If you ran a printer check successfully, make sure your printer and application software are installed correctly. If you're printing on a Windows 95 network, you may need to set up your printer for network printing, as described in Chapter 4.
Your computer doesn't have enough memory to handle the data in the file you are printing.	Try one of the following:  Reduce the resolution of your image.  Select fewer colors or a lower resolution for your monitor.  Add more memory to your computer.
Printing is stalled in Spool Manager (Windows).	Delete the stalled print jobs in Spool Manager and resume printing; see Chapter 4 for instructions.
Your printer can't use the modem port (Macintosh)	If your Macintosh has a built-in modem, connect the printer to the printer port.
Printing is stalled in Monitor2 (Macintosh).	Open the Extensions folder, EPSON folder, and Spool folder. Then delete any queued files.
The print heads are clogged or the ink cartridges are too old.	If the printer sounds like it's trying to print but doesn't feed paper, clean the print heads; see Chapter 5 for instructions. If cleaning doesn't help, replace the cartridges. For information on cartridge life and replacement instructions, see Chapter 5.

#### The paper out light is flashing or on

Possible cause	Solution
If flashing, paper is jammed.	Remove the paper and follow the guidelines for preventing jams on page 6-12.
If on, paper is used up or loaded incorrectly.	Load paper or remove the stack and reload it as described in the <i>Quick Setup</i> guide or Chapter 3. Then press the 🖰 load/eject button to turn off the light and resume printing.

#### A ♦ black or ♠ color ink out light is flashing or on

Possible cause	Solution
If flashing, the ink supply is getting low.	You need to replace the indicated ink cartridge soon. Make sure you have a new cartridge, then see Chapter 5 for instructions.
If on, the ink cartridge is empty.	You must replace the indicated ink cartridge; see Chapter 5 for instructions.

#### The 🗎 and 🖰 lights are flashing

Possible cause	Solution
A carriage error has occurred.	Remove any paper in the printer. Press the Doad/eject button for about 30 seconds. Then press it again. Turn the printer off, wait a few seconds, and then turn it on and try printing again. If the error is not cleared, contact EPSON as described in the Introduction.

#### All the lights are flashing

Possible cause	Solution
You haven't removed all the packing material from the printer.	Remove the packing material, following the instructions on the Notice Sheet in the box.
An internal error may have occurred.	Turn off your printer, wait a few seconds, and turn it on again. If the lights still flash or stay on, contact EPSON as described in the Introduction.

## The printer has finished charging the ink cartridge, but the $\circlearrowleft$ power light is still flashing

Possible cause	Solution
The ink cartridge clamp isn't locked down.	Press down on the clamp to lock it into place.
Packing material remains in the printer.	Remove the packing material, following the instructions on the Notice Sheet in the box.
The printer needs to initialize.	If the printer is not moving or making noise, but the light is still flashing for more than 5 minutes, turn the printer off. If the light is still flashing when you turn it back on, contact EPSON as described in the Introduction.

## The printer software installed with Windows 3.1 does not work correctly after you upgrade to Windows 95

Possible cause	Solution
Your printer software is not set up correctly for Windows 95.	Reinstall the printer software after installing Windows 95.

## After you install your printing software, you see the Windows 95 New Hardware found window

Possible cause	Solution
An operating system error has occurred.	Click <b>Do not install a driver</b> , and then click <b>OK</b> .

#### You see a spooling error message (Windows)

Possible cause	Solution
Spooling error messages or very slow printing may be caused by temporary files.	Change the Spool Manager default directory, following the instructions in Chapter 4.
Your hard drive is too full.	Delete unnecessary files to make room on the drive.
Your computer doesn't have enough memory for the file you're printing.	Try one of the following:  Reduce the resolution of your image.  Select fewer colors or a lower resolution for your monitor.  Add more memory to your computer.

