EPSON[®]

Printer Guide

EPSON Stylus[®] Pro 9000



Printed on recycled paper with at least 10% post-consumer content.

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Part Number: CPD-8150

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.

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Introduction The EPSON Stylus[®] Pro 9000 is the ultimate wide-format color ink jet printer. With resolutions up to 1440 dpi, the printer gives you true photographic quality with no-compromise text and line art at some of the fastest production speeds in the industry. Support for two 44-inch media rolls and cut sheets up to 1.5 mm thick lets you print on a variety of media.

EPSON's Micro Piezo[™] dual density droplet (DX3[™]) print technology includes a precise and consistent dot size and an innovative six-color, high-capacity, quick-drying ink system. The EPSON Stylus Pro 9000 incorporates EPSON's new DC-based motor technology, which allows for superior print engine accuracy, even during bidirectional printing modes.

For network productivity, a high performance EFI® Fiery® X2 RIP server may be purchased. The EPSON RS-5100 server supports a variety of network configurations and protocols, with full compatibility for Macintosh,® Microsoft® Windows® 98, Windows 95, Windows NT,® and UNIX® computers. The Fiery X2 RIP provides full multitasking for simultaneous spooling, Adobe® PostScript® 3 processing, and printing.

The EPSON Stylus Pro 9000, with the RS-5100 and EFI's ColorWise[®] ProTools, provides professional color management—including fully adjustable CMYK color correction, ICC profile support, and high-quality press simulation color rendering dictionaries (CRD's).

The printer may also be equipped with an optional 44-inch auto take-up reel that is compatible with most lamination systems and lets you run long print jobs unattended. With two- and three-inch core media spindle compatibility, the EPSON Stylus Pro 9000 can accommodate even the most demanding media requirements.

For complete flexibility, the EPSON Stylus Pro 9000 also supports many third-party RIPs and comes with custom EPSON[®] drivers and utilities for photographs and other non-PostScript printing.

How To Use Your Manuals

This guide is part of a set, which also includes the documentation listed below.

- The EPSON Stylus Pro 9000 *Assembly and Setup Instructions* describe how to unpack and assemble the printer, install ink cartridges and paper, and prepare for printing.
- The EPSON Stylus Pro 9000 *Quick Reference Guide* provides a handy summary of the procedures for daily use and printer maintenance— loading paper, replacing ink cartridges, running cleaning cycles, and aligning the print head. Attach it to your printer for easy reference.

If you have the RIP Station 5100, your documentation set includes additional manuals for users and system administrators.

- The RIP Station 5100 *Getting Started* describes how to unpack the RIP, install user software and printer files from the User Software CD-ROM, and set up printing. It also describes how to install printer files via the Internet.
- The RIP Station 5100 *User Guide* describes how to set printing options and print to the RIP from Windows and Mac[®] OS computers.
- The RIP Station 5100 *Administrator Guide* explains basic configuration and administration of the RIP for the supported platforms and network environments. It also includes guidelines for setting up UNIX, Windows NT, and NetWare[®] servers to provide PostScript printing services to clients.
- The RIP Station 5100 *Color Printing Guide* provides an introduction to the basics of color theory. It includes practical color printing tips and application-specific instructions.
- Release Notes provide last-minute product information and workarounds for some of the problems you may encounter.

Using This Printer Guide

This guide contains the following information:

Chapter 1 gives instructions for loading roll paper and cut sheets, printing on both EPSON and non-EPSON media, and using the paper hammock.

Chapter 2 explains how to monitor the printer's status, respond to error messages on the control panel, and configure printer settings.

Chapter 3 gives instructions for cleaning and aligning the print head, replacing ink cartridges and the cutter blade, and cleaning and transporting the printer.

Chapter 4 provides troubleshooting tips and solutions for problems involving print quality, printer operation, and paper handling.

Chapter 5 provides the technical details on your printer, paper requirements, and ink cartridges.

Appendix A gives instructions for installing an optional Ethernet interface card.

Appendix B covers the installation and use of EPSON printer drivers and utilities for Macintosh computers.

Appendix C covers the installation and use of EPSON printer drivers and utilities for Windows computers.

An Index is included at the end of the book.

Warnings, Cautions, and Notes

You'll find this information throughout this guide:

Warnings must be followed carefully to avoid bodily injury.



Varning

Cautions must be observed to avoid damage to your equipment.



Notes contain important information about your printer.

Where To Get Help

EPSON provides technical support and information on the installation, configuration, and operation of professional graphics arts products through the EPSON Preferred Protection Plan. Dial **(888) 377-6611**, 6 A.M. to 8 P.M., Pacific Time, Monday through Friday, and 7 A.M. to 4 P.M., Pacific Time, Saturday and Sunday.

Before you call, make sure you have your Unit ID number, which is included with the EPSON Preferred Protection Plan information that came with your printer.

EPSON also provides customer support through the following services:

Electronic support services

Service	Access
World Wide Web	From the Internet, you can reach EPSON's Professional Graphics Home Page at http://prographics.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 Forum on CompuServe®	Members of CompuServe can type GO EPSON at the menu prompt to reach the Epson America Forum. For a free introductory CompuServe membership, call (800) 848-8199 and ask for representative #529.

Automated telephone services

Service	Access	
EPSON SoundAdvice sm	For pre-recorded answers to commonly asked questions about EPSON products 24 hours a day, seven days a week, call (800) 922-8911 .	
EPSON FaxAdvice™	Access EPSON's technical information library by calling (800) 922-8911 . You must provide a return fax number to use this service.	
EPSON Referral Service	For the location of your nearest Authorized EPSON Reseller, call (800) 922-8911 .	

You can purchase ink cartridges, paper, manuals, and accessories from EPSON Accessories at **(800) 873-7766.** Or visit our web site at: **www.epsonsupplies.com** (U.S. sales only). In Canada, please call **(800) 873-7766** for dealer referral.



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.

Year 2000 Ready

Your EPSON printer is *Year 2000 Ready*. However, be sure the other parts of your computer system are also ready for the year 2000.

Important Safety Instructions

Before using your printer and RIP Station 5100, read the following safety instructions to make sure you use the equipment safely and effectively.

- Turn off and unplug the printer (and RIP Station 5100) before cleaning. Clean with a damp cloth only. Do not spill liquid on the printer (or RIP Station 5100).
- Do not place the printer (or RIP Station 5100) on an unstable surface or near a radiator, heating vent, or in direct sunlight. Avoid areas subject to rapid changes in temperature and humidity or shock and vibrations.
- Place the printer (and RIP Station 5100) on a flat surface. They will not operate properly if they are tilted or at an angle.
- Do not block or cover the openings in the printer case (or RIP Station 5100 case) or insert objects through the slots.
- Use only the type of power source indicated on the 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 (and RIP Station 5100) near a wall outlet where the plugs 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 cords 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 ampere rating of all devices plugged into the wall outlet does not exceed the wall outlet's ampere rating.



Always turn the printer off using the **Power** button. When you press this button, the **Operate** light flashes briefly then goes out. Do not unplug the printer or turn off the power to the printer until the **Power** light is off. This ensures that the print head is safely capped.

- Except as specifically explained in the documentation, do not attempt to service the printer (or RIP Station 5100) yourself. Opening or removing those covers that are marked "Do Not Remove" may expose you to dangerous voltage points or other risks. Refer all servicing in those compartments to service personnel.
- Unplug the printer (or RIP Station 5100) 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 (or RIP Station 5100); if the equipment has been dropped or the case damaged; if the printer (or RIP Station 5100) does not operate normally or exhibits a distinct change in performance. Adjust only those controls that are covered by the operating instructions.

Ink Cartridge Safety Instructions

- Do not put your hand inside the printer or touch the cartridges during printing.
- To avoid damaging the printer, do not move the print head by hand.
- 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 foil 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 package. For best results, use cartridges within six months of installation.
- Do not shake an ink cartridge; this can cause leakage.
- Before transporting the printer, make sure the print head is capped in the far right position and the ink cartridges are in place.

8 | Introduction

Chapter 1: Handling Paper

Your EPSON Stylus Pro 9000 prints on a variety of media, including roll paper and cut sheets up to 44 inches wide. The straight-through paper path allows you to use heavy stock, including media up to 1.5 mm thick. This chapter includes instructions for the following:

- Selecting paper and other media
- Printing on EPSON paper and film
- Using roll paper
- Using cut sheet paper
- Using the paper hammock
- Setting paper configurations

Selecting Paper and Other Media

You can print on most types of coated, glossy, plain paper, and other media. The printer comes with two spindles, so you can have two types of roll paper available for printing at all times (with manual switching). You can also purchase an optional 3-inch spindle, which allows you to use roll paper with a 3-inch core.

The following table shows the requirements for paper you can use in your printer:

	Roll paper	Cut sheets
Size	13 to 44 in. wide (330 to 1118 mm)	11×17 in. to 44×62.2 in. (up to 1118 \times 1580 mm)
Maximum	4.05 in. (103 mm) when using 2 rolls	
roll diameter	5.90 in. (150 mm) when using 1 roll	
Thickness	up to 0.5 mm	up to 1.5 mm

Paper requirements

Always test samples of paper stock in the printer before purchasing large quantities or printing large jobs. When you use non-EPSON papers or other media, you may need to "profile" their thickness and ink drying time. See page 1-22 for instructions.

Printing on EPSON Paper and Film

EPSON papers, which are specially formulated for the inks used in the printer, ensure high-quality results. The following tables list the product codes for the EPSON paper and film available for your printer. The name on the package may be different from the name shown in this table; use the product code to identify the paper or film.

EPSON roll paper product codes

Paper type	44-inch roll	36-inch roll
Matte Paper—Doubleweight	SP91006	SP91005
Presentation Matte Paper	S041220	S041221
Semi-Gloss Paper—Heavyweight	S041228	S041229
Photo Glossy Paper	SP91002	SP91001
Backlight Film	SP91008	SP91007

EPSON cut-sheet product codes

Sizes	Photo Quality Ink Jet Paper	Photo Paper	Photo Quality Glossy Film	Poster Board — Semi-Gloss
B (11 × 17 in.)	S041070	S041156	S041075	—
A3 (11.7 × 16.5 in.)		S041142		
Super A3/B (13 × 19 in.)	S041069	S041143	S041074	
A2 (16.5 × 23.4 in.)	S041079	_		
B2 (20.25 × 28.7 in.)	_	—		S041237
B1 (28.7 × 40.5 in.)				S041236



Check with your EPSON authorized dealer for new papers and other media that may be available.

Printing Tips for EPSON Media

Follow these tips for using and storing printing materials:

- Don't touch the printable surface of the paper or other media with bare hands. Fingerprints may affect print quality.
- Always choose the correct print mode setting in your print options before you send your job.
- Keep unused media in its original packaging and store it in a cool, dry place to avoid a decline in quality. Avoid storing media or printouts where they will be exposed to high temperature, humidity, or direct sunlight.

Using Roll Paper

The printer comes with two spindles, so you can have two types or sizes of roll paper available for printing. You can use any roll paper with a 2-inch core, up to 44 inches wide. With the optional 3-inch spindle, you can also use roll paper that has a 3-inch core (one roll at a time). Manually switching from one paper roll to another is a simple process.

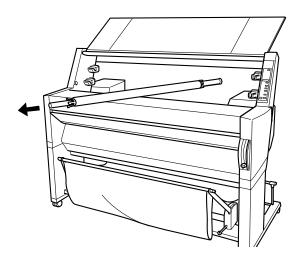
This section covers the following:

- Attaching and removing paper from the spindle
- Inserting the spindle in the printer
- Loading the paper for printing

Attaching Paper to the Spindle

Follow these steps:

1. Open the roll paper cover and lift out the spindle.



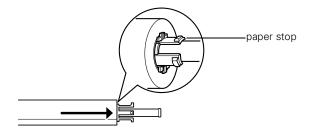
2. Slide the movable paper stop (flange) off the left end of the spindle.



3. Position the roll so the paper unwinds as shown:



4. Slide the roll onto the spindle so it fits securely over the paper stop.



5. Slide the movable paper stop back onto the spindle and insert it firmly into the end of the roll.



Removing Paper from the Spindle

If you need to remove the paper roll from the spindle, follow these steps:

1. Open the roll paper cover and lift out the roll and spindle.

If the paper is loaded for printing, first raise the paper set lever and roll up the paper before you remove the spindle.

- 2. Lay the roll down on a flat surface.
- 3. Loosen the movable paper stop by tapping it with your hand.
- 4. Slide the paper stop off the end of the spindle.
- 5. Remove the roll from the spindle.





To avoid damage, do not tap the end of the spindle on the floor.



Store unused roll paper in its original package including the bag, end caps, and box—to protect the paper.

Inserting the Spindle in the Printer

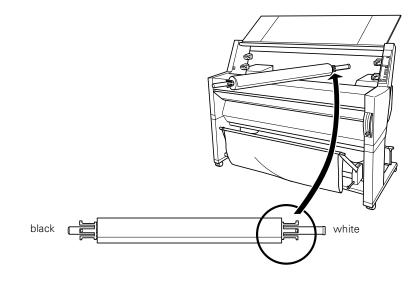
After you have loaded the paper roll onto the spindle, you need to insert it into the printer. You can have two rolls of paper in the printer at the same time, and print on either one. (If you're using the optional 3-inch spindle, you can only have one roll of paper in the printer.)

Follow these steps to place the spindle and paper into the printer:

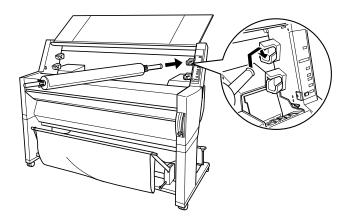
- 1. Open the roll paper cover.
- 2. Make sure the movable paper stop is firmly fixed into the left end of the paper roll.



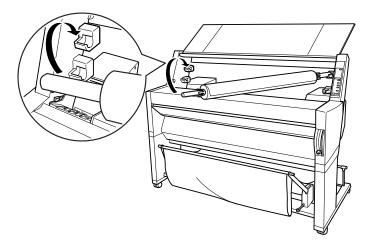
3. Position the spindle so that the white end (with the fixed paper stop) is on the right.



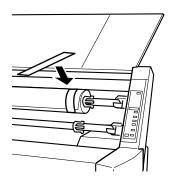
4. Insert the white end into the right mounting bracket inside the printer. You can use either the upper or lower bracket.



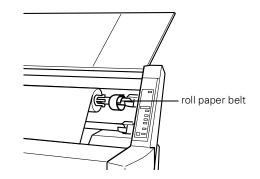
5. Place the black end of the spindle into the left mounting bracket inside the printer.

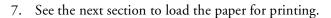


6. To keep the paper wound when you're not printing, use one of the roll paper belts included with your printer.



When you're not using the roll paper belt, keep it wound around the end of the spindle.





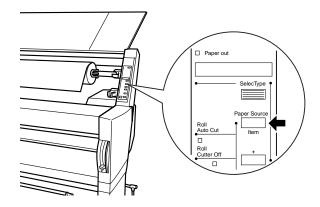


To remove the spindle (and paper roll) from the printer, first lift out the left end and then the right end.

Loading Roll Paper for Printing

Once the roll paper is attached to the spindle and inserted in the printer, you're ready to load it for printing. First, open the roll paper cover and make sure the spindle is inserted correctly. Then follow these steps:

1. Make sure the printer is turned on. Then press the Paper Source button until one of the Roll lights comes on.



- Choose **Roll Auto Cut** if you want the paper to be cut automatically after each page is printed.
- Choose Roll Cutter Off if you don't want the paper cut automatically.

Choose **Roll Cutter Off** if you're using the optional auto take-up reel, or if you want to print a series of pages and keep them together for later cutting.

If you're using the auto cut setting, you can have a trim line printed on the right edge of your images or pages. If you're not using auto cut, you can have the line printed on the right and bottom edges of your pages. See page 1-13 for instructions.

You can also select roll paper settings through your print options, which will override the control panel settings. See the RIP Station 5100 *User Guide* or Appendix B or C in this manual for more information.



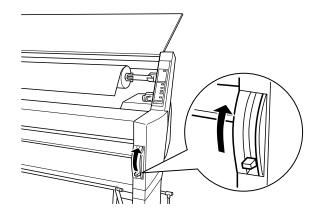
To avoid feeding excess paper through the printer, make sure you don't select **Sheet** when you're using roll paper.



If you're using thick roll paper, choose **Roll Cutter Off**. Paper that is too thick may damage the cutter.



