

# 4

## Product maintenance

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# Preventative maintenance

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## Note

This manual is used to service the entire HP color LaserJet 9500 Series printer and to service the HP color LaserJet 9500mfp *print engine* only. To service the ADF/scanner portion of the HP color LaserJet 9500mfp, see your *HP Scanner/ADF Service Manual for the HP LaserJet 9000mfp/9000Lmfp/9040mfp/9050mfp/9500mfp* (PN C8549-90955). To service the 2,000-sheet side-input tray, see your *2,000-sheet Side-Input Tray Service Manual* (PN Q1891-90901).

A complete service manual bundle is available by ordering the *Service Bundle for HP Color LaserJet 9500/9500mfp* (PN C8549-99001). The service bundle includes the manuals listed above, this print engine manual, and the *Paper Handling Accessories Service Addendum* (PN C85693-90002).

Throughout this document, the term “printer” is used to refer to both the HP LaserJet 9500 Series printer models *and* the HP LaserJet 9500mfp. Make sure to read the headings and text carefully to understand the context of the term.

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The image transfer, image cleaning, and image fuser kits are used in a preventative maintenance routine for the printer.

## Image transfer kit

The image transfer kit (part number C8555-67901) contains the following parts: the transfer roller, the transfer belt, one charcoal filter, one toner wipe, two small tray rollers, and seven large tray rollers.

The image transfer kit should be replaced after every 200,000 pages of printing. When the counter reaches 200,000 pages, the printer stops printing until the kit is replaced and the count is reset at the control panel.

Hewlett-Packard recommends that you place an order for a replacement image transfer kit when the `ORDER TRANSFER KIT` message first appears on the control panel display.

The product number for the image transfer kit for the HP color LaserJet 9500 Series printer and the 9500mfp is C8555A.

## Storing the image transfer kit

- Do not remove the image transfer kit from its package until you are ready to use it. Touching the belt can degrade print quality.
- Store the kit in a cool, dry location. Sudden changes in temperature and humidity can cause condensation to form on the belt, which degrades print quality.
- Store the kit in a horizontal position.

## Image cleaning kit

The image cleaning kit (part number C8554-67901) contains one transfer cleaner, one air filter, one toner wipe, and one toner collection bottle.

The entire image cleaning kit should be replaced at or before 50,000 pages of printing. The cleaning kit will need to be replaced earlier than 50,000 pages if you are printing less than 2.5 percent or more than 5 percent toner coverage per color per page. Hewlett-Packard recommends that you place an order for a replacement cleaning kit when `ORDER CLEANING KIT` first appears on the control panel display.

The product number for the cleaning kit for the HP color LaserJet 9500 series printer and the 9500mfp is C8554A.

## Image fuser kit

The image fuser kit (part number C8546-69007) contains a fuser. It should be replaced after every 100,000 pages of printing. When the counter reaches 100,000 pages, the printer stops printing until the kit is replaced and the count is reset at the control panel.

Hewlett-Packard recommends that you place an order for a replacement image fuser kit when the ORDER FUSER KIT message first appears on the control panel display.

The product number for the image fuser kit for the HP color LaserJet 9500 Series printer and the 9500mfp is C8556A.

# Cleaning the printer and accessories

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**Note**

This manual contains service information for the HP color LaserJet 9500 Series printer and the print engine portion of the HP color LaserJet 9500mfp. For MFP models, you also need the *HP Scanner/ADF Service Manual for the HP LaserJet 9000mfp/9000Lmfp/9040mfp/9050mfp/9500mfp* (PN C8449-90955) and the *2,000-sheet Side Input Tray Service Manual* (PN Q1891-90901) for complete MFP service information.

A complete service manual bundle is available by ordering the *Service Bundle Sheet for HP Color LaserJet 9500/9500mfp* (PN C8549-99001). The service bundle includes the manuals listed above, this print engine manual, and the *Paper Handling Accessories Service Addendum* (PN C85693-90002).