#### In Windows 95, the Status Monitor box does not appear with the Despooler

Possible cause	Solution
The Windows Print Manager is interfering with the Status Monitor.	Make sure <b>Use Print Manager for this port</b> is not checked in the Spool Manager Queue setup. See Chapter 4 for more information.

#### You see a type 11 or memory error message (Macintosh)

Possible cause	Solution
You may need to increase the memory allocation for your application, EPSON Monitor2, or both.	Choose <b>Get Info</b> from the File menu when your application is active and increase the memory requirements. See Chapter 4 for more information. Or turn off background printing (you won't be able to use Monitor2).

#### A portion of your image doesn't print (Macintosh)

Possible cause	Solution
Your system doesn't have enough available memory.	Close any other applications you are running or turn off background printing.
You may need to increase the memory allocation for your application, EPSON Monitor2, or both.	Choose <b>Get Info</b> from the File menu and increase the memory requirements. See Chapter 4 for more information. Or turn off background printing (you won't be able to use Monitor2).

#### Printing is too slow

Possible cause	Solution
Your printer software options are set incorrectly.	For faster printing, try the following:  Set Print Quality to Economy.  Turn MicroWeave off.  Turn High Speed on.  Choose No Halftoning.  Choose Black ink.  See Chapters 1 and 2 for more information.
Your system doesn't have enough resources.	<ul> <li>Clear space on your hard disk drive or run a defragmentation utility.</li> <li>Don't run too many applications at the same time.</li> <li>Turn off virtual memory.</li> <li>Increase your system's memory (RAM)</li> </ul>
You're using background printing on a Macintosh.	Choose <b>Get Info</b> from the File menu and increase the memory requirements for EPSON Monitor2. See Chapter 4 for more information. Or turn off background printing (you won't be able to use Monitor2).
Your port settings are incorrect in Windows 95.	Change your default spool directory and disable port settings as described in Chapter 4.

## Your printer switches to the modem port or won't confirm on the printer port (Macintosh)

Possible cause	Solution
Your system has extension conflicts.	Make sure AppleTalk <sup>®</sup> is inactive. In the Extensions Manager, disable the AppleShare, FileShare, and PrinterShare extensions. Set your printer and any unused printers to the printer port. Then restart your system.
You're using an AppleTalk cable.	Make sure you're using a standard Apple System Peripheral-8 cable, and it's securely connected at both ends.

#### Your printer icon doesn't appear in the Chooser (Macintosh)

Possible cause	Solution
Your system has extension conflicts.	In the Extensions Manager, disable Quick Draw GX. Make sure EPSON Monitor2 and EPSON Stylus Color are enabled, then restart your Macintosh.

## When you select your printer in the Chooser, you see a message that it can't be used

Possible cause	Solution
A system crash may have corrupted your printer software.	In your Extensions folder, delete EPSON Stylus (EX), EPSON Monitor2, and the EPSON folder. Then reinstall the printer driver software.

#### You get a type 39 error on the Macintosh

Possible cause	Solution
You're using System 7.5.2	Run a printer check as described on page 6-2. If the printer works correctly, remove and reinstall your printer driver software. To remove it, delete EPSON Stylus (EX), EPSON Monitor2, and the EPSON folder from your Extensions folder. Then reinstall the driver. You may also need to upgrade your system software.

## **Fixing Paper Problems**

You can avoid most paper handling problems by doing the following:

- Use smooth, high-quality media designed for ink jet printers that meets the media specifications in the Appendix.
- Follow all loading and handling instructions included with the media.
- Load the media with the printable side face up, as described in the *Quick Setup* guide or Chapter 3.

If you have problems with paper feeding, paper jams, or ejected paper, check here for solutions.

#### **Troubleshooting**

#### Paper doesn't feed

Try this	Then do this
Remove the stack of paper from the sheet feeder	<ul> <li>Check that the paper:</li> <li>Isn't curled or creased.</li> <li>Isn't too old (see Chapter 3 or your paper packaging for more information).</li> <li>Isn't loaded above the arrow on the left edge guide.</li> <li>Isn't jammed inside the printer. (If the paper out light is flashing, paper is jammed.)</li> <li>Then reload the paper as described in Chapter 3, making sure the</li> </ul>
	left edge guide is adjusted to fit the paper's width.