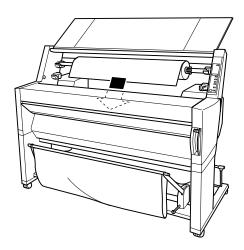
To avoid damaging the printer, never move the paper set lever while the **Operate** or **Pause** light is flashing. 2. Make sure the **Operate** light and **Pause** light are not flashing. Then pull the paper set lever all the way up.





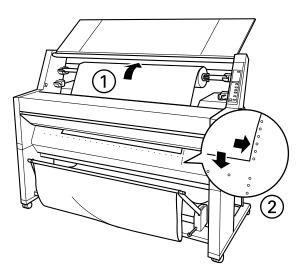
Don't touch the printable surface of the paper with bare hands. Fingerprints may affect print quality.

3. Feed the paper into the paper slot.



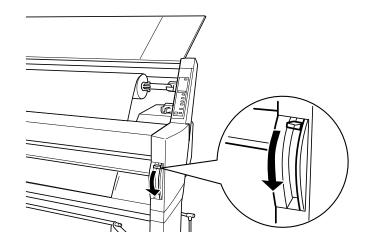
- 4. Pull the paper down so it extends all the way through the slot.

5. Turn the roll back to remove the slack. Then align the paper with the two rows of holes.





To avoid damaging the printer, never move the paper set lever while the **Operate** or **Pause** light is flashing. 6. Push the paper set lever all the way down, then close the roll paper cover. PRESS PAUSE BUTTON appears on the control panel display.



If you're using Auto Cut and the edge of the paper is uneven, press Cut/Eject to recut the edge.

7. Press the **Pause** button. The print head moves and the paper feeds into printing position automatically. **READY** appears on the control panel display. (Even if you don't press **Pause**, the paper and printer will move into printing position automatically after 10 seconds.)

You can now send your print job.

Cutting Roll Paper Manually

When you're not using the Auto Cut setting, you need to cut the paper manually after your print job is finished. Follow these steps:

- 1. If the paper is not positioned correctly, press one of the Paper Feed buttons to adjust the paper position. Normally, you don't need to do this after a print job is finished.
- 2. Press the Paper Source button until the Roll Auto Cut light comes on.
- 3. Press the Cut/Eject button. The paper is cut.

Printing Trim Lines

You can have trim lines printed on the right edge of your images or pages (if you're using auto cut) or on the right and bottom edge (if you're not using auto cut). Follow these steps:

- 1. Press the SelecType button. PRINTER SETTING MENU appears on the display.
- 2. Press the Item button until PAGE LINE=OFF appears on the display.
- 3. Press the + button. PAGE LINE=ON appears on the display.
- 4. Press the Enter button to save the new setting.
- 5. Press the SelecType button to exit the Printer Setting menu.

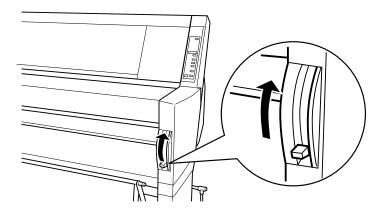
If you're using the RIP Station 5100 or the EPSON printer driver, you can also specify trim lines through your print options. See the RIP Station 5100 *User Guide* or Appendix B or C in this manual for more information.

Using Cut Sheet Paper

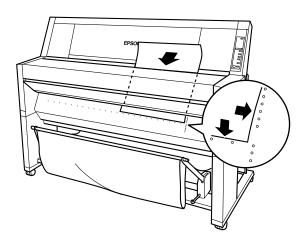
You can print on many types of cut sheet paper and other media. If you're using stock more than 0.5 mm thick, see page 1-15 for additional instructions.

The printer accepts sheets ranging from 11×17 inches to 44×62.2 inches. You can leave your roll paper in the printer when you print on cut sheets; make sure it is rolled up and fastened with the roll paper belt(s), as described on page 1-8. Before you start, make sure the printer is on and roll paper is not loaded for printing. Then follow these steps:

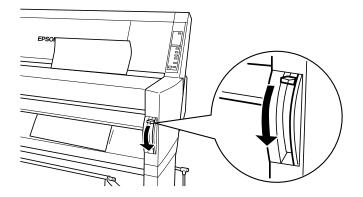
- 1. Make sure the roll paper cover is closed.
- 2. Press the Paper Source button repeatedly until the Sheet light comes on.
- 3. Make sure the **Operate** light and **Pause** light are not flashing. Then pull the paper set lever all the way up.



4. Feed the sheet into the paper slot until it extends through the slot. Align the paper with the two rows of holes.



5. Push the paper set lever all the way down. **PRESS PAUSE BUTTON** appears on the control panel display.



- Press the Pause button. The print head moves and the paper feeds into printing position automatically. READY appears on the control panel. (Even if you don't press Pause, the paper and printer will move into printing position automatically after 10 seconds.)
- 7. Print your page. After it is finished, the printed sheet stays in the printer.
- 8. To remove the printout, pull the paper set lever all the way up while holding the sheet.

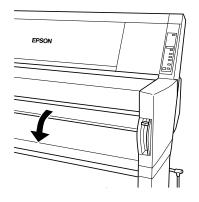
Printing on Thick Sheets

You can print on heavy stock up to B1 size (approximately 28.7×40.5 inches). Follow these instructions when you print on card stock or other media more than 0.5 mm thick.

- 1. Set the paper hammock to catch your printouts in front of the printer. See page 1-18 for instructions.
- 2. Press the Paper Source button repeatedly until the Sheet light comes on.
- 3. Make sure the **Operate** light and **Pause** light are not flashing. Then pull the paper set lever all the way up.

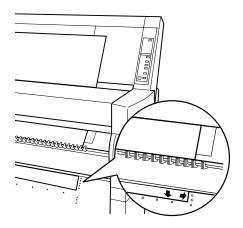


To avoid damaging the printer, never move the paper set lever while the **Operate** or **Pause** light is flashing. 4. Open the lower cover.

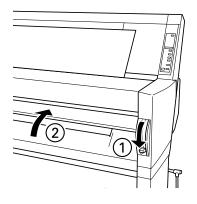


5. Feed the sheet into the paper slot until the bottom edge of the paper rests behind the open lower cover. If you're using thick media more than 39 inches long, load it long edge first.

Make sure the right edge is straight and aligned with the two rows of holes.



6. Push the paper set lever all the way down, then close the lower cover. PRESS PAUSE BUTTON appears on the control panel display.



- Press the Pause button. The print head moves and the paper feeds into printing position automatically. READY appears on the control panel. (Even if you don't press Pause, the paper and printer will move into printing position automatically after 10 seconds.)
- 8. Print your page. After it is finished, the printed sheet stays in the printer.
- 9. To remove the printout, pull the paper set lever all the way up while holding the sheet.

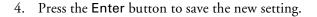
Adjusting the Platen Gap for Thick Sheets

When you print on thick media, you may need to adjust the platen gap setting. Normally, the AUTO setting allows the printer to adjust automatically. However, if print quality is not satisfactory when you use heavy media, change this setting to WIDE. Follow these steps:

- 1. Press the SelecType button. PRINTER SETTING MENU appears on the display.
- 2. Press the Item button. PLATEN GAP=AUTO appears on the display.
- 3. Press the + button. PLATEN GAP=WIDE appears on the display.



To avoid damaging the printer, never move the paper set lever while the **Operate** or **Pause** light is flashing.



5. Press the SelecType button to exit the Printer Setting menu.

When you switch paper, don't forget to change this setting back to AUTO.

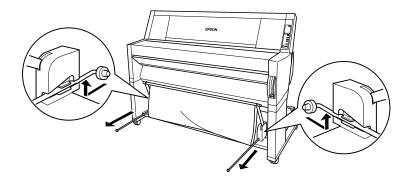
Using the Paper Hammock

The paper hammock (also called the paper basket) is a cloth sheet that attaches to your printer and catches your printouts as they come out. This keeps the printouts from getting dirty or wrinkled. You can set up the hammock either to catch the paper roll under the printer or let it feed straight out in front of the printer.

Catching Printouts in Front of the Printer

Follow these steps to set up the hammock in front of the printer:

1. Pull out the paper hammock hooks all the way, so they rest on the floor.

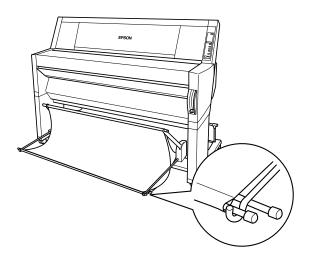




When you print on thick paper, set the hammock to catch printouts in front of the printer.

- ESON
- 2. Place the two rods in front of the hammock hooks.

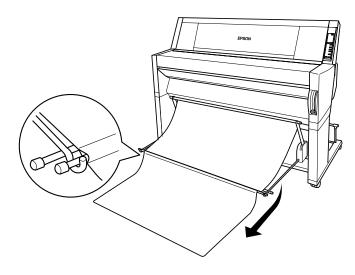
3. Place the shorter rod on the ends of the hooks. The longer rod should rest on the floor under the hooks.



4. Push in the top of the paper hammock so that the paper will feed forward.



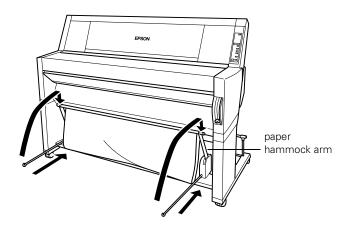
5. If necessary, extend the hammock fabric out on the floor in front of the printer (for large print jobs).



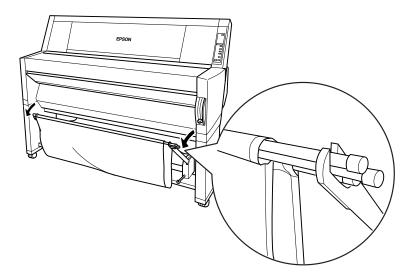
Catching Printouts Under the Printer

Follow these steps to set up the hammock under the printer:

1. Fit the ends of the three rods into the slots at the end of the paper hammock arms and push the hammock hooks in.



2. Pull out the top of the hammock so that printouts will feed backward.





It's a good idea to keep a list of your registered paper types and numbers.

Setting Paper Configurations

When you use non-EPSON paper or other media, you may need to register the paper's thickness and drying time. The only way to tell if you need to do this is by experimentation. When you're using a paper stock or other printing material for the first time, always test it on a small print job. If the ink smears or printing is blurred, you need to register the paper's drying time and thickness. On EPSON media, ink dries immediately.

You can register the thickness and drying time for up to four types of paper or other media. Then you can select the registered values whenever you print on that particular stock. Drying time determines how long the print head will pause between passes.

Registering Paper Thickness and Drying Time

Follow these steps to register a new paper stock:

- 1. Press the SelecType button until PAPER CONFIG. MENU appears on the display.
- 2. Press the Item button. PAPER NUMBER=STD* appears on the display.
- 3. If you're registering your first roll or batch of paper, press the + button to select PAPER NUMBER=1.

For subsequent rolls, continue pressing the + button to select the number you want to register. Then press Enter.

4. Press the Item button. THICK. PAT=PRINT appears on the display. Press Enter to print the paper thickness test pattern. You may see PAPER THICK. NO.=1 on the display.

Following is a sample pattern:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

5. Examine the printed pattern to determine which set of lines is the straightest (shows the smallest gap), and note the corresponding number.

In the sample pattern, the lines under number 4 are the straightest.

- 6. Press the + or button to select the number noted in step 5. Then press the Enter button.
- Press the Item button. DRYING TIME=0 MIN appears on the display. Press the + or - button to select the time in minutes. Start with one minute. If ink still smears, increase the drying time.

This is how long the print head will pause between passes to allow for ink drying.

8. Press the Pause or SelecType button to exit the Paper Configuration menu.

Selecting Registered Paper Settings

Once you have registered the drying time (and thickness) for a type of paper or other media, you can select it whenever you print on that paper.

- 1. Press the SelecType button until PAPER CONFIG. MENU appears on the display.
- 2. Press the Item button. You see PAPER NUMBER=1.
- 3. Press the + or button to select the registered number you want to use. Then press the Enter button.
- 4. Press the Pause or SelecType button to exit the Paper Configuration menu.

When you change media, make sure you select the correct setting.

If you are not sure what media setting is in effect, you can print a status sheet, which shows the current settings. See page 2-3 for instructions.

1-24 | Handling Paper

Chapter 2: Monitoring and Configuring the Printer

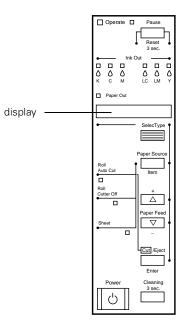
The EPSON Stylus Pro 9000 includes a number of utilities for monitoring the printer. The control panel displays status messages and error messages, and the lights alert you when a problem occurs or your ink runs out. If you have the RIP Station 5100, you can also use software utilities to monitor the printer. See the RIP Station 5100 *User Guide* for more information.

In addition, the control panel includes a series of SelecType[™] menus that you can use to configure the printer's default settings and perform maintenance operations. This chapter tells you how to respond to the lights and messages and how to configure the printer using the control panel. The following information is included:

- Using the control panel to monitor the printer
- Checking printer status
- Responding to control panel lights and messages
- Using the control panel to configure the printer

Using the Control Panel to Monitor the Printer

The printer's control panel includes buttons, lights, and a liquid crystal display (LCD):



Monitoring Normal Printer Operation

Messages appear on the control panel display and lights come on or flash to indicate various phases of printer operation. The following table explains the status messages and lights:

Message	Light	Explanation or response				
READY	Operate light on	Printer is ready to print.				
PRINTING	Operate light flashing	Printer is receiving data.				
INK DRY FOR <number> MIN</number>	Pause light flashing	Printer is paused between passes to let ink dry. Wait for the number of minutes shown.				
RESET	All lights flash briefly	Printer is resetting.				
PRESS PAUSE BUTTON	Pause light on	Press the Pause button to continue.				
WAIT	Pause light on or flashing	Printer is warming up, performing maintenance, or charging ink.				
PAUSE	Pause light on	Printer is paused. To resume printing, press the Pause button.				

Status messages

Pausing and Resetting the Printer

If you need to stop the printer during a print job, press the **Pause** button. Press the **Pause** button again to resume printing.

If you decide to cancel a job after the printer has started processing it, you can reset the printer. Press the **Pause** button and hold it down for 3 seconds. This clears all data in the printer's memory.

Checking Printer Status

You can use the control panel to print a status check or nozzle check. These prints allow you to test the printer without sending a print job (and without connecting the printer to the RIP). You can also check the amount of ink remaining, total number of prints, and the status of your cutter blade and other printer parts.

Printing a Status Check

The status check shows the current default settings, amount of ink remaining in each cartridge, page count, and the status of various printer parts. To display this information on the control panel instead of printing it out, see 2-4.

Follow these steps to print the status check:

- Load a sheet of paper in the printer, following the instructions on 1-13. (You can print test pages on roll paper, but you will use more paper.)
- 2. Press the SelecType button on the control panel. Press it repeatedly until you see TEST PRINT MENU on the display.
- 3. Press the Item button until you see STATUS CHECK=PRINT on the display.
- 4. Press the Enter button. The status check prints. The amount of ink left or component life is indicated as follows:

E****F = full (or full life remaining)

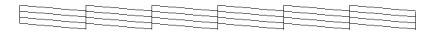
- E ****F = 3/4 full (or 3/4 life remaining)
- E ***F = 1/2 full (or 1/2 life remaining)
- E **F = 1/4 full (or 1/4 life remaining)
- **E** ***F** = nearly empty (or service life near end)
- **E F** = empty (or service life ended)
- 5. Press the SelecType button to exit the Test Print menu.

Printing a Nozzle Check

The nozzle check prints a pattern of dots that lets you see if any print head nozzles are clogged. If any dots are missing, you can run a cleaning cycle to clear the nozzles. Follow these steps to print the nozzle check:

- Load a sheet of paper in the printer, following the instructions on 1-13. (You can print test pages on roll paper, but you will use more paper.)
- 2. Press the SelecType button on the control panel. Press it repeatedly until you see TEST PRINT MENU on the display.

- 3. Press the Item button. You see NOZZLE CHECK=PRINT on the display.
- 4. Press the Enter button. The nozzle check prints as shown below:



Each line should be complete, with no gaps in the dot pattern. If any dots are missing, as shown below, you need to run a cleaning cycle. Press the **Cleaning** button on the control panel and hold it for at least 3 seconds.