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To maintain superior print quality and performance, use the following procedures to thoroughly clean the printer and the finishing device.

## General cleaning

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**WARNING!**

In order to avoid shock hazard, turn the printer off and unplug all power cords before you begin these steps.

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**CAUTION**

Do not use ammonia-based cleaners on the printer or finishing device. While cleaning the printer, be careful not to touch the transfer or delivery rollers. Skin oils on the roller can cause print-quality problems.

- clean the outside of the printer with a water-dampened cloth
- clean the inside of the printer with a dry, lint-free cloth

## Cleaning spilled toner

Defective print cartridges can develop leaks. After a jam has occurred, some toner might remain on the rollers and guides inside of the printer. The pages that print immediately after the jam can pick up this toner. A blank cleaning page is printed after a jam occurs in the fuser area.

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**Note**

To clean skin and clothing of toner spills, remove as much toner as possible with dry tissue, and then wash the clothing in cold water. Hot water causes toner to permanently set into clothing.

## Vacuum specifications

Do not vacuum the printer or any spilled toner with a conventional vacuum. Toner particles used in this printer might be too fine for effective vacuuming and could result in damage to the conventional vacuum cleaner.

A vacuum cleaner specifically designed for cleaning toner can be used if it is capable of filtering fine particles (5 microns in diameter).

Dispose of waste toner in accordance with local requirements. Do not discharge toner particles in drains.

## First aid measures

- **Ingestion**—If toner is ingested, rinse your mouth thoroughly with water and drink several glasses of water. If irritation occurs, consult a physician.
- **Inhalation**—If toner particles are inhaled, move to fresh air immediately. If irritation occurs, consult a physician.
- **Eye contact**—If toner comes in contact with the eyes, immediately flush them with plenty of water for at least 15 minutes. If irritation occurs, consult a physician.
- **Skin contact**—If toner spills on skin, remove as much toner as possible using dry tissue (more than one might be needed), and then wash the affected area of the skin with cold water. If irritation occurs, consult a physician.

## Cleaning procedures

Some print-quality problems can be resolved by cleaning certain printer components rather than replacing a printer part.

### Cleaning the post charger

- 1 Open the right side door.
- 2 Locate the blue handle of the post charger cleaner on the front left of the image transfer belt.
- 3 Gently slide the post charger cleaner to the right until it stops. The spring should be compressed.
- 4 Slide the cleaner to the left back into place.
- 5 Repeat steps 3 and 4 to clean the post charger a second time.
- 6 Close the upper right door. If the door does not close, make sure that the blue handle of the post charger cleaner is positioned at the far left of the image transfer belt.

### Cleaning the separation guide, feed guide, and front fuser guide

Clean these guides with lint-free cloth. If any dirt or dust cannot be removed, use alcohol on the lint-free cloth.

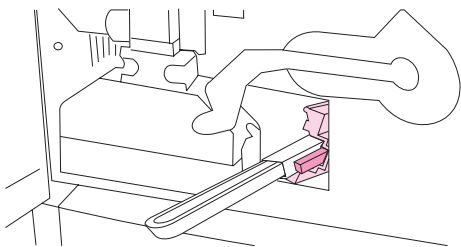
### Cleaning the fuser input

- 1 Open the front doors of the printer, and then swing the large green lever down.
- 2 On the front of the printer, locate the blue transfer-roller handle beneath the large green lever. Grasp the handle and pull the roller out of the printer. Set the roller on a clean, flat surface.

#### CAUTION

Do not touch the black foam roller, and be careful not to scratch the underside of the image transfer belt as you remove the roller from the printer.

- 3 Remove the green tongs and blue brush mounted on the inside of the right front door.
- 4 Slide the open end of the brush onto the tongs until it snaps into place.
- 5 Hold the tongs so that the brush is at a 45-degree angle and align the brush with the transfer roller slot. Insert the brush into the slot.