#### Multiple pages feed at the same time

Try this	Then do this		
Remove the stack of paper.	■ Make sure the paper isn't too thin (see the paper specifications in the Appendix).		
	▶ Fan the edges of the stack of paper to separate the sheets.		
	Reload the paper as described in the <i>Quick Setup</i> guide and Chapter 3.		
	▶ If too many copies of a page or document are printing, check the Copies settings in both the printer settings dialog box and your application program. See Chapter 1 for more information.		

#### Paper jams inside the printer

Try this	Then do this	
Turn off your printer, open the cover, and remove all the paper that's inside, including any small pieces that may have torn off.	Reload the paper as described in the <i>Quick Setup</i> guide and Chapter 3. If your paper jams frequently, make sure you:  Use smooth, high-quality paper, loaded printable side up.  Fan the stack and then even the edges before loading it.  Don't load paper above the arrow mark on the left edge guide.  Adjust the left edge guide to fit the width of your paper.	

#### Paper doesn't eject fully or is wrinkled

Possible cause	Solution
If the paper doesn't eject fully, you may have set the wrong paper size.	Press the Doad/eject button to eject the paper. Then make sure you select the correct paper size in your application or printer software. (See the paper specifications in the Appendix for the paper sizes you can print with.)
If it's wrinkled when it comes out, the paper may be damp or too thin.	See the paper specifications in the Appendix for paper thicknesses you can print with, as well as environmental requirements for storage.

# **Solving Miscellaneous Printout Problems**

If your printout results are not what you expected, try these solutions.

#### Characters are incorrect or garbled

Possible cause	Solution
Your printer is not the Windows default printer.	Select your printer as the default Windows printer. See your Windows documentation or online help for instructions.
Your printer is not selected in the Macintosh Chooser.	Open the Chooser and select your printer. See the <i>Quick Setup</i> guide for instructions.
Printing is stalled in Spool Manager (Windows).	Delete the stalled print jobs in Spool Manager following the instructions in Chapter 4. Then try printing again.
If you're using background printing on a Macintosh, spooled data may be corrupted.	Open the Extensions folder, EPSON folder, and Spool folder. Then delete any queued files. Increase the memory requirements for EPSON Monitor2, following the instructions in Chapter 4.
AppleTalk is activated on a Macintosh.	If your printer is connected to the printer port, open the Chooser and make sure AppleTalk is inactive.
The interface cable is not securely connected.	Turn off your printer and computer. Then make sure the cable is connected securely and meets the printer's specifications.
You're using a switch box with your printer.	Connect the printer directly to your computer and try printing again.

#### **Troubleshooting**

#### The margins are incorrect

Possible cause	Solution
Margins are set incorrectly in your software application.	Check your software documentation for instructions on selecting the correct margins for your paper size. Make sure the margins are within the printable area of the page. See the Appendix for more information.
Paper settings in the printer software are incorrect for your paper size.	Select the correct paper settings for your paper size. Make sure the <b>Printable Area</b> setting is correct for your project. See Chapters 1 and 3 for more information.

#### The image is inverted as if viewed in a mirror

Possible cause	Solution
You used a Flip Horizontal option in your application software or the printer software.	Turn off the Flip Horizontal or mirror setting in your application software or the printer software. See Chapter 2 for information.

#### The printer prints blank pages

Possible cause	Solution
Your printer is not the Windows default printer.	Select your printer as the default Windows printer. See your Windows documentation or online help for instructions.
Your printer is not selected in the Macintosh Chooser.	Open the Chooser and select your printer. See the <i>Quick Setup</i> guide for instructions.
Paper settings in the printer software are incorrect for your paper size.	Select the correct paper settings for your paper size. See Chapter 1 for more information.
The print head nozzles are clogged.	Clean the print heads following the instructions in Chapter 5.