For more information, see 3-2. If you're using the EPSON printer driver, you can run the Head Cleaning utility. See page B-18 (Macintosh) or C-18 (Windows) for instructions.

Checking Ink Levels and Component Life

You can view printer status information on the control panel display without printing a status check. Follow these steps:

- 1. Press the SelecType button on the control panel. Press it several times until you see PRINTER STATUS MENU on the display.
- 2. Press the Item button. You see VERSION <number> on the display. This indicates the firmware version installed in your printer.
- 3. Continue pressing the **Item** button to display the amount remaining for each of the 6 inks or service life remaining for a number of printer parts. The indicators read as follows:

E****F = full (or full life remaining)

E ****F = 3/4 full (or 3/4 life remaining)

- E ***F = 1/2 full (or 1/2 life remaining)
- E **F = 1/4 full (or 1/4 life remaining)
- **E** ***F** = nearly empty (or service life near end)
- **E F** = empty (or service life ended)

Following is a list of the items displayed. Note that all parts on the list (except the ink cartridges and paper cutter) need to be replaced by authorized EPSON service centers.

INK LEFT-K (black)	TOTAL PRINTS
INK LEFT-C (cyan)	WASTE INK (ink absorbing pad)
INK LEFT-M (magenta)	CR MOTOR (carriage motor)
INK LEFT-LC (light cyan)	PF MOTOR (paper feed motor)
INK LEFT-LM (light magenta)	HEAD UNIT (print head)
INK LEFT-Y (yellow)	CLEANER (cleaning unit)
CUTTER LIFE (paper cutter)	

4. Press the SelecType button to exit the Printer Status menu.

Responding to Messages and Light Indicators

When your ink or paper runs out or a problem occurs, a message appears on the display. The lights on the control panel come on or flash. The following table lists the messages alphabetically and includes an explanation and instructions for correcting the problem.

Message	Light	Explanation	Response
COVER OPEN	Pause light on	Lower cover is open.	Close the lower cover. Make sure all three magnetic tabs are fastened.
INK COMPART. OPEN	Pause light on	You are replacing the ink cartridge(s) and the ink compartment cover is open.	Close the ink compartment cover when you are finished replacing the ink cartridge(s).
INK LOW	Ink Out light(s) flashing	Ink cartridge(s) are nearly empty (printing continues).	Replace ink cartridge(s) indicated by Ink Out light(s). See 3-6 for instructions.
INK OUT	Ink Out light(s) on	Ink cartridge(s) are empty (printing stops).	Replace the ink cartridge(s) indicated by Ink Out light(s). See 3-6 for instructions.
LOAD PAPER	Paper Out light on	Paper set lever is up while loading paper.	Pull the paper set lever down after you load paper.

Error messages

Error messages (continued)

Message	Light	Explanation	Response
LOAD ROLL PAPER LOAD SHEET PAPER	Paper Out light on	Paper source setting in print options is different from control panel.	Make sure the right paper is loaded and the paper source setting is the same on the control panel and print options.
MAINTENANCE REQ. <error number></error 		A printer part will need to be replaced soon.	Note the error number and contact EPSON as described in the Introduction.
NO INK CARTRIDGE	Ink Out light(s) on	Ink cartridge(s) not installed.	Install ink cartridges as indicated by the lights. See 3-6 for instructions.
OPTION I/F ERROR		Wrong interface card installed.	Turn off the printer and remove the card. See A-2 for instructions.
PAPER JAM	Paper Out light flashing	Paper has jammed in the printer.	Remove the jammed paper. See 4-11 for more information.
PAPER NOT CUT	Paper Out light flashing	Roll paper was not cut completely.	Cut the paper manually, then remove the cut paper from the printer. Reload paper, as described on 1-9.
		Cut paper did not fall off.	Remove the cut paper from the printer. Reload paper.
PAPER NOT STRAIGHT	Paper Out light flashing	Paper slipped and fed into the printer at an angle.	Reload paper, making sure the edges are straight and aligned with both rows of holes.
PAPER OUT	Paper Out	No paper is loaded.	Load paper.
	light on	Paper ran out.	Remove any printouts or paper remaining in the printer and load more paper.
			If the message appears during a print job, reset the printer by pressing the Pause button for 3 seconds. Then load paper and resend the job.
PUSH LEVER DOWN	Paper Out light on	Paper set lever was released during the printing process or another operation.	Push the paper set lever down. Start printing again from the beginning for best results.

Message	Light	Explanation	Response
RELOAD PAPER	Paper Out light on	Paper could not be reversed into the printing position.	Remove the paper. Reload it so that the right and bottom edges are
		Paper is set out of the printable area or out of the horizontal cutting area.	 straight and aligned with both rows of holes.
		Paper is not fully ejected.	Cut the paper at the paper insertion slot, then reload paper.
		PAPER NOT CUT error was cleared.	Reload paper.
REMOVE PAPER	Paper Out light on	Paper is too thick for head cleaning.	Push the paper set lever down to remove the paper. Head cleaning automatically starts. After cleaning, reload paper.
SERVICE REQ. <error number=""></error>	All lights flashing	An error has occurred.	Note the error number, and turn the printer off and then on. If the message remains, contact EPSON as described in the Introduction.
TURN PWR OFF AND ON		This message appears after you clear a paper jam.	Turn the printer off and then on again.
UNABLE TO PRINT		You tried to print a test pattern while an error condition was present or the ink compartment cover was open.	After 3 seconds the message disappears. Press the Pause button to exit SelecType mode. If the message appears again, clear the error before you print.
WRONG CARTRIDGE	Ink Out light(s) on	Wrong ink cartridge(s) installed.	Install the correct ink cartridge(s).

Error messages (continued)

Using the Control Panel to Configure the Printer

In addition to testing the printer and checking the status of various components, you can use the SelecType menus to configure printer settings and perform maintenance operations. The following table lists the menus, their functions, and where to find additional information:

Menu	Description	For more information
Printer Setting	Configure the printer	1-13, 1-17, 2-8
Test Print	Print a nozzle check or status check	2-3
Printer Status	Check ink levels and component life	2-4
Paper Configuration	Register paper thickness and drying time, and select registered configurations	1-22
Cutter Replacement	Replace the paper cutter blade	3-10
Head Alignment	Align the print head	3-3

SelecType menus

Setting Default Roll Paper Margins

The default margins for roll paper are .12 inches or 3 mm (left and right) and .59 inches or 15 mm (top and bottom). You can use the Printer Settings menu on the control panel to set the top and bottom margins to 3 mm or set all margins to 15 mm. Follow these steps:

- 1. Press the SelecType button. PRINTER SETTING MENU appears on the display.
- 2. Press the Item button repeatedly until ROLL MARG=T/B15MM* appears on the display. This is the default setting.
 - Press the + button once to set all margins to 3 mm. ROLL MARG=3MM appears on the display.
 - Press the + button again to set all margins to 15 mm. ROLL MARG=15MM appears on the display.

You can use the + or - button to cycle through all three settings.

- 3. When you have selected the setting you want, press the Enter button to save it.
- 4. Press the SelecType button to exit the Printer Setting menu.

Selecting the Printer's Interface

The printer includes both a parallel and serial interface. You can also install an optional interface board for networking or additional connectivity. By default, the printer automatically switches to whichever interface is receiving data.

You can use the control panel to select an individual interface for sending data to the printer. Follow these steps:

- 1. Press the SelecType button. PRINTER SETTING MENU appears on the display.
- 2. Press the Item button repeatedly until INTERFACE=AUTO* appears on the display. This is the default setting.
 - Press the + button once to select the parallel interface. INTERFACE=PARALLEL appears on the display.
 - Continue pressing the + button to select the MAC (serial) or OPTION (optional) interface.

You can use the + or – button to cycle through all four settings.

- 3. When you have selected the setting you want, press the Enter button to save it.
- 4. Press the SelecType button to exit the Printer Setting menu.

Configuring the Parallel Interface

You can use the control panel to change the parallel interface to ECP mode for faster printing. To use this mode, you must connect a computer directly to the printer's parallel interface (without a RIP), and the computer must support ECP mode. See your computer's documentation for more information.

Follow these steps to configure the parallel interface:

- 1. Press the SelecType button. PRINTER SETTING MENU appears on the display.
- 2. Press the Item button repeatedly until PARA. I/F=COMPAT* appears on the display. This indicates that compatible mode (the default) is selected.
- 3. Press the + button. PARA. I/F=ECP appears on the display. This sets the parallel interface to ECP mode.
- 4. Press the Enter button to save your setting.
- 5. Press the SelecType button to exit the Printer Setting menu.

Changing the Printer's Code Page Setting

The printer uses the PC437 code page (U.S. and standard European character sets) by default. You can use the control panel to change it to the PC850 code page (multilingual character sets) if necessary. Follow these steps:

- 1. Press the SelecType button. PRINTER SETTING MENU appears on the display.
- 2. Press the Item button repeatedly until CODE PAGE=PC437* appears on the display.
- 3. Press the + button. CODE PAGE=PC850 appears on the display.
- 4. Press the Enter button to save your setting.
- 5. Press the SelecType button to exit the Printer Setting menu.



If you experience any problems using ECP mode, switch back to compatible mode.

Restoring Default Settings

You can erase all SelecType settings you have made and restore them to their default values. Follow these steps:

- 1. Press the SelecType button. PRINTER SETTING MENU appears on the display.
- 2. Press the Item button repeatedly until INIT. PANEL=EXEC. appears on the display.
- 3. Press the Enter button to erase all settings and restore the defaults.
- 4. Press the SelecType button to exit the Printer Setting menu.

Setting the Control Panel Language

All control panel messages are displayed in English. However, you can use a special printer maintenance mode to change to any of the following languages:

- French
- Italian
- German
- Spanish
- Portuguese

Make sure the printer is turned off, then follow these steps to change the language for control panel messages:

- 1. Press and hold the **Pause** button while you press the **Power** button to turn on the printer. **HEX DUMP=PRINT** appears on the display.
- 2. Press the Item button until LANGUAGE=ENGLISH* is displayed.
- 3. Press the + or button until the language you want is displayed.
- 4. Press the Enter button to select the language.
- 5. Press the **Power** button to turn the printer off and exit maintenance mode.

2-12 | Monitoring and Configuring the Printer

Chapter 3: Maintaining and Transporting the Printer

Your EPSON Stylus Pro 9000 requires very little maintenance to keep working at its best. This chapter describes the following routine procedures:

- Running a nozzle check
- Running a cleaning cycle
- Aligning the print head
- Replacing ink cartridges
- Replacing the paper cutter blade
- Cleaning the printer
- Transporting the printer

Running a Nozzle Check

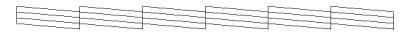
The nozzle check prints a pattern of dots that lets you see if any print head nozzles are clogged. If any dots are missing, you can run a cleaning cycle to clear the nozzles.

Follow these steps to print the nozzle check:

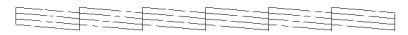
- 1. Load a sheet of paper in the printer, following the instructions on page 1-13. (You can print the nozzle check on roll paper, but you will use more paper.)
- 2. Press the SelecType button on the control panel until you see TEST PRINT MENU on the display.
- 3. Press the Item button. You see NOZZLE CHECK=PRINT on the display.

4. Press the Enter button. The nozzle check prints as shown below.

If all the lines on the check pattern are complete, with no gaps in the dot pattern, the print head doesn't need cleaning:



If dots are missing from the pattern, as shown below, you need to run a cleaning cycle. See the following section for instructions.



Running a Cleaning Cycle

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

The cleaning process uses ink, so you should run it only if print quality declines. Always run a nozzle check first to confirm that the head needs cleaning; the nozzle check uses only a small amount of ink.

If you're using the EPSON printer driver, you can run the Head Cleaning utility. See page B-18 (Macintosh) or C-18 (Windows) for instructions.

Follow these steps to run the cleaning cycle from the printer's control panel:

- 1. Make sure none of the Ink Out lights is on or flashing. (If so, you need to replace the indicated ink cartridge before you can run a cleaning cycle.)
- 2. Press the **Cleaning** button and hold it for at least 3 seconds. The **Pause** light flashes as the printer cleans its print head. The cleaning cycle takes about three minutes and does not use any paper.
- 3. When the **Pause** light goes off, print a document or run a nozzle check to confirm that the head is clean.

You may need to run the cleaning cycle several times to get a clean nozzle check pattern. If the lines on the pattern still appear broken after several cleaning cycles, contact EPSON for assistance.



To avoid damaging the printer, don't turn it off until the cleaning cycle is finished and the **Pause** light has stopped flashing.

Aligning the Print Head

If banding appears on your prints, or vertical lines are not straight, you need to align the print head. You can use the Print Head Alignment utility if you have the EPSON printer driver installed. If not, you can align the print head using the control panel.

Print head alignment is a two-part procedure:

- First you print a series of alignment or adjustment patterns.
- Then you determine which numbered row of patterns is best aligned (has the smallest gaps). You enter the information on the control panel to align the print head.

Printing the Alignment Patterns

For best results, use 13×19 -inch EPSON coated ink jet paper (short edge first). You'll need 4 sheets to complete the alignment procedure, which includes 12 patterns of 7 rows each. The process takes about 15 minutes and aligns the print head for all modes and resolutions.

Follow these steps to align the print head using the control panel:

- 1. Load a sheet of paper in the printer, following the instructions on page 1-13.
- 2. Press the SelecType button until HEAD ALIGNMENT MENU is displayed.
- 3. Press the Item button. PAPER THICK=STD appears on the display.

If you're using EPSON paper, leave this setting on STD.

If you're using other media, enter the thickness value of the paper in 0.1-mm increments by pressing the + or – button.

4. Press the Enter button to save the setting. ADJUST. PATT.= ALL appears on the display.

5. Press the Enter button to print the full series of alignment patterns. Each pattern consists of seven numbered rows.

If you want to print a single alignment pattern, press the + or – button until the pattern number appears. Then press the Enter button.

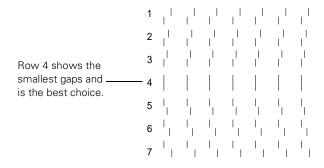
If you're printing the full series, patterns 1 through 3 are printed on the first sheet of paper.

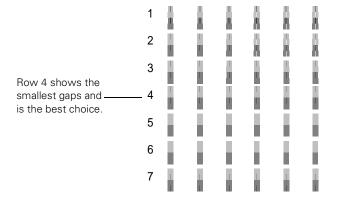
After this sheet is printed, PAPER OUT appears on the display and the red PAPER OUT light comes on.

- 6. Raise the paper set lever and remove the printed sheet. Even though the **Operate** light is flashing, it is safe to raise the paper set lever.
- 7. Load another sheet of paper. The next three patterns are printed.
- 8. Repeat steps 6 and 7 twice, until all 12 patterns have been printed.
- 9. Raise the paper set lever and remove the last printed sheet. Then lower the lever and continue the alignment procedure in the next section.

Completing the Alignment Procedure

After you have printed all the patterns, you need to check them carefully to determine which row in each set has the smallest gaps. Following is an example of patterns #1-5, #7, and #9-12:





Following is an example of patterns #6 and #8, which print in color:

Follow these steps to complete the alignment procedure:

- 1. Examine pattern #1 (or the pattern you printed) and determine which row of lines has the smallest gaps. In the two examples above, the lines in row 4 have the smallest gaps.
- 2. Check the control panel display. It should show something like #1 = 4, indicating that row 4 is selected for pattern #1.
- 3. Use the + or button to select the best aligned row for pattern #1. Then press the Enter button to register the setting. The control panel display changes to show #2 = 4.
- 4. Repeat steps 2 and 3 for each pattern you printed. If you need to verify any of the settings, press Enter repeatedly to cycle through the patterns.
- 5. After you have registered all the patterns, press the **Pause** button to exit head alignment mode and return to normal printer operation.



For best results, use genuine EPSON cartridges and do not refill them. Other products may cause damage to your printer not covered by EPSON's warranty.



Leave the empty cartridge in the printer until you are ready to replace it.

Replacing Ink Cartridges

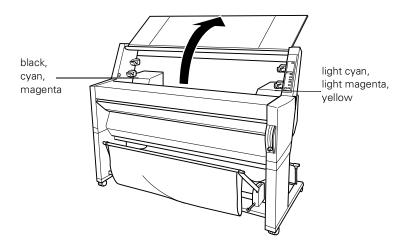
When one of the Ink Out lights is flashing (and INK LOW is displayed on the control panel), the corresponding cartridge is almost out of ink. Make sure you have a replacement cartridge. When the light stays on and INK OUT is displayed, the cartridge is empty. You must replace the cartridge before you can continue printing.