**Figure 17.** Cleaning the fuser input (step 5)

- 6 Slide the brush into the transfer roller slot until it stops, and then slide the brush toward you until the brush is almost out of the transfer roller slot.

#### CAUTION

Do not pull up or sideways on the brush. Push and pull the brush straight in and out of the printer.

- 7 Repeat step 6 three times, and then remove the brush from the printer.

- 8 Remove the brush from the tongs by raising the snap on the back of the brush and pulling the brush away from the tongs.
- 9 Replace the tongs and brush on the inside of the right door.
- 10 Using one hand to support the underside of the transfer roller, turn the roller to a 45-degree angle and align the roller with the slot. Slide the roller into the slot until it stops.

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**CAUTION**

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Do not touch the black foam roller, and be careful not to scratch the underside of the image transfer belt as you insert the roller into the printer.

- 11 Swing the green lever up, and then close the front doors.

## **Cleaning the registration roller unit**

- **Registration roller:** Clean the registration roller by using a lint-free cloth. If any dirt or dust cannot be removed, use alcohol on the lint-free cloth.
- **Pre-registration roller:** Clean the registration roller by using a lint-free cloth. If any dirt or dust cannot be removed, use alcohol on the lint-free cloth.

## **Cleaning the other rollers**

Clean these rollers by using a lint-free cloth. If any dirt or dust cannot be removed, use alcohol on the lint-free cloth.

## **Cleaning the tray 1 separation pad**

Clean the tray 1 separation pad by using a lint-free cloth.

# Print cartridges

When you use an authentic HP print cartridge, you can obtain the following types of supplies information throughout the cartridge life:

- the amount of cartridge life remaining
- the estimated number of pages remaining
- the number of pages printed
- other supplies information

Authentic HP print cartridges for the HP color LaserJet 9500 series printer have the following part numbers:

Print cartridge	Product number	Part number
Black	C8550A	C8550-67901
Cyan	C8551A	C8551-67901
Yellow	C8552A	C8552-67901
Magenta	C8553A	C8553-67901

Print cartridge life is directly proportional to the coverage of toner on the page. Each color print cartridge prints approximately 25,000 pages of letter-size or A4-size media at 5 percent toner coverage (a full page of text).

Hewlett-Packard recommends that you place an order for a replacement print cartridge when the `ORDER <COLOR> CARTRIDGE` message first appears on the control panel display.

## Non-HP print cartridges and image drums

Hewlett-Packard Company cannot recommend the use of non-HP print cartridges and image drums, either new or remanufactured. Because they are not HP products, HP cannot influence their design or control their quality. Service or repairs that are required as a result of using a non-Hewlett-Packard print cartridge are *not* covered under the printer warranty.

When a non-HP cartridge is installed, the `NON HP CARTRIDGE DETECTED` message appears on the printer control panel display. You must press the **CANCEL JOB** (LJ 9500) or the **STOP** (LJ 9500mfp) to continue printing. The message remains on the control panel display until all of the non-HP cartridges are replaced with authentic HP cartridges. The non-HP cartridge cannot report on the status of the print cartridge, such as the amount of cartridge life remaining, the estimated number of pages remaining, the number of pages printed, and other supplies information.

Non-HP cartridges do not report the `ORDER <COLOR> CARTRIDGE` and `REPLACE <COLOR> CARTRIDGE` messages.

## Authenticating print cartridges

When you insert a print cartridge in the printer, the printer informs you if the cartridge is not a HP print cartridge. If you insert a used HP cartridge from another HP printer, the printer might print as many as 40 pages before it identifies the cartridge as a genuine HP cartridge and then reactivates the supply-status features. You can override the `NON HP CARTRIDGE DETECTED` message by pressing the **CANCEL JOB** (LJ 9500) or the **STOP** button (LJ9500mfp).

If the printer control panel message states that this is not a genuine HP print cartridge, and you believe you purchased an HP cartridge, call the HP fraud hotline at (1) (887) 219-3183 (toll-free in North America).