#### Something on the page is wrong or missing

Possible cause	Solution
Settings in your application software are incorrect.	Adjust the settings in your application
The interface cable in not connected properly.	Make sure the cable is securely connected to both the printer and computer.
You have the wrong port selected on your Macintosh.	If your Macintosh has only one serial port, open the Chooser, click the EPSON Stylus (EX) icon, and then select the modem port.
Your Macintosh has a built-in modem.	Connect the interface cable to the printer port. Then open the Chooser, click the EPSON Stylus (EX) icon, and then select the printer port.

# A

# **Specifications**

#### **Printing**

**Printing method** EPSON's exclusive drop-on-demand Micro Piezo ink jet technology

**Nozzle configuration** 32 nozzles × 6 (black, cyan, magenta, yellow, light cyan, light

magenta)

Printable columns and printing speeds

20 inches per second (printable area 8.26 inches)

Print quality	Available dots
180 dpi	1488
360 dpi	2976
720 dpi	5952

**Resolution** Maximum  $720 \text{ dpi} \times 720 \text{ dpi}$ **Print direction** Bidirectional with logic seeking

Control code ESC/P Raster<sup>™</sup>

**Line spacing** 1/6 inch, programmable in 1/360-inch increments

Paper feed speed 66.6 milliseconds per 1/6-inch line

Input buffer 64KB

Character tables The characters for PC437 (US, Standard Europe) and PC850

(Multilingual) can be selected using the following procedure:

When the printer is off, hold down the  $\stackrel{\longleftarrow}{\bullet}$  cleaning button and press the  $\stackrel{\longleftarrow}{\cup}$  power button. Then release both buttons. This changes the character table to PC850. Repeat the procedure to change it back to PC437. You can run a printer check as described on page 6-2 to verify

the current character table.

#### **Paper**

Paper type	Size	Paper types	Thickness	Weight
Single sheets	Letter ( $8.5 \times 11$ inches) Legal ( $8.5 \times 14$ inches) Statement ( $5.5 \times 8.5$ inches) Executive ( $7.5 \times 10$ inches) A4 ( $210 \times 297$ mm) A5 ( $148 \times 210$ mm) B5 ( $182 \times 257$ mm)	Plain bond paper and special ink jet papers distributed by EPSON		17 to 24 lb (64 to 90 g/m <sup>2</sup> )
Transparencies, Glossy film, Glossy paper	Letter (8.5 × 11 inches) A4 (210 × 297 mm) A6 (105 × 148 mm, glossy film only) Photo paper (4 × 6 inches)	Transparencies, glossy paper, and glossy film distributed by EPSON		
Adhesive sheets	A4 (210 × 297 mm)	Self adhesive sheets distributed by EPSON		
Envelopes	No. 10 9.5 × 4.1 inches (240 × 104 mm) DL 8.7 × 4.3 inches (220 × 110 mm) C6 4.4 × 6.4 inches (114 × 162 mm)	Plain bond paper or air mail paper	0.006 to 0.017 inch (0.16 to 0.43 mm)	12 to 20 lb (45 to 75 g/m <sup>2</sup> )
Index cards	A6 (105 × 148 mm) 5 × 8 inches (127 × 203 mm) 10 × 8 inches (254 × 203 mm)	Ink jet cards distributed by EPSON		



#### Note:

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

Poor quality paper may reduce print quality and cause paper jams and other problems. If you encounter problems, switch to a higher grade of paper.

Do not load curled or folded paper.