Use only the following EPSON ink cartridges:

Black T407011
 Cyan T410011
 Magenta T409011
 Light cyan T412011
 Light magenta T411011
 Yellow T408011

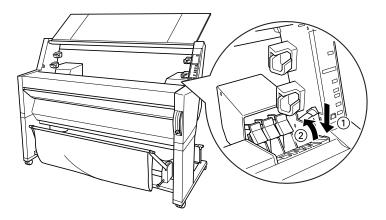
Before you start, make sure the printer is on. Then follow these steps to replace an ink cartridge:

- 1. Note the color of the Ink Out light that is on or flashing. This is the cartridge that you need to replace.
- 2. Open the roll paper cover and locate the ink cartridge that needs replacing.

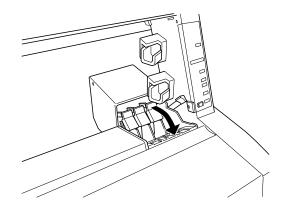


You can leave your roll paper in the printer when you replace ink cartridges. The illustrations show paper removed for clarity only.

3. Push the lever down and let it "bounce" back up to open the ink compartment cover. INK COMPART. OPEN appears on the display.

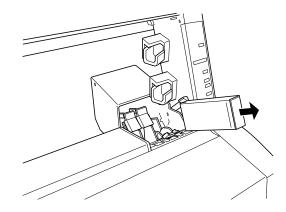


4. Locate the slot containing the empty ink cartridge (corresponding to the Ink Out light). Pull the clamp forward.

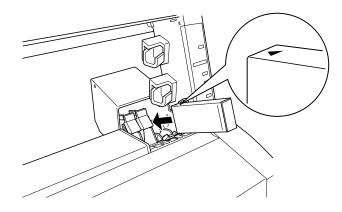




If ink gets on your hands, wash them thoroughly with soap and water. If ink gets into your eyes, flush them immediately with water. 5. Carefully pull the empty cartridge straight out of the printer.



- 6. Make sure the replacement cartridge is the correct color, and remove it from its package.
- 7. Hold the ink cartridge with the arrow mark face-up and pointing to the rear of the printer. Then insert the ink cartridge into the slot. Don't force the cartridge.

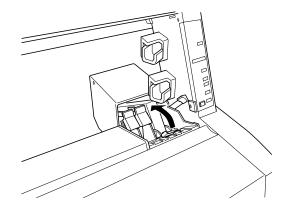




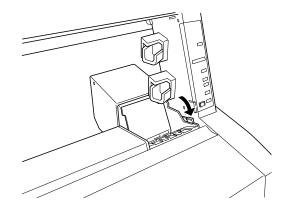
If you can't insert the cartridge smoothly, you may have the wrong cartridge. Check the package and product code.



If the **Ink Out** light remains on, the cartridge may not be installed correctly. Remove the cartridge and then reinsert it as described above. 8. Push the cartridge clamp back. Make sure the corresponding Ink Out light goes off.



9. Close the ink compartment cover by pushing the lever down until it clicks into place.



Replacing the Paper Cutter Blade

If you notice that your paper isn't cut cleanly, the cutter blade may need to be replaced. You can also check the status of your cutter by printing the status check sheet or using the Printer Status menu on the control panel. See page 2-3 or 2-4 for instructions.

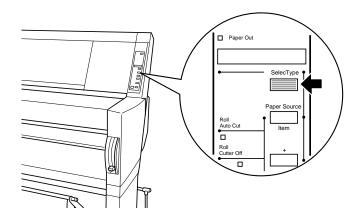
To obtain a new cutter blade (part number C815131), contact your dealer.

To replace the cutter blade, you first need to remove the used blade, as described in the following section.

Removing the Used Cutter Blade

Make sure the printer is on, then follow these steps to remove the blade:

1. Press the SelecType button repeatedly until CUTTER REPLACE MENU appears on the display.



2. Press the Item button. CUT. REPLACE=EXEC. appears on the display.

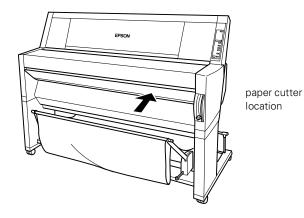


Be careful not to cut yourself while replacing the paper cutter blade.

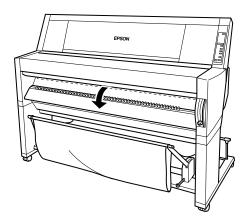


To avoid damaging your printer, never move the paper cutter holder by hand.

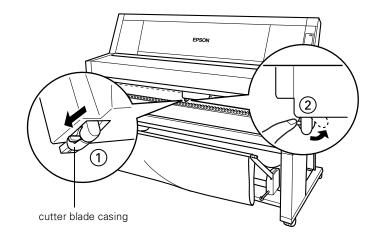
3. Press the Enter button. The paper cutter holder moves to the replacement position, where the arrow appears in the illustration below:



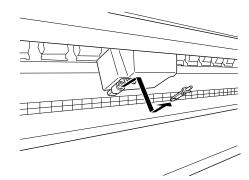
4. When the holder stops moving and OPEN LOWER COVER appears on the display, open the lower cover.



5. When **REPLACE CUTTER** appears on the display, you can open the casing. Push in the side pin while turning the paper cutter cover to the right.



- 6. Slowly take your finger off the side pin. The paper cutter raises so it can be removed.
- 7. Carefully remove the cutter blade from the printer.



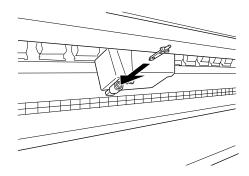


Be careful not to let the cutter or the spring coil pop out of the casing.

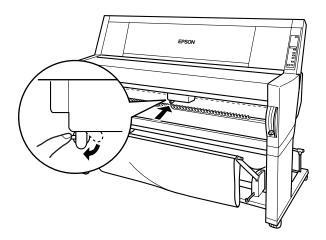
Installing the New Cutter Blade

After you have removed the used cutter blade, you're ready to install the new one. Follow these steps:

- 1. Remove the new blade from its package.
- 2. Make sure the spring coil is inside the cutter holder. If necessary, reinstall the coil.
- 3. Fully insert the new blade into the paper cutter holder in the direction shown below.



4. Push in the side pin while turning the paper cutter cover to the left to close the casing. CLOSE LOWER COVER appears on the display.



5. Close the lower cover. The cutter holder moves to the home (far right) position and READY appears on the display.



Be careful not to touch the gears inside the printer.

To avoid damaging the components as well as the case, never use alcohol or thinners to clean the printer.

Be careful not to get water on the printer mechanism or electronic components.

Don't use a hard or abrasive brush.

Don't spray the inside of the printer with lubricants; unsuitable oils can damage the mechanism. Contact your dealer or a qualified servicer if your printer needs lubrication.

Cleaning the Printer

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

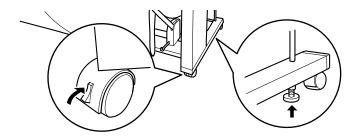
- 1. Make sure the printer is turned off and all the lights on the control panel are off. Then unplug the power cord.
- 2. Open the roll paper cover and remove the roll paper spindles. Remove any sheet media from the printer.
- 3. Make sure the ink cartridge compartments are closed. Then use a soft brush to carefully clean away any dust or dirt.
- 4. Close the roll paper cover.
- 5. Open the lower cover and use a soft brush to carefully clean away any dust or dirt inside the lower cover. Then close the cover.
- 6. Remove the paper hammock. Then clean away any dust or dirt around the leg assembly using a soft brush.
- 7. If the outer case is dirty, clean it with a soft, clean cloth dampened with mild detergent. Keep the ink cartridge compartment closed to prevent water from getting inside.
- 8. If the area under the roll paper cover accidentally gets soiled with ink, wipe it off with a damp cloth.
- 9. To wash the paper hammock, remove the shafts, then machine wash with mild detergent and air dry.

Transporting the Printer

When you need to transport your printer a long distance, you should repack it using the original box and packing materials.

When you want to transport the printer a short distance, such as within the same building or facility, you can roll the printer on its casters. Follow these steps:

- 1. Make sure that the power cord, interface cable, roll paper spindles and sheet media are removed, and the roll paper cover and lower cover are closed.
- 2. Release the front casters and retract the stabilizer knobs.



3. Carefully roll the printer to its new location. Relock the casters and extend the stabilizer knobs after moving.



Do not roll the printer on angled or uneven surfaces.

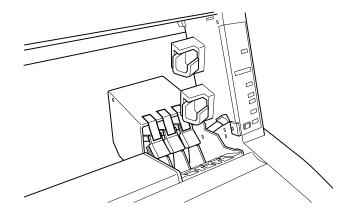
Moving the Printer Without the Leg Assembly

When you need to move the printer a longer distance, and you can't safely roll it, you may need to remove the leg assembly. Follow these steps:

- 1. First turn off the printer and make sure the print head is in the home (far right) position. If not, turn the printer back on, wait until the print head moves to the home position, then turn off the printer.
- 2. Remove the following parts:
 - Ink cartridges
 - Power cord
 - Interface cable
 - Paper hammock
 - Roll paper spindles
 - All paper or other media
 - Optional auto take-up reel (if installed)

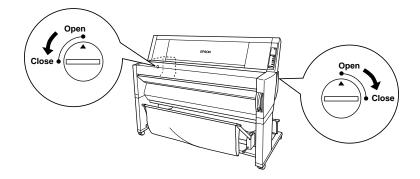
After you remove the ink cartridges, store them in separate, resealable plastic bags.

3. Make sure the ink cartridge clamps are in the upright position (closed). Leave the ink compartment cover open. Use tape to hold the cover and the cartridge clamps in place. This automatically closes the ink valves.

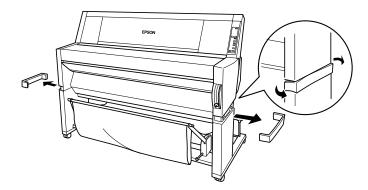




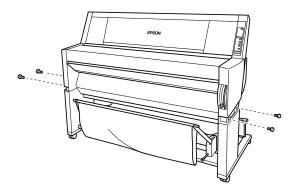
If for any reason the printer will not be level during shipping, a service technician must drain all ink from the printer before it is shipped. 4. Close the ink valve locks on each side of the printer.



5. Remove the left and right side joint cover plates by spreading the ends and pulling outward. Keep the cover plates in a safe place.

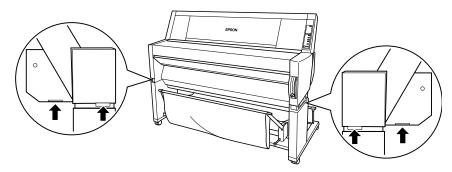


6. While holding the printer unit, remove the screws from the left and right sides. Keep the screws in a safe place.





The printer unit weighs approximately 212 lb (96 kg). Always have four people lift it, using the hand grip areas as shown. 7. Have four people lift the printer unit off of the leg assembly, using the hand grips. Lift the back of the printer first, tilt it slightly to the front, then slide it back to remove it.



8. Keep the printer level while you move it.

Setting Up the Printer After Transporting It

Setting up the printer after transporting it is almost identical to setting it up for the first time. Whenever you set up the printer, see the *Assembly and Setup Instructions*, and note the following points:

- Don't forget to open the side ink valve locks. The printer can't print while they are closed.
- Don't forget to remove any protective material (such as tape from the ink cartridge clamps).
- The first time you start printing after moving the printer, the print head nozzles may be clogged. You may need to run a cleaning cycle (see page 3-2) and realign the print head (see page 3-3) to ensure good print quality.
- If you reinstall the cartridges you removed before transporting the printer, make sure the printer is turned off when you install them. Otherwise, the printer will not be able to determine the correct level of remaining ink and the Ink Out lights may not flash to warn you when a cartridge is almost empty.

Chapter 4: Resolving Problems

As you use your printer, you may occasionally experience a 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 provides instructions for the following:

- Diagnosing problems
- Improving print quality
- Solving operational problems
- Solving miscellaneous printout problems
- Solving paper problems

Diagnosing Problems

Your EPSON Stylus Pro 9000 includes a number of ways to help you diagnose problems:

- To identify the most common problems, check the messages and lights on the printer's control panel. See page 2-5 for more information.
- If you have the RIP Station 5100, check for error messages on the RIP control panel and in the Fiery Spooler or Web Spooler utilities. See the RIP Station 5100 *User Guide* for more information. (The RIP Station 5100 *User Guide* also includes troubleshooting guidelines.)
- If you're using the EPSON printer driver and Monitor3 (Macintosh) or Status Monitor 2 (Windows) utility, check your software for error messages. See Appendix B or C for more information.
- To determine whether the problem is caused by the printer itself, disconnect the printer from the RIP and run a status check. See page 2-3 for instructions.
- You can use the printer's hex dump mode to pinpoint communication problems. Then you can fax the printout to a technical support representative or interpret it yourself. See the following section for instructions.
- If none of the suggested solutions in this chapter solve your problem, contact EPSON as described under "Where To Get Help" in the Introduction.

Using Hex Dump Mode

You can use the printer's hex dump mode to identify problems if you know how to interpret hex code. Or, you can fax the hex printout to a technical support representative.

Make sure the printer has paper loaded and is turned off. Then follow these steps:

- 1. Press and hold the **Pause** button while you press the **Power** button to turn on the printer. **HEX DUMP=PRINT** appears on the display.
- 2. Press the Enter button.
- 3. Send your problem file to the printer.

The data in the print buffer is printed with 16-byte hex data in the left column and corresponding ASCII characters in the right column. If the last data is less than 16 bytes, you need to press the **Pause** button to print it.

4. After you're finished using hex dump mode, press the **Power** button to turn the printer off and exit maintenance mode.

Improving Print Quality

You can often improve print quality by doing the following:

- Run a nozzle check and cleaning cycle. See page 3-1 for instructions.
- Align the print head. See page 3-3 for instructions.
- When you send a print job, make sure your print options are set correctly. For more information, see the RIP Station 5100 *User Guide* (if you have the RIP) or Appendix B or C (if you're using the EPSON printer driver).

If none of these suggestions help, try the solutions on the following page.

Problem	Possible cause	Solution		
Your print has horizontal banding.	Print options are set incorrectly for the media you're using.	Make sure the Print Mode or Media Type setting is correct for the media you're printing on.		
	You're printing on the wrong side of the paper or other media.	If you're using roll paper, make sure it's correctly attached to the spindle. See page 1-4 for instructions. If you're using a cut sheet, make sure the printable side is face up.		
	Print head nozzles are clogged.	Run a nozzle check and cleaning cycle (page 3-1).		
	Your ink supply is low or too old.	Check the Ink Out lights and replace ink cartridges if necessary, as described on page 3-6.		
Your print has vertical misalignment or	The print head is out of alignment.	Align the print head, as described on page 3-3.		
banding.	If you're using the EPSON driver, the High Speed setting is selected.	Turn off the High Speed setting. See Appendix B or C for instructions.		
Colors are incorrect or missing.	Print options are set incorrectly for the media you're using.	Make sure the Print Mode or Media Type setting is correct for the media you're printing on.		
	You're printing on the wrong side of the paper or other media.	If you're using roll paper, make sure it's correctly attached to the spindle. See page 1-4 for instructions. If you're using a cut sheet, make sure the printable side is face up.		
	Print head nozzles are clogged.	Run a nozzle check and cleaning cycle (page 3-1).		
	The color settings in your application or print options are incorrect.	Make sure your color settings are correct.		
Your print has gaps or appears faint.	Your ink is too old.	Check the expiration date printed on each cartridge. If the cartridge is too old, replace it as described on page 3-6.		
	Print options are set incorrectly for the media you're using.	Make sure the Print Mode or Media Type setting is correct for the media you're printing on.		
	Print head nozzles are clogged.	Run a nozzle check and cleaning cycle (page 3-1).		
	Your ink supply is low.	Check the Ink Out lights and replace ink cartridges if necessary, as described on page 3-6.		
	The paper configuration setting is too thick.	Use the control panel to select thinner paper. See page 1-22 for instructions.		
	The platen gap setting is too wide.	Use the control panel to change the setting from WIDE to AUTO. See page 1-17 for instructions.		