## Storing print cartridges

Follow these guidelines for storing print cartridges:

- Do not remove the print cartridge from its package until you are ready to use it.
- Store the cartridge in a horizontal position.
- Store the cartridge in a location within a temperature range of 0° to 35° C (32° to 95° F) and a relative humidity range of 35 percent to 85 percent.

If the print cartridge must be removed from the printer, always store the cartridge under the following condition:

- inside the protective bag in which it was originally packaged
- in a dark cabinet, away from direct sunlight
- with the correct side up, and in a horizontal position (not standing on end)
- in a temperature that is listed above
- away from ammonia or other organic-solvent fumes

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### CAUTION

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Never ship the printer with print cartridges or image drums installed. Excessive vibration during shipping can cause toner to leak, contaminating the printer.

# Image drums

Each color image drum prints approximately 40,000 pages of letter-size or A4-size media. When you use a new HP image drum, you can obtain the following types of supply information throughout its life:

- the amount of image-drum life remaining
- the estimated number of pages remaining
- the number of pages printed
- the other supply information

Authentic HP image drums for the HP color LaserJet 9500 series printer have the following part numbers:

Image drum	Product number	Part number
Black	C8560A	C8560-67901
Cyan	C8561A	C8561-67901
Yellow	C8562A	C8562-67901
Magenta	C8563A	C8563-67901

Hewlett-Packard recommends that you place an order for a replacement image drum when the ORDER <COLOR> DRUM message first appears on the control panel display.

## Storing image drums

Follow these guidelines for storing image drums:

- Do not remove the drum from its package until you are ready to use it.

### CAUTION

Never expose the image drum to direct sunlight, or to room light. Bright light and direct sunlight can permanently damage a print cartridge or image drum.

- Store the drum in a horizontal position.
- Store the drum in a dark, dry location with a temperature range of 0° to 35° C (32° to 95° F) and a relative humidity range of 35 percent to 85 percent.
- Avoid exposing the drum to magnetic sources.

## Handling instructions

- Do not touch the surface of the photosensitive drum.
- Do not set the drum on carpet. Set the drum on a flat, clean, dust-free surface.
- Do not expose the drum to unnecessary vibrations or shock.
- Do not expose the photosensitive drum to strong light. Blurred areas on the page might indicate that the drum has been exposed to light for too long. This causes permanent damage to the photosensitive drum. If this occurs, replace the drum.
- Never manually rotate the drum, especially in the reverse direction; it can cause internal damage and toner spills.

# Firmware upgrades to the printer or MFP

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**Note**

Throughout this document, the term “printer” is used to refer to both the HP LaserJet 9500 Series printer models *and* the HP LaserJet 9500mfp. Make sure to read the headings and text carefully to understand the context of the term.

## Downloading the new firmware from the HP Web site

For support information about downloading new firmware from the Web, go to:  
[http://www.hp.com/go/clj9500\\_firmware](http://www.hp.com/go/clj9500_firmware)

## Downloading the new firmware to the printer

The printer can receive an.rfu update as long as it is in a `READY` state. The printer waits for all of the I/O channels to become idle before performing the update.

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**Note**

The firmware update involves a change in the format of nonvolatile random-access memory (NVRAM). Any menu settings that are changed from the default settings return to default settings and must be changed again if you want settings that are different from the defaults. Examples of settings that are affected in this way are tray types, default symbol sets, and Web access alerts.

The elapsed time for an update depends on the I/O transfer time, as well as the time that it takes for the printer to reinitialize. The I/O transfer time depends on a number of things, including the speed of the host computer that is sending the update and the I/O method (Fast InfraRed Connect [FIR], parallel, or network). The reinitialization time depends on the specific hardware configuration of the printer, such as the number of EIO devices installed, the presence of external paper-handling devices, and the amount of memory installed.

