
magicolor[®] 2350

User's Guide

1800683-001B

Thank You

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Registering the Printer

Mail—(Americas only) Fill out and send in the registration card enclosed in your shipment.

Internet—Go to www.onlineregister.com/minolta-qms/ and follow the instructions on the web page.

CD-ROM—Follow the instructions on the *Software Utilities* CD-ROM.

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Software Installation

1

Software Utilities CD-ROM

If you followed all the steps in the *Installation Guide* that came with your printer, then the printer is properly set up, connected to your computer, plugged in, turned on, and ready to receive the system software, drivers, and utilities on the *Software Utilities* CD-ROM.

Put the CD-ROM in your computer's CD-ROM drive and the MINOLTA-QMS AutoInstaller begins the installation process.

Drivers and Utilities

The printer driver and additional software on the *Software Utilities* CD-ROM can be installed on PC, Macintosh, and other computers using any of the following:

- Windows Me
- Windows 98
- Windows XP
- Windows 2000
- Windows NT4
- Macintosh OS 8, 9 or X (version 10.0.3 or higher)
- UNIX/Linux
- NetWare (Versions 5 and 6)
- NDPS

Drivers and PPDs



Manual installation instructions and additional information are included in the magicolor 2350 Reference Guide in case you need them.

Drivers	Use/Benefit	Installation Instructions
PostScript 2/3 Drivers <ul style="list-style-type: none">■ Windows XP/2000■ Windows Me/98■ Windows NT4	These drivers give you access to all of the printer features, including finishing and advanced layout	"Installing Printer Drivers and Utilities, Windows Environments—Auto-loading Installation" on page 12
PCL6 Drivers <ul style="list-style-type: none">■ Windows XP (1200 dpi)■ Windows 2000■ Windows Me/98	PCL6 allows access to most of the features on the printer.	Readme on the <i>Software Utilities</i> CD-ROM.

Drivers	Use/Benefit	Installation Instructions
PCL5e Drivers <ul style="list-style-type: none"> ■ Windows XP ■ Windows 2000 ■ Windows Me/98 ■ Windows NT4 	PCL5e allows limited access to features on the printer.	<p>Readme on the <i>Software Utilities</i> CD-ROM.</p> <p>You cannot install a PCL5e driver for Windows 9x or Windows NT4 without a Windows CD-ROM. This CD-ROM is required so you can supply the following files when prompted:</p> <p>For PCL5 9x—ICONLIB.DDL, UNIDRV.DLL, and UNIDRV.HLP For PC5 NT4—RASDD.DLL, RASDDUI.DLL, and RASDDUI.HLP.</p> <p>If you install the driver and skip these files, an error message displays at the end of the process.</p>
Macintosh PPDs	PostScript Printer Description (PPD) files allow you to configure options such as memory and informs the computer what options and features are available.	Readme on the <i>Software Utilities</i> CD-ROM
Windows PPDs	These PPD files allow you to install the printer for a variety of platforms, drivers, and applications.	Readme on the <i>Software Utilities</i> CD-ROM; <i>magicolor 2350 Reference Guide</i> on the <i>Documentation</i> CD-ROM
Linux PPDs	These PPDs can be used with third-party Linux print filters that use PPDs.	Readme on the <i>Software Utilities</i> CD-ROM

Utilities

Utilities	Use/Benefit	Installation Instructions
Status Monitor for Windows	This Windows utility provides information on the status of print jobs and alerts you if the printer is not functioning correctly. It works with printers connected via TCP/IP or USB.	Readme on the <i>Software Utilities</i> CD-ROM
Crown Print Monitor+ for Windows	This Windows utility provides an efficient method for transporting print jobs directly to a MINOLTA-QMS printer via the TCP/IP protocol.	Readme on the <i>Software Utilities</i> CD-ROM
MQI Download Manager	This utility provides the ability to download fonts and overlays to the printer's hard disk. It also allows you to download fonts to printer memory.	Readme on the <i>Software Utilities</i> CD-ROM
Pantone Tables	These tables allow you to match printed colors to screen colors. Provided for use with PostScript High resolution printing (600 x 600 dpi with contone imaging).	Readme on the <i>Software Utilities</i> CD-ROM
ICC/ICM Profiles	These color profiles provide support for host-based color management systems including Microsoft ICM 2 for Windows, Apple ColorSync, CorelDRAW, Kodak KCMS, Adobe Photoshop 5 and others.	Readme on the <i>Software Utilities</i> CD-ROM
Macintosh Installer	This installer automatically places all needed print-related components, such as a PostScript Printer Description (PPD) file, color profiles, screen fonts, and registration information, in the correct locations on your system and allows you to use your printer with Macintosh OS 8, 9, or X (version 10.0.3 or higher).	Readme on the <i>Software Utilities</i> CD-ROM

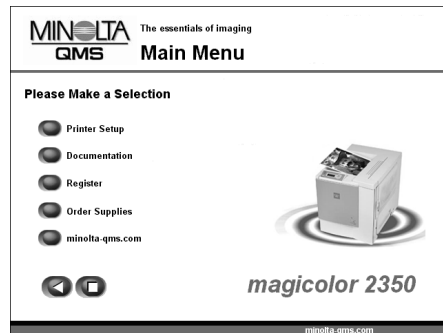
Utilities	Use/Benefit	Installation Instructions
PageScope Net Care	This utility, designed with administrators in mind, is a powerful tool allowing centralized management of network printers. It is available for Windows and UNIX platforms. Refer to the <i>PageScope Net Care</i> chapter in the <i>Reference Guide</i> or <i>PageScope Net Care Administrator's Manual</i> , both in PDF format on the <i>Documentation</i> CD-ROM.	Readme on the <i>Software Utilities</i> CD-ROM; <i>magicolor 2350 Reference Guide</i> on the <i>Documentation</i> CD-ROM
UNIX Host Software	UNIX Host Software, compatible with a variety of UNIX platforms, allows for the customization of UNIX-based queues and filters for the specific features of the Crown printer.	Readme on the <i>Software Utilities</i> CD-ROM; <i>magicolor 2350 Reference Guide</i> on the <i>Documentation</i> CD-ROM
NDPS Gateway	The NetWare interface allows Netware users to manage printers from a central location.	Readme on the <i>Software Utilities</i> CD-ROM CD-ROM; <i>magicolor 2350 Reference Guide</i> on the <i>Documentation</i> CD-ROM
PageScope Network Setup Utility	This utility provides basic configuration functions for network printers using TCP/IP and IPX protocols.	Readme on the <i>Software Utilities</i> CD-ROM; <i>magicolor 2350 Reference Guide</i> on the <i>Documentation</i> CD-ROM

Installing Printer Drivers and Utilities, Windows Environments—Auto-loading Installation

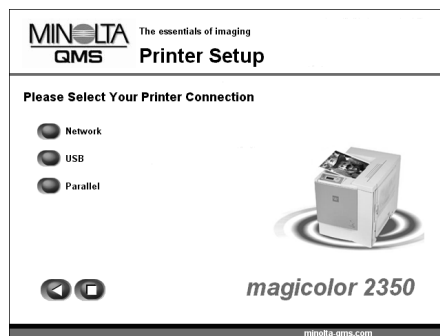
- 1 Insert the *Software Utilities* CD-ROM in your CD-ROM drive.



If the CD-ROM does not start automatically, double-click setup.exe in the root directory.



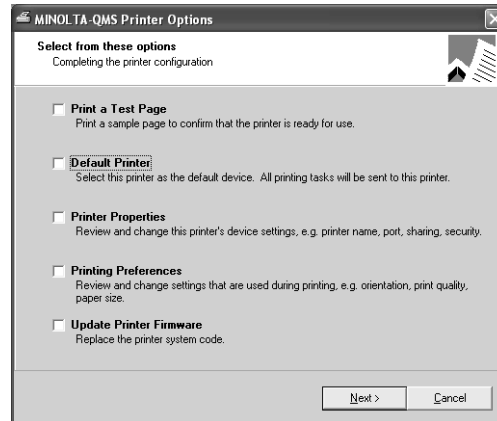
- 2 In the first window, click Printer Setup.
- 3 Choose the method by which the PC and printer are connected.
- 4 Follow the instructions on the screen.



- 5 On the Printer Options screen, use the check boxes to print a test page, make the new printer your default, set printer properties and printing preferences, or update printer firmware (also called printer system software).



Be sure to check the Update Printer Firmware box. It's very important to update the printer firmware the first time you install the printer.



- 6 On the last screen, choose Finish.
This returns you to the Main Menu screen where you can register your printer, review driver or utility documentation, or purchase supplies online. When you are finished, exit from the Installer.
- 7 When the system software installation is complete, remove the CD-ROM from your CD-ROM drive and store it in a safe place.

Installing Printer Drivers and Utilities, Windows Environments—Manual Installation

Manual installation instructions are included in the *magicolor 2350 Reference Guide*. Refer to Section 2, "Installing Printer Software, Drivers, and PPDs" for complete instructions.



Arabic and Hebrew versions of the drivers and utilities must be installed manually.

Installing Printer Drivers and Utilities, Macintosh Environments

Some Notes to Consider

- In the following sections, we assume that you are installing the software for the first time.
- The current version of Macintosh OS X has limited support for PPD (PostScript Printer Description) files. Although MINOLTA-QMS printers can be used with Macintosh OS X, not all advanced printing features are available. Advanced printing features are still available under Macintosh OS 9.

You can connect to your printer by

- A USB cable
- A crossover Ethernet cable
- Ethernet patch cables and an Ethernet hub

Macintosh—PPDs

MINOLTA-QMS developed a PostScript Printer Description (PPD) file for the magicolor 2350. This PPD works with the Macintosh Operating System's PostScript printer driver (LaserWriter) to provide support for the features on the magicolor 2350, such as print resolution and media sizes, and optional features such as duplexing and proof-then-print.

Macintosh OS 8/9—PPDs and Utilities Installation

OS 8/9 Step 1. Software Installation

- a** Insert the *Software Utilities* CD-ROM in your Macintosh's CD-ROM drive.

If this screen does not appear, double-click the MINOLTA-QMS CD-ROM icon on your Macintosh desktop.

- b** Double-click the Install icon.
- c** Follow the instructions on the screen to install the magicolor 2350 PPD and utilities.



- d** After the PPD and utilities installation is complete, choose Quit.
- e** When the system software installation is complete, remove the CD-ROM from your CD-ROM drive and store it in a safe place.

OS 8/9 Step 2. Creating a Desktop Printer

USB Connection

- a** Plug one end of the USB cable into the Macintosh and the other into the printer's USB port.
- b** Locate the Desktop Printer Utility.
If you cannot locate it on your Macintosh hard disk, it can be found on your Macintosh's system CD-ROM.
- c** Double-click the Desktop Printer Utility icon to open the application.
The first window prompts you to select the type of desktop printer you would like to create.
- d** Select Printer (USB), and select OK.
- e** Choose the Change button in the PostScript Printer Description section. In the resulting window, select the magicolor 2350 PPD, and choose Select.
- f** Choose the Change button in the USB Printer Selection section. In the resulting window, select the magicolor 2350, and click OK.

EtherTalk Connection

- a** You can connect via Ethernet in either of two ways:
 - Plug one end of a crossover Ethernet cable into the Macintosh and the other into the printer's Ethernet port.
 - Use Ethernet patch cables and an Ethernet hub. Plug one end of each patch cable into the hub, then plug the other end of one into the Macintosh and the other end of the second into the printer's Ethernet port.
- b** Open the Chooser and select LaserWriter.
- c** When your printer boots up, it finds a default zone. If your network has more than one zone and you want to use a different zone, use the Interface/Ethernet/Ethertalk/Name and Zone menus on the printer control panel to specify the new zone.



The Name and Zone menus allow you to identify 1 zone with a name up to 32 characters long. (Up to 16 characters can be entered in each of the two menus). You cannot use these two menus to identify two zones. Trailing spaces are not considered part of the zone name. All standard printable ASCII characters are valid except the @ and ' symbols. The names are case sensitive.

- d** Choose Create and then Set-Up.

LPR Connection

- a** You can connect via Ethernet in either of two ways:
 - Plug one end of a crossover Ethernet cable into the Macintosh and the other into the printer's Ethernet port.
 - Use Ethernet patch cables and an Ethernet hub. Plug one end of each patch cable into the hub, then plug the other end of one into the Macintosh and the other end of the second into the printer's Ethernet port.
- b** Locate the Desktop Printer Utility.

If you cannot locate it on your Macintosh hard disk, it can be found on your Macintosh's system CD-ROM.
- c** Select Printer (LPR), and select OK.
- d** Type in the IP Address and use the same address for the Queue name. Click OK.
- e** Choose Create.
- f** Name the printer with the IP Address or a descriptive name.

Macintosh OS X—PPDs and Utilities Installation

OS X Step 1. Software Installation—Automatic

- a** Insert the *Software Utilities* CD-ROM in your Macintosh's CD-ROM drive.

If this screen does not appear, double-click the MINOLTA-QMS CD-ROM icon on your Macintosh desktop.



- b** Double-click the install icon.



The installer uses the path *Hard Disk Name/Library/Printers/ PPDs/ Contents/Resources/* for PPDs and the path: *Hard Disk Name/Library/Fonts/* for fonts.

- c** Follow the instructions on the screen to install the magicolor 2350 PPD and utilities.
- d** After the PPD and utilities installation is complete, choose Quit.

OS X Alternate Step 1. Software Installation—Manual

Manual installation instructions are included in the *magicolor 2350 Reference Guide*. Refer to Section 2, "Installing Printer Software, Drivers, and PPDs" for complete instructions.


OS X Step 2. Creating a Printer Queue

- a** Connect the printer to the computer using a USB or Ethernet connection.

For USB, plug one end of the USB cable into the PC and the other into the matching printer port.

For Ethernet, you can connect in either of two ways:

- Plug one end of a crossover Ethernet cable into the Macintosh and the other into the printer's Ethernet port.
- Use Ethernet patch cables and an Ethernet hub. Plug one end of each patch cable into the hub, then plug the other end of one into the Macintosh and the other end of the second into the printer's Ethernet port.

- b** Locate and double-click the Print Center utility to open it.
- c** In the Printer List window, choose Add Printer.
- d** In the resulting window, select from USB, AppleTalk, or LPR to match your printer connection.
 - USB—The magicolor 2350 appears in the window.*
 - AppleTalk (for Ethernet connection)—Select the zone and scroll through printer choices. The magicolor 2350 appears in the choice list.*
 - LPR—Enter the IP Address. If the “Use Default Queue on Server” box is checked, click it to unselect it. Type in the IP Address again for the Queue name.*
- e** Choose the Printer Model popup menu to select the magicolor 2350 PPD, and choose Other.
- f** Browse to Library/Printers/PPDs/Contents/Resources/en.lproj.
 -  *The first two letters of the folder name are an abbreviation for the language. If you prefer another language instead of English, you can pick a different .lproj folder.*
- g** Select the magicolor 2350 PPD. Click Choose and then click Add.
 - The Printer List opens again.*
- h** Double-click on the printer you just created to open the Print Queue window.

UNIX, NetWare, and NDPS

For UNIX, NetWare 5, NetWare 6, and NDPS installation, refer to the *magicolor 2350 Reference Guide* on the *Documentation* CD-ROM. Section 2 of the *Reference Guide*, "Installing Printer Software, Drivers, & PPDs," includes basic information about these interfaces as well as instruction for installation.



For information about connecting using earlier versions of NetWare, check the Answer Base at www.minolta-qms.com.

Linux

For Linux PPD and PDQ installation, refer to the *magicolor 2350 Reference Guide* on the *Documentation* CD-ROM. Section 2 of the *Reference Guide*, "Installing Printer Software, Drivers, & PPDs," includes basic information about PDQ, XPDQ, CUPS, and XPP connections and instructions for installing them.

Using Media

2

Introduction

This chapter provides information on handling, selecting, loading, and storing media.

Getting Started	
What types and sizes of media can I load?	page 23
What Is the guaranteed imageable (printable) area?	page 30
Other Information	
How do I load media?	page 32
How do I use custom-size media?	page 37
How do I duplex ?	page 38
How do I store media?	page 41
Where can I order MINOLTA-QMS-approved media or get more information ?	page 43

- All media is fed short edge first, face up.
- There is a 0.157" (4 mm) non-print border for all edges on all media types. Any paper longer than 13.76" (349.6 mm) has a nonguaranteed area of 0.39" (10 mm) on the bottom of each page.
- See your application documentation for specific information on formatting data and printing.
- Try printing your data on a plain sheet of paper first to check placement.
- Only plain paper 16-24 lb bond (60-90 g/m²) can be autoduplexed. See Media Specifications for supported sizes.