Print quality problems

Problem	Possible cause	Solution
Your print appears blurry or smeared.	Print options are set incorrectly for the media you're using.	Make sure the Print Mode or Media Type setting is correct for the media you're printing on.
	You're using the wrong paper configuration setting (for non-EPSON media).	Use the control panel to register and select your paper thickness. See page 1-22 for instructions.
	Your paper doesn't meet the required specifications or contains too much moisture.	Change your paper.
	You're printing on the wrong side of the paper or other media.	If you're using roll paper, make sure it's correctly attached to the spindle. See page 1-4 for instructions. If you're using a cut sheet, make sure the printable side is face up.
	Ink has leaked in the paper path.	Wipe the paper path area of the printer with a soft, clean cloth. See page 3-14 for cleaning instructions.
	Print head nozzles are clogged.	Run a nozzle check and cleaning cycle (page 3-1).
	The paper configuration setting is too thin.	Use the control panel to select thicker paper. See page 1-22 for instructions.
	The platen gap setting is too narrow.	Use the control panel to change the setting from AUTO to WIDE . See page 1-17 for instructions.

Print quality problems (continued)

Solving Operational Problems

If you can't turn the printer on, if it stops printing unexpectedly, or if nothing prints, check the following:

- The printer is turned on and the **Operate** light is on.
- The printer is plugged securely into a working electrical outlet that's not controlled by a switch or timer.
- If you're using the RIP Station 5100, make sure the interface cable is securely connected to the printer and RIP and the RIP is turned on. Check the RIP Station 5100 *User Guide* for additional troubleshooting solutions.

If none of these suggestions help, try the solutions below:

Problem	Possible cause	Solution
The printer stops printing unexpectedly.	If the Pause light is flashing, the printer is performing a maintenance procedure or waiting for ink to dry.	Check the display message and lights on the control panel. Wait until the Pause light stops flashing.
	An error has occurred.	Check the display message and lights on the control panel. Follow the instructions for the message on page 2-5.
The printer sounds like it's printing, but nothing prints.	nter sounds The ink valve locks are closed. Open the ink valve lock	
	Print head nozzles are clogged.	Run a nozzle check and cleaning cycle (page 3-1).
	Your ink supply is low.	Check the Ink Out lights and replace ink cartridges if necessary, as described on page 3-6.

Operational problems

Problem	Possible cause	Solution
Nothing prints.	The printer is not connected correctly.	Turn off the printer and RIP or computer. Make sure the interface cable is securely plugged in.
		Make sure the interface cable meets the required specifications. See Appendix B or C or the RIP Station 5100 <i>Getting Started</i> guide.
		If you're not using a RIP, make sure the interface cable is directly connected to the computer without passing through a printer switching device, Zip [™] drive, or extension cable.
		If you are using Windows NT 4.0, try uninstalling the EPSON printer port. Click Start , point to Programs and EPSON Printers , then click EPSON Printer Port Uninstall . Follow the messages on the screen.
	Your PPD (PostScript printer description) and/or printer driver software are not set up correctly.	Make sure your software is installed correctly and the RIP or printer is selected.
	The printer port setting doesn't match the printer connection port (Windows).	Click Start , point to Settings and select Printers . Right-click EPSON Stylus Pro 9000 , then select Properties . Click the Details tab.
		Make sure your printer driver is selected in the Print using the following driver list. Then select the port to which your printer is connected in the Print to the following port list.
	The printer driver doesn't have enough available memory (Macintosh).	To increase the available memory in your Macintosh, select Control Panel from the Apple menu and double-click the Memory icon. You can increase the size of RAM cache or virtual memory to increase total available memory. Also, quit all unnecessary applications.

Operational problems (continued)

Solving Miscellaneous Printing Problems

If your printouts are not what you expected, try the suggestions below:

Problem	Possible cause	Solution
Your print has incorrect or garbled characters.	Your PPD and/or printer driver software are not set up correctly or not selected.	Make sure your software is installed correctly and the RIP or printer is selected.
	You have stalled print jobs.	Clear any stalled print jobs from the Progress Meter or Monitor3 (Macintosh) or Status Monitor 2 (Windows).
	The printer is not connected correctly.	Turn off the printer and RIP or computer. Make sure the interface cable is securely plugged in at both ends.
		If you are using Windows NT 4.0, try uninstalling the EPSON printer port. Click Start, point to Programs and EPSON Printers, then click EPSON Printer Port Uninstall. Follow the messages on the screen.
Your print has incorrect margins.	Page size or paper size are not set correctly in your application.	Check the settings in your application. Make sure they are within the printer's printable area.
	Paper size is not set correctly in your print options.	Make sure the Paper Size setting in your print options is correct for the paper you're using.
	Paper is loaded incorrectly.	Reload paper, aligning it correctly with the row of holes in the printer. See Chapter 1 for instructions.
	The ROLL MARG (roll paper margin) setting on the control panel is incorrect.	If you're using roll paper, check the setting for ROLL MARG on the Printer Setting Menu. See page 2-8 for more information.
Your image is inverted.	The Flip Horizontal or Print as a mirror image setting is selected in your print options.	Turn off the setting. See your RS 5100 <i>User Guide</i> or page B-10 (Macintosh) or C-10 (Windows) in this manual for instructions.

Miscellaneous printing problems

Problem	Possible cause	Solution
Blank paper is printed.	Your PPD and/or printer driver software are not set up correctly or not selected.	Make sure your software is installed correctly and the RIP or printer is selected.
	Paper size is not set correctly in your print options.	Make sure the Paper Size setting in your print options is correct for the paper you're using.
A ruled line on your print appears to shift.	The print head is out of alignment.	Align the print head as described on page 3-3.
The bottom edge of your print is smeared.	The paper is curled toward the printable side.	Flatten the paper or curl it toward the other side.
	Print options are set incorrectly for the media you're using (for EPSON media).	Make sure the Print Mode or Media Type setting is correct for the media you're printing on.
	You're using the wrong paper configuration setting (for non-EPSON media).	Use the control panel to register and select your paper thickness. See page 1-22 for instructions.
	The platen gap setting is too wide.	Use the control panel to change the setting from WIDE to AUTO. See page 1-17 for instructions.
Color images print in black only.	Your PPD and/or printer driver software are not set up correctly or not selected.	Make sure your software is installed correctly and the RIP or printer is selected.
	Black printing is selected in your print options.	Make sure color printing is selected.

Miscellaneous printing problems (continued)

Problem	Possible cause	Solution
Printing is too slow.	The resolution or print quality setting in your print options is too high.	Choose a lower resolution for faster printing.
	Your system doesn't have enough resources.	Clear space on your hard drive or run a defragmentation utility.
		Don't run too many applications at the same time.
	Turn of	
		Add RAM to your system.
	You're using background printing on a Macintosh.	If you're using the EPSON driver, select EPSON Monitor3 and increase its memory requirements.
		Turn off background printing.
	You're not using ECP or Enhanced mode and/or DMA transfers (in Windows).	If your computer supports ECP or Enhanced mode and/or DMA transfers, turn them on to speed up printing. See your computer documentation and page C-22 for more information.

Miscellaneous printing problems (continued)

Solving Paper Problems

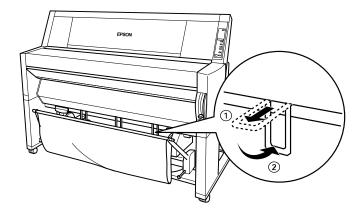
If paper feed or paper jam problems occur frequently, try one or more of the following solutions:

- When you're loading roll paper, make sure you line up the edge with the row of holes on the printer. Always turn the roll back to remove the slack. See page 1-11 for more information.
- If you're not using a roll of paper that's installed in the printer, secure it with the roll paper belt. See page 1-8 for more information.
- Make sure the paper is not folded, wrinkled, or damp.
- Make sure the printer's environment falls within the required temperature and humidity range.
- Make sure the paper is not too thick or too thin. See pages 1-1 and 5-2 for paper specifications.
- Make sure no foreign objects are inside the printer.

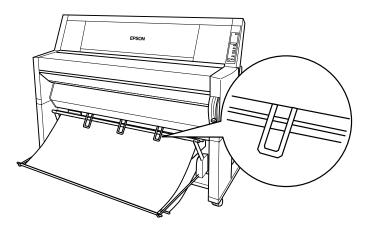
- Make sure the **Print Mode** or **Media Type** setting is correct for the media you're printing on.
- Make sure the platen gap setting is correct for the paper or media you're printing on. See page 1-17 for more information.
- If you're not using EPSON media, make sure you register and select your paper's thickness. See page 1-22 for more information.

Solving Roll Paper Feed Problems

If your roll paper is curled too tightly and doesn't feed out of the printer, you can use the three paper guides. Extend the guides as shown below:

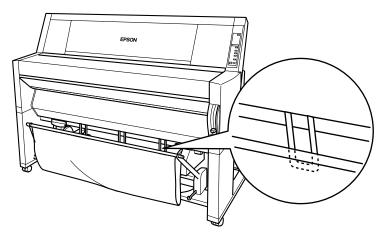


• If you have the paper hammock set up in front of the printer, extend the paper guides out so they rest on the front of the hammock.





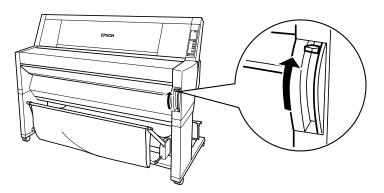
Use the paper guides only if paper is curled and doesn't feed properly. Otherwise, the paper guides may damage your prints. • If you have the paper hammock set up below the printer, extend the paper guides so that they rest on the back of the hammock.



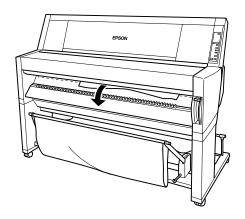
Clearing Paper Jams

When paper gets jammed in the printer, printing stops and you see a PAPER JAM message on the control panel display. Follow these steps to clear paper jams:

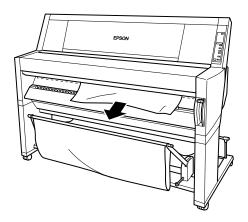
- 1. If roll paper is jammed, cut it by hand at the paper slot.
- 2. Pull the paper set lever all the way up to release the jammed paper.



3. Open the lower cover if necessary.



4. Carefully pull down the jammed paper. TURN PWR OFF AND ON is displayed on the control panel.



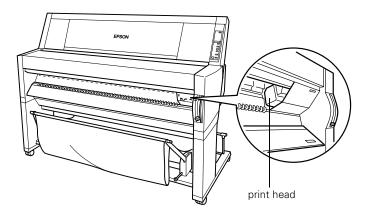


If you have two rolls of paper installed, make sure you secure the roll that you are not using with the roll paper belt. See page 1-8 for more information.

- 5. Close the lower cover, if necessary, then press the **Power** button to turn the printer off. Press it again to turn it back on.
- 6. Make sure the **Paper Out** light is on and **LOAD PAPER** is displayed on the control panel. Then reload your paper.



If the print head is not left in the home position, print quality may decline. 7. If you're not going to continue printing, make sure the print head is in the home (far right) position, as shown below. If it's not, turn the printer on, wait until the print head moves to the home position, then turn off the printer.



4-14 | Resolving Problems

Chapter 5: Specifications

Printing

Printing method	On-demand ink jet
Nozzle configuration	Black: 64 nozzles Color: 64 nozzles for each color (cyan, magenta, yellow, light cyan, light magenta)
Printable columns	
Character mode	10 characters per inch, 437 columns
Raster graphics mode (43.78 inches maximum printable width)	360 dpi: 15,762 available dots 720 dpi: 31,524 available dots 1440 dpi: 63,048 available dots
Maximum resolution	1440 dpi × 720 dpi
Engine reliability	
Total print volume	18,000 B1 images, 30% coverage
Print head life	Two billion dots per nozzle
Waste ink system	Estimated to require replacement twice during the printer's normal service life
Print direction	Bidirectional
Control code	ESC/P Raster™
Line spacing	1/6 inch or programmable in 1/360-inch increments
Paper feed speed	200 ± 10 milliseconds per 1/6-inch line
RAM	18MB
Character sets	EPSON Courier 10 characters per inch

Paper

Cut sheet paper specifications

Size	Dimensions in inches (approximate)	Dimensions in millimeters	Thickness
Super B0	44×62.2	1118×1580	0.08 to .5 mm
B0	40.5 × 57	1030 × 1456	_
B1	28.7 × 40.5	728 × 1030	0.08 to 1.5 mm
B2	20.25×28.7	515 × 728	_
B3	14×20.25	364 × 515	_
Super A0	36 × 50.5	914 × 1292	0.08 to .5 mm
A0	33 × 46	841 × 1189	_
A1	23.4 × 33	594 × 841	0.08 to 1.5 mm
A2	16.5×23.4	420×594	_
A3	11.7 × 16.5	297 × 420	_
Super A3/B	13 × 19	329 × 483	_
US E	34 × 44	864 × 1118	0.08 to .5 mm
US D	22 × 34	559 × 864	0.08 to 1.5 mm
US C	17 × 22	432 × 559	_
US B (ledger)	11 × 17	279 × 432	_

Roll paper specifications

	Maximum roll diameter	Width	Thickness
when using 2 rolls	5.90 in. (150 mm)		0.08 to 0.5 mm
when using 1 roll	4.05 in. (103 mm)	330 to 1118 mm	

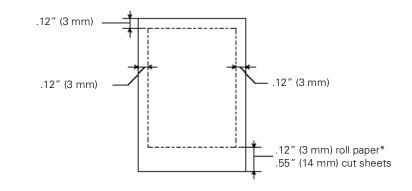
Depending on the media, feed and print quality are guaranteed on paper thicknesses of 0.08 to 0.11 mm.

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

Do not load curled or folded paper.

Printable Area

Minimum margins for roll paper and cut sheets:



* Default roll paper top and bottom margins are .59 inches (15 mm). You can set all margins to .12 inches (3 mm) or .59 inches (15 mm) using the control panel. See page 2-8 for instructions.

Environmental

	Operation	Storage	Transit (stored in shipping container)
Temperature	50 to 95 °F (10 to 35 °C)	–4 to 104 °F (–20 to 40 °C) (1 month at 104 °F)	–4 to 140 °F (–20 to 60 °C) (120 hours at 140 °F)
Humidity (without condensation)	20 to 80% RH	20 to 85% RH	5 to 85% RH

Mechanical

Height	49.57 inches (1259 mm)	
Width	66.46 inches (1688 mm)	
Depth	27.52 inches (699 mm)	
Weight	211.64 lb (96 kg), without ink cartridges	
Paper feed method	Friction	
Paper path	Roll paper or cut sheets with manual insertion	

Electrical

	120 V model	220/240 V model
Input voltage range	90 to 132 V	208 to 264 V
Rated frequency range	50 to 60 Hz	50 to 60 Hz
Input frequency range	49 to 61 Hz	49 to 61 Hz
Rated current	1.0 A	0.5 A
Power consumption	Approx. 100 W (ISO 10561 letter pattern) 30W or less in standby mode	

This product is also designed for IT power systems with phase to phase voltage 220-240V.

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

Initialization

Hardware initialization at power on:

The printer mechanism is set to its initial state. The input data buffer and print buffer are cleared. The printer returns to the last default settings.

Software initialization when the ESC@ (initialize the printer) command is received:

The print buffer is cleared. The printer returns to the last default settings.

Panel button initialization by pressing the **Pause** button on the control panel for 3 seconds or more:

The print head is capped. Any paper in the printer is ejected. The input data buffer and print buffer are cleared. The printer returns to the last default settings.

Safety Approvals

Safety standards	UL 1950, CSA 22.2 No. 950
EMC	FCC part 15 subpart B class B, CSA C108.8 class B

Ink Cartridges

Print capacity	Approx. 28 pages/A0 (720 dpi, 40% duty) Approx. 6,400 pages/A4 (360 dpi, 5% duty)	
Cartridge life	2 years from production date if unopened; within 2 years after opening package, at 77 °F (25 °C)	
Temperature		
Storage (uninstalled)	-22 to 104 °F (–30 to 40 °C) 1 month at 104 °F	
Storage (installed)	–4 to 104 °F (–20 to 40 °C) 1 month at 104 °F	
Transit	–22 to 140 °F (–30 to 60 °C) 1 month at 104 °F, 120 hours at 140 °F	
Freezing	5 °F (–15 °C); ink thaws and is usable after at least 3 hours at 77°F (25 °C)	
Dimensions		
Width	0.99 in. (25.1 mm)	
Depth	10.24 in. (260.0 mm)	
Height	4.15 in. (105.3 mm)	
Weight	Approximately 0.82 to 0.85 lb (370 to 385 g)	
Capacity	7.4 oz (220 ml)	

Print capacity may vary, depending on how often you run print head cleaning cycles and how much you use the printer. Capacity of the initial cartridge set is reduced because of ink charging.