If the remote firmware update process is interrupted before the firmware is downloaded (when `RECEIVING UPGRADE` appears on the control panel), the firmware file must be sent again. If power is lost during the flash DIMM update (when `UPGRADING PRINTER` appears on the control panel), the update is interrupted and the message `RESEND UPGRADE` appears (in English only) on the control panel. The update must be sent only by a computer that is attached to the parallel port of the printer.

Finally, any print jobs ahead of the .rfu job in the queue are printed before the update is processed.

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**Note**

The printer automatically turns off and then on again after processing the update.

## Remote firmware update through a local Windows® port

If the printer is connected through a local port (USB or parallel), then you can send the .rfu file directly to the printer by using a **Copy** command from a command prompt or an MS-DOS (R) window. At the command prompt, perform the following steps for your operating system.

### Windows 95, Windows 98, or Windows Me

- 1 From a command prompt or in an MS-DOS window, type:  
Mode lpt1:.,p

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#### Note

If the printer is attached to a parallel port other than LPT1, then substitute the proper LPT port number in the mode command.

- 2 Press **ENTER**.
- 3 The response you receive should be similar to these examples:
  - LPT1 Not Rerouted
  - Resident portion of MODE loaded
  - Infinite retry on parallel printer time-out
- 4 At a command prompt, type:  
copy /b <FILENAME> <PORTNAME>

where <FILENAME> is the name of the .rfu file (including the path) and <PORTNAME> is the name of the appropriate printer port (such as LPT1). For example, C:\>copy/b c:\9500fw.rfu lpt1

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#### Note

If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type C:\>copy/b "c:\My Documents\9500fw.rfu" lpt1

- 5 Press **ENTER**. A message appears on the control panel. See "Messages during the firmware update" on page 116. At the end of the upgrade process, **READY** appears on the control panel.
- 6 Print a configuration page and verify that the firmware revision number matches the revision of the current upgrade.
- 7 Type the word "exit" at the command prompt to close the command window.

### Windows NT® 4.0, Windows 2000, Windows XP, or Windows Server 2003

The .rfu file can be sent directly to the printer by typing a copy command at a command prompt or in an MS-DOS window.

- 1 At a command prompt, type:  
copy /b <FILENAME> <PORTNAME>

where <FILENAME> is the name of the .rfu file (including the path) and <PORTNAME> is the name of the appropriate printer port (such as LPT1). For example, C:\>copy/b c:\9500fw.rfu lpt1

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#### Note

If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type: C:\>copy/b "c:\My Documents\9500fw.rfu" lpt1

- 2 Press **ENTER**. A message appears on the control panel. See "Messages during the firmware update" on page 116. At the end of the upgrade process, **READY** appears on the control panel.
- 3 At the command prompt, type the word "exit" to close the command window.

## Remote firmware update through a Windows network

If the printer is shared on a Windows network, follow these instructions.

- 1 From a command prompt or in an MS-DOS window, type:  
`copy /B <FILENAME> \\<COMPUTERNAME>\<SHARENAME>`

where <FILENAME> is the name of the .rfu file (including the path), <COMPUTERNAME> is the name of the computer from which the printer is being shared, and <SHARENAME> is the printer share name. For example, `C:\>copy /B c:\9500fw.rfu \\your_server\your_computer`

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### Note

If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type `C:\>copy/b "c:\My Documents\9500fw.rfu" \\your_server\your_computer`

- 2 Press **ENTER**. A message appears on the control panel. See "Messages during the firmware update" on page 116. At the end of the upgrade process, **READY** appears on the control panel. The message "1 file(s) copied" appears on the computer screen.

## Remote firmware update for UNIX<sup>®</sup> systems

For UNIX systems, any command method that delivers the .rfu file to the printer is acceptable, including the following:

- 1 At the command prompt, type:  
`$cp </home/yourmachine/FILENAME/dev/parallel>`

where </home/yourmachine/FILENAME> contains the .rfu file.