Attention

Use only MINOLTA-QMS-approved media. Using unsupported media such as inkjet paper will result in damaging the printer and in voiding your warranty.

Media Specifications

What types and sizes of media can I load?

Media	Media Size		Tray*	Duplex	Mode	Weight
	Inches	Millimeters				
A4	8.2 x 11.7	210.0 x 297.0	1 or 2	Yes	Plain Paper	16–24 lb bond (60–90 g/m²)
A5	5.9 x 8.3	148.0 x 210.0	1	No		
B5 (JIS)	7.2 x 10.1	182.0 x 257.0	1	No		
Custom, Minimum	3.6 x 8.3	92.0 x 210.0	1	No		
Custom, Maximum	8.5 x 14.0	216.0 x 356.0	1	Yes**		
Executive	7.25 x 10.5	184.0 x 267.0	1	No		
Folio	8.3 x 13.0	210.0 x 330.0	1	Yes		
Foolscap	8.0 x 13.0	203.2 x 330.2	1	Yes		
Government Letter	8.0 x 10.5	203.0 x 267.0	1	Yes		
Government Legal	8.5 x 13.0	216.0 x 330.0	1	Yes		
Kai 16	7.3 x 10.2	185.0 x 260.0	1	No	Thick Stock	
Kai 32***	5.1 x 7.3	130.0 x 185.0	1	No		
Legal	8.5 x 14.0	215.9 x 355.6	1	Yes	Plain Paper	
Letter	8.5 x 11.0	215.9 x 279.4	1 or 2	Yes		
Letter Plus	8.5 x 12.7	215.9 x 322.3	1	Yes		
Statement	5.5 x 8.5	140.0 x 216.0	1	No		
UK Quarto	8.0 x 10.0	203.2 x 254.0	1	No		
A4 Transparency	8.2 x 11.7	210.0 x 297.0	1	No	Trans- parency	Use only approved media
Letter Transparency	8.5 x 11.0	215.9 x 279.4	1	No		
Japanese Postcard	3.9 x 5.8	100.0 x 148.0	1	No	Thick Stock	Use only approved media
Envelope B5 (ISO)	6.9 x 9.8	176.0 x 250.0	1	No		
Envelope C5	6.4 x 9.0	162.0 x 229.0	1	No		
Envelope C6	4.5 x 6.4	114.0 x 162.0	1	No		
Envelope Commercial #10	4.1 x 9.5	104.1 x 241.3	1	No		
Envelope International DL	4.3 x 8.7	110.0 x 220.0	1	No		
Envelope Monarch	3.9 x 7.5	99.0 x 190.5	1	No		
Envelope Chokey #3	4.7 x 9.2	120.0 x 235.0	1	No		
Envelope Chokey #4	3.5 x 8.1	90.0 x 205.0	1	No		
Thick Stock — Supported for Letter, A4, and smaller media						
Custom, Minimum	3.6 x 5.8	92.0 x 148.0	1	No	Thick Stock	25–43lb*** (91–163 g/m²)
Custom, Maximum	8.5 x 11.7	216.0 x 297.0				
Notes: * Tray 1 = Multipurpose Tray (MPT) Tray 2 = Optional Lower Feeder Unit Media Tray (letter or A4 media only) **Custom media longer than 11" (279 mm) can be duplexed. ***43 lb bond is also referred to as 90 lb index stock						

Media Types

Before purchasing a large quantity of special media, do a trial printing with the same media and check print quality. Check www.minolta-qms.com for a list of currently approved media.

General Considerations about Media

For best results, use media that is

- Suitable for plain-paper laser printers, such as standard or recycled office paper
- Stored on a flat, level surface in its original wrapper

Attention

Do not use the media types listed below. These could cause poor print quality, media jams, or damage to the printer.

Do not use media that is

- Coated with a processed surface (such as carbon paper, digitally gloss-coated media, colored paper that has been treated)
- Carbon backed
- Iron-on transfer media (heat-sensitive paper, heat-pressure paper, heat-press transfer paper)
- Cold-water-transfer paper
- Pressure sensitive
- Designed specifically for inkjet printers (superfine paper, glossy paper, glossy film, postcards, etc.)
- Already printed on by another printer, copier, or fax machine
- Dusty
- Wet (or damp)



Keep media between 35% to 85% relative humidity. Toner does not adhere well to moist or wet paper.

- Layered
- Adhesive
- Folded, creased, curled, embossed, warped, or wrinkled
- Perforated, three-hole punched, or torn
- Too slick, too coarse, too textured
- Different in texture (roughness) on the front and back

- Too thin or too thick
- Stuck together with static electricity
- Composed of foil or gilt; too luminous
- Heat sensitive or cannot withstand the fusing temperature (356° F/180° C)
- Irregularly shaped (not rectangular or not cut at right angles)
- Attached with glue, tape, paper clips, staples, ribbons, hooks, or buttons
- Acidic
- Any other media that is not approved

Plain Paper

Capacity	Tray 1 (multipurpose tray)	200 sheets of 22 lb bond (80 g/m ²) paper; capacity for other weights varies accordingly.
	Tray 2 (optional lower feeder unit media tray)	500 sheets of 22 lb bond (80 g/m ²) paper (letter/A4); capacity for other weights varies accordingly.
Orientation	Face up	
Type	Check www.minolta-qms.com/support (click on Answer Base) for currently approved media. To order approved media, go to www.q-shop.com .	
Driver Mode	Plain paper	
Weight	16–24 lb bond (60–90 g/m ²)	
Duplexing	See page 23 for supported sizes.	

Envelopes

Your printer receives the instructions to print on envelopes from your application. See your application documentation for specific information on printing envelopes.

Print on the front (address) side only. Some parts of the envelope consist of three layers of paper—the front, back, and flap. Anything printed in these layered regions may be lost or faded.

Capacity	Tray 1	Up to 50 envelopes, depending on their thickness
	Tray 2	Not supported
Orientation	Face up	

Type	Check www.minolta-qms.com/support (click on Answer Base) for currently approved media. To order approved media, go to www.q-shop.com .
Driver Mode	Thick Stock
Weight	25–43 lb bond (91–163 g/m ²)
Duplexing	Not supported
Note	43 lb bond (163 g/m ²) is also referred to as 90 lb index stock

Use envelopes that are

- Common office envelopes approved for laser printing with diagonal joints, sharp folds and edges, and ordinary gummed flaps



Because the envelopes pass through heated rollers, the gummed area on the flaps may seal. Using envelopes with emulsion-based glue avoids this problem.

- Approved for laser printing
- Dry
- Printed on the front (address) side only

Do not use envelopes that have

- Sticky flaps
- Tape seals, metal clasps, paper clips, fasteners, or peel-off strips for sealing
- Transparent windows
- Too rough of a surface
- Material that will melt, vaporize, offset discolor, or emit dangerous fumes
- Been presealed

Labels

A sheet of labels consists of a face sheet (the printing surface), adhesive, and a carrier sheet:

- The face sheet must follow the plain paper specification.
- The face sheet surface must cover the entire carrier sheet, and no adhesive should come through on the surface.

You can print continuously with label paper. However, this could affect the media feed, depending on the media quality and printing environment. If problems occur, print one sheet at a time.

Format label data within your application. Try printing your data on a plain sheet of paper first to check placement. Check your application documentation for other information on printing labels.

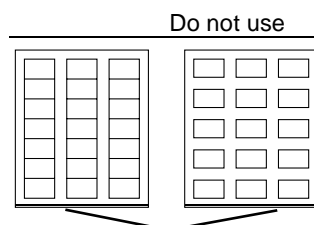
Capacity	Tray 1	Up to 50 label sheets, depending on their thickness
	Tray 2	Not supported
Orientation	Face up	
Type	Use only labels recommended for laser printers. Check www.minolta-qms.com/support (click on Answer Base) for currently approved media.	
Driver Mode	Label Stock	
Weight	16–90 lb (60–163 g/m ²)	
Duplexing	Not supported	

Use label sheets that are

- Recommended for laser printers
- Letter or A4 size (adhesive label stock)

Do not use label sheets that

- Have labels that easily peel off
- Have backing sheets that have peeled away or have exposed adhesive
Labels may stick to the fuser unit, causing them to peel off and media jams to occur.
- Are perforated



OK to use



Full-page labels
(uncut)

Letterhead and Memo Media

Format letterhead or memo data within your application. Try printing your data on a plain sheet of paper first to check placement.

Capacity	Tray 1	Up to 200 sheets, depending on their size and thickness
	Tray 2	Up to 500 sheets of 22 lb bond (80 g/m ²) paper (letter/A4 only)
Orientation	Face up	
Type	Check www.minolta-qms.com/support (click on Answer Base) for currently approved media. To order approved media, go to www.q-shop.com .	
Driver Mode	Plain paper	
Weight	16–24 lb bond (60–90 g/m ²)	
Duplexing	See page 23 for supported size. Face up—top of page first	

Postcards

Format postcard data within your application. Try printing your data on a plain sheet of paper first to check placement.

Capacity	Tray 1	Up to 50 postcards, depending on their thickness
	Tray 2	Not supported
Orientation	Face up	
Type	Check www.minolta-qms.com/support (click on Answer Base) for currently approved media. To order approved media, go to www.q-shop.com .	
Driver Mode	Thick Stock	
Weight	16–90 lb (60–163 g/m ²)	
Duplexing	Not supported	

Use postcards that are

- Recommended for laser printers

Do not use postcards that are

- Coated
- Designed for inkjet printers
- Perforated

- Warped



If the postcard is warped, press on the warped area before putting the card in Tray 1.



- Preprinted or multicolored (may result in media jams)

Thick Stock

Test all thick stock to ensure acceptable performance and to ensure that the image does not shift.

Capacity	Tray 1	Up to 50 thick stock sheets, depending on their thickness
	Tray 2	Not supported
Orientation	Face up	
Type	Check www.minolta-qms.com/support (click on Answer Base) for currently approved media. To order approved media, go to www.q-shop.com .	
Driver Mode	Thick stock	
Weight	24–43 lb bond (91–163 g/m ²)	
Duplexing	Not supported	
Notes	43 lb (163 g/m ²) bond is also referred to as 90 lb index stock.	

Do not use thick stock that is

- Mixed with any other media in the media trays (as this may cause the printer to jam)

Transparencies

Attention


Use only the MINOLTA-QMS-approved media. Using unapproved transparencies will result in damaging your printer and in voiding your warranty. Check www.minolta-qms.com for currently approved media. To order approved media, go to www.q-shop.com.




Do not fan large quantities of transparency media before loading it. Resulting static electricity may cause printing errors.




Handle transparencies only by the edges and as little as possible. If you touch the face of transparencies with your bare hands, print quality may be affected.

 *Keep the media path clean. Transparencies are especially sensitive to a dirty media path. If there are shadows on either the top or the bottom of the sheets, see chapter 7, "Maintaining the Printer."*

 *Remove transparencies as soon as possible from the output tray to avoid static buildup.*

You can print continuously with transparencies. However, this could affect the way media feeds, depending on the media quality, static buildup, and printing environment.

Format the information to be printed on the transparencies within your application. Try printing your data on a plain sheet of paper first to check placement.

 *If you have problems feeding 50 sheets, try loading only 1–10 sheets at a time. Loading a large number of transparencies at a time may cause static buildup, thus causing feeding problems.*

Capacity	Tray 1	Up to 50 transparencies, depending on their thickness
	Tray 2	Not supported
Orientation	Face up	
Type	Check www.minolta-qms.com/support (click on Answer Base) for currently approved media. To order approved media, go to www.q-shop.com .	
Driver Mode	Transparency	
Duplexing	Not supported	

Use transparencies that

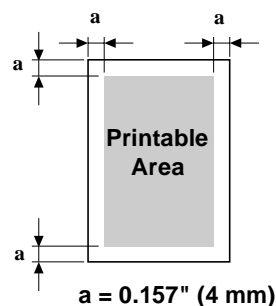
- Are approved by MINOLTA-QMS
- Have as little static electricity as possible

What Is the guaranteed imageable (printable) area?

Each media size has a specific imageable area, the maximum area on which the printer can print clearly and without distortion.

This area is subject to both hardware limits (the physical media size and the margins required by the printer) and software constraints (the amount of memory available for the full-page frame buffer).

The guaranteed imageable (printable) area on all media sizes is up to about 0.157" (4 mm) from the edges of the media.



Color printing on legal-size media (8.5 x 14 inches; 215.9 x 355.6 mm) may appear faded along the last edge to go through the printer. This faded area may affect 0.39" (10 mm) in addition to the 0.157" (4 mm) nonimageable area. The fading occurs in four-color printing and single-color printing with cyan, magenta, or yellow toner. Black printing on legal-size media is not affected.

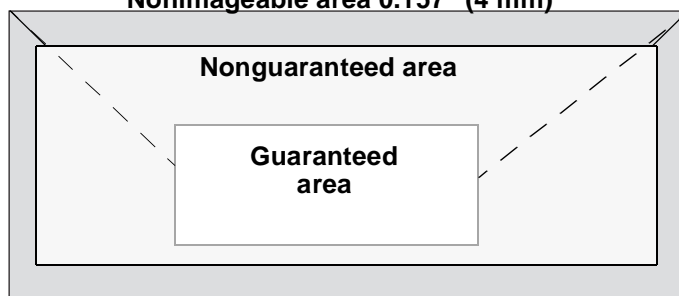
Imageable Area—Envelopes

Envelopes have a nonguaranteed flap area that varies with envelope type.



Envelope print orientation is determined by your application.

Nonimageable area 0.157" (4 mm)



Page Margins

Margins are set through your application. Some applications allow you to set custom page sizes and margins while others have only standard page sizes and margins from which to choose. If you choose a standard format, you may lose part of your image (due to imageable area constraints). If you can custom-size your page in your application, stay within the sizes given for the imageable area for optimum results.

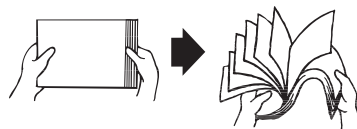
Image Alignment

If for any reason you need to change the image alignment, you can do so by adjusting the margins or page size through your application,

Loading Media

How do I load media?

If you are using paper, remove the top and bottom sheets from the ream. Holding a stack of approximately 200 sheets, fan the stack to prevent static buildup before inserting it in a tray.

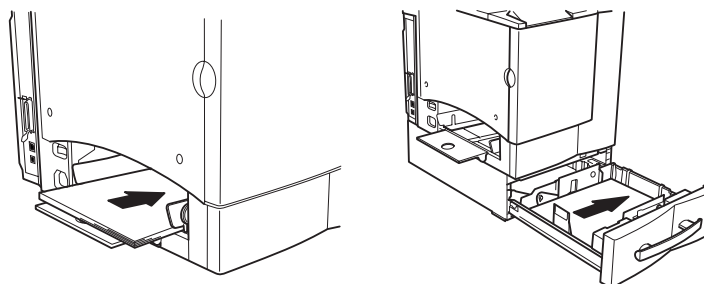


Do not fan transparencies.

Attention

Although this printer was designed for printing on a wide range of media types, it is not intended to print exclusively on a single media type except plain paper. Continuous printing on media other than plain paper (such as envelopes, labels, thick stock, or transparencies) may adversely affect print quality or reduce engine life.

Do not mix media of different sizes, types, or weights, as this will cause media jams.



- When refilling media, first remove any media remaining in the tray. Stack it with the new media, even the edges, then reload it.
- When loading media, make sure the media size and type settings match.

For optimum printing results, it's important to specify the type and size of media that's loaded in the multipurpose tray. You can set it at the printer control panel using the Paper / Input Tray / Tray1 menu, through the printer driver, or through PageScope Light.

Changing the media type through PageScope Light or at the printer control panel affects all print jobs. Changing the media type in the driver affects only your print jobs.

Tray 1 (Multipurpose Tray)

All supported media sizes and types can be printed from Tray 1. Letter or A4 plain paper can be printed from Tray 1 or Tray 2.

See "Media Specifications" for more information about media.

Plain Paper

- 1 If you already have media in Tray 1 and want to change it, remove the media from Tray 1
- 2 Adjust the media guides to fit the appropriate media sizes.