Parallel Interface

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	

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

ECP Mode

Transmission mode	IEEE-1284 ECP mode
Adaptable connector	57-30360 Amphenol connector or equivalent
Synchronization	Refer to the IEEE-1284 specification
Handshaking	Refer to the IEEE-1284 specification
Signal level	IEEE-1284 Level 1 device
Data transmission timing	Refer to the IEEE-1284 specification

Standard	Based on RS-423
Synchronization	Synchronous
Bit rate	Approx. 1.8M bps
Handshaking	X-ON/X-OFF and 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	ImageWriter [®] II cable (preferably Belkin brand)

Serial Interface (RS-423 Standard)

5-8 | Specifications

Appendix A: Installing an Ethernet Interface Card

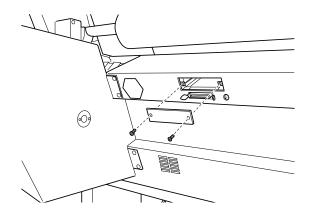
If you have the RS 5100 or another RIP, you connect it to the printer using the built-in parallel interface. For network connectivity without a RIP, you can install one of the following two Ethernet cards:

- Type B Ethernet Interface Card (10BaseT) C823622
- Type B Ethernet Interface Card (100BaseTX) C823632

Before you install the card, see the documentation that came with it for setup information. Make sure the printer is turned off and the power cord is unplugged from the electrical outlet.

Then follow these steps:

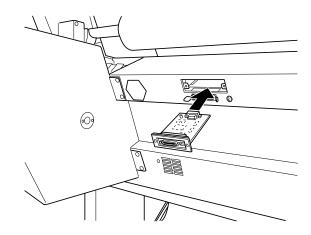
- 1. Disconnect the existing interface cable, if necessary.
- 2. Use a cross-head screwdriver to remove the two screws securing the shield plate to the back of the printer. Then lift off the plate.



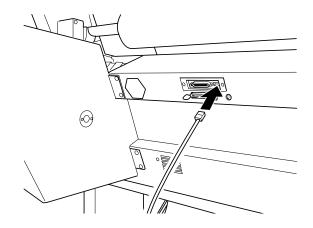
Be sure to keep the screws so you can use them if you re-install the shield plate.

3. Make sure switch SW2 on the card is set to P. See the card's documentation for details.

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



- 5. Secure the interface card in the slot with the two screws included with the card.
- 6. Make sure the printer is turned off. Then plug in the power cord.
- 7. To initialize the card, turn on the printer while holding down the status sheet button on the card for about 5 seconds.
- 8. Connect the appropriate Ethernet cable to the card with an RJ-45 connector.



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

Appendix B: Using EPSON Drivers and Utilities for Macintosh

Your EPSON Stylus Pro 9000 comes with drivers that let you use the printer in non-PostScript mode without a RIP. Utilities allow you to manage background printing jobs, track the status of your printer, and run print head maintenance procedures. ICC profiles for ColorSync 2.0 are included, so you can use advanced color management features of your applications or the driver itself.

This chapter includes the following information:

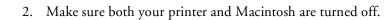
- Connecting the printer
- Setting up your software
- Setting print options
- Managing print jobs
- Checking printer status
- Running print head utilities

Connecting the Printer

You can connect your Macintosh directly using the printer's built-in serial interface, or you can connect through a network (if your printer has the optional Ethernet interface card installed). See your network administrator or Ethernet documentation for instructions on connecting to the printer through a network.

Follow these steps to use the printer's built-in serial interface:

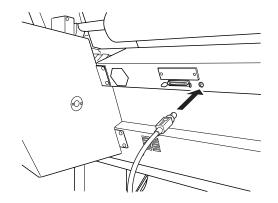
1. Make sure you have an ImageWriter II cable (preferably Belkin brand).



Use only an ImageWriter Il cable to connect the printer to your Macintosh through the serial interface. Do not use a LocalTalk[®] cable.



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



- 4. Connect the other end of the interface cable to either the modem port or printer port on the Macintosh. (Some Macintosh PowerBook[®] models have only one serial port.)
- 5. Turn on the printer by pressing the **Power** button.
- 6. Turn on your Macintosh.

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

Setting Up Your Software

Before you install the drivers and utilities, you need to make sure your Macintosh meets the minimum system requirements. Then follow the procedures for installing the software and selecting the printer. This section covers:

- Checking system requirements
- Installing the software
- Selecting your printer in the chooser



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

Checking System Requirements

Make sure your Macintosh meets the requirements listed in the table below. The memory requirements are for printing a 40×57 -inch full-page color image. Requirements may vary, depending on the size, complexity, and resolution of your images.

0	
Suctorn.	radiinramante
Jystem	requirements
2	1

Component	Minimum	Recommended
Processor	PowerPC	300 MHz G3 or higher processor
OS	System 7.5.1	System 7.6 or later
Available memory	14MB (foreground printing) 23MB (background printing)	128MB (total)
Hard disk	10MB free for installing the software	2GB recommended
CD-ROM	Double-speed CD-ROM drive	Quad-speed or faster

Installing the Software

Before you start, turn off all virus protection programs. See your anti-virus software documentation for instructions. Then follow these steps to install your printer software:

- 1. Insert your printer software CD-ROM.
- 2. When the **Installer** icon appears, double-click the icon. Then follow the instructions on the screen.
- 3. When you see the "installation complete" message, click Restart.

Follow the steps in the next section to select your printer using either the serial interface or an AppleTalk[®] connection.



If you are using an AppleTalk network, an alert message may appear when you click the port. In this case, reselect the other port or make the AppleTalk setting **Inactive**, then select the port again.

If you are using your Macintosh in an Ethernet environment, you can connect your printer to either the printer or modem port and leave the AppleTalk setting **Active**.

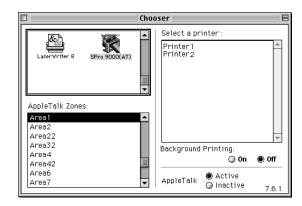
Selecting Your Printer in the Chooser

After you install the software, you need to open the Chooser to select your printer. Follow these steps:

- 1. Make sure the printer is connected to your Macintosh and turned on.
- 2. Open the Chooser.
 - If you're using a serial connection, click the SPro 9000 icon and the port your printer is connected to.

Ī			Ch	00	iser		
	AppleShare	Laser Writer 8	Ch		Select a pr Select a pr Printer Modem F Background	Port	© off
			₽		AppleTalk	⊖ Active ● Inactive	7.5.5

• If you're using an AppleTalk network, click the SPro 9000(AT) icon and select the AppleTalk zone you want to use. A list of all the printers connected to the selected zone appears on the right.



Click the name you assigned to your EPSON Stylus Pro 9000, then click OK.

- 3. Click one of the buttons to turn background printing on or off.
- 4. Close the Chooser.

Setting Print Options

When you're ready to print from an application, you need to choose page setup options and print options. The EPSON driver offers automatic settings that optimize print quality and speed when you're using EPSON media. You can also choose advanced settings for more control over your printer and color management options.

This section covers the following:

- Choosing page setup options
- Choosing basic print options
- Choosing advanced print options

Choosing Page Setup Options

Many of the Page Setup options correspond to paper handling features that you can also set through the control panel. Software options give you additional settings and override control panel settings. Follow these steps to choose Page Setup options:

1. Choose Page Setup from the File menu of your application. You see the Page Setup dialog box:

EPSON		SPro 9000 5.57E 💽 🔛 🔼 OK	
Paper Size : Paper Source :	R2 ▼ Roll Paper (44 in) ▼	Cancel C	Click if your paper size is not listed.
Orientation :	Portrait Landscape	Reduce or Enlarge 100 $\%$	
	🗌 Rotate by 180 degree	Printable Area : 🗌 Centered	

2. From the Paper Size list, select your image size (if you're using roll paper) or the size of your sheet. For paper size equivalents in inches, see page 5-2. If your size is not listed, click Customize. Then enter the size in hundredths of an inch (or centimeters).



Many application settings override the printer's Page Setup options. Always verify settings to get the results you expect.



If you're using roll paper and you choose a paper size that's larger than your image, the image will be centered in the space you selected.



These settings override settings made through the control panel.

- 3. Select the type of paper you loaded in the printer from the Paper Source list.
- 4. When you're using roll paper, set the following options:
 - Auto Rotate

Saves paper if your document length is shorter than the printable width of the paper roll. Your image will be turned automatically by 90 degrees and printed crosswise.

• Auto Cut

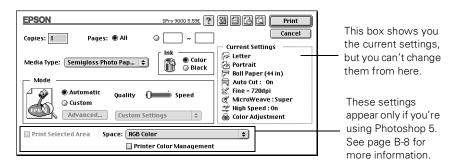
Choose this option if you want the paper to be cut automatically after each page is printed.

- Print Page Line Prints trim lines on the right and bottom edges of your pages.
- 5. Make the settings you want for Orientation, Reduce or Enlarge, and Printable Area.
- 6. After making your settings, click OK.

Choosing Basic Print Options

Once you have selected your Page Setup options, you need to set printing options. See page B-9 for instructions on advanced settings. Follow these steps to make basic settings for automatic printer adjustments:

1. Choose **Print** from the File menu of your application. A dialog box like the following appears:



Choose the number of Copies and indicate which Pages you want to print. 3. Select a Media Type setting appropriate for the media you're printing on, as listed in the following table:

Media Type settings for EPSON media

Product name	Product codes	Media Type setting
Matte Paper— Doubleweight	SP91006, SP91005	Presentation Matte Paper
Presentation Matte Paper	S041220, S041221	Presentation Matte Paper
Semi-Gloss Paper— Heavyweight	S041228, S041229	Semigloss Photo Paper
Photo Glossy Paper	SP91002, SP91001	Photo Quality Glossy Film
Photo Quality Ink Jet Paper	S041070, S041069, S041079	Photo Quality Ink Jet Paper
Photo Paper	S041156, S041142, S041143	Photo Paper
Photo Quality Glossy Film	S041075, S041074	Photo Quality Glossy Film
Backlight Film	SP91008, SP91007	Photo Quality Glossy Film
Poster Board— Semi-Gloss	S041236, S041237	Semigloss Photo Paper

If the paper you're using is not listed in the table, check the instructions included with the paper. If you're using a non-EPSON printing material, choose the closest setting. You may have to experiment with different settings to determine which one is best for the substrate you're using.

- 4. Select Color or Black ink.
- 5. Set the Mode option as follows:
 - Click Automatic to have the printer driver analyze the contents of your image or file and make the appropriate printing adjustments. If a Quality/Speed slider appears in the Mode box, set it according to the priorities of your print job. (Depending on the Media Type setting, this slider may not appear.)
 - Click **Custom** and then choose one of the print job types from the custom settings list, as described on the following page.

B-8 | Using EPSON Drivers and Utilities for Macintosh



You can also create your own settings and add them to this list. See page B-10 for more information.

Custom print job settings

Setting	Usage
Advanced Photo	Prevents the misprinting of ink dots that may occur because of the movement of the print head and paper. Available only when you choose photo or photo-quality media types.
PhotoEnhance3	Produces sharper images and more vivid colors by automatically adjusting the contrast, saturation, and brightness. Corrects for overall under- or over-exposure of the original image
Digital Camera	Corrects noise and other flaws common in digital camera images.
Text/Graph	Intensifies colors and lightens the midtones and highlights. Best for print jobs with non-photographic images.
ColorSync [®]	Adjusts colors based on your printer's ICC profile, using the perceptual rendering intent.

- 6. If you're using Photoshop[®] 5.0.2, you'll see settings for **Space** and **Printer Color Management** in your dialog box. See your Photoshop documentation for instructions on using these settings.
- 7. Choose from the following buttons to access additional features:
 - Click 📓 to access the printer monitoring and maintenance utilities. See page B-18 for more information.
 - Click 🗐 if you want to reduce your image to fit on the page.
 - Click 🖾 to turn on background printing. This lets you use the Monitor3 utility. See page B-12 for more information.
 - Click 🖾 and then click the **Preview** button to see a preview of your printed image.
- 8. When you're finished choosing print options, click Print.

Choosing Advanced Print Options

The advanced print options give you complete control over your printing environment. Use these settings to experiment or to fine-tune a range of options to meet your individual needs. Follow these steps to print with advanced settings:

- 1. Follow steps 1 through 4 on pages B-6 to B-7.
- 2. Click **Custom** and then click **Advanced**. You see a dialog box like the following:

Ink OF	olor Management Each of olor Adjustment these three otoEnhance3 configurations gives you the se you
Image: MicroWeave Bit Image: Comparison of the system Super Image: Comparison of the syst	ade: Automatic different ightness ightness ightness ntrast 0 ightness Q ightness ightness
Save Settings	Help Cancel OK

- 3. Choose the Media Type setting according to the guidelines on page B-7. Then choose Color or Black ink.
- 4. Choose one of the following Print Quality settings:
 - Normal 360dpi
 - Fine 720dpi
 - Superfine 1440dpi

The available print quality settings may be limited by the Media Type setting. Choose lower print quality for faster printing.

- 5. Choose any of the following:
 - Super MicroWeave

The MicroWeave and Super MicroWeave settings eliminate unwanted banding effects. These settings are automatically selected for all media types except plain paper.

• High Speed

For fast, bidirectional printing at lower quality. If vertical lines in your printout are misaligned when you use the **High Speed** setting, you may need to turn it off or align the print head.

- Flip Horizontal For printing a mirror image of your file. Use with backlight film.
- 6. Choose one of the following Color Management configurations:
 - Color Adjustment

This configuration lets you specify individual values for adjusting brightness, contrast, saturation, and CMY inks, or choose from the four Color Adjustment modes, as shown in the table on page B-11. When you print on EPSON backlight film, choose Vivid mode and +10 Saturation.

• PhotoEnhance3

When you choose this configuration, you see a sample image that reflects the settings you choose. See page B-11 for a description of the available settings.

ColorSync

This configuration lets you select the Epson Standard profile, created specifically for your printer. Don't select any other printer profile you may have on your system. Then choose from three Rendering Intent settings for mapping colors to your printer's profile. See page B-11 for more information.

- 7. Click **Save Settings** if you want to have your advanced settings available for reuse. Then type a name for the group of settings and click **Save**. The name is added to your list of custom settings.
- 8. When you're finished setting advanced printer options, click OK.

Color Management Settings

The following tables list the color management settings available when you choose either Color Adjustment, PhotoEnhance3, or ColorSync.

Color adjustment modes

Automatic	Analyzes the color information in your image and optimizes color correction accordingly.
Photo-realistic	Produces sharper images and more vivid colors by automatically adjusting the contrast, saturation, and brightness. Corrects for overall under- or over-exposure of the original image.
Vivid	Intensifies colors and lightens the midtones and highlights. Best for print jobs with non-photographic images.
No Color adjustment	Disables color management in the printer driver. Choose this mode if you want to use a standalone color management utility.

PhotoEnhance3 settings

Tone	Lets you choose from Normal for standard images, Hard for high contrast, and Sepia for an old-fashioned look.
Digital Camera Correction	Corrects noise and other flaws common to digital camera images.
Sharpness	Sharpens the focus of your image.

ColorSync Rendering Intent settings

Perceptual	For photographic images. Maintains the relationship between colors as it scales them to fit within your printer's color gamut.
Saturation	For charts and business graphics. Maintains the relative saturation of colors from one gamut to another.
Colorimetric	For projects with known colors, such as labels and packaging. Maintains colors that fall within the gamut of both your monitor and printer.

Managing Print Jobs

Your printer comes with several utilities that let you check on your print jobs and schedule, cancel, pause, or restart them. First you need to set up background printing, so you can continue to work on your Macintosh while a file is being printed. Note that background printing is slower and may also slow down your system.