## Remote firmware update using FTP on a direct network connection

If the HP color LaserJet 9500 series printer uses a direct network connection, use file transfer protocol (FTP) to update your HP LaserJet firmware. Complete the following steps for your operating system.

### Windows operating systems

- 1 Take note of the TCP/IP address on the EIO Jetdirect page. The HP Jetdirect page is the second page of the configuration page printout.

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### Note

Before connecting to the printer, make sure that the printer is not in PowerSave mode. Also, make sure that any error messages are cleared from the control panel.

- 2 Open a command window on your computer.

- 3 Type:  
`ftp <TCP/IP PRINTER ADDRESS>`

For example, if the TCP/IP address is 192.168.0.90, type `ftp 192.168.0.90`

- 4 Press **ENTER**.
- 5 When prompted for the user name, press **ENTER**.
- 6 When prompted for the password, press **ENTER**.
- 7 Type the word "bin" at the command prompt.
- 8 Press **ENTER**. The message "200 Types set to I, Using binary mode to transfer files" appears in the command window.

- 9** Type:  
put <FILENAME>

where <FILENAME> is the name of the .rfu file that was downloaded from the Web, including the path. For example, type:  
put C:\LJ\9500FW.RFU

and then press **ENTER**.

---

**Note**

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If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type put "c:\My Documents\LJ\9500fw.rfu"

- 10** The following series of messages appears in the command window:

- 200 PORT command successful
- 150 Opening BINARY mode data connection
- 226 Ready
- 226 Processing Job
- 226 Transfer complete

A message containing transfer speed information appears.

- 11** The download process begins and the firmware is updated on the printer. This can take about five minutes. Let the process finish without further interaction with the printer or computer.

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**Note**

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The printer automatically turns off and then on again after processing the upgrade.

- 12** At the command prompt, type the word "bye" to exit the ftp command.
- 13** At the command prompt, type the word "exit" to return to the Windows interface.

## Mac operating systems

- 1 Take note of the TCP/IP address on the EIO Jetdirect page. The Jetdirect page is the second page of the configuration page printout.
- 2 Open a Terminal window on your Macintosh. You can find the Terminal application on the computer hard drive under the Applications/Utilities folder.
- 3 Type:  
FTP <TCP/IP PRINTER ADDRESS>

For example, if the TCP/IP address is 192.168.0.90, type FTP 192.168.0.90.

- 4 Press **ENTER**.
- 5 When prompted for a user name and password, press **ENTER**.
- 6 Type put:  
<path>

where <path> is the location where the .rfu file was downloaded from the Web, including the path. For example type put C:\LJ\9500FW.RFU, and then press **ENTER**.

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### Note

If the file name or path includes a space, you must enclose the file name or path in quotation marks. For example, type put "c:\My Documents\LJFW.RFU"

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### Note

To ensure that the entire proper path to the .rfu file is placed in the **Put** command, type the word "put", then type a space, and then click and drag the .rfu file on to the terminal window. The complete path to the file will be automatically placed after the **Put** command.

- 7 The download process begins and the firmware is updated on the printer. This can take about five minutes. Let the process finish without further interaction with the printer or computer.

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### Note

The printer automatically turns off and then turns on again to activate the update.

## Remote firmware update using FTP through a browser

Follow the instructions below to use FTP through a browser to update the printer firmware remotely.

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### Note

The following instructions can be used on Windows or Mac operating systems.

- 1 Open a browser window.
- 2 In the address line of the browser, type:  
ftp://<IPADDRESS>

where <IPADDRESS> is the TCP/IP address of your printer. For example, if the TCP/IP address is 192.168.0.90, type FTP 192.168.0.90

- 3 Locate the .rfu file for the printer.
- 4 Drag and drop the .rfu file onto the PORT1 icon in the browser window.

## Remote firmware update using Fetch (Mac OS 8.6 and OS 9. x only)

For Mac OS 8.6 through 9.x OSs, a shareware program called Fetch provides FTP control for a **Put** command. Download and install the program from:

<http://download.cnet.com/downloads/0-10207-100-5250613.html>

Follow these instructions to use Fetch.