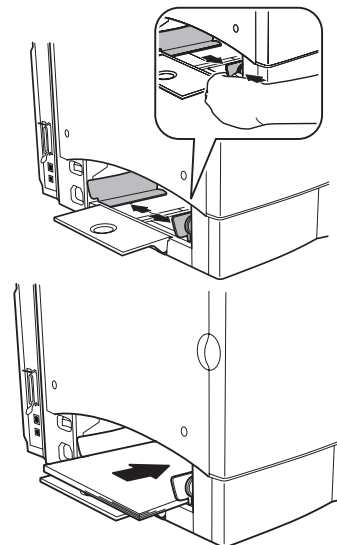
Squeeze the front media guide to open the media guides.

- 3 Load the media face up, short edge first.

Often, an arrow on the paper package label indicates the face-up (printing) side of the paper.

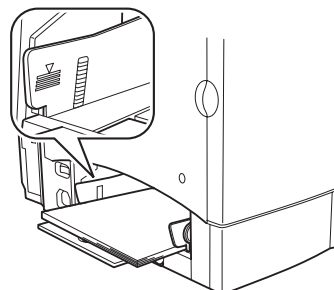


If you are using letterhead paper, load it face up with the top first.

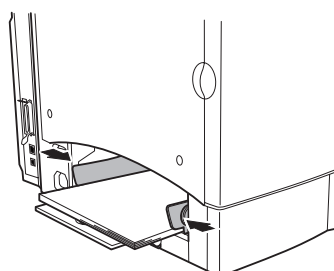




A fill limit mark is provided on the inside of the media guides on the Tray 1. Tray 1 holds 200 sheets of 22 lb bond (80 g/m²) paper.



- 4 Slide the media guides up against the edge of the media.



Attention

Always adjust the media guides after inserting the media. A guide that is not properly adjusted can cause poor print quality, media jams, or printer damage.

- 5 Set the media size and type at the control panel or in PageScope Light.
- 6 In the printer driver, select the appropriate media type and size.
- 7 Print the job.

Other Media

When loading media other than Plain Paper, set the media mode (for example, Thick Stock, Label Stock, or Transparency) in the driver.



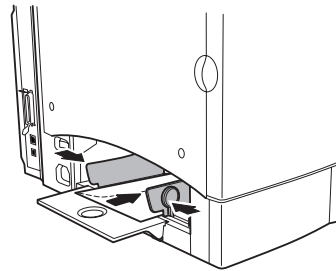
For optimum printing results it's important to specify the type and size of media loaded into Tray 1. You can specify the media type through your printer driver, through PageScope Light, or at the printer control panel. Using your printer driver affects only your print jobs, while PageScope Light and the printer control panel affect all print jobs.

Envelopes

- 1 Flex the envelope stack (including the edges) to remove any stiffness.

- 2 Place the envelopes on a flat surface, and flatten them by pressing down the corners.
- 3 Correct any bent corners, and then tap the envelopes on a flat surface to align them.
- 4 Place the envelope stack into Tray 1 with the flap-side underneath. If the flap is on the short end of the envelope, insert it into the printer first.

Print a single envelope to check the orientation before printing multiple copies.

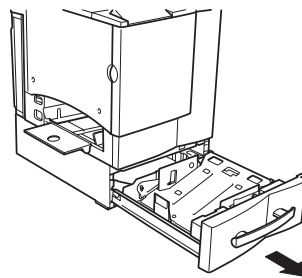


- 5 Adjust the media guides to the width of the envelopes.
Make sure the guides are snug enough to keep the envelopes straight, but not so tight that they buckle the envelopes.
- 6 In the printer driver, set the media type to thick stock and select the appropriate envelope size. Then print the envelope.
- 7 Open the flap of each envelope immediately (before it cools) after the envelope is delivered to the output tray.

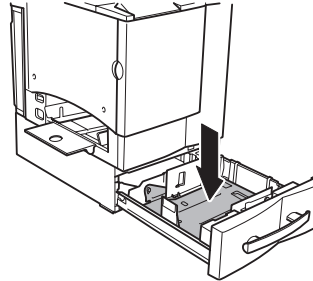
Tray 2 (Optional Lower Feeder Unit Media Tray)

Depending on which tray you have purchased, letter or A4 plain paper can be printed from Tray 2.

- 1 Slide the media tray open.



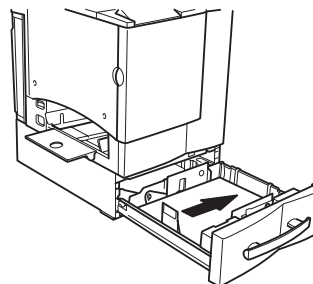
- 2 Push the media pressure plate down to lock it in position.



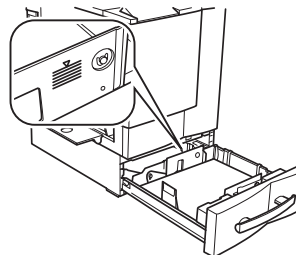
- 3 Load the paper face-up, short edge toward the right of the tray.

Often, an arrow on the media package label indicates the printing-side of the media.

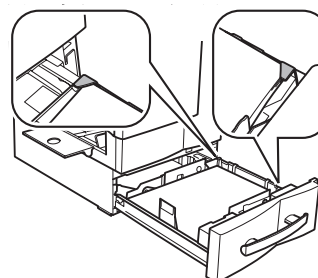
Do not overfill the tray.



A fill limit mark is provided on the inside of the tray. Tray 2 holds 500 sheets of 22 lb bond (80 g/m²) paper.



Make sure that the paper fits easily between the guides and the paper corners are under the left and right media-separating tabs and are not bent.

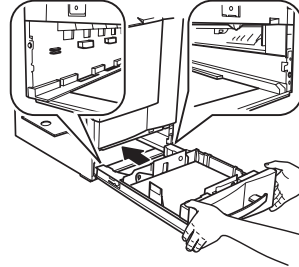


- 4 Slide the tray back into the printer.



If you have removed the tray from the printer, tilt the tray slightly to align it with the rails in the printer.

- 5 Using the printer's control panel or PageScope Light, set the media size for letter or A4, whichever matches your Tray 2.
- 6 In the printer driver, set the media mode to Plain Paper.
- 7 Then print the job.



Using Custom-Size Media

When you use media that is not a standard size (see "What types and sizes of media can I load?" on page 23), you need to configure the printer for the custom size. Otherwise, your print job may be cut short or misaligned on the page.

To make custom page sizes work correctly, you need to change the printer's default settings at the control panel or in PageScope Light and also in the MINOLTA-QMS printer driver.

Default page sizes are set in inches on 110V printers and in millimeters on 220V printers.

- When you set custom page sizes in inches (110V printers), the two digits on the right are always decimal places. For example, set 8.5 inches as 850.
- When you set custom pages sizes in millimeters (220V printers), there are no decimal places. For example, set 78.2 millimeters as 78.



The more accurate your measurements, the better your print job is aligned.

Control Panel

Use the Paper/Input Tray/Custom menu to reach the width and length settings for custom-size media. Then enter the width and length of the media you are using.

PageScope Light

Use the web-based utility's Configuration/Paper Handling options to set the custom size.

Printer Driver

On the Paper tab's Paper Size drop-down list, choose Custom. A Configure button appears at the right of the drop-down list. Choose Configure and enter the length and width of your media in the dialog box.

- 1 Set the option for Tray 1 Media Size to Custom, using either the printer's control panel or PageScope Light.
- 2 Set the Custom Size Width and Length to match the size of the media in Tray 1. This option can also be set using either the printer's control panel or PageScope Light.
- 3 Set the media size in the printer driver.



Sizes set in the driver need to match the sizes set for the printer through the control panel or PageScope Light.

Duplexing

How do I print on both sides of the paper (duplex)?

Select paper that is opaque enough to block out what's printed on one side from being seen on the other side. For best results, print a small quantity to make sure the paper and print quality are acceptable.

Check your application for margin information.

Duplex (2-sided) printing can be done manually or, if you have the duplex option installed and selected, it can be done automatically.

Attention

Only plain paper up to 24 lb (90 g/m²) can be duplexed.

Duplexing envelopes, labels, postcards, thick stock over 24 lb (90 g/m²), or transparencies is not supported.

How do I manually duplex?



Media jams may occur if the printed sheet(s) are not reinserted entirely flat.

Windows

- 1 In the printer driver (on the Paper tab, Layout tab, or Page Setup tab, depending on your operating system) select Simplex or choose No or None in the duplex option, then double-click OK.
- 2 In the application's print dialog box, select All.
- 3 Select and print the Odd-Numbered Pages.
- 4 Remove the media, flip it over blank face-side up and top of page toward printer, and select and print the Even-Numbered Pages.



If you are manually duplexing letterhead in Tray 1, load the media face-up with the letterhead first. If you are manually duplexing letterhead in Tray 2, load the media face-up with the top toward the right.

Macintosh

You can duplex manually from a Macintosh from some applications that are generally used for multi-page documents. This feature is controlled by the application, rather than by the PPDs.

- 1 When you are ready to print, open the print dialog box by choosing the Print option within the application you are using.
- 2 Find the even/odd page selection. For example, in Quark XPress, use the Document/Page Sequence option.
- 3 Select and print the Odd-Numbered Pages.
- 4 Remove the media, flip it over blank face-side up and top of page toward printer, and select and print the Even-Numbered Pages.



If you are manually duplexing letterhead in Tray 1, load the media face-up with the letterhead first. If you are manually duplexing letterhead in Tray 2, load the media face-up with the top toward the right.

How do I autoduplex?

To autoduplex, the duplexer must be physically installed on the printer and identified as an installed option in the printer driver. Otherwise, the print job will print as simplex even if you select duplex.

Windows—Use the printer driver to configure the printer for duplex printing.

- 1 In the printer driver's Settings tab, highlight Optional Duplexer in the Available Options box.
- 2 Click Add.

The Optional Duplexer appears in the Installed Options box and duplex printing options are available in the printer driver and in your application's print dialog box.

Macintosh—You can configure the duplex option when you first set up your printer, or you can add it later to your desktop printer configuration:

- 1 Select your desktop printer.
- 2 From the Printing menu, select Change Setup...
- 3 Select the Optional Duplexer from the Change drop-down list.
- 4 Select Installed from the To drop-down list.
- 5 Select OK

When you select File/Print, the Print on Both Sides option is now available in the Layout dialog box.

Memory Requirements

Your printer comes configured with 128 MB of RAM. Duplex printing can be done automatically with a duplex option and enough memory installed, and with the duplex option selected in the printer. Most print jobs will print with 128 MB of RAM, but may not print at the desired resolution.

- You will need at least 192 MB of RAM to print color duplex jobs on letter/A4-size media at either the PostScript High resolution or the PCL Enhanced resolution
- You will need at least 256 MB of RAM to print color duplex jobs at PostScript High or PCL Enhanced resolution on legal-size media.

Additional memory can be added up to a total of 384 MB.

Printing Duplex



Check your application to determine how to set margins for duplex printing.

- 1 To print duplex (both sides of the sheet), load the media printing-side up.
 - a For Tray 1, load the media with the top of the media toward the back of the tray.
 - b For Tray 2, load the media with the top of the media toward the right side of the tray.



In autoduplexing, the back side is printed first and the front side is printed last.

- 2 Set the driver for the duplex layout you prefer.

Long Edge creates a document that flips horizontally as in a loose-leaf notebook; Short Edge creates a document that flips vertically, as on a clipboard. Simplex prints only on the front face of the page.

- 3 Click OK.

Output Tray

All media is output face-down to the output tray on top of the printer. The output tray has a capacity of 200 sheets of 22 lb (80 g/m²) bond paper.



If the media is stacked too high, your printer may experience media jams, excessive media curl, or static buildup.



Remove transparencies as soon as possible from the output tray to avoid static buildup.

Media Storage

How do I store media?

- Keep media on a flat, level surface in its original wrapper until it is time to load it.
Media that has been stored unwrapped may become too dry or absorb too much moisture and cause jamming.
 - If media has been removed from its wrapper, place it in its original packaging and store in a cool, dark place on a level surface.
 - Avoid moisture, excess humidity, direct sunlight, excess heat (above 95° F/35° C), and dust.
 - Avoid leaning media against other objects or storing in an upright position.
- Before using stored media, do a trial printing and check print quality.

Accessing Other Printer Features

You can set print resolution, form printing, and proof-then-print options in two ways:

- Through the MINOLTA-QMS printer driver or through application, which sets the features for the specific job you are sending.
- Through the printer control panel or PageScope Light, which sets the features for all subsequent jobs, until you change the settings.

You can also access many printer features, such as color controls, through the printer's control panel and the web-based PageScope Light, as well as through the application and printer driver. Instructions for using the printer's control panel are in Chapter 3 and instructions for using the printer driver are in Chapter 4. PageScope Light instructions are included in the *Reference Guide*.

Print Resolution

Your printer offers a choice of three print resolutions, depending on which driver you select.

PostScript

- High: 600 x 600 dpi with contone imaging
- Standard: 600 x 600 dpi color
- Draft: 600 x 600 dpi monochrome

PCL

- Enhanced: 1200 x 1200 dpi
- Standard: 600 x 600 dpi color
- Draft: 600 x 600 dpi monochrome

Form Printing

You can use overlays to create forms such as stationery, billing, insurance, or other repetitive formats. You select the overlay and assign it to specific pages of the print job so that you can use more than one overlay in a job.

Proof-then-Print Printing

The printer's proof-then-print feature gives you several options for multicopy or secure print jobs:

- You can print one copy of a multicopy job and check it before printing the rest of the copies.
- You can print multiple copies of a job and then store the job in the printer in case further copies are needed.
- You can assign a PIN number to a secure job so that it will not print until you key in the PIN number at the printer's control panel.
- You can store a print job on the printer's hard disk and allow it to be printed later with or without a PIN number.



Proof-then-Print features are available only when there is an optional hard disk installed on the printer.

Refer to the printer driver's on-line help for more information about using proof-then-print features.

Additional Assistance

Where can I order MINOLTA-QMS-approved media or get more information?

Check www.minolta-qms.com/support (click on Answer Base) for currently approved media. To order approved media, go to www.q-shop.com or your local retailer.

See the *Service & Support Guide* for a list of sources of service and support in many areas of the world. The most up-to-date information can be found at www.minolta-qms.com.

Working with the Printer

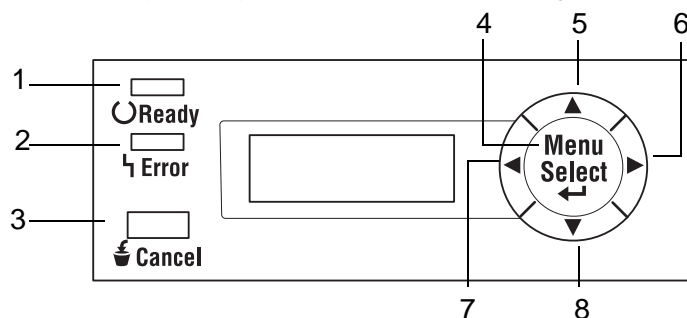
3

About the Control Panel



This chapter explains how to control printer features when you are standing at the printer, by using the printer's control panel. In addition, many printer features can be managed using PageScope Light, a web-based utility that is embedded in your printer. For information on PageScope Light, see the *magicolor 2350 Reference Guide*, in PDF format on the *Documentation CD-ROM* that came with your printer.


The control panel, located on the top of the printer, allows you to direct the printer's operation. In addition, it displays the current status of the printer, including any condition that needs your attention.

- Two indicators (LEDs) provide printer status information.
- The message window displays status and configuration information.
- The six keys allow you to control the printer configuration.



Control Panel Indicators and Keys

No.	Indicator	Off	On
1	 Ready	The printer is not ready to accept data.	The printer is ready to accept data.
2	 Error	No problem.	The printer requires operator attention (usually accompanied by a status message in the message window.)

No.	Key	Function
3	 Cancel	<ul style="list-style-type: none"> ■ Allows you to cancel one or all print jobs ■ Cancels the menu choice or selection if the user is in the menu structure

No.	Key	Function
4	Menu Select ↵	<ul style="list-style-type: none"> Initially enters the menu system If within the menu system and on a menu level, moves down in the menu structure If within the menu system and on a selectable item, selects the displayed choice (no matter what position the cursor is in)
5	▲	<ul style="list-style-type: none"> Moves up in the menu structure If menu choices with character-by-character selections, scrolls upward through the available characters
6	▶	<ul style="list-style-type: none"> Moves right in the menu structure Moves right through the scrollable menu selections when selections are whole words, not characters Starts the toner replacement sequence, if toner is out
7	◀	<ul style="list-style-type: none"> Moves left in the menu structure Moves left through the scrollable menu selections when selections are whole words, not characters Scrolls through messages
8	▼	<ul style="list-style-type: none"> Moves down in the menu structure In menu choices with character-by-character selections, scrolls downward through the available characters

Cancelling Print Jobs

You can cancel one or all print jobs that are currently being processed.