This section includes instructions for the following:

- Setting up background printing
- Using Monitor3
- Cancelling printing

Setting Up Background Printing

You can set up background printing from the Chooser, as described on page B-4, or you can use the background printing button on the Print dialog box. Follow these steps to set up background printing:

- 1. Open the Print dialog box as described on page B-6.
- 2. Click the background printing button 🔂. You see the following dialog box:

	EPSON	SPro 9000 5.59E	ок
	Background Printing:	Ī	Cancel
	🖲 On	_) Off	
	Print Time:		
Not available if	🔘 Urgent		
background printing —	🕘 Normal		
is turned off	🔘 Print at:	2/10/99 🚔 5:07 PM 🚔	
	🔘 Hold		
	•		

3. To turn background printing on, click the On button.

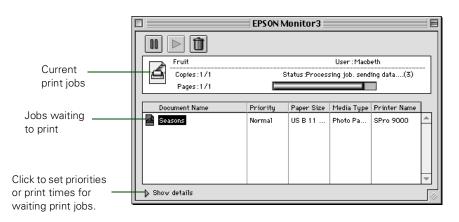
- 4. To select a priority for your print job in the queue of jobs waiting to print, click one of the following:
 - Urgent to print before any Normal priority job
 - Normal to print in the order the job is received
 - Print at: to print at the specific time you enter in the day and time in the fields to the right
 - Hold to hold the print job in the print queue until you're ready to release it using Monitor3; see the following section for details.
- 5. Click OK to save your settings and return to the printer settings dialog box.
- 6. Click Print to print your document.

If you selected Print at: or Hold, your document is spooled, but held in the print queue until the print time specified or until released using Monitor3, as described in the following section.

Using Monitor3

The Monitor3 utility lets you prioritize and control your print jobs as well as monitoring their progress.

After you send a print job, click the current application icon at the right end of the menu bar and select EPSON Monitor3. You see a dialog box like the following:



The progress bar tracks the current print job. To cancel, pause, or restart a print job, click the document's name, then click one of the following buttons:

- Click 🗊 to delete
- Click 🕨 to restart
- Click 🔳 to pause

If you want to change the printing priority of a print job or set a specific time for it to print, click the **Show details** arrow at the bottom of the window. The **Priority** list becomes active.

Į		EPSON M	onitor3				
	Fruit			User : Macb	eth		
	Copies:1/1	St	atus :Process	sing job. send	ing data(3)		
	Pages:1/1						
	Document Name	Priority	Paper Size	Madia Tuna	Printer Name	1	
			US B 11	Photo Pa	SPro 9000		
	Seasons Seasons	Normal	05 6 11	Fnoto Fa	SPF0 9000		
						Ŧ	
	⇒ Hide details						
		Name : Season:				_	
	1.2	iority: Norm	-) <u> </u>			— Priority list box
	raper oize	e : US B 11 × 1 e : Photo Pape					
	Copies : 1				-		Settings selected for
	Pages : 1 User : Ma						5
		n : Portrait					the highlighted print job
		rce : Sheet					
	Auto Cut :	Uff				בי	
- 11				-		- 11	

Click the print job whose priority you want to change. Then click the **Priority** list box and select one of the following settings:

- Normal prints the job in the order it is received
- Urgent moves the job before Normal priority jobs in the print queue
- Hold holds the job in the print queue until you're ready to release it for printing by clicking restart
- Print Time opens the Set Print Time dialog box. Enter the date and time you want to print the document, then click OK.

Set Print Time	
5/ 5/98 ★ 11:39 PM →	
Cancel OK	



If you see a stop sign icon and the message Print queue on hold in the EPSON Monitor3 dialog box, select **Start print queue** from the Printer menu to release the queue and resume printing.

Cancelling Printing

If you need to cancel a print job, follow these steps:

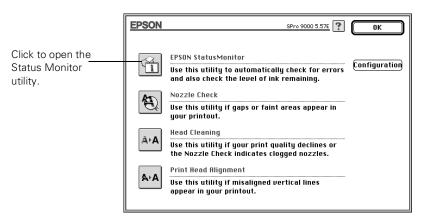
- 1. Press the **Power** button to turn off the printer.
- 2. Do one of the following, depending on whether you're using background printing:
 - If background printing is turned off, hold down the **#** key on your keyboard and press the (.) period key to cancel the print job.
 - If background printing is turned on, select EPSON Monitor3 from the application menu. Click the displayed button, then click the stop button to cancel the print job.

Checking Printer Status

The Status Monitor utility lets you check the levels of ink in your printer and configure error messages and other features of printer operation.

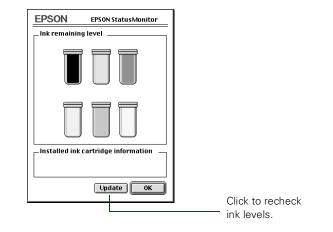
Follow these steps to check ink levels:

1. Click the utility button 🖾 on the Print or Page Setup dialog box of your application. You see the Utility menu:



2. Click the EPSON StatusMonitor icon.

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



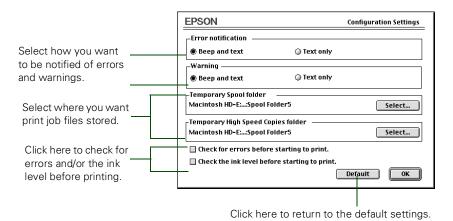
3. To recheck the ink level check, click the Update button. To close the Status Monitor, click OK.

Selecting Configuration Options

You can configure the way you want the printer to handle error and warning messages, ink level checks, and temporary spool folders in the Configuration Settings dialog box. Follow these steps:

- 1. Click the utility button in the Print or Page Setup dialog box of your application. You see the Utility menu.
- 2. Click the Configuration button.

You see the Configuration Settings dialog box:



- 3. Select from the following configuration options:
 - Error notification lets you choose whether you want your system to beep and display error message text or just display text if your printer encounters an error.
 - Warning lets you choose whether warning messages beep and display text or display text only.
 - Temporary Spool folder and Temporary High Speed Copies folder let you select the folders on your hard disk that store the temporary files created when you send a job to the printer. Click the Select button to change the folder from the default folder shown.
 - Click the checkboxes if you want your software to check for errors or low ink levels before starting your print job.
- 4. When you're finishing changing your configuration options, click OK to return to the Utility menu.



Warning messages allowing printing to continue. Error messages are more serious and cause printing to stop.

Running Print Head Utilities

The utilities included with your printer software let you run the following maintenance procedures from your computer:

- Nozzle check
- Print head cleaning
- Print head alignment

Running Nozzle Check and Head Cleaning Utilities

The nozzle check prints a pattern of dots that lets you see if any print head nozzles are clogged. If any dots are missing from the pattern, you can run a head cleaning cycle to clear the nozzles.

Follow these steps:

1. Click the utility button 🖾 on the Print or Page Setup dialog box of your application. You see the Utility menu:

r			
	EPSON	SPro 9000 5.57E	ОК
Click to run nozzle check.	(- -	EPSON StatusMonitor Use this utility to automatically check for errors and also check the level of ink remaining. Nozzle Check Use this utility if gaps or faint areas appear in your printout.	Configuration
Click to run head cleaning utility.	Å≻A A≻A	Head Cleaning Use this utility if your print quality declines or the Nozzle Check indicates clogged nozzles. Print Head Alignment Use this utility if misaligned vertical lines appear in your printout.	

- 2. Click the button for the utility you want to run.
- 3. Follow the instructions on the screen to complete the process. For more information, see Chapter 3.

Running the Print Head Alignment Utility

If banding appears on your prints, or vertical lines are not straight, you need to align the print head. You can also use the control panel to align the head (as described in Chapter 3).

For best results, use 13×19 -inch EPSON coated ink jet paper (short edge first). You'll need 4 sheets to complete the procedure, which includes 12 patterns of 7 rows each. The process takes about 15 minutes and aligns the print head for all modes and resolutions.

Follow these steps:

- 1. Load a sheet of paper in the printer.
- 2. Click the utility button 📓 in the Print or Page Setup dialog box of your application.
- 3. Click the Print Head Alignment button.
- 4. Follow the messages on your screen. The printer prints the head alignment patterns. After each sheet is printed, remove it and load another sheet.
- 5. After all the patterns have printed, choose the row number that has the smallest gap in each pattern. In the example below, row 4 has the smallest gaps.

patterr	ns #1-	5, #7	, #9-1	2			ра	ttern	s #6,	#8			
1							1	l.					
2							2		Ū.		Ī.		
3	I I		I I	I I	I I		3	-		1	Ī.		-
4							4		T	-	l T	T.	-
5	I I	I.	I I	I I	I I	I I	5	ł.		÷.	1	1.	÷.
6							6	ł.	1	÷.	1	1	÷.
7	1					1	7	-		1			1



Each pattern consists of seven numbered rows.

6. Select the row you chose in step 5 for each pattern (for example, row 4), then click Finish.

EPSO	N Print Head Alignment						
A+A	Look at the alignment sheet.						
	Find the patterns on the printed sheet that are vertically aligned, and select the number of those alignment patterns from the lists bellow.						
	lf you cannot find an aligned pattern, select the number of the most aligned pattern, and click "Realignment". The alignment sheet will be printed again.						
	#1 4 \$ #6 4 \$ #11 4 \$						
	#1 4 ¥ #6 4 ¥ #11 4 ¥ #2 4 \$ #7 4 \$ #12 4 \$						
	$\begin{array}{cccccccccccccccccccccccccccccccccccc$						
	Realignment Cancel Finish						

If the set with the smallest gap is unclear and can't be selected, click the **Realignment** button and repeat from step 5.

Appendix C: Using EPSON Drivers and Utilities for Windows

Your EPSON Stylus Pro 9000 comes with drivers that let you use the printer in non-PostScript mode without a RIP. Utilities allow you to manage print jobs, track the status of your printer, and run print head maintenance procedures. ICC profiles are included, so you can use advanced color management features of your applications or the driver itself.

This chapter includes the following information:

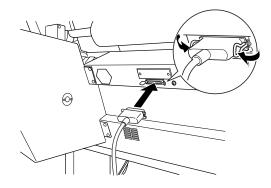
- Connecting the printer
- Setting up your software
- Setting print options
- Managing print jobs
- Using Status Monitor 2
- Running printer utilities

Connecting the Printer

You can connect your computer directly using the printer's built-in parallel interface, or you can connect through a network (if your printer has the optional Ethernet interface card installed). See your network administrator or Ethernet documentation for instructions on connecting to the printer through a network.

Make sure both your printer and computer are turned off. Then follow these steps to use the printer's built-in parallel interface:

1. Plug the cable connector securely into the printer's interface. Then squeeze the wire clips together until they lock into place on both sides.



2. Plug the other end of the cable into the computer's parallel port.

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

Setting Up Your Software

Before you install the drivers and utilities, you need to make sure your computer meets the minimum system requirements. Then follow the procedures for installing the software. This section covers:

- Checking system requirements
- Installing the software

Checking System Requirements

Make sure your computer meets the requirements listed in the table below. The memory requirements are for printing a 40×57 -inch full-page color image. Requirements may vary, depending on the size, complexity, and resolution of your images.

Component	Minimum	Recommended
Processor	i486/25 MHz for Windows 95 and NT 4.0 i486/66 MHz for Windows 98	Pentium [®] II 300 MHz or higher
OS	Windows 95, Windows 98, or Windows NT 4.0	
Available memory	16MB RAM	128MB RAM or more
Hard disk	10MB free for Windows 95 and 98 20MB free for Windows NT 4.0	For printing a file, space equivalent to double the file size
Monitor	VGA	Super VGA or better
CD-ROM	Double-speed CD-ROM drive	Quad-speed or faster

System requirements

Installing the Software

Make sure any virus protection programs are turned off before you begin. Then follow these steps to install your printer software:

- 1. Turn on your computer, then turn on the printer.
- 2. Insert your printer software CD-ROM. The installer starts automatically.

If it doesn't start, double-click **My Computer**. Then double-click your CD-ROM icon.

- 3. Double-click Install Printer Driver/Utility. Then follow the instructions on the screen.
- 4. When you see the "installation complete" message, click OK.

EPSON Status Monitor 2 installation starts automatically. When it is complete, your computer restarts.

Setting Print Options

When you're ready to print from an application, you need to choose print options and paper options. The EPSON driver offers automatic settings that optimize print quality and speed when you're using EPSON media. You can also choose advanced settings for more control over your printer and color management options.

This section covers the following:

- Choosing basic print options
- Choosing paper options
- Choosing advanced print options



If the New Hardware Found screen or any other wizard appears, click **Cancel** and follow the steps given here.

Choosing Basic Print Options

Before you print, you need to set basic printing properties. See page C-8 for instructions on advanced settings. Follow these steps to make basic settings for automatic printer adjustments:

- 1. Choose Print from the File menu of your application. You see the Print dialog box.
- 2. Make sure your EPSON Stylus Pro 9000 printer is selected, and then click the **Properties** button. (If you see a **Setup**, **Printer**, or **Options** button, click it instead. Then click **Properties** on the next screen.)

A dialog box like the following appears:

EPSON Stylus Pro 9000 Properties	? ×	
Main Paper Utility		
Media <u>T</u> ype Photo Paper	Color Celack	
Mode Current Settings	Quality Speed Custom Settings Advarced	
Culton Country C C Letter C Portrait C Roll Paper (44in)	 ☆ Fine - 720dpi ☆ MicroWeave : Super ☆ High Speed : On 	This box shows you the current —— settings, but you can't change
EPSON	Color Adjustment About	them from here.
ОК	Cancel Help	

3. Select a Media Type setting appropriate for the media you're printing on, as listed in the following table:

Media Type settings for EPSON media

Product name	Product codes	Media Type setting
Matte Paper— Doubleweight	SP91006, SP91005	Presentation Matte Paper
Presentation Matte Paper	S041220, S041221	Presentation Matte Paper
Semi-Gloss Paper— Heavyweight	S041228, S041229	Semigloss Photo Paper
Photo Glossy Paper	SP91002, SP91001	Photo Quality Glossy Film
Photo Quality Ink Jet Paper	S041069, S041079	Photo Quality Ink Jet Paper
Photo Paper	S041156, S041142, S041143	Photo Paper
Photo Quality Glossy Film	S041075, S041074	Photo Quality Glossy Film
Backlight Film	SP91008, SP91007	Photo Quality Glossy Film
Poster Board— Semi-Gloss	S041236, S041237	Semigloss Photo Paper

If the paper you're using is not listed in the table, check the instructions included with the paper. If you're using a non-EPSON printing material, choose the closest setting. You may have to experiment with different settings to determine which one is best for the substrate you're using.

- 4. Select Color or Black ink.
- 5. Set the Mode option as follows:
 - Click Automatic to have the printer driver analyze the contents of your image or file and make the appropriate printing adjustments. If a Quality/Speed slider appears in the Mode box, set it according to the priorities of your print job. (Depending on the Media Type setting, this slider may not appear).
 - Click **Custom** and then choose one of the print job types from the custom settings list, as described on the following page.

C-6 | Using EPSON Drivers and Utilities for Windows



You can also create your own settings and add them to this list. See page C-11 for more information.

Custom print job settings

Setting	Usage
Advanced Photo	Prevents the misprinting of ink dots that may occur because of the movement of the print head and paper. Available only when you choose photo or photo-quality media types.
PhotoEnhance3	Produces sharper images and more vivid colors by automatically adjusting the contrast, saturation, and brightness. Corrects for overall under- or over-exposure of the original image.
Digital Camera	Corrects noise and other flaws common in digital camera images.
Text/Graph	Intensifies colors and lightens the midtones and highlights. Best for print jobs with non-photographic images.
ICM	Adjusts colors based on your printer's ICC profile, using the Image Color Matching system (effective in Windows 98 only). If you're using an ICM-compatible monitor, adjusts printed colors to closely match screen colors.
sRGB	Adjusts colors using the small-gamut sRGB (standard red green blue) color space. Best for color matching with other sRGB devices, or for images designed for the Web.

6. When you're finished choosing print options, click the **Paper** tab and follow the instructions in the next section for choosing paper options.



Many application settings override the printer's Paper options. Always verify settings to get the results you expect.



Many of the Paper options correspond to paper handling features that you can also set through the control panel. Software options give you additional settings and override control panel settings. Follow these steps to choose Paper options:

1. From the Main Print Properties dialog box, click the **Paper** tab. You see the Paper dialog box:

PSON Stylus Pro 9000 Properties	×
Main Paper Utility	
Paper Size A0 841 x 1189 mm	
Paper Source Roll Paper (44in)	l
Roll Paper Settings	
Copies Orientation Printable Area	
Reduce/Enlarge © Normal Paper Size	
C Eitto Page	l
C Custom Scale to 🖉 %	
EPSON	
OK Cancel Help	



If you're using roll paper and you choose a paper size that's larger than your image, the image will be centered in the space you selected.