- 1 Start the program by clicking on the Fetch icon.
- 2 Type the IP address of the printer in the Host: box
- 3 Click the **Put Files** button and browse to the location of the .rfu file.
- 4 Double-click the file to select it and download it to the printer. A confirmation message appears in the main window.
- 5 Click **OK**.

## Remote firmware update using the HP LaserJet utility (Mac OS 8.6 and OS 9. x only)

Follow these instructions to update the firmware using the HP LaserJet utility.

- 1 The first step is to make sure you have the tools and files necessary for the update. You will need the HP LaserJet utility and the 9500fw.rfu file, which is the firmware file for the printer.

The HP LaserJet utility can be found on the HP color LaserJet 9500 printing-system software CD-ROM that came with the printer or MFP. If you do not have the software CD-ROM, you can obtain the HP LaserJet utility by downloading the latest printer installer from <http://www.hp.com>

The firmware file (9500fw.rfu) can be downloaded from [http://www.hp.com/go/clj9500\\_firmware](http://www.hp.com/go/clj9500_firmware)

When you have the firmware file and the HP LaserJet utility, you are ready to begin the upgrade process.

- 2 Launch the HP LaserJet utility.
- 3 Click **Select Printer** and locate the printer you would like to upgrade on the network.
- 4 Select the printer on the right side of the dialog box, and click **OK**. An information dialog box for the HP color LaserJet 9500 Series printer or MFP appears.
- 5 On the left side of the information dialog box, click **Files**. A dialog box appears that allows you to choose a file to be downloaded to the printer.
- 6 Click **Select File**.
- 7 Locate the 9500fw.rfu file on your hard disk, and click the file name to highlight it. Then click **Select**. The **Files** dialog box updates showing the 9500fw.rfu file under **File to download**.
- 8 Click **Download**.

The HP LaserJet utility starts downloading the file to the printer. A progress bar keeps you updated on how much of the file has been downloaded. When the file is downloading, **RECEIVING UPGRADE** appears on the control panel. After the file downloads to the printer, **PERFORMING UPGRADE** appears on the control panel.

---

### Note

The printer automatically turns off and then turns back on again after processing the upgrade.

- 9 After the printer turns on again and finishes initializing, print a configuration page to make sure that the new firmware is installed. Press **22** on the control panel to print a configuration page.

## Remote firmware update using the LPR command

### Note

This remote firmware update method is for use in Windows NT 4.0, Windows 2000, Windows XP, and Windows Server 2003.

Follow the instructions below to update the printer software remotely by using the LPR command.

- 1 From a command window, type:  
lpr -P <IPADDRESS> -S <IPADDRESS> -o l <FILENAME>  
or  
lpr -S <IPADDRESS> -Pbins <FILENAME>

where <IPADDRESS> can be either the TCP/IP address or the hostname of the printer, and where <FILENAME> is the filename of the .rfu file.

### Note

The parameter (-o l) consists of a lowercase "O", not a zero, and a lowercase "L", not the numeral 1. This parameter sets the transport protocol to binary mode.

- 2 Press **ENTER**. A message appears on the control panel. See "Messages during the firmware update" on page 116. At the end of the upgrade process, **READY** appears on the control panel.
- 3 Type the word "exit" at the command prompt to close the command window.

## Using HP Web Jetadmin to download the firmware to the printer of MFP

This procedure requires that you install HP Web JetAdmin version 7.0 or later on your computer. Complete the following steps to update a single printer through HP Web JetAdmin after downloading the .rfu file from the HP Web site.