EPSON ink jet papers and other special media are only usable under normal conditions:

Temperature: 59 to 77°F (15 to 25°C)

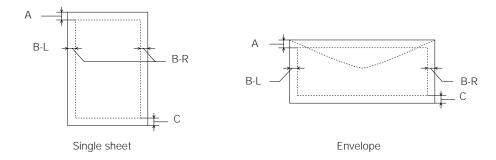
Humidity: 40 to 60% RH

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

Temperature: 59 to 86°F (15 to 30°C)

Humidity: 20 to 60% RH

#### Printable area



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

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

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

The minimum right margin for letter and legal size paper is 0.35 inch (9.0 mm). The minimum right margin for other sizes of paper is 0.12 inch (3.0 mm).

The minimum right margin for envelopes is as follows:

- 0.28 inch (7 mm) for DL envelopes.
- 1.10 inches (28 mm) for No. 10 envelopes.
- 0.12 inch (3 mm) for C6 envelopes.
- C: The minimum bottom margin is 0.54 inch (14.0 mm).



#### Note:

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

#### **Ink Cartridge**

Specification	Black ink cartridge (S020093)	Color ink cartridge (S020110)	
Color(s)	Black	Cyan, Magenta, Yellow, Light Magenta, Light Cyan	
Print capacity*	540 pages/A4 (ISO/IEC 10561 Letter Pattern at 360 dpi)	190 pages (A4, 360 dpi, 5% duty each color)	
Cartridge life	2 years from production date (if unopened) (within 6 months after opening package, at 77 °F (25 °C))		
Storage temperature	-4 to 104 °F (-20 to 40 °C) 1 month at 104 °F (40 °C)		
Transit temperature	-22 to 140 °F (-30 to 60 °C) 1 month at 104 °F (40 °C) 120 hours at 140 °F (60 °C)		
Freezing temperature**	3.2 °F (-16 °C)	-0.4 °F (-18 °C)	
Dimensions	0.7 (W) × 2.1(D) × 1.5 (H) inches 19.8 (W) × 52.7(D) × 38.5 (H) mm	2.0 (W) × 2.1(D) × 1.5 (H) inches 51.4 (W) × 52.7 (D) × 38.5 (H) mm	

<sup>\*</sup> The print capacity may vary, depending on how often you use the print head cleaning function.

<sup>\*\*</sup> It thaws and is usable after approximately 3 hours at 77 °F (25 °C).



#### Caution

To ensure good results, use genuine EPSON ink cartridges. Other products may cause damage to your printer not covered by EPSON's warranty.

Don't use an ink cartridge if the date on the package has expired.

#### Mechanical

Paper feed method Friction

**Paper path** Sheet feeder, rear entry

**Sheet feeder capacity** 100 sheets at 17 lb (64 g/m<sup>2</sup>) paper

**Dimensions** 

Storage Width: 16.9 inches (429 mm)

Depth: 10.8 inches (275 mm) Height: 6.6 inches (168 mm)

Printing Width: 16.9 inches (429 mm) Depth: 24.1 inches (613 mm)

27.4 inches (695 mm) when printing transparencies

Height: 12.2 inches (309 mm)

7.7 inches (196 mm) when printing transparencies

Weight 11.5 pounds (5.2 kg) without the ink cartridges

#### **Electrical**

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



#### Note:

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

#### **Environmental**

**Temperature** Operation: 50 to 95 °F (10 to 35 °C)

Storage: -4 to 140 °F (-20 to 60 °C), stored in shipping container

1 month at 104 °F (40 °C) 120 hours at 140 °F (60 °C)

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

Storage: 5 to 85% RH (stored in shipping container, without

condensation)

#### **Safety Approvals**

Safety standards UL 1950 with D3, CSA C22.2 No.950 with D3

EMC FCC part 15 subpart B class B, CSA C108.8 class B

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

interface.

Parallel interface The built-in parallel interface has the following characteristics:

Forward channel Data format: 8-bit parallel, IEEE-1284 compatibility mode

Synchronization: STROBE pulse

Handshake timing: BUSY and ACKNLG signals

Signal level: TTL compatible

Connector: 57-30360 Amphenol connector or equivalent

#### **Specifications**

Reverse channel Transmission mode: IEEE-1284 Nibble mode

Adaptable connector: 57-30360 Amphenol Connector or equivalent

Synchronization: Refer to the IEEE-1284 specification Handshaking: Refer to the IEEE-1284 specification

Signal level: IEEE-1284 Level 1 device

Data transmission timing: Refer to the IEEE-1284 specification

The printer's built-in serial interface is based on the RS-423 standard.