- 2. From the **Paper Size** list, select your image size (if you're using roll paper) or the size of your sheet. For paper size equivalents in inches, see page 5-2. If your size is not listed, select **User Defined**. Then enter the size in hundredths of an inch (or centimeters).
- 3. Select the type of paper you loaded in the printer from the Paper Source list.

4. When you're using roll paper, set the following options:

Auto Rotate

Saves paper if your document length is shorter than the printable width of the paper roll. The document will be turned automatically by 90 degrees and printed crosswise.

• Auto Cut

Choose this option if you want the paper to be cut automatically after each page is printed.

- Print Page Line Prints trim lines on the right and bottom edges of your pages.
- 5. Make the settings you want for Copies, Orientation, Printable Area, and Reduce/Enlarge.
- 6. After making your settings, click OK.

Choosing Advanced Print Options

The advanced print options give you complete control over your printing environment. Use these settings to experiment or to fine-tune a range of options to meet your individual needs. Follow these steps to print with advanced settings:

- 1. Follow steps 1 through 4 on pages C-4 to C-5.
- 2. Click Custom and then click Advanced.

You see a dialog box like the following:

When you choose PhotoEnhance3, you see a different set of options on the lower part of the screen.

L

Advanced	
🏹 Media Type	🛞 Color Management
Photo Paper 💌	
	 Color Adjustment
Solor	O PhotoEnhance3
	O ICM
Print Quality SuperFine - 1440dpi	C s <u>B</u> GB
🌊 🗹 MicroWeaye	Mode Automatic
Super(<u>x</u>)	Brightness + 0 +
🛫 🗖 High Speed	Contrast + 0
🗟 🗖 Flip Horizontal	+
22 I Thip Hongonia	Saturation + 0
	○ C _X an +0 +
	● <u>Magenta</u> + 0
	o Yellow +0
<u>S</u> ave Settings	OK Cancel Help

- 3. Choose the Media Type setting according to the guidelines on page C-5. Then choose Color or Black ink.
- 4. Choose one of the following Print Quality settings:
 - Normal 360dpi
 - Fine 720dpi
 - Superfine 1440dpi

The available print quality settings may be limited by the Media Type setting. Choose lower print quality for faster printing.

- 5. Choose any of the following:
 - Super MicroWeave

The MicroWeave and Super MicroWeave settings eliminate unwanted banding effects. These settings are automatically selected for all media types except plain paper.

• High Speed

For fast, bidirectional printing at lower quality. If vertical lines in your printout are misaligned when you use the **High Speed** setting, you may need to turn it off or align the print head.

- Flip Horizontal For printing a mirror image of your file. Use with backlight film.
- 6. Choose one of the following Color Management configurations:
 - Color Adjustment

This configuration lets you specify individual values for adjusting brightness, contrast, saturation, and CMY inks, or choose from the four Color Adjustment modes, as shown in the table on page C-11. When you print on EPSON backlight film, choose Vivid mode and +10 Saturation.

• PhotoEnhance3

Produces sharper images and more vivid colors by automatically adjusting the contrast, saturation, and brightness. Corrects for overall under- or over-exposure of the original image. When you choose this configuration, you see a sample image that reflects the settings you choose. See page C-11 for a description of the settings.

• ICM

Adjusts colors based on your printer's ICC profile, using the Image Color Matching system (effective in Windows 98 only). If you're using an ICM-compatible monitor, adjusts printed colors to closely match screen colors.

sRGB

Adjusts colors using the small-gamut sRGB (standard red green blue) color space. Best for color matching with other sRGB devices, or for images designed for the Web.

- 7. Click **Save Settings** if you want to have your advanced settings available for reuse. Then type a name for the group of settings and click **Save**. The name is added to your list of custom settings.
- 8. When you're finished setting advanced printer options, click OK.

Color Management Settings

The following tables list the color management settings available when you choose either Color Adjustment or Photo Enhance3.

Color adjustment modes

5	
Automatic	Analyzes the color information in your image and optimizes color correction accordingly.
Photo-realistic	Produces sharper images and more vivid colors by automatically adjusting the contrast, saturation, and brightness. Corrects for overall under- or over-exposure of the original image.
Vivid	Intensifies colors and lightens the midtones and highlights. Best for print jobs with non-photographic images.
No Color adjustment	Disables color management in the printer driver.

PhotoEnhance3 settings

Tone	Lets you choose from Normal for standard images, Hard for high contrast, and Sepia for an old-fashioned look.
Digital Camera Correction	Corrects noise and other flaws common to digital camera images.
Sharpness	Sharpens the focus of your image.

Managing Print Jobs

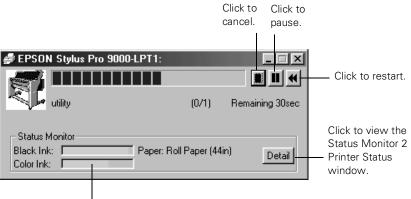
Your printer comes with several utilities that let you check on your print jobs and schedule, cancel, pause, or restart them. The Progress Meter opens each time you send a print job. The Spool Manager (not available with Windows NT) appears on the taskbar when you print. Status Monitor 2, which also appears on the taskbar, lets you check the printer's status as well as monitoring print jobs.

This section includes instructions for the following:

- Using the Progress Meter
- Using the Spool Manager

Using the Progress Meter

After you send a print job, the progress meter window appears on your screen:



Shows the lowest level in your color ink cartridges.

You can use the buttons to cancel, pause, or restart your print job. You also see information about how much ink you have left and can view the Status Monitor 2 Printer Status window. See page C-15 for more information about checking printer status.

If you don't want the progress meter to appear, you can turn it off. See page C-21 for instructions.

Using the Spool Manager

The Spool Manager (not available with Windows NT) displays the status of your print job files and lets you control them.

To open spool manager while you're printing, click the EPSON Stylus Pro 9000 button that appears on the taskbar at the bottom of the screen.

You see the Spool Manager window:

Print job 🏼 🛛	Document Name	Paper Size	Status	Progress	Started At
file —	🖨 Document	Super A3 / B Plain paper	Printing	0 of 2 Page	10:13:49 AM 10
	EPSON	Ca	ncel <u>P</u> aus	e/Resume <u>R</u> es	start <u>H</u> elp
			Co	n nmand butt	ne

To cancel, pause, resume, or restart a print job, click the job to highlight it; then click the corresponding command button on the bottom of the window.

Using Status Monitor 2

The Status Monitor 2 utility lets you check individual levels of ink in your printer, warns you when errors occur, and allows you to control the way printing is monitored.

The Status Monitor icon appears on the Windows taskbar in the bottom right corner of your screen. The color of the icon indicates the status of the printer as follows:

- Green: Ready to print
- Yellow: One of the ink cartridges is low on ink
- Red: An ink cartridge is empty, paper is jammed, or an error has occurred.
- Gray: Printer is disconnected or turned off.



You can also open the Status Monitor 2 from the Windows Start menu (under Programs, in the Epson folder). To open the Status Monitor 2 utility, double-click the icon. The main window appears:

EPSON Status Monitor 2			_ 🗆 ×
<u>Printer View S</u> ettings <u>H</u> elp			
	I		
Installed Printers			
		-	
Printer Name	Status	Job Count	
🗰 EPSON Stylus Pro 9000	Ready or Printing.	0	
Operating			NUM //

- To check your printer's status and ink supplies, double-click EPSON Stylus Pro 9000. (You can also click the Printer Status button or choose Printer Status from the Printer menu.) The Printer Status window opens (see page C-15).
- To monitor your print jobs, right-click EPSON Stylus Pro 9000 and select Job Status. (You can also click the Job Status button or choose Job Status from the Printer menu.) The Job Status window opens (see page C-16).
- To enable alert messages, right-click EPSON Stylus Pro 9000 and select Monitoring Preferences. (You can also choose Monitoring Preferences from the Settings menu.) The Monitoring Preferences window opens (see page C-17).



You can also access the Printer Status window from the Utilities menu. See page C-18 for more information.

Checking Printer Status

For more information on the status of your printer and ink supplies, you can use the Printer Status window. Follow these steps:

 From the Status Monitor 2 main window, double click EPSON Stylus Pro 9000 on the Installed Printers list. The Printer Status window opens:

Printer Status : EPSON Stylus Pro 9000 Consumables	
Model: Stylus Pro 9000 Print to: LPT1: Ready to print. Replace Ink: Cartridge UK Cancel Help	Printer status messages appear here. If an error occurs, troubleshooting tips appear here. If an ink cartridge runs out, click here to display replacement instructions.

2. To check the levels of ink remaining, click the **Consumables** tab. The Consumables window opens:

💾 Printer Status : EPSON Style			×
🛱 Current Status 🖓 Cons	sumables 🔞 Printer Info	ormation	
_ Ink			- I
		8 8	
\$ \$\$			
кс	M LC	LM Y	
	OK	Cancel	Help

3. To check network connections and other printer resources (for printers on a network), click the Printer Information tab.

Checking Print Job Status

To view detailed information on the jobs waiting to print, you can use the Job Status window. Follow these steps:

1. From the Status Monitor 2 main window, right-click EPSON Stylus Pro 9000 on the Installed Printers list and select Job Status from the drop-down menu. You see the Job Status window:

<u>Printer D</u> ocument <u>V</u> iew	<u>H</u> elp			
Document Name	Status	Owner	Progress	Started At
is Ss13022.jpg	Printing	BC	36.7MB of	2:28:28 PM 2/22/
1 jobs in queue				

- 2. To pause or delete a print job, click the job to select it.
- 3. Select Pause Printing or Cancel Printing from the Document menu.

Setting Monitoring Preferences

You can have Status Monitor 2 alert you to any error conditions while you're working on other tasks. This lets you know if one of your cartridges runs out of ink or if any other problems occur. Follow these steps to set monitoring preferences:

 From the Status Monitor 2 main window, right-click EPSON Stylus Pro 9000 on the Installed Printers list and select Monitoring Preferences from the drop-down menu. You see the Monitoring Preferences window:

	Monitoring Preferences Printer Name EPSON S	Stylus Pro 9000	Drag the
	Monitoring Interval	Long initoring interval may cause some more slowly.	Drag the slider to set monitoring interval (frequency).
Turn background monitoring on or off.	Background Monitoring Monitor this printer	Status Alert Show when printing Show when errors occur Show when consumables are low	
		OK Cancel	



You can right-click the Status Monitor icon on the taskbar to show alert boxes in front of other windows or turn off background monitoring. The icon will disappear, but you can still access Status Monitor 2 through the Start menu.

- 2. Adjust the monitoring interval by dragging the slider.
- 3. If you don't want to use background monitoring, uncheck Monitor this printer.
- 4. Turn on one or more of the Status Alert options to specify the type of alert messages you want to see.
- 5. Click OK to save your settings.

Running Printer Utilities

The utilities included with your printer software let you run the following maintenance procedures:

- Nozzle check
- Print head cleaning
- Print head alignment
- Printer ID confirmation
- Speed and progress configuration

Running Nozzle Check and Head Cleaning Utilities

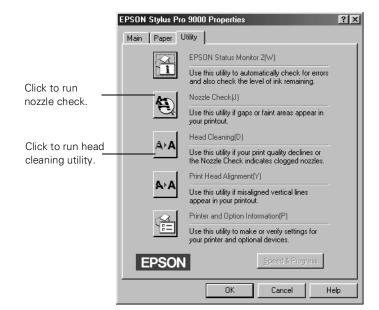
The nozzle check prints a pattern of dots that lets you see if any print head nozzles are clogged. If any dots are missing from the pattern, you can run a head cleaning cycle to clear the nozzles.

Follow these steps:

- 1. Access the Main Printer Properties dialog box.
- 2. Click the Utility tab. You see the Utility menu:



You can also access the Status Monitor 2 Printer Status window from this menu.



- 3. Click the button for the utility you want to run.
- 4. Follow the instructions on the screen to complete the process. For more information, see Chapter 3.

Running the Print Head Alignment Utility

If banding appears on your prints, or vertical lines are not straight, you need to align the print head. You can also use the control panel to align the head (as described in Chapter 3). For best results, use 13×19 -inch EPSON coated ink jet paper (short edge first). You'll need 4 sheets to complete the procedure, which includes 12 patterns of 7 rows each. The process takes about 15 minutes and aligns the print head for all modes and resolutions.

Follow these steps:

- 1. Load a sheet of paper in the printer.
- 2. Access the Main Printer Properties dialog box.
- 3. Click the Utility tab.
- 4. Click the Print Head Alignment button.
- 5. Follow the messages on your screen. The printer prints the head alignment patterns. After each sheet is printed, remove it and load another sheet.
- 6. After all the patterns have printed, choose the row number that has the smallest gap in each alignment pattern. In the example below, row 4 has the smallest gaps.

pattern	s #1-5,	#7, #9-1	2		ра	tterns	s #6, i	#8 onl	ly		
1				I I	1		ł	ł	l.		1
2					2			I.		I.	
3					3	ł		ł	T.	I	-
4					4			ł	-	-	ł
5			I I	I I	5	1.		÷.		÷.	ł.
6					6	I.					Ĩ.
7					7		1	1			1

7. Select the row you chose in step 5 for each pattern (for example, row 4), then click Finish.

Print Hea	ad Alignment				
A⊦A	Look at the alignment sheet.				
	Find the patterns on the printed sheet that are vertically aligned, and select the number of those alignment patterns from the lists below.				
	If you cannot find an aligned pattern, select the number of the most aligned pattern, and click "Realignment". The alignment sheet will be printed again.				
	#1 4 💌 #6 4 💌 #11 4 💌				
	#2 4 • #7 4 • #12 4 •				
	#3 4 💌 #8 4 💌				
	#4 4 💌 #9 4 💌				
	#5 4 💌 #10 4 💌				
	Finish Realignment Cancel				

If the set with the smallest gap is unclear and can't be selected, click the **Realignment** button and repeat from step 6.

Running the Printer and Option Information Utility

You can use the Printer utility to confirm the Printer ID. Color quality may improve after you confirm the ID number.

If you're using Status Monitor 2, this information is updated automatically. However, if a message appears prompting you to enter settings or if you change the printer's configuration, you'll need to update the Printer ID manually. Follow these steps:

- 1. Make sure paper is loaded in your printer.
- 2. Access the Main Printer Properties dialog box.
- 3. Click the Utility tab. Then click the Printer and Option Information icon.
- 4. Click the **Settings Sheet** button. The printer prints the Printer ID on a sheet of paper.

- 5. Make sure the Printer ID shown in the Printer and Option Information dialog box matches the ID on the Settings Sheet. If they don't match, change the ID numbers in the dialog box to match those on the Settings Sheet.
- 6. Click OK to exit and save your settings.

Running the Speed and Progress Configuration Utility

With this utility, you can speed up the way your printer software processes multiple-copy print jobs, optimize your printer port for the fastest data transfer rate, and configure the progress meter.

To access the Speed & Progress dialog box, you must open your printer software from the Windows Printers utility as described below.

- 1. Click Start, point to Settings, then click Printers.
- 2. Right-click the EPSON Stylus Pro 9000 printer icon and select Properties (Windows 95 and 98) or Document Defaults (Windows NT) from the menu.
- 3. Click the Utility tab. You see the Utility menu.
- 4. Click the **Speed & Progress** button. You see the Speed and Progress dialog box:

Speed & Progress	
High Speed Copies Show Progress Meter	1
EPSON Printer Port High speed (DMA) transfer enabled.	Windows NT
High Speed Copy Folder c:\windows\temp c:\ windows temp install vbe OK Cancel Help	If you have more than one hard disk drive, you can select a folder for storing multiple copy print jobs here. You don't see this box if you have only one hard disk drive.

- 5. Select from the following options:
 - High Speed Copies speeds up printing of multiple copies of the same document using hard disk space as a cache. If you have multiple hard drives, you can select a high speed copy folder for storing copies.
 - Show Progress Meter lets you control whether or not the Progress Meter is displayed when you send a print job.
 - EPSON Printer Port (not available with Windows NT 4.0) lets you optimize the transfer rate of your printer port for EPSON printers instead of using the Windows default printer port. You may see one of these messages beneath the EPSON Printer Port option:

High speed (DMA) transfer enabled tells you that you're already using fast DMA transfer mode.

For higher data transfer rates, use DMA transfer lets you know that you can speed up printing by enabling DMA transfers on your system. See your computer documentation or contact your computer manufacturer's technical support for instructions on using DMA transfers, if your computer supports them.

If you see no message, you cannot enable DMA transfers on your system.

6. Click OK to close the Speed & Progress dialog box and return to the Utility menu. Then click OK again to exit the Printers utility.

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