- 1 While data is being processed or printed (the message window reads PROCESSING . . . or PRINTING), press the **Cancel** key.
- 2 By pressing the **Right** or **Left** keys, select either CANCELLING JOB/CURRENT or CANCELLING JOB/ALL.
- 3 Press the **Menu/Select** key.

The print job(s) have now been cancelled. A few pages that have already been processed may still print.

Printer Menu Overview

Menu Overview

Your printer has a comprehensive but easy-to-use menu system that allows you to change settings so they meet your print job's requirements. All routine printing tasks can be handled at the printer control panel through the printer's configuration menu. The printer can also be configured through PageScope, PageScope Light, SNMP, and P.J.L.

Complete information on the printer's configuration menu is included in the *magicolor 2350 Reference Guide* on the *Documentation CD-ROM*.

When the printer is ready to accept print jobs, the control panel message window shows:

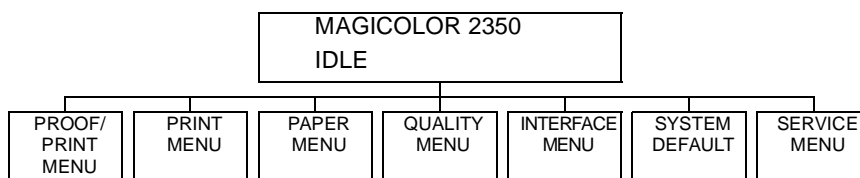
MAGICOLOR 2350
IDLE

Main Menu

The main menu provides access to all the printer's submenus. Each submenu is briefly described in the following sections of this manual.











The "Proof/Print" menu appears only when there is a proof and hold job, a stored job, or a secured job on the optional hard disk.



To move through the menu options, use the following control panel sequences. This example shows how to select the language for the printer message window.

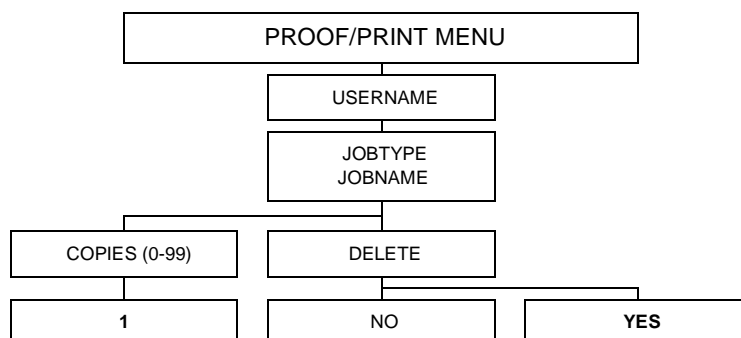
Press Key	(Until) Display Reads
	MAGICOLOR 2350 / IDLE (and Ready indicator is not flashing)
Menu Select ↵	MENUS PRINT MENU or PROOF/PRINT MENU

Press Key	(Until) Display Reads
 Or 	MENUS SYSTEM DEFAULT
Menu Select 	SYSTEM DEFAULT LANGUAGE
Menu Select 	LANGUAGE *ENGLISH
 Or 	Press the Right or Left key until the appropriate language is displayed.
Menu  Select	*LANGUAGE IS SELECTED
	Press the Up arrow twice to return to MAGICOLOR 2350 IDLE



In the menu maps below, defaults are **bolded**.

Proof/Print Menu

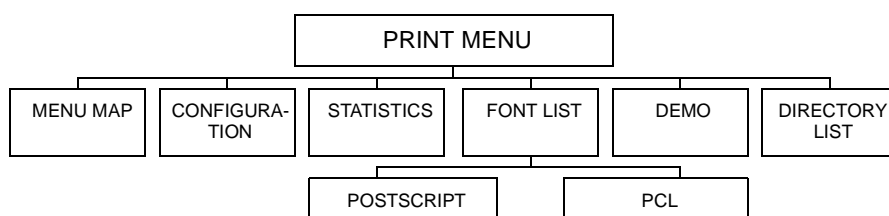


The Proof/Print menu allows you to hold print jobs so you can check a single copy before making multiple copies or so you can keep a documents private by delaying the print time until you reach the printer and enter a PIN. On a secure job, you are prompted to enter the PIN right after you enter the job name and before you select the delete or copies options. JOBTYP includes choices such as Private Job, Stored Job, and Proof and Hold.



The Proof/Print menu appears only when there is a proof and hold job, a stored job, or a secured job on the optional hard disk. Selecting 0 copies of a proof and hold job deletes the job from the hard disk.

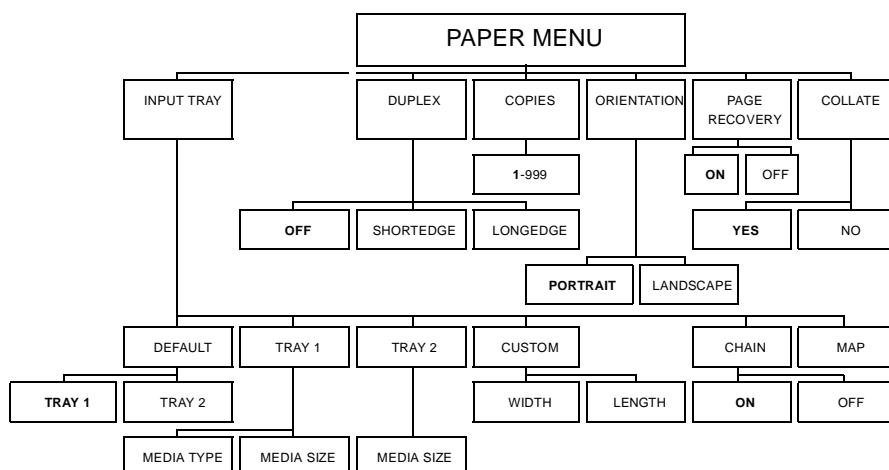
Print Menu



The Print Menu allows you to print information about the printer. For example, if you select Menu Map and then select Yes, the printer prints an overview of the entire menu structure. If you select Font List, then either PostScript or PCL, and then Yes, the printer prints a list of installed fonts with a sample of each. Each special page has Yes and No options in the menu.

Paper Menu

The Paper Menu allows you to control the media source for your print job.

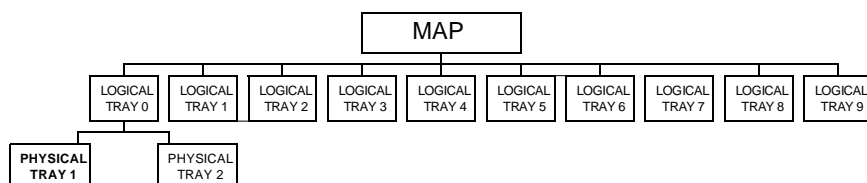


The Default, Chain, and Map submenus appear only if an optional lower feeder unit is installed. The Duplex submenu appears only if a duplex option is installed. The Collate submenu appears only if an optional hard disk is installed.



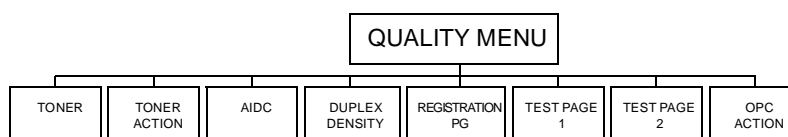
Default media sizes are Letter in 110V printers and A4 in 220V printers.

Paper Menu/Input Tray/Map Submenu



The Map submenu allows you to specify the order in which input trays are used. See the *Reference Guide* for more information about logical trays.

Quality Menu

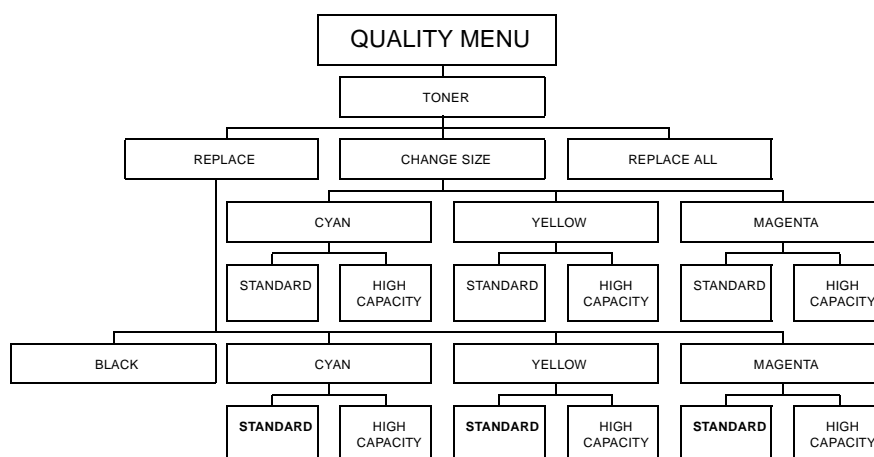


The Quality menu gives you access to items affecting print quality.



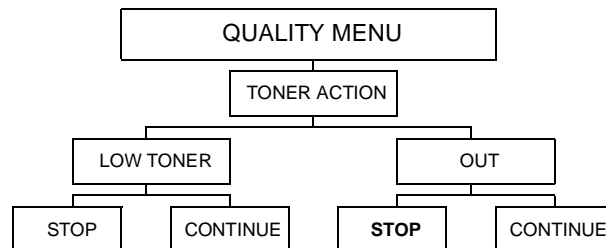
The Duplex Density submenu is available only when the duplex option is installed.

Quality Menu/Toner Submenu



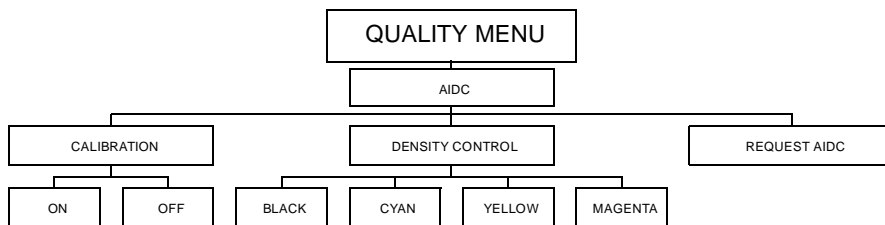
The Quality/Toner menu sequence allows you to change a toner cartridge. Instructions are included in chapter 7, "Replacing Consumables."

Quality Menu/Toner Action Submenu



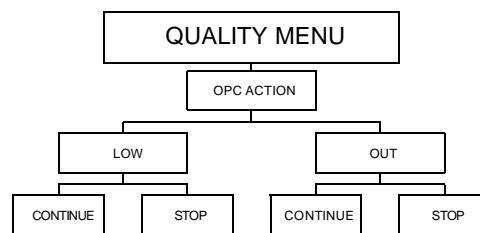
The Toner Action submenu lets you choose whether the printer will stop or continue when any of the four toner cartridges is low or out of toner.

Quality Menu/AIDC Submenu



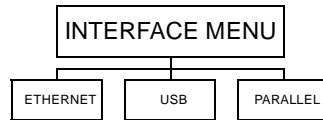
The Quality/AIDC submenu allows you to adjust the color calibration and density. Once these adjustments are complete, the printer will automatically calibrate to the settings you have specified.

Quality Menu/OPC Action Submenu



The OPC Action submenu lets you choose whether the printer will stop or continue when the OPC drum is low or out.

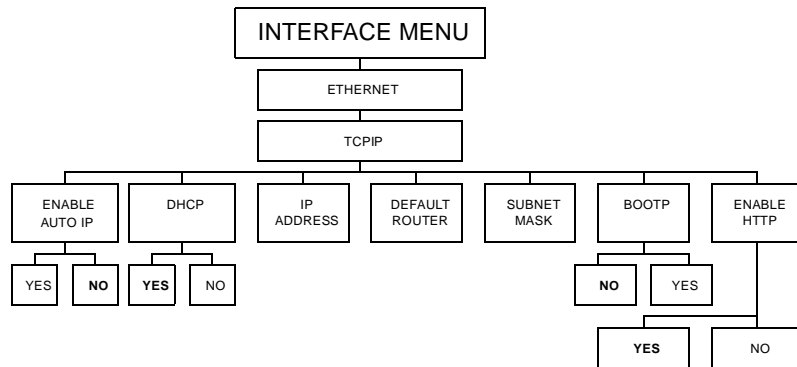
Interface Menu



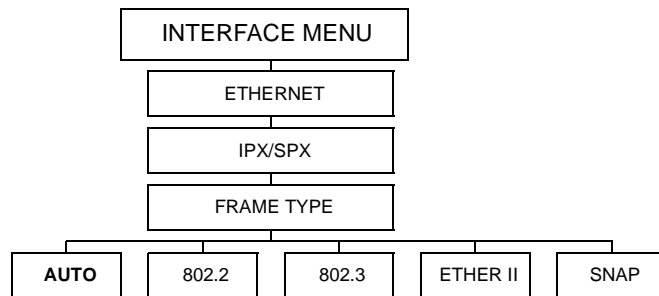
The Interface Menu allows you to configure the printer's interfaces. Each of the Interface submenus is shown below.

Interface Menu/Ethernet Submenus

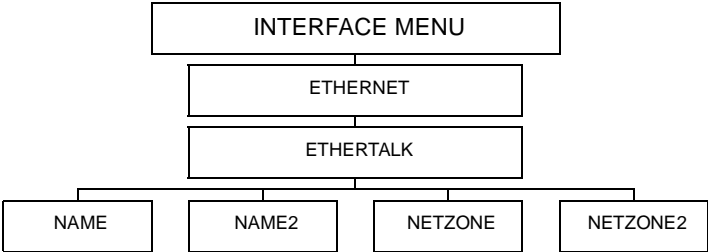
Ethernet TCP/IP Submenu



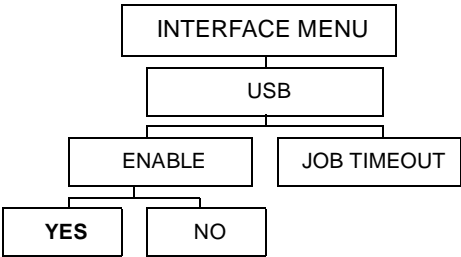
Ethernet IPX/SPX Submenu



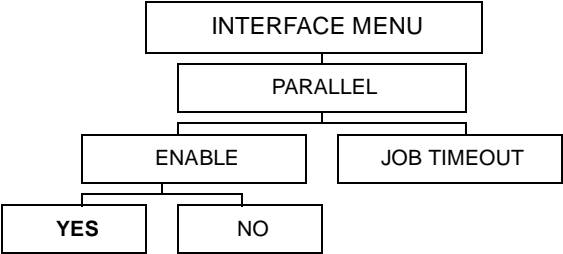
Ethernet Ethertalk Submenu



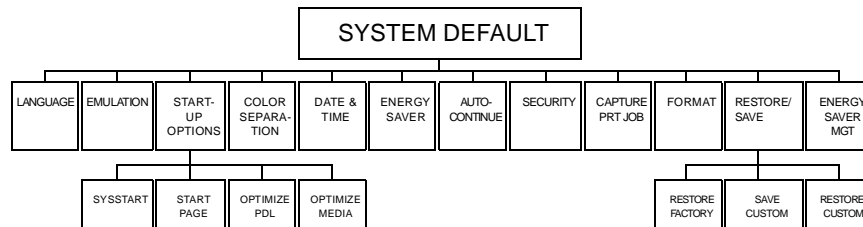
Interface Menu/USB Submenu



Interface Menu/Parallel Submenu



System Default Menu



The System Default menu allows you to control the way in which the printer responds to various situations. For example, Startup Options/Start Page allows you to decide whether the printer automatically prints a start page when you turn it on.



The Date & Time option appears only if an optional hard disk and daughterboard with time-of-day clock is installed. The Capture Print Job option appears only if an optional hard disk is installed.

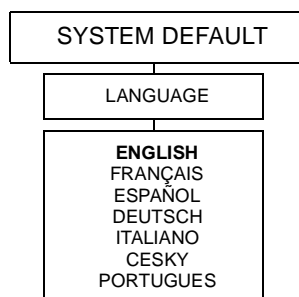


Energy Saver Management appears only on 110V printers. If it is turned Off, the Energy Saver menu disappears.

