Important General Tips

The Apple Color LaserWriter is one of the easiest in its class to use and maintain. Still, for all the comparative simplicity of the Apple Color LaserWriter, users who are new to color laser printing technology may be impressed by its complex nature.

So, take a few minutes to discover how you can great results from the Apple Color LaserWriter. (Any knowledge you may have about monochrome laser printing will be useful; be prepared for new information specific the color laser printing process.) Here are some useful tips on how to optimize your experience using the Apple Color LaserWriter and the quality of your color documents. The topics include:

- The Printing Environment
- LaserWriter Software
- The Standard “Break-In” Period
- Getting Maximum Use Out of Printer Supplies
- Oil Spots

In addition to the general tips covered in this document, the following topics are detailed in separate documents contained on the Apple LaserWriter Great Results CD:

- Performance Tips
• Image Quality Tips
• Application-Specific Tips

• Working With Transparencies
The Printing Environment

Selecting a location for the Apple Color LaserWriter.

When choosing a location to set up the Apple Color LaserWriter consider the physical space as well as environmental conditions. The location you choose must be:

- Sturdy enough to accommodate the weight of the printer, which is about 110 pounds.
- A level surface. (Uneven surfaces can cause the printer to flood the fuser sensor and keep the printer from printing.) Use a level or a round pencil to test the surface before placing the printer on it. If the surface is level, the printer will also be level.
- Away from exterior doors, air conditioning vents, and heating vents. (Fluctuating temperatures can affect image quality and even cause paper jams.)

Refer to the manual and the Setup Tips document on this CD for more information on setting up your Color LaserWriter.

Storing printer supplies.

Environmental conditions such as temperature and humidity can affect print quality. This applies to the printer itself as well as its printer supplies such as toner, the OPC, fuser oil, and paper. Therefore, it’s best to store all printer supplies in the same environment as the printer. This helps avoid problems that can result from, for example, putting “cold” toner or paper into a warm printer.
The Standard “Break-In” Period

For a new Color LaserWriter.

Like many mechanical products, the Apple Color LaserWriter has a “break-in” period during which print quality steadily improves. The normal break-in period for a brand new Color LaserWriter is approximately 500 to 1,000 pages. (Check the “Tip” below about getting through the break-in period quickly.)

One of the most visible indications of the break-in period is banding. Banding is a printing artifact that appears in a “corduroy-like” pattern across the narrow width of the page. This decreases through the break-in period. However, some level of banding is inevitable with this technology, particularly with large fields of solid dark colors.

Tip: Here’s a way to get through the break-in period quickly without using a lot of toner:

• Create a blank document (using a simple word processing program, for example).

• Print a series of blank pages.

• Check your progress through the break-in period by printing a color image that previously showed banding (for example, an image with fields of solid color).

Important note: Be certain not to reuse the blank pages in the Color LaserWriter. Paper that has been through the printing process is dry and jams easily.

For new printer supplies.

Some people have reported temporary banding with the installation of new printer supplies (such as toner, fuser oil, and the organic photoconductor, or OPC). In such cases, the break-in period for new printer supplies is much shorter than it is for a brand new printer.
**LaserWriter Software**

With Macintosh systems.

Taking full advantage of the Apple Color LaserWriter’s features requires LaserWriter software version 8.3.2 or greater, which is included on the install disks that come with the printer and on this CD.

If you’re using a PCI-based Power Macintosh computer, Apple recommends using LaserWriter software version 8.3.2 or later. LaserWriter software version 8.4.1 is included on this CD in the Transport/Setup & Install folder. It is also posted on many online bulletin boards and it is available on the Apple Web page located at:

http://product.info.apple.com/printers/colorlaser/

Apple’s release of System Software version 7.5.3 runs on all Macintosh computers and includes LaserWriter software version 8.3.3.

![Print Dialog Box](image)

The version of the LaserWriter Driver installed is shown in the upper right of the Print Dialog box. The Print Dialog box shown here indicates that version 8.3.3 of the LaserWriter driver is installed.

**With Windows Software.**

If you are using Windows 3.1 or 3.1.1, use the Apple Color LaserWriter Software for Windows 3.1, version 1.1 (or greater). This version fixes a problem when printing from the Apple Color LaserWriter parallel port.
If you’re using Windows 95, use the Apple Color LaserWriter Software for Windows 95, version 1.0. Because the Apple Color LaserWriter was announced two months prior to the announcement of Windows 95, early Apple Color LaserWriter shipments did not include software for Windows 95. The appropriate software is available on this CD in the Transport/Setup & Install folder and is posted on many electronic bulletin boards or on the World Wide Web at:

http://product.info.apple.com/printers/colorlaser/
Getting Maximum Use Out of Printer Supplies

Please note that the user interface panel on the Color LaserWriter reports “low supply” conditions—as opposed to “no supply” conditions; (the indicator light comes on when about 85% of the product is used). This is so that you’ll be aware of the need and you can order new supplies before replacement is absolutely necessary. This allows time for you to obtain replacement parts before the parts are actually “out.”