This interface has the following characteristics:

Standard: Based on RS-423 Synchronization: Synchronous Bit rate: Approx. 900 Kbps

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)

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

these ways:

Hardware \* The printer is turned on.

initialization \* The printer receives an INIT signal from the parallel

interface

Software \* Software sends the ESC @ (initialize the printer) command.

initialization

When the printer is turned on, the printer mechanism is initialized, the input and print buffers are cleared, and all settings return to their initialization

default values. However, the printer mechanism is not initialized if the printer is turned on within 10 seconds after being turned off. In this case, the printer caps the print head, and ejects any paper in the paper

path.

Software initialization clears the print buffer and returns all settings to initialization their default values. However, software initialization does not initialize

the printer mechanism or clear the data buffer.

A-6

Serial interface

Initialization

Hardware

Software

## Glossary

**banding** The horizontal lines that sometimes appear in a printed image.

See also MicroWeave.

**bidirectional** Moving the print head from left to right and right to left, for

faster output.

**buffer** The portion of the printer's memory used to store data before

printing it.

**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 printed colors. The addition of light magenta and light cyan increases the accuracy of photographic

images for virtual continuous-tone printing.

**ColorSync** Macintosh software that is designed to help you get WYSIWIG

(what you see is what you get) output. This software prints

colors as you see them on your screen.

**default** A value or setting that takes effect when the equipment is

turned on, reset, or initialized.

**dithering** A halftoning method in which dots are arranged in an orderly

pattern. Dithering works best for printing images with solid

colors, such as charts and graphs. See also halftoning.

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

resolution.

**driver** A software program that sends instructions to a computer

device to tell it what to do. For example, your printer driver accepts print data from your image processing application and

sends instructions to the printer on how to print this data.

#### **Glossary**

**Error Diffusion** This halftoning setting smooths out edges by randomly placing

dots of varying colors. This has the opposite effect of the Finest

Detail setting.

**ESC/P Raster** A version of the ESC/P (Epson Standard Code for Printers)

command language, which gives you control of your printer from your computer. Commands in this language produce

enhanced graphics printing.

**Finest Detail** This 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 name.

**gamut** The range of colors that a device (such as a printer or monitor)

can accurately reproduce.

**grayscale** A scale of shades of gray from black to white. Grayscale is used

to represent colors when printing with black ink only.

**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.

**host system** The computer connected directly to the printer in a network.

**initialization** Process that returns the printer to its defaults (fixed set of

conditions). This happens every time you turn on or reset the

printer.

**ink jet** A method of printing in which images, lines, letters, or symbols

are formed by precisely spraying ink onto paper.

**interface** The connection between the computer and a peripheral such as

a printer. Some 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.

media Materials upon which data is printed, such as envelopes, plain

paper, special paper, and transparencies.

**Micro Piezo** Ink jet technology that uses an electronic pulse to precisely force

the ink through the print head. This results in smaller, cleaner

dots, sharp lines, and crisp text.

**MicroWeave** Printing technology that produces images in fine increments to

reduce the possibility of banding. See also banding.

parallel interface See *interface*.

**print queue** 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.

**print server** The computer connected to the printer. 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*.

**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** See *driver*.

**RAM** Random Access Memory. The area of your computer's memory

that runs programs and stores data.

reset To return a printer to its defaults either by sending a command

or 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. Memory area in your printer or computer

that cannot be modified. ROM retains its contents when you

turn off the printer or computer.

**saturation** The depth or vibrancy of a color; the amount of gray.

**serial interface** See *interface*.

#### **Glossary**

**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** An EPSON software program that converts print data into codes

that your printer understands. See also *spool*.