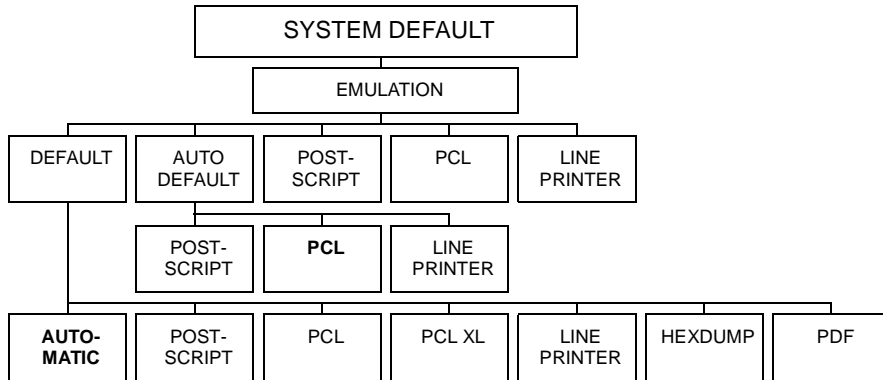


If you select Restore Factory or Restore Custom, the printer will turn off and on again automatically.

System Default/Language Submenu

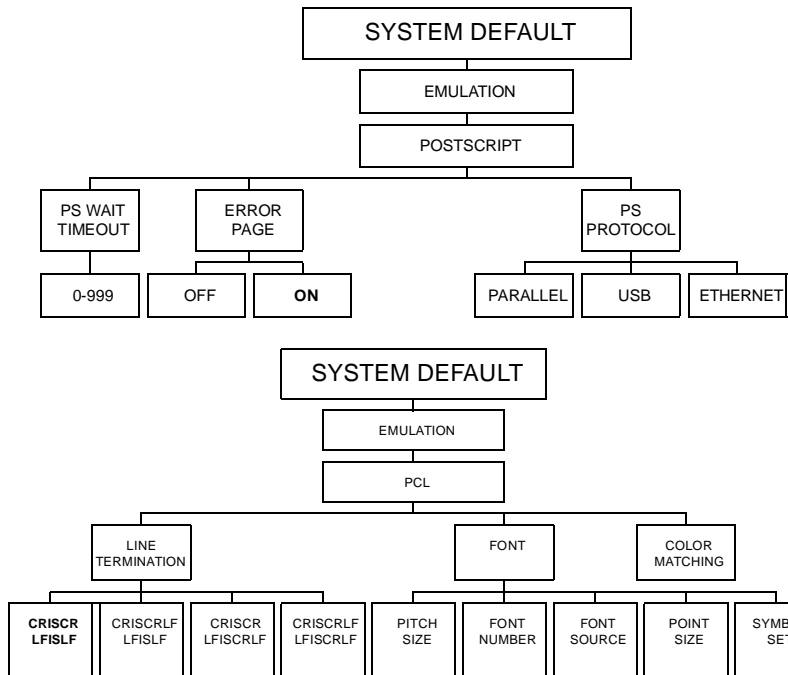


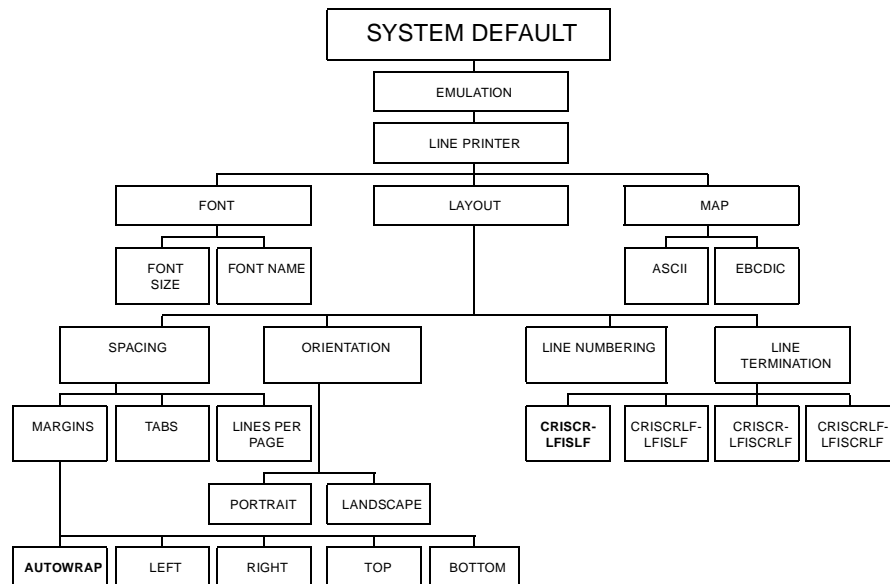
System Default/Emulation Submenu



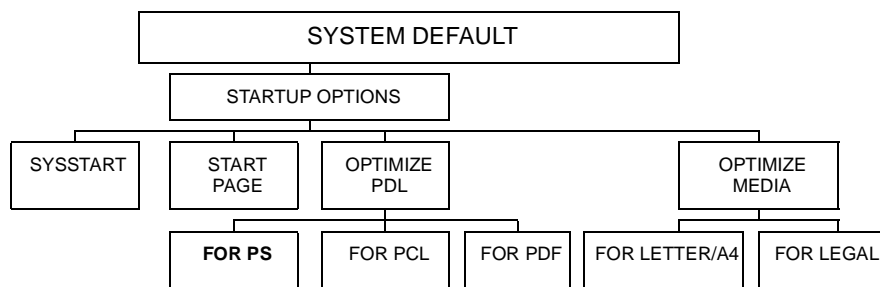
The Emulation submenu lets you set the appropriate emulation for the print job you are sending. You can use the Optimize option to reallocate memory for Postscript, PCL, or PDF jobs. If you use this option, you may be prompted to reboot the printer.

PostScript, PCL, and Lineprinter options are shown below.



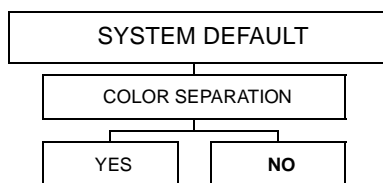


System Default/Startup Options Submenu



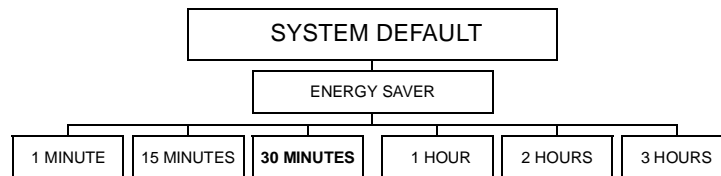
The Optimize Media option optimizes performance for different media sizes.

System Default/Color Separation Submenu



The Color Separation menu turns color separations on or off.

System Default/Energy Saver Submenu

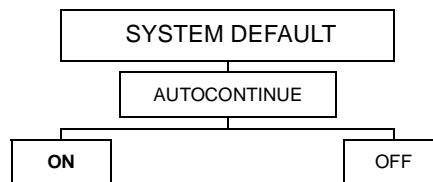


The Energy Saver submenu allows you to set the time lapse between the end of a print job and the time the printer returns to Energy Saver status. Energy Saver mode saves energy because the printer's heating unit turns off. The printer may take up to 215 seconds to warm up before it is ready to print again.



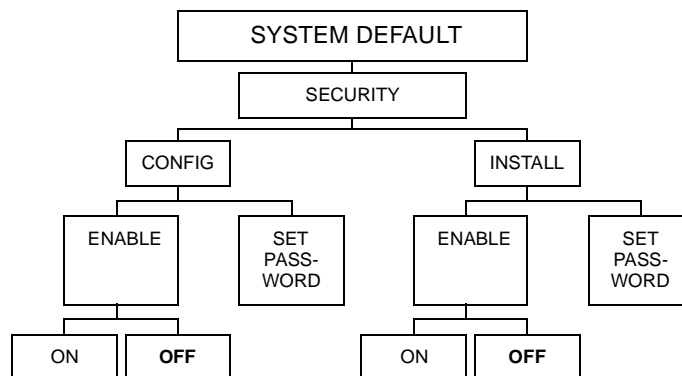
Energy Saver options for 2 and 3 hours are available only on 110V printers.

System Default/Autocontinue Submenu



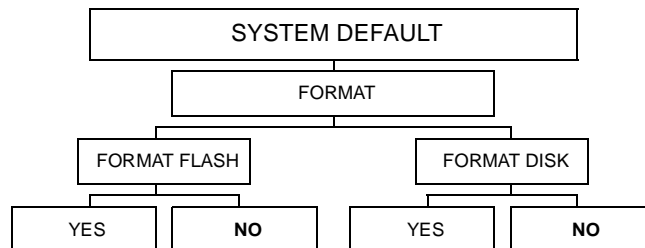
The Autocontinue submenu allows you to continue printing if the media tray has a different size or media type than what the print job requests.

System Default/Security Submenu



The Security submenu enables the security function which requires users to enter the password to access or change printer information and configuration.

System Default/Format Submenu

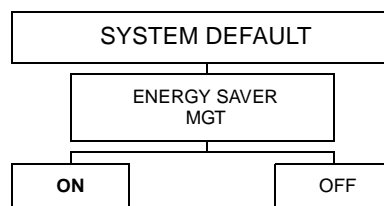


The format submenu allows you to reformat the printer's flash memory or internal hard disk, if one is installed.



The Disk portion of the menu is visible only if an optional hard disk is installed.

System Default/Energy Saver Management Submenu



The Energy Saver Management submenu is available only on 110V printers.

Service Menu

The Service Menu is password protected. It allows a service technician to handle maintenance and service procedures.

Working with the Printer Driver

4

About Printer Drivers

The last chapter explained how to control printer features when you are standing at the printer by using the printer's control panel. This chapter explains ways to control the same features without leaving your computer by using printer drivers.

On Windows PCs, you can access the driver in the Start/Settings/Printers path and use a series of tabs in the driver to control printer features. The General and Details tabs are set automatically by your PC's operating system. When you load the driver for the magicolor 2350, the settings for its specific features are displayed on additional tabs in the same series. This manual tells how to access those tabs and what each tab controls.

On Macintosh, UNIX, and Linux systems, printer features are controlled by PPDs. The PPDs are integrated seamlessly into the operating system's own printer driver. Feature settings are accessed in the same manner, no matter what printer you use. This manual includes an introduction to the Macintosh settings. Detailed information for Macintosh, UNIX and Linux systems is included in the *magicolor 2350 Reference Guide*, in PDF format on the Documentation CD-ROM.



In addition to the control panel and printer drivers, you can use PageScope Light, a web-based utility that is embedded in your printer, to manage many of the same printer features. For information on PageScope Light, see the magicolor 2350 Reference Guide, in PDF format on the Documentation CD-ROM that came with your printer.

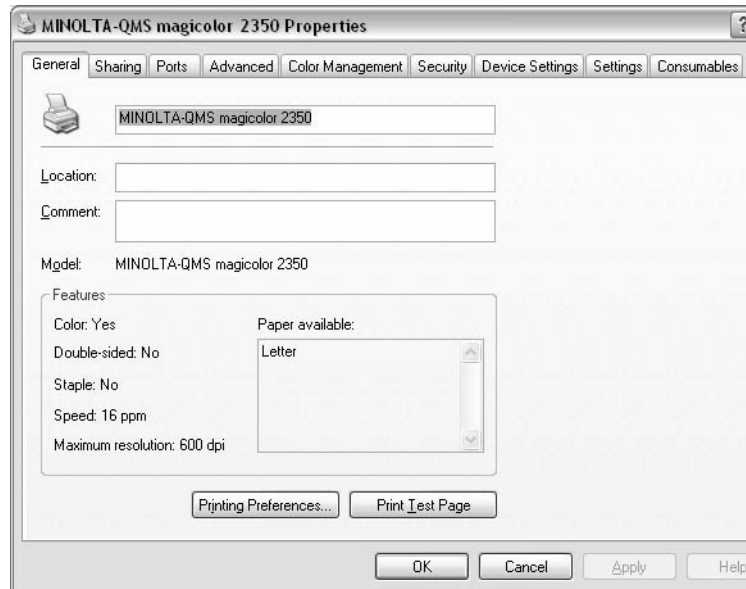
Using PostScript Drivers in Windows XP/2000

Displaying the Tabs

- 1 From the Start menu, choose Settings and then Printers to display the Printers directory.
- 2 Click the Minolta-QMS magicolor 2350 printer icon.

3 From the File menu choose Properties.

The following dialog box appears.



Using the Tabs

General printer controls are located on tabs of the main printer driver dialog box. The general printer controls let you check the status of consumables and set access to optional features, including the lower feeder tray, the duplex option, and the internal hard disk.

There are two ways to access the specialized print setting tabs:

- Through your application. This selects printer settings for the specific job you are sending. Choose Print and then choose Properties.
- Through the printer driver dialog box. This changes printer settings for all subsequent print jobs until you change the settings again through the printer driver. Choose Start/Settings/Printers, select the magicolor 2350 icon, and then choose Properties from the File menu. On the General tab, click the Printing Preferences button.

The tabs that appear in the new dialog box are described on the following pages.



Refer to the printer driver's online help for information on all of these functions.

Layout Tab

This tab allows you to:

- Set the orientation for a print job
- Set the page order
- Set the number of pages per sheet
- Choose Simplex or Duplex printing

By clicking the Advanced button, you have access to controls for setting:

- Media size
- Number of copies
- Graphic preferences including color management, scaling, and font substitution
- Advanced printing features
- PostScript options
- Features such as resolution enhancement, header and trailer pages, and input tray use

Paper/Quality Tab

This tab allows you to:

- Select the paper source (if you have the optional lower feeder unit installed)
- Select the type of media
- Select color or black-and-white printing

The Paper/Quality Tab also includes the Advanced button described in the Layout Tab section above.

Features Tab

This tab allows you to:

- Select print resolution
- Set advanced graphic controls, such as rotation and halftone control
- Set color controls and advanced color options
- Set PostScript and PCL features
- Using Job Retention options, check a proof before printing multiple copies or set a password to hold a print job until you are at the printer, if an optional hard disk is installed



Proof-then-print options are available only if you check the "hold job" box.

Overlay Tab

This tab allows you to:

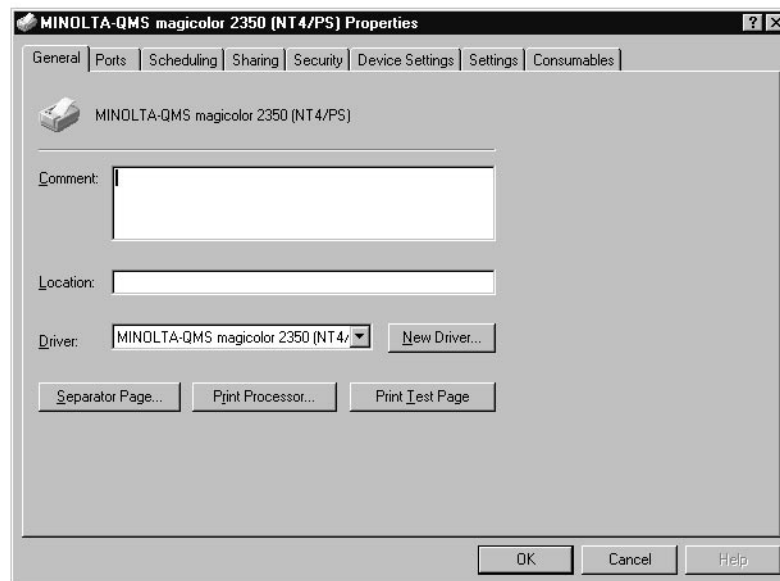
- Place an overlay on any page or pages, allowing you to reproduce forms, stationery, and similar repetitive page layouts
- Place a watermark on any page or pages
- Access the MQI Download Manager

Using PostScript Drivers in Windows NT

Displaying the Tabs

- 1 From the Start menu, choose Settings and then Printers to display the Printers directory.
- 2 Right-click the Minolta-QMS magicolor 2350 printer icon.
- 3 Choose Properties.

The following dialog box appears.