It is a matter of preference whether you:

- Replace supplies immediately when the indicator light comes on (this helps ensure consistent quality)
- Replace supplies when you begin seeing in the printed output the effects of their running low (this will maximize the useful life of the products and help reduce the average cost per page)
The Organic Photoconductor (OPC).

The Apple Color LaserWriter uses an **organic photoconductor**, or OPC, for the imaging process. Like any photoconducting element, the OPC is a delicate device.

Proper handling of the OPC.

It’s important to handle the OPC carefully. Improper handling can damage the OPC, which in turn will affect the quality of every page printed on that OPC.

The photoconductor drum is made up of a soft metal-like substance that is easily scratched if touched by metal or sharp plastic. Use the orange OPC cradle when handling the OPC and touch only the plastic parts on the OPC. Be careful not to touch the gray metal drum of the photoconductor. Fingerprints and the oil from fingerprints on the OPC will appear on all pages printed with that OPC.

Be especially careful when installing or removing the OPC. While the OPC slides into the Color LaserWriter on a track, some users have scratched the photoconductor during the installation process. Insert the OPC squarely onto the track; do not insert it at an angle.
Important note: Brand new Color LaserWriter printers ship with an orange shipping screw inserted just below the OPC area. (The shipping screw should also be inserted any time the printer is transported.) You must remove and store the orange shipping screw (located below the OPC unit) before inserting the OPC.

A scratched OPC will cause a defect to appear on every printed page; the defect will repeat approximately every 5.5 inches on each page.

Avoid exposing the OPC to excessive bright light. Because it is a photosensitive device, bright light will decrease its useful life.
Getting maximum usage from the OPC.

Here’s a tip that can help you know when to replace the OPC and get maximum usage from it:

• When the OPC is new, set aside a copy of the printer’s demo page. (The demo page is one of the two pages that print automatically at startup; it’s the one with the sample photo images and the color bar at the bottom of the page). Keep this page on file.

• When the OPC indicator light comes on, begin comparing printouts of the demo page with the original demo page on file to detect fading.

• When you notice that freshly-printed pages appear uniformly faded, it’s time to replace the OPC.

Note: If some but not all of the primary printing colors (cyan, magenta, yellow, or black) appear faded, it’s likely that the toner cartridges for those colors need to be replaced rather than the OPC itself.

Measuring OPC life.

OPC life is measured in “turns.” Each full turn of the drum is one turn. The drum turns once for each black-and-white page and four times for each color page.

Each time the printer auto-calibrates, the drum completes 20 turns. (The Color LaserWriter auto-calibrates every time the printer is turned on or comes out of sleep mode and after every 100 pages printed.)
Oil Spots

Like many other color laser printers, the Color LaserWriter uses oil in the fusing process. The heated fuser rollers are covered with a light oil to assure that the colored toner adheres to your document—not to the fuser roller.

This process causes occasional oil spots to appear on printed output.

Some conditions are more likely to produce oil spots than others; a few simple pointers can help you minimize the occurrence of oil spots.

Set the Color LaserWriter up on a level and even surface.

Follow setup directions carefully.

A Color LaserWriter set up on an uneven and/or unlevel surface (or even a Color LaserWriter set up on a level surface with one of the feet placed on a raised object) can cause oil to leak onto documents and into the printer itself.

Keep the printer level during transport.

Tipping a Color LaserWriter during shipment can cause an internal oil spill, which can drip onto documents as they print.

Avoid powering the printer on and off frequently.

Each time the Color LaserWriter starts up it cycles fuser oil through the oil reservoir. This can leave excess oil on the print mechanism. In order to minimize oil spots and insure responsible energy consumption, Apple recommends the following power cycle: if you use the printer approximately five working days a week, leave the power on through all five working days and turn the printer off during the weekend.

Note: The Apple Color LaserWriter is fully compliant with EPA Energy Star guidelines for energy conservation.
Minimizing oil spots with transparencies.

Printing transparencies produces more oil spots than printing on paper. This is due to the fact that transparency film is less absorbent than paper. If you are printing transparencies and you notice oil spots, try printing a couple of pages on paper then continue with the transparency job.