- 1 Start HP Web Jetadmin.
- 2 Type the TCP/IP address or IP host name of the printer in the **Quick Device Find** field, and then click **Go**. The printer Status window appears.
- 3 Open the Device Management folder in the drop-down list in the Navigation panel. Navigate to the Device Lists folder.
- 4 Expand the Device Lists folder and select All Devices. Locate the printer or MFP you want to update in the list and click to select it.
- 5 Locate the drop-down box for **Device Tools** in the upper-right corner of the window. Select **Update Printer Firmware** from the **Choose Action** list.
- 6 If the name of the .rfu file is not listed in the **All Available Images** box, click **Browse** in the **Upload New Firmware Image** dialog box and navigate to the location of the .rfu file you downloaded from the Web at the start of this procedure. If the filename is listed, select it.
- 7 Click **Upload** to move the .rfu file from your hard drive to the HP Web JetAdmin server.
- 8 Refresh the browser.
- 9 Select the .rfu file from the **Printer Firmware Update** drop-down menu.
- 10 Click **Update Firmware**. HP Web Jetadmin sends the selected .rfu file to the printer or MFP. A message appears on the control panel. See "Messages during the firmware update" on page 116. At the end of the upgrade process, **READY** appears on the control panel.

### Note

HP Web Jetadmin 6.5 can be used to perform multiple or unattended installations.

- 1 Start HP Web Jetadmin.
- 2 Create a device group. A simple way to do this is to follow these steps:
  - a Click **Device Management**, and then click **All Devices**.

- b Shift-click to select the printers and MFPs that you want to be included in the group, and then click **OK**.
  - c When prompted, type a name for the new device group, and then click **OK**.
- 3 To modify several printers in a group, click the group name, and then click **Open**.
  - 4 The drop-down menu for **Device Group Tools** appears in the right side of the window. Scroll if necessary to view it.
  - 5 In the **Device Group Tools** drop-down box, select an action. Type in the appropriate information, and then click **Return to Device Group** when you are finished.

## Messages during the firmware update

The product control panel shows three messages that appear during a normal update process.

**Table 39. Update messages**

Printer message	Explanation
RECEIVING UPGRADE	Appears when the printer recognizes the start of an .rfu update and until the printer verifies the validity and integrity of the .rfu update.
UPGRADING PRINTER	Appears when the printer is reprogramming the firmware.
WAIT FOR PRINTER TO REINITIALIZE	Appears from when the printer finishes reprogramming the DIMM until the printer reinitializes.

### Note

To verify that the firmware update succeeded, print a new configuration page from the control panel and make sure that the firmware date code on the configuration page has changed.

## Troubleshooting a firmware update

The following table lists the causes and results of possible interruptions to the firmware update.

**Table 40. Troubleshooting a firmware update**

Cause	Result
Control panel cancelled a job.	No update occurred.
A break in the I/O stream occurred during a send.	No update occurred.
A power cycle occurred during RECEIVING UPGRADE.	No update occurred.
A power cycle occurred during UPGRADING PRINTER.	No update occurred (resend the update through a parallel port).
A power cycle occurred during WAIT FOR PRINTER TO REINITIALIZE.	The update is complete.

### Note

Print jobs sent to the printer while an update is in process do not interrupt the update.

The following table lists possible reasons for the failure of a remote firmware update and the corrective action required for each situation.

**Table 41. Troubleshooting a firmware update failure**

Cause	Action
The .rfu file is corrupted.	The printer recognizes that the file is corrupted and rejects the update. Download the file again and send the new file to the printer. Download the file from: <a href="http://www.hp.com/go/clj9500_firmware">http://www.hp.com/go/clj9500_firmware</a>

**Table 41. Troubleshooting a firmware update failure**

<b>Cause</b>	<b>Action</b>
The .rfu file contains the wrong printer model.	The printer recognizes the model mismatch and rejects the update. Download the correct file and send it to the printer. Download the file from: <a href="http://www.hp.com/go/clj9500_firmware">http://www.hp.com/go/clj9500_firmware</a>
The upgrade is interrupted.	See table 40.
A flash hardware failure occurred.	The device might have a hardware failure.