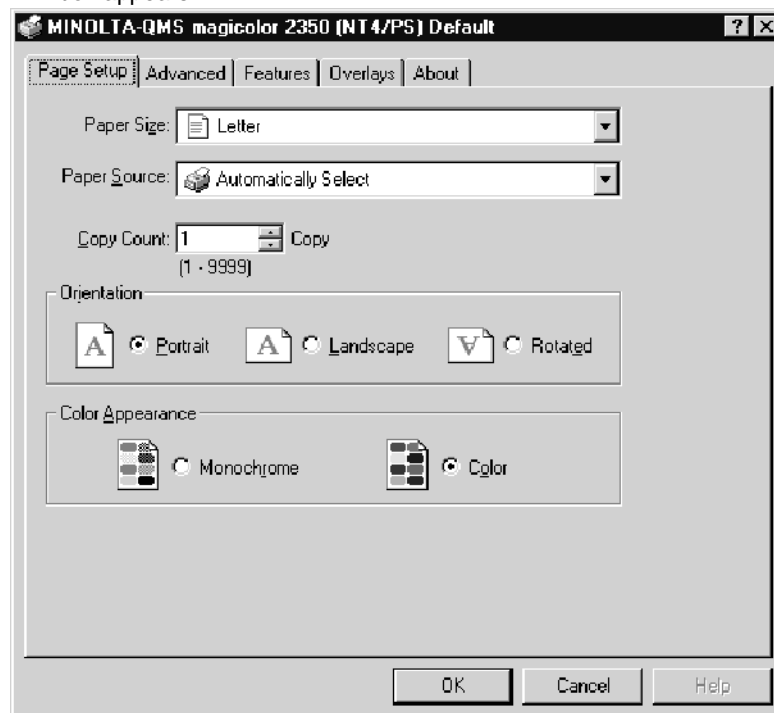


Using the Tabs

General printer controls are located in tabs of the main printer driver dialog box. The general printer controls let you check the status of consumables and set access to optional features including the lower feeder tray, the duplex option, and the internal hard drive.

There are two ways to access the specialized print setting tabs:

- Through your application. This selects printer settings for the specific job you are sending. Choose Print and then choose Properties.
- Through the printer driver dialog box. This changes printer settings for all subsequent print jobs until you change the settings again through the printer driver. Choose Start/Settings/Printers, select the magicolor 2350 icon and then choose the Document Defaults menu. The following dialog box appears:



The tabs in the new Document Default dialog box are described here.



Refer to the printer driver's online help for information on all of these functions.

Page Setup Tab

This tab allows you to:

- Set the media size
- Select the media source
- Set the orientation for a print job
- Set the number of copies
- Select black-and-white or color printing

Advanced Tab

This tab give you an alternate access to all the choices available on the Page Setup Tab. It also allows you to:

- Select graphic options such as scaling and font substitution
- Select document options such as number of pages per sheet, header and trailer pages, and automatic tray switching

Features Tab

This tab allows you to:

- Select print resolution
- Configure color controls
- Set PostScript options
- Check a proof before printing multiple copies or set a password to hold a print job until you are at the printer, if an optional hard disk is installed



Proof-then-print options are available only if you check the "hold job" box.

Overlay Tab

This tab allows you to:

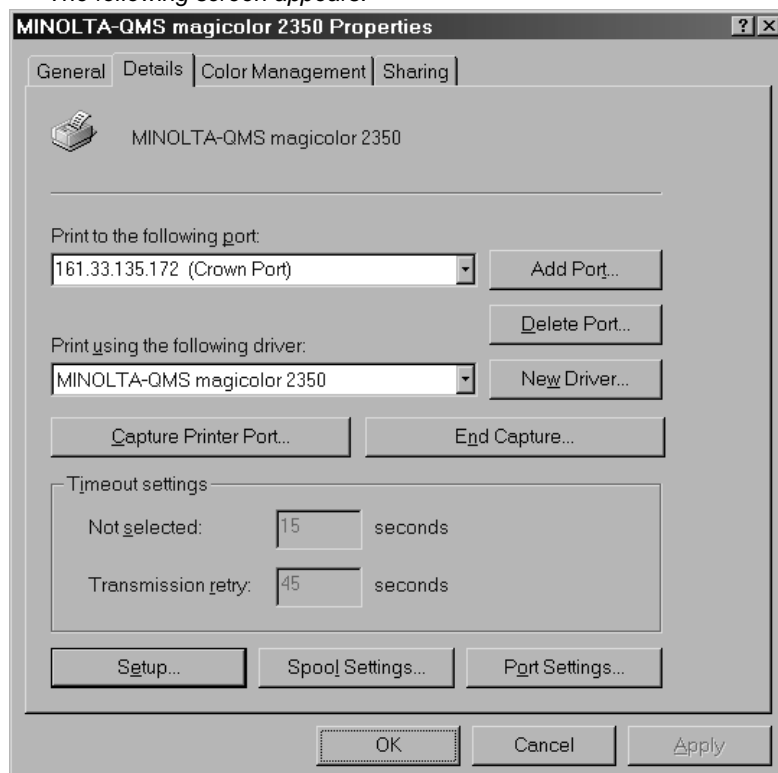
- Place an overlay on any page or pages, allowing you to reproduce forms, stationery, and similar repetitive page layouts
- Place a watermark on any page or pages
- Access the MQI Download Manager

Using PostScript Drivers in Windows Me/98

Displaying the Tabs

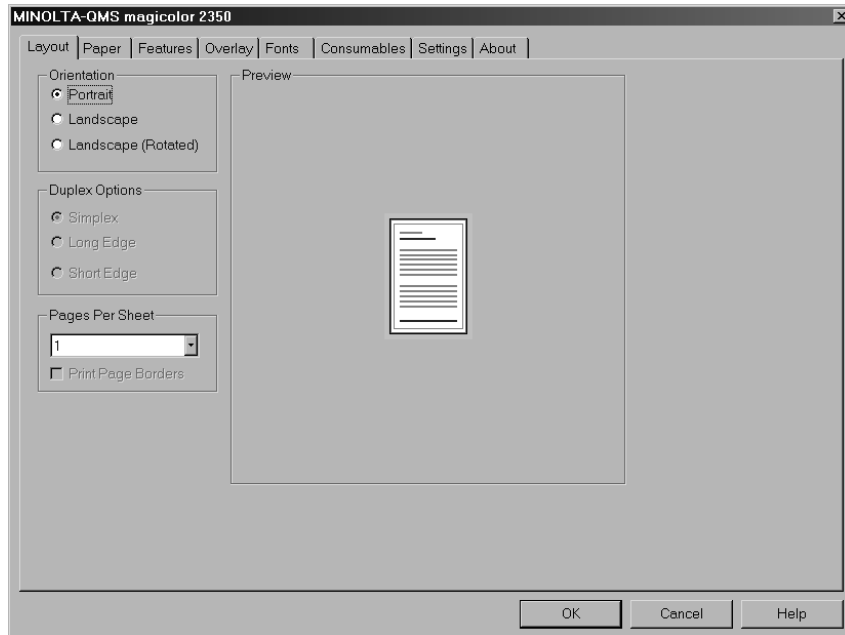
- 1 From the Start menu, choose Settings and then Printers to display the Printers directory.
- 2 Click the MINOLTA-QMS magicolor 2350 printer icon.
- 3 To display the printer driver settings, from the File menu choose Properties, then choose the Details tab.

The following screen appears:



4 Choose the Setup button.

The following dialog box appears.



Using the Tabs

General printer controls are located in tabs of the main printer driver dialog box. The general printer controls let you check the status of consumables and set access to optional features including the lower feeder tray, the duplex option, and the internal hard drive.

There are two ways to access the specialized print setting tabs:

- Through your application. This selects printer settings for the specific job you are sending. Choose Print and then choose Properties.
- Through the printer driver dialog box. This changes printer settings for all subsequent print jobs until you change the settings again through the printer driver. Choose Start/Settings/Printers, select the magicolor 2350 icon and then choose the Properties menu.

The tabs that appear in the new dialog box are described here.



Refer to the printer driver's online help for information on all of these functions.

Layout Tab

This tab allows you to:

- Set the orientation for a print job
- Set duplex options, if the optional duplexer is installed
- Specify the number of pages per sheet

Paper Tab

This tab allows you to:

- Select an original document size
- Set up custom paper sizes
- Select the type of media
- By clicking the Advanced button, select a different paper source for the first page, header and trailer pages

Features Tab

This tab allows you to:

- Select print resolution
- Set color control options
- Set graphics options such as rotation and halftone handling
- Set PostScript
- Select collated or uncollated output on multiple multi-page jobs
- Set the number of copies
- Scale your print job to a specific size
- Check a proof before printing multiple copies or set a password to hold a print job until you are at the printer, if an optional hard disk is installed



Proof-then-print options are available only if you check the "hold job" box.

Overlay Tab

This tab allows you to:

- Place an overlay on any page or pages, allowing you to reproduce forms, stationery and similar repetitive page layouts
- Place a watermark on any page or pages
- Access the MQI Download Manager

Fonts Tab

This tab allows you to:

- Set handling options for TrueType fonts
- Set font substitution standards
- Access the MQI Download Manager

Consumables Tab

This tab allows you to:

- Monitor the status of consumables
- Refresh the consumable status display
- Link to the Internet-based PageScope Light utility for your printer
- Contact www.q-shop.com to order consumables

Settings Tab

This tab allows you to:

- Indicate which printer options are installed



Selecting installed options makes the related features available in the printer driver.

- Set accounting information

About Tab

This tab allows you to:

- Restore printer driver default settings
- Contact MINOLTA-QMS
- Contact www.q-shop.com to order consumables

Using Macintosh PPDs

Displaying the Printer Options

- 1 When you are ready to print, open the print dialog box by choosing the Print option within the application you are using.
- 2 In the Printer drop-down list, select the magicolor 2350.

- 3 Set your configuration choices by accessing the dialog boxes from the drop-down list that starts with General. The dialog boxes are different in different applications.

Most printer features are controlled by the Apple LaserWriter driver or configured within the application you are using. In addition to those standard choices, the Minolta-QMS PPDs also allow you to configure:

- Paper sources
- Proof-and-print options
- Duplexing options
- Watermarks and overlays
- Color matching
- Color options
- Print quality

For detailed information about Macintosh PPDs, see the magicolor 2350 Reference Guide on the Documentation CD-ROM.

***Working with
Color***

5

About Color Printing

This chapter introduces the color features available on your printer, including printer resolutions, Automatic Image Density Control (AIDC), and color matching. In addition, it includes a brief troubleshooting section to help you deal with any color problems that might arise.

Color printing is based on the principles of subtractive colors, using pigment to absorb light and reflect the appropriate colors back to the viewer's eye. The *magicolor 2350 Reference Guide* includes a chapter on color basics, if you want to learn more about the theory behind color printing. The *Reference Guide* also includes a chapter on color profiles, which explains how monitor colors are translated into printed colors and tells you how to download specialized color profiles, if you need them.

Printer Resolutions

Your printer offers a choice of three print resolutions, depending on which driver you select.

	PostScript name	PCL name	Description
Fast Black & White	Draft	Draft	16-18 page per minute black only
Standard Color	Standard	Standard	600 x 600 dpi color
Best Color	High	Enhanced	<ul style="list-style-type: none">■ 600 x 600 dpi with contone imaging for PostScript■ 1200 x 1200 dpi for PCL

Selecting a Resolution

Select the print resolution from your application's print dialog box or from the printer driver. The best option depends on what you're printing.

- **Draft mode** is best for fast printing of review documents.
- **Standard** is the fastest choice for color printing, producing pages at 6 pages per minute. Standard prints crisp type, so it's also a good choice for documents that don't include graphics.

- **High or Enhanced** are the best choices for print jobs with color graphics. Pages take slightly longer to print, but produce the best graphics.
 - **High.** The PostScript High resolution provides 600 x 600 dpi printing with contone imaging. Contone uses increased bit depth to produce clear images. Pantone tables, which are included on the *Software Utilities* CD-ROM, can help with color matching at this resolution.
 - **Enhanced.** The PCL Enhanced resolution prints with 1200 x 1200 dpi. Adding more dots of smaller size is another method of producing clear images.

Enhanced Automatic Image Density Control (eAIDC)

The printer's color calibration procedure, known as the enhanced Automatic Image Density Control (eAIDC) cycle, is performed automatically based on the number of pages printed, environmental changes, and consumable changes. You can perform the eAIDC cycle when you have concerns about color.

During this cycle, the printer performs an internal check of its color output and automatically readjusts itself to optimum settings that account for the age of toner cartridges and changes to the printer's environment, such as increases or decreases in humidity or temperature. This cycle checks both the 100% saturated colors and the half-toned colors.

The length of the eAIDC cycle depends on several factors.

- A 170-second eAIDC cycle is performed every time the printer has printed 200 pages.
- A 215-second cycle is performed after 1,000 pages.
- A 305-second cycle is performed when you replace a toner cartridge or OPC drum.
- A 305-second cycle is performed when you request an eAIDC cycle.

In most cases, it's best to leave the automatic eAIDC function on all the time, but you can use the printer's Quality/AIDC/Calibration menu to turn it off if you are using linearization or calibration software.

Use the Quality/AIDC/Request AIDC menu to perform an extra calibration cycle.

In addition, you can override AIDC settings by using the Quality/AIDC/Density Control menu to adjust the print density of individual toners. The density controls are set at 5 in a 1-9 scale, and you can adjust any or all to higher or lower settings.

Color Matching

Your printer's color management system is adjusted for best results with the most commonly used application software, including the Microsoft Office products. If you are using these common applications, you may never need to adjust the color matching on your printer.

If you do need to make adjustments, however, the printer offers you a wide variety of color matching options.

Color controls are located in the Features tab of the printer driver and are also accessible through PageScope Light. If driver settings do not match the settings chosen in PageScope Light, the driver settings will take precedence.

Quick Color Configuration

The simplest way to control colors is with the Quick Color Configuration option in the printer driver and in PageScope Light. Quick Color Configuration offers 11 choices that are applied to the entire print job. You can select the setting that's most appropriate for your entire print job and apply it uniformly to all text and graphics.

Color Options

When your print jobs are more complicated, Color Options is the best choice. Color Options lets you apply one color matching standard to graphics and another to images.

The first step in managing color is a choice between color rendering dictionaries and color profiles. Often, your application will tell you which of these two options to choose.

Color Rendering Dictionaries

Color rendering dictionaries are based on the additive colors used by computer monitors (red, green, and blue). They provide a fixed match between colors so that one monitor color will always be translated to the same printer color.

Your printer offers a choice of three color-rendering dictionaries:

- **Business** - This CRD mostly closely matches the intensity of the colors on the monitor. Use it for printing presentation graphics (such as overhead transparencies), spot color, and text.
- **Photographic** - This CRD was developed to optimize the quality of photographic images. It adjusts all colors (both in and out of gamut) to maintain the proportional relationship among the colors.
- **Colorimetric** - Use this CRD for printing spot colors, such as logos, and single solid colors where hue accuracy is crucial. With this CRD, in-gamut

colors are not changed, and out-of-gamut colors are mapped to the closest in-gamut color.

Color Profiles

Color profiles use the International Color Consortium (ICC) standards to translate monitor colors into printer colors. Color profiles are more flexible than color rendering dictionaries, so you can make the closest color matches for your particular job, but they may require more skill to manipulate so that you get the results you want.

You can set the RGB source profile to match the characteristics of the source of the print job, the simulation profile to match a specific press, and the output profile to indicate the characteristics of your printing device. Several source and simulation profiles are included with your printer or you can download additional profiles. Instructions for downloading profiles are included in the *magicolor 2350 Reference Guide*.

RGB Source Profiles

RGB Source profiles are used for color conversion from RGB devices, such as monitors, to CMYK devices, such as printers. Use the RGB Source to indicate the source in which the job was created. Choices are:

- Apple RGB — This setting is widely used because it has been the default setting for Adobe Illustrator and Photoshop. Its range of colors is similar to sRGB.
- Prepress — This source profile is also known as Adobe RGB and as SMPTE-240M. It provides a wide range of colors, including almost all printable process colors.
- sRGB — A standard color space based on average performance of PC monitors. This is the default setting for your printer. It provides a very good representation of monitor colors and is especially useful if you're printing documents from the web or from Microsoft Office applications.
- Vivid — This setting provides the most vivid colors possible for business graphics, by mapping RGB solid colors to the printer's CMYK solid colors. It is an excellent choice for transparencies and business graphics.
- ColorMatch — This color setting was designed to work with prepress monitors. It has a wide color range and provides good color consistency.

Simulation Profiles

These profiles are used to convert information about one CMYK device into data for another CMYK device. That is, you can use these profiles to make

your magicolor 2350 printer create colors like those produced on a different printer or a printing press. The simulation choices are:

- SWOP — SWOP, an acronym for Specifications for Web Offset Printing, simulates colors for offset presses.
- Eurocolor — This profile simulates Fogra Positive Coated measurement data.
- Commercial — This profile simulates a commercial press.
- DIC — This profile simulates Japanese DIC Ink.
- Toyo — This profile simulates Japanese Toyo Ink.