**Status Monitor** An EPSON software program that displays the printer's status,

such as paper out or the amount of ink remaining before

printing.

## Index

A	Advanced mode, selecting, 2-1 to 2-3 Advanced settings custom, 2-4 to 2-6 predefined, 2-1 to 2-4 Aligning print heads, 5-8, 6-4 Automatic mode, 1-3, 1-7		Custom settings color, 2-7 to 2-9 print quality, 2-4 to 2-6 project types, 2-3 saving, 2-11 special effects, 2-4 to 2-6 Customer Care Centers, 4 Cyan setting, 2-8
B	Background printing, Macintosh, 4-6 Banding, 6-3 to 6-4 Blank pages, 6-14 Blurry printouts, 6-5 Brightness setting, 2-8	D	Default printer options, setting, 1-4 Deleting print job, 4-3 Despooler, 1-5, 4-5 Dithering, 2-5 Draft printing, 2-3
C	Cards, <i>see</i> Photo Quality Ink Jet media Characters, garbled, 6-13 Cleaning print heads, 5-1 to 5-3 printer, 5-9 Cleaning sheets, 3-3 Color Adjustment modes, 2-8 Color problems, 6-4 Colorimetric setting, 2-10 ColorSync, 2-3, 2-7 to 2-11 CompuServe, 6 Contrast setting, 2-8 Control code, A-1 Control panel lights, 1-9 using, 1-9, 6-6 to 6-8 Custom paper size, 3-9 to 3-13	E	Economy setting, 2-3 Electrical specifications, A-5 ENERGY STAR, 6 Energy-saving tips, 7 Envelopes printing, 3-7 specifications, A-2, A-3 Environmental specifications, A-5 EPSON Accessories, 5 Customer Care Centers, 4 Electronic Support Services, 5 to 6 help, 4 to 6 media, 1-8, 3-1 to 3-2 World Wide Web site, 5

F	Faint printouts, 6-5, 6-6 Fax-on-Demand, 6 Film, <i>see</i> Photo Quality Glossy	$oldsymbol{J}$	Jammed paper, 1-9, 6-12 Journal files, 4-2, 4-10
	media Flip Horizontal setting, 6-14 Forms, printing, 3-3	L	Legal-size paper, 3-3 Letterhead, 3-3 Lever, thickness, 3-7
G	Glossy media choosing, 1-8 printing, 3-5 to 3-6 specifications, A-2	M	Lights, using, 1-9, 6-1, 6-6 to 6-8  Macintosh interface specifications, A-6 managing print jobs from, 4-6 to 4-9
H	Halftoning setting, 2-5 Head Cleaning utility, 5-2 Help, 4 to 6 Horizontal banding, 6-3		Monitor2, 4-6 printing from, 1-6 to 1-7 system requirements, 2 Magenta setting, 2-8 Maintaining printer, 5-1 to 5-9 Managing print jobs
I	ICM (Image Color Matching), 2-3, 2-7 to 2-9 Index cards, <i>see</i> Photo Quality Ink Jet media Initialization, A-6 Ink cartridge replacing, 5-3 to 5-7 specifications, A-4 Ink jet cards choosing, 1-8 printing, 3-8 specifications, A-2 Ink jet paper choosing, 1-8 printing, 3-3, 3-4 specifications, A-2 Ink level, 1-5, 4-5, 4-8 Ink setting, 2-5 Interface specifications parallel, A-5 serial, A-6 Internet, 5 Iron-On Transfer Paper choosing, 1-8 printing, 2-6, 3-8	N	Macintosh, 4-6 to 4-9 Windows, 4-1 to 4-5 Margins problems, 6-14 specifications, A-3 with multiple sheets, 3-6 Mechanical specifications, A-4 Media Type setting, 1-3, 1-7, 3-1 to 3-2 MicroWeave setting, 2-6 Mirror images, 2-6 Monitor2, 4-6 Moving printer, 5-10  Network path, 4-11 printing, 4-9 to 4-12 Nozzle Check pattern, 5-3, 6-2 utility, 5-2 to 5-3