Destination Profiles

The printer includes a standard destination profile. However, you can download additional destination profiles.

Profiles for Host-based Color Management

Some software applications use host-based color management and work best with color profiles tailored specifically for that purpose. Two of these profiles are included on the *Software Utilities* CD-ROM that came with your printer:

- mc2350s.icm for standard quality
- mc2350h.icm for high or enhanced quality

The readme files on the CD-ROM include directions on how to use and where to load each profile. These specialized profiles are useful for work with Microsoft ICM2 for Windows, Apple ColorSync, CorelDRAW, Kodak KCMS, Adobe Photoshop, and others.

CMM Test Page

A utility that allows you to preview color matching choices is included on the *Software Utilities* CD-ROM that came with your printer. The file includes a complete list of available profiles with descriptive information about each. In addition, it allows you to preview the effect of the color choices you have selected on a sample picture and graphic.

K-Preserve

On CMYK printers, black is generally made by mixing all four toner colors. K-Preserve lets you maintain the K or black channel for graphics in a CMYK file, so that blacks are printed with black toner only rather than a combination of toners.

You can select this option in the printer driver by choosing the Features tab, clicking the Color Options or Advanced Color Options button (depending on your operating system), and checking the K-Preserve box.

RGB Gray Treatment

This option, available through the printer driver and PageScope Light, offers three options for gray/black printing.

- Black Only, which prints 100% black with black toner only.
- Black and Gray, which prints all 100% black and intermediate grays with black toner only
- Composite Black, which prints 100% black and intermediate grays with a composite of all four toners.

Troubleshooting Color Problems

The magicolor 2350 color matching system is optimized for the sRGB Standard, which is the standard used with many common applications such as Microsoft Office. In most cases, you do not need to make any adjustments to the default color settings to achieve the best results.

If you have trouble with color, however, there are several things to check.

1 Mechanical problems. Print quality problems that are caused by mechanical problems are usually drastic — colors that change from page to page; colors that are off-register; colors that aren't anything like you expect.

- Are toner cartridges installed properly?
- Do all four toner cartridges have toner?
- Are the printer doors closed?
- Is the OPC drum installed properly?
- Is the laser lens cover dirty?

Instructions for checking all these mechanical issues are included in this manual.

2 Resolution. If images look grainy or if your page is printed with black toner only, the resolution may be set wrong.

- If the resolution is set to draft, the job prints with black toner only. Draft is designed to be a very quick proofing mode.
- If the resolution is set to Standard, text prints well, but images may look grainy or unclear. It's a good choice for text documents.

- If the resolution is set to High, images are sharp and clear. Printing takes somewhat longer at High resolution, but it's the best choice for the delivery copy of a document containing images.
- 3 **Registration Page.** Found in the Quality menu, the Registration page prints color test patterns so you can see whether colors are registered, or lined up, properly. The Registration page always prints at 600 x 600 dpi resolution.
 - 4 **Test Pages.** Also found in the Quality menu, the test pages let you check the overall toner coverage for each toner color or for grayscale printing.
 - Test Page 1 is for checking color. When selected, it prints five sequential pages — one each of cyan, magenta, yellow, black, and one with the colors combined.
 - Test Page 2 is for checking grayscale.
 - 5 **Vivid setting.** This setting, found on the Features/Color Options or Advanced Color Options/Configure tab of the printer driver or in Configuration/Color Matching & Quality in PageScope Light, is optimized for transparencies, mapping the monitor's solid colors to the printer's solid colors so the intensity matches.
 - If graphics don't match monitor colors, turn Vivid on.
 - This setting may not work well for images, so experiment with it to find the best setting for your print job.
 - 6 **RGB Source.** This setting, which is accessible on the on the Features/Color Options or Advanced Color Options/Configure tab of the printer driver or in Configuration/Color Matching & Quality in PageScope Light, needs to match the profile for the document being printed.
 - Some applications tell the RGB source. If your document or application lists the RGB source, set the printer to match. If it does not, you can experiment with this setting to find the best option for your print job.
 - If dots of cyan or magenta appear in what should be solid yellow blocks, such as the highlighter feature in Microsoft Word or the table and spreadsheet cell fills in Microsoft Word or Excel, set the RGB Source to None.
 - 7 **CMM Test Page.** Use this file to see a picture preview of your current color setup. It also includes a brief description of all the profiles that came with your printer. The file is on the *Software Utilities* CD-ROM that came with your printer.
 - 8 **Color Matching.** If you see spots of toner around the edges of text, if colors are too dark or too saturated, or if toner is so thick that it flakes off the finished page, check whether Quick Color Configuration (on the Features tab in your printer driver) is set to Disable Printer Color Matching. If it is, choose one of the other options from the drop-down list. All of the other

color configuration options regulate the amount of toner that goes on the page, making sure that the total amount is within the range that the printer can fuse to the media.

9 SWOP CMYK. This sophisticated setting is used by graphic artists to make sure the colors in their proofs match those that will be created by an offset press.

- If you are trying to simulate a SWOP device or the color data in your file is specified in SWOP CMYK, make sure the simulation profile is set to SWOP.
- If you are not trying to simulate SWOP, make sure the simulation profile is set to None or to whichever of the other choices is appropriate for your job.

10 Other Color Problems. Most other color printing problems arise from color management issues in the application that was used to create the job or from which you are printing the job.

- Check the application documentation for advice on color management.
- Check color notes on the MINOLTA-QMS website at www.minolta-qms.com for information on color issues with popular publishing software.

Working with the Status Monitor

6

Introduction

The Status Monitor shows information about the current status of the printer.

If you used the CD-ROM Installer to install the printer driver, the Status Monitor was also installed, and the Status Monitor's icon appears in your toolbar.



If you installed your printer by using Add Printer, rather than the CD-ROM, Status Monitor was not installed, and the icon does not appear. You can, however, install the Status Monitor manually. Installation instructions are included in the *Reference Manual* on the *Documentation CD-ROM*.

Environment

The Status Monitor can be used with Windows XP, 2000, NT4, Me, and 98, connected via Ethernet.



To install Status Monitor on NT4 systems, you must first install Windows Media Player, which is available on the Microsoft website.

Recognizing Status Monitor Alerts

When the Status Monitor detects a printing problem, several actions occur at once, depending on your settings. First, the icon changes from green to yellow, orange, or red, depending on the severity of the printer problem. Next, the icon flashes, if you have set it to flash in the advanced options. In addition, the Status Monitor sends you an email to alert you to the problem. You can set the interval between the time Status Monitor detects a problem and the time it sends an email.

Refer to online help for further information on these settings.

Recovering from a Status Monitor Alert

When the Status Monitor notifies you of a printing problem, double-click on its icon to open the Status Monitor. The Status Monitor identifies which printer has an error and what type of error has occurred.

Finally, the Status Monitor includes Quick Time video clips that illustrate how to solve the print problem.

Refer to online help for further information on these settings.

Closing the Status Monitor

When you have completed the actions necessary to correct the printer problem, the icon turns green again.

Select Close from the Status or Consumable menu. The Status Monitor window closes, but the Status Monitor continues to operate in the background.

Replacing Consumables

7

Consumable Life Expectancies

The stated life expectancy of each consumable is based on printing with specific media type, number of color planes, page size, and page coverage (normal 5% coverage of letter-/A4-size media). The actual life expectancy will vary depending on these and other printing variables, including continuous or intermittent printing, ambient temperature, and humidity.

The following messages indicate that a consumable needs to be replaced.

Item/Message Display	This item needs replacing after...	Comment
REPLACE OPC DRUM	Up to 45,000 continuous monochrome or 11,250 continuous four-color pages, or 10,000 intermittent (one-page jobs) monochrome or 7,500 intermittent color pages.	Replaced by user. See "Replacing the OPC Drum Cartridge" on page 97.
X EMPTY	Toner Cartridges Standard capacity: Approximately 1,500 single-sided pages per cartridge—yellow, magenta, cyan at 5% coverage of each color. High capacity: Approximately 4,500 single-sided pages per cartridge—black, yellow, magenta, cyan at 5% coverage of each color.	Replaced by user. See "Replacing a Toner Cartridge" on page 90.
REPLACE WASTE TONER	Approximately 25,000 continuous monochrome or 21,600 intermittent (one-page jobs) monochrome, or 6,250 continuous or intermittent color pages (based on the standard mode with 5% toner coverage or letter A4 media).	Replaced by user. See "Replacing the Waste Toner Bottle" on page 95.

If multiple toner cartridges or consumables are empty at the same time, the Error light will flash. You can press the left arrow key to scroll through the error messages or press the right arrow key to start the toner replacement sequence.

Auto-Image Density Control (AIDC)

The printer periodically pauses for the color calibration procedure (also known as the Auto-Image Density Control [AIDC] cycle). This process is provided to ensure reliable printer operation with optimum output quality.

This 305-second calibration cycle automatically occurs after the installation of a new toner cartridge or OPC drum.



*If you open the door before the message window reads **MAGICOLOR 2350/IDLE**, the printer stops and repeats the calibration cycle.*



The printer also pauses to do a 170-second AIDC cycle after 200 1-sided pages of a continuous print run, and a 215-second AIDC cycle when waking up from Energy Saver with more than 1,000 pages since the last AIDC cycle or when there has been an environmental change such as in temperature or humidity. You can also use control panel options or PageScope Light to start a full AIDC cycle.

Toner Cartridge Life

A high-capacity toner cartridge contains enough toner (yellow, magenta, cyan, or black) to print a maximum of 4,500 (at normal 5% page coverage) simplex letter/A4-size plain paper pages of continuous print. The standard-capacity toner cartridge contains enough toner to print a maximum of 1,500 (at normal 5% page coverage) simplex letter/A4-size plain paper pages of continuous print.

With heavier coverages, the approximate maximum capacities will decrease.



To determine your average percent coverage, print a consumables statistics page (Print Menu/Statistics).

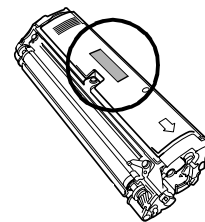
How do I know if I need to replace the toner?

When a toner cartridge runs low, **X LOW** displays in the message window (**X** indicates the toner color). Usually, parts of the page print lighter than expected. It's your option whether to continue printing.

The printer, approximately 200 pages after detecting that toner in a cartridge is low, displays **X EMPTY** in the message window (**X** indicates the toner color). Printing can continue even though the out-of-toner warning appears. However, the color gradually fades out, so replace the toner cartridge as soon as possible.

How can I tell if a toner cartridge is standard or high capacity?

Refer to the label on the toner cartridge. The label indicates whether the cartridge is standard-capacity or high-capacity.



Replacing Consumables

Attention

Failure to follow instructions as outlined in this manual could result in voiding your warranty.

Refilled Toner Cartridges

Attention

Do not use refilled toner cartridges. Any damage to the printer or quality problems caused by a refilled toner cartridge will void your warranty.

Replacing a Toner Cartridge

Characters and images are created in your laser printer through a photosensitive process that applies toner to the Optical Photo Conductor (OPC) drum (which functions like photographic film). Your printer uses four toner cartridges: black, yellow, magenta, and cyan. Handle the toner cartridges carefully to avoid spilling toner inside the printer or on yourself.



The toner is nontoxic. If you get toner on your hands, wash them in cool water or a neutral detergent. If you get toner on your clothes, lightly dust them off as much as possible. If some toner remains on your clothes, use cool, not hot water, to rinse the toner off.

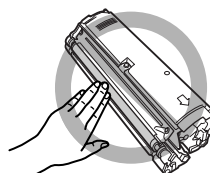
WARNING!

If you get toner in your eyes, wash it out immediately and consult a doctor. Material Safety Data Sheets (MSDS) information can be found at www.minolta-qms.com (click on the Answer Base).

Attention

Do not hold a toner cartridge vertically.

Do not touch the toner roller surface. This could lower image quality.



Keep toner cartridges:

- In their packaging until you're ready to install them.

- In a cool, dry location away from sunlight (due to heat).

The maximum storage temperature is 95° F (35° C) and the maximum storage humidity is 85% (noncondensing). If the toner cartridge is moved from a cold place to a warm, humid place, condensation may occur, degrading print quality. Allow the toner to adapt to the environment for about one hour before use.

- Level during storage.

Do not stand or store cartridges on their ends or turn them upside down; the toner inside the cartridges may become caked or unequally distributed.

- Away from salty air and corrosive gases such as aerosols.

Steps for Replacing a Toner Cartridge

Attention

Be careful not to spill toner while replacing a toner cartridge. If toner spills, immediately wipe it off with a soft, dry cloth.

When toner is low or out, the printer prompts you to replace the cartridge.

1 Check the message window to see which color toner is low or out.

2 Select the toner color and size.

When you replace a cyan, yellow, or magenta cartridge, the message windows asks whether you are installing a standard or high-capacity cartridge.



Although the black cartridge that comes with your printer is standard capacity, replacement black cartridges come only in the high-capacity size, so you don't need to select a size during the installation process.

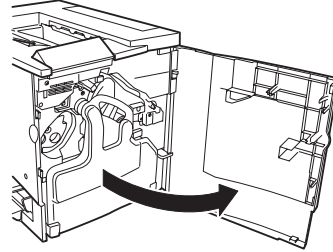
If a toner cartridge is empty, the carousel automatically moves so that the empty toner cartridge can be removed. If you choose to replace a cartridge with low toner, the carousel moves when you select the color.



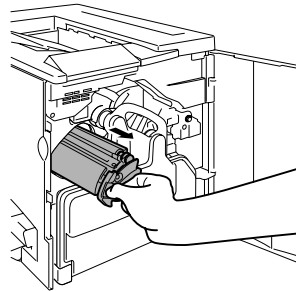
If you accidentally select the wrong cartridge size, use the Quality Menu/Toner/Change Size sequence in the configuration menu to change the setting.

When the cartridge is in position, the message window displays: OPEN DOOR AND/REMOVE CARTRIDGE .

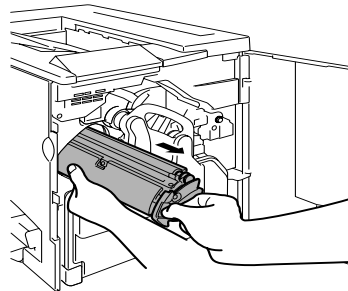
- 3** Open the printer's front door.
When you open the door, the message window displays: FRONT DOOR OPEN.



- 4** Insert the thumb and index finger of your right hand into the two holes in the front of the toner cartridge, and then pull the cartridge straight out about 6" (152 mm).



- 5** Support the middle of the cartridge with your left hand, and then pull out the cartridge.



WARNING!

Contact toner_recycle@minolta-qms.com for toner recycling availability, or dispose of the used toner cartridge according to your local regulations. Do not dispose of it by burning.



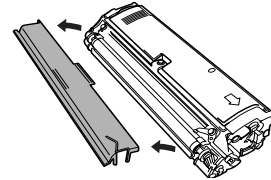
Recyclable
Material

- 6** Remove the new toner cartridge from its shipping carton.

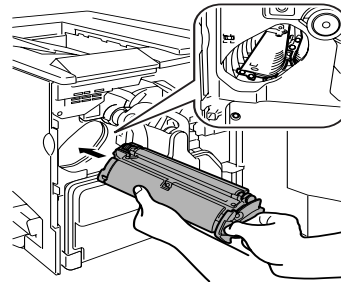
- 7 Remove the protective yellow cover clearly marked Remove.



Each toner cartridge has a colored end that corresponds to a colored label inside the cartridge slots. Always install the toner cartridge in the slot with a label of the same color.



- 8 Support the middle of the cartridge with your left hand, insert the thumb and index finger of your right hand into the two holes in the front of the toner cartridge, and then insert the cartridge so that the guides on the cartridge fit into the rails in the cartridge compartment in the carousel.



- 9 Gently push the new toner cartridge into the printer.

- 10 Close the printer's front door.



*The printer must complete a 305-second calibration cycle after any consumable has been replaced. If you open the door before the display reads **MAGICOLOR 2350 / IDLE**, the printer stops and repeats the calibration cycle.*

Replacing a Toner Cartridge That Is Not Empty

You can choose to replace a toner cartridge that is not empty. For example, if the consumable monitor on your printer driver indicates that a particular color cartridge is running low and you need to print a lengthy job when no one will be available to change the cartridge, you might want to replace the cartridge before it is empty.