P	Panoramic images loading paper, 3-9 printing from Macintosh,		Printer driver, accessing Control Panel, 1-4
	3-11 to 3-13		Settings option, 1-4 Windows applications, 1-2
	printing from Windows,		Printer check, 6-2
	3-10 to 3-11		Printer status, Windows, 1-5
	Paper		Problems
	coated, 3-2		diagnosing, 6-1 to 6-2
	glossy, <i>see</i> Photo Quality Glossy		paper handling, 6-11 to 6-13
	media		print quality, 6-3 to 6-6
	handling problems,		printing, 6-6 to 6-11
	6-11 to 6-13		solving, 6-1 to 6-15
	legal, 3-3		unexpected printout results,
	letterhead, 3-3		6-13 to 6-15
	photo, <i>see</i> Photo paper $(4 \times 6)$		
	plain, 3-2		
	specifications, A-2 to A-3		O 19 /G 1 44 4 1 0
	support, 3-5	U	Quality/Speed setting, 1-3
	tab, 1-3	V	
	thickness lever, 3-7		
	types, 1-3, 1-7 to 1-8	$\boldsymbol{R}$	Rendering Intent setting, 2-10
	Paper jams, 1-9, 6-12	10	Replacing ink cartridges, 5-3 to 5-7
	Paper size, custom, 3-9 to 3-13		Resolution, 2-5, A-1
	Perceptual setting, 2-10		
	Photo paper $(4 \times 6)$ , 3-4 to 3-5		
	Photo Quality Glossy media	C	Safety
	choosing, 1-8	S	approvals, A-5
	printing, 3-5 to 3-6		instructions, 7 to 9
	specifications, A-2		Saturation setting, 2-8, 2-10
	Photo Quality Ink Jet media		Self adhesive sheets
	choosing, 1-8		choosing, 1-8
	printing, 3-3, 3-4, 3-8		printing, 3-8
	specifications, A-2		specifications, A-2
	Photo setting, 2-3 PhotoEnhance, 2-3, 2-8, 2-9, 6-6		Self test, 6-2
	Predefined advanced settings,		Service, 4 to 6
	2-1 to 2-4		Smears, 3-7, 6-5
	Print Head Alignment utility, 6-4		Specifications
	Print heads		electrical, A-5
	aligning, 5-8		environmental, A-5
	cleaning, 5-1 to 5-3		ink cartridge, A-4
	Print job, deleting, 4-3		interface, A-5 to A-6
	Print quality problems, 6-3 to 6-6		mechanical, A-4
	Print Quality setting, 2-5		paper, A-2 to A-3
	Print queue, 4-3		printing, A-1
	Printable area. A-3		Spool directory, 4-3

Spool Manager problems, 6-7, 6-9, 6-13 using, 4-2 to 4-4 Status Monitor Macintosh, 4-7 to 4-9 problems, 6-1, 6-9 Windows, 1-5, 4-4 to 4-5 Support, EPSON, 4 to 6 System requirements, 2

Technical specifications,
A-1 to A-6
Testing printer, 6-2
Text/Graph setting, 2-3
Thickness lever, 3-7
Transparencies
choosing, 1-8
printing, 3-5 to 3-6
specifications, A-2
Transporting printer, 5-10
Troubleshooting, 6-1 to 6-15
T-shirt transfer paper, 3-8

User Defined paper size, 3-11
Utilities
Head Cleaning, 5-2
Nozzle Check, 5-2 to 5-3
Print Head Alignment, 5-8

Windows
managing print jobs from,
4-1 to 4-5
printing from, 1-1 to 1-3
Spool Manager, 4-2 to 4-4
System requirements, 2
Windows 95, ICM, 2-7 to 2-9
World Wide Web, 5

Yellow setting, 2-8