Here are the steps to replace the yellow toner.

Press Key	(Until) Display Reads
	MAGICOLOR 2350 IDLE

Press Key	(Until) Display Reads
Menu Select ↵	MAGICOLOR 2350 PRINT MENU
▶	MAGICOLOR 2350 QUALITY MENU
▼	QUALITY MENU TONER
▼	TONER REPLACE
▼	REPLACE BLACK
▶	REPLACE YELLOW
▼	YELLOW STANDARD
▶	YELLOW HIGH CAPACITY
Use the right and left arrow keys to select Standard or High Capacity, whichever matches your cartridge. Once the appropriate size is displayed, press Menu Select ↵	
Menu Select ↵	The printer displays OPEN DOOR AND REMOVE CARTRIDGE. You can hear the cartridge carousel rotating inside the printer. Wait for the sound to stop before opening the door.

- 1 Follow the "Steps for Replacing a Toner Cartridge" on page 91.
- 2 Place the removed toner cartridge in a bag if you want to use the remaining toner when you will be able to monitor it.

Replacing All the Toner Cartridges at Once

At some time, such as a warranty claim, you may need to replace all the toner cartridges at the same time. Here are the steps to follow.

- 1 In the Quality/Toner submenu, select Replace All.

The carousel rotates.



If for some reason that cartridge cannot be rotated, the control panel displays CANNOT ROTATE CARTRIDGE and the printer returns to the previous menu. You can try the sequence again or continue printing without changing cartridges if you have Quality/Toner Action/Low set to Continue.

- 2 The control panel display asks you whether you are installing a standard or high-capacity toner cartridge. Press the right arrow and then Select for high-capacity or press the left arrow and then Select for standard-capacity.



Be careful not to skip this step. If you replace the cartridge without indicating a size, the printer automatically adjusts to a high-capacity toner.

- 3 The control panel display reads OPEN DOOR AND REPLACE X TONER, where X represents the toner color. Open the door.

- 4 Remove the old cartridge and store it in a plastic bag if you plan to use it again later.

- 5 Replace the cartridge. See "Replacing a Toner Cartridge" on page 90.



If you do not replace the cartridge, the control panel displays TONER MISSING. After a few seconds, the display reads REPLACE X TONER/STANDARD? > and you must repeat the replacement cycle for that cartridge.

- 6 Close the door.

- 7 Repeat steps 2 through 6 until all four cartridges have been replaced.

After you replace the fourth cartridge and close the door, the printer performs an AIDC calibration cycle and returns to Idle. The AIDC cycle lasts up to 305 seconds. Do not open the door while the cycle is in progress, or it will stop and start over.

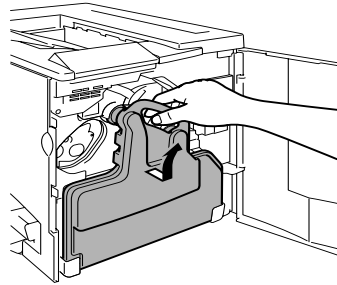
Replacing the Waste Toner Bottle

When the waste toner bottle becomes full, the message REPLACE WASTE TONER appears. The printer will stop and will not start again until the waste toner bottle is replaced.

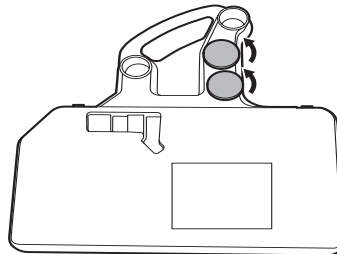
Removing the Used Waste Toner Bottle

- 1 Open the printer's front door.
- 2 Grasp the handle of the waste toner bottle. Lift the waste toner bottle up and carefully remove it.

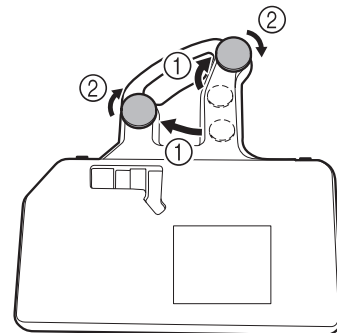
Keep the waste toner bottle upright so the toner does not spill.



- 3 Remove the two blue caps by turning them counterclockwise.



- 4 Secure the two caps onto the two holes by turning them clockwise.



- 5 Dispose of the used waste toner bottle.

WARNING!

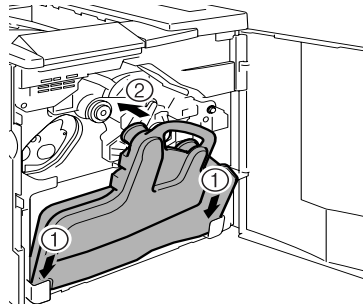
Dispose of the used waste toner bottle properly according to your local regulations (do not dispose of it by burning).

Installing the New Waste Toner Bottle

- 1 Remove the new waste toner bottle from its carton.

- 2 Insert the bottom of the waste toner bottle ① into its installation position in the printer.
- 3 Push the top of the waste toner bottle ② into position until it is firmly seated.
- 4 Close the printer's front door.

If the waste toner bottle is not correctly installed or the transfer belt release lever is at its top position (11 o'clock), the front door cannot be closed.



*The printer must complete a 305-second calibration cycle after any consumable has been replaced. If you open the door before the display reads **MAGICOLOR 2350 / IDLE**, the printer stops and repeats the calibration cycle.*

Replacing the OPC Drum Cartridge



When the OPC drum is worn out, the message **REPLACE OPC DRUM** appears. Printing can continue even after this message appears; however, since print quality is reduced, the OPC drum cartridge should be replaced immediately.

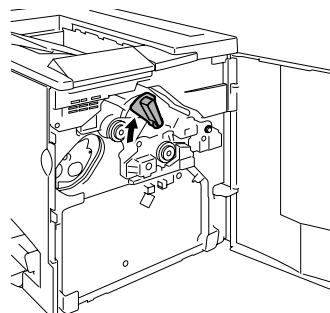


The OPC drum life is directly related to the number of rotations of the drum. Longest drum life is achieved with continuous printing. Intermittent printing with small job sizes requires cleaning rotations before and after each job, and impacts OPC life.

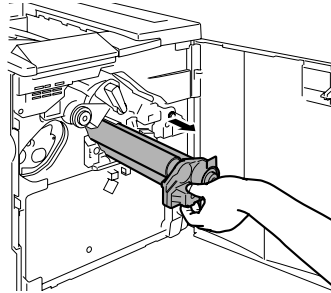
Removing the Used OPC Drum Cartridge

- 1 With the front door open, rotate the transfer belt unit release lever clockwise to the top (11 o'clock) position.

This raises the transfer belt unit.



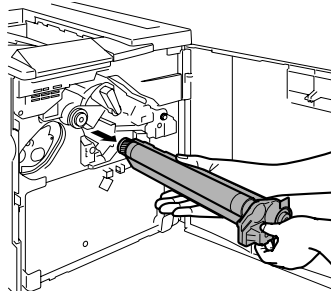
- 2 Grasp the release lever for the OPC drum cartridge, and then pull the cartridge straight out about 6 inches (152 mm).



- 3 Support the bottom of the drum with your hand, then carefully pull the cartridge toward you and remove it.



Dispose of the cartridge properly according to your local regulations.



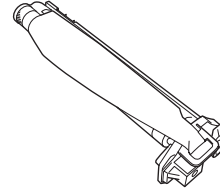
Installing the New OPC Drum Cartridge

Attention

The OPC drum is extremely sensitive to bright light and direct sunlight. Always leave it in its protective bag until you are ready to install it. Any exposure to light should be avoided, or permanent damage could result.

Any damage resulting from mishandling of the OPC drum will void the drum's warranty. Also, handle the cartridge carefully by its sides so you don't touch the surface (the green part) of the drum. The drum is also extremely sensitive to hand oils and scratches, both of which reduce print quality.

- 1 Remove the new OPC drum cartridge from its carton.



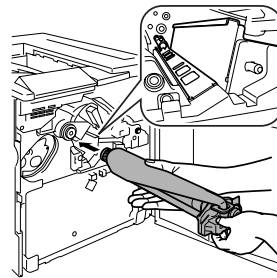
⚠ Attention

Keep the protective sheet on the cartridge. Do not touch the protective sheet on the photosensitive (green) surface or scratch the surface. This could lower image quality.

Make sure the transfer belt release lever is still set to its top position (11 o'clock).

- 2 Holding the OPC drum cartridge level, place the front end of the OPC drum cartridge installation guide into the installation rail.
- 3 Carefully push the OPC drum cartridge in.

When installing the OPC drum cartridge, be sure not to press on the release lever. If the lever is pressed during installation, the lock is released, and the cartridge is not installed correctly.



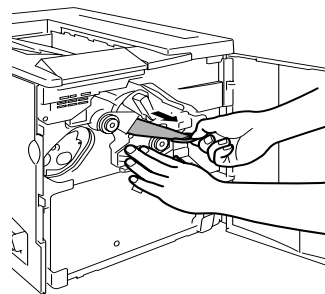
⚠ Attention

The cartridge should slide easily into the printer. Don't force it.

- 4 Press on the front handle of the OPC drum cartridge with one hand and hold the front handle of the OPC protective cover with the other hand.
- 5 Peel the protective cover off (straight toward you).

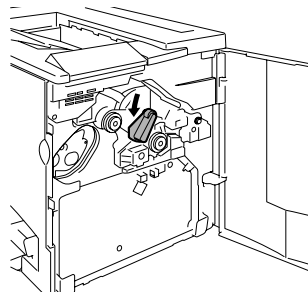


Dispose of it properly according to your local regulations.



- 6 Turn the release lever of the transfer belt counterclockwise to its correct position (7 o'clock).

This lowers the transfer belt.



! Attention

If the transfer belt release lever is not at its correct position (7 o'clock), the waste toner bottle cannot be installed.

- 7 Install a new waste toner bottle (see page 91).



*The printer must complete a 305-second calibration cycle after any consumable has been replaced. If you open the door before the message window reads **MAGICOLOR 2350/IDLE**, the printer stops and repeats the calibration cycle.*

Ordering Consumables

Choosing the right consumables for your printer not only increases its reliability and performance, but also minimizes the risk of damage. For example, only MINOLTA-QMS toner cartridges are designed to meet the exact specifications of your MINOLTA-QMS printer, giving maximum performance, efficiency, and long life.

Toner cartridges and other consumables for your printer are available from your local vendor or Q-SHOP (www.q-shop.com).

See the *Service & Support Guide* for sources of service and support. The most up-to-date worldwide information can be found at www.minolta-qms.com

Maintaining the Printer

8

Maintaining the Printer

Attention

Read all caution and warning labels carefully, making sure to follow any instructions contained in them. These labels are located on the inside of the printer's doors and the interior of the printer body.

Handle the printer with care to preserve its life. Abuse may cause damage and void your warranty. If dust and paper scraps remain on the inside or outside of the printer, printer performance and print quality will suffer, so the printer should be cleaned periodically. Keep the following guidelines in mind.

WARNING!

Turn off the printer, unplug the power cord, and disconnect all interface cables before cleaning. Do not spill water or detergent into the printer; otherwise the printer will be damaged and an electric shock may occur.

- Either clean the printer before use or allow time after unplugging it to allow the fuser unit to cool down.

Attention

The fuser unit is hot. When the right door is opened, the fuser unit temperature drops gradually (one hour wait time).



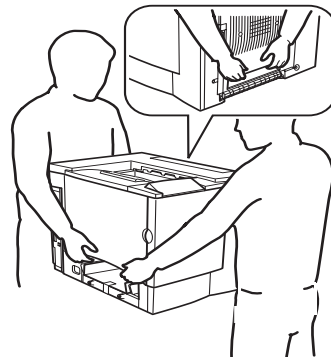
- Be careful when cleaning the inside or removing paper jams, as the fuser unit and other internal parts may become very hot.
- Do not place anything on the top of the printer.
- Use a soft cloth to clean the printer.
- Never spray cleaning solution directly on the printer's surface; the spray could penetrate through the air vents of the printer and damage the internal circuits. Avoid using abrasive or corrosive solutions or solutions that contain solvents, (such as alcohol and benzene) to clean the printer.
- Always test any cleaning solution (such as mild detergent) on a small area of your printer to check the solution's performance.
- Never use sharp or rough implements, such as wire or plastic cleaning pads.
- Always close the printer doors gently. Never expose the printer to vibrations.
- Do not cover the printer immediately after using it. Turn it off and wait until it cools down.
- Do not leave the printer's covers and doors open for any length of time, especially in well-lit places; light may damage the OPC.
- Do not open the printer during printing.

- Do not tap paper stacks on the printer.
- Do not tilt, lubricate, or disassemble the printer.
- Do not touch the electrical contacts, gears, or laser beam devices. Doing so may damage the printer and cause the print quality to deteriorate.
- Keep media in the output tray at minimum level. If the media stacks too high, your printer may experience media jams and excessive media curl.

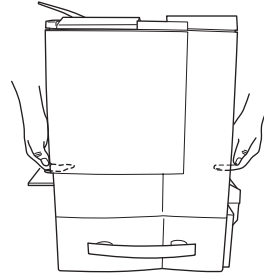
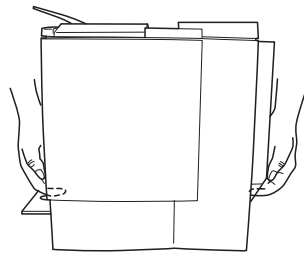
- Make sure two people are available to lift the printer when moving it.

When moving the printer, keep the printer level to avoid toner spillage.

- When lifting the printer, grasp the handles at the top of Tray 1 and at the bottom-right side of the printer (or the handles at the bottom of the duplex unit if it is installed).



Even if an optional media tray is installed, be sure to lift the printer as described above. Do not grasp the grip of Tray 2 or the cover on its right side; otherwise, the media tray may be damaged.



WARNING!

If you get toner in your eyes, wash it out immediately with cool water and consult a doctor. Material Safety Data Sheets (MSDS) information can be found at www.minolta-qms.com (click on the Answer Base).

- If you get toner on your skin, wash it off with cool water and neutral detergent.
- If you get toner on your clothes, lightly dust them off as much as possible. If some toner remains on your clothes, use cool — not hot — water to rinse the toner off, provided your clothing is washable.
- Make sure any parts removed during cleaning are replaced before you plug in the printer.

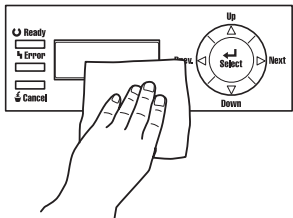
Cleaning the Printer

Always test any cleaning solution (such as a mild detergent) on a small area of your printer to check the solution's performance.

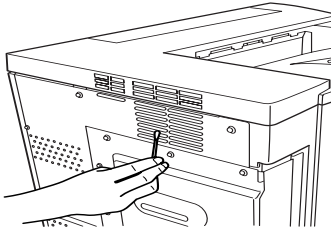
Exterior

This item needs cleaning...	After...	Use	Avoid
Control panel	As needed	A soft, dry cloth	Sharp or rough implements (such as wire or plastic cleaning pads) Any liquid
Exhaust duct		A cotton swab	
Printer exterior		A soft, damp cloth (mild detergent)	Sharp or rough implements (such as wire or plastic cleaning pads) Abrasive or corrosive solutions that contain solvents (such as alcohol or benzene)

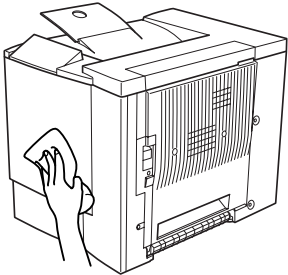
Control Panel



Exhaust Duct



Printer Exterior



Interior

Attention

Be sure to turn off the printer and unplug the power cord before cleaning inside.

This item needs cleaning...	After...	Use	Avoid
Duplex option feed rollers	Media misfeeds occur frequently or the printout is dirty.	A damp cloth that has been wrung out well	Abrasives or detergents
Tray 2 media rollers			
Tray 1 interior feed rollers	Every 30,000 single-sided pages, every 12 months, or as needed, whichever comes first.	A soft, dry cloth	Liquids, abrasives, or detergents
Laser lens cover	Removing the waste toner bottle to clean around it. Every 30,000 single-sided pages, every 12 months, or as needed, whichever comes first.		
Printer interior (such as the inside of the door, around the waste toner bottle)	Every 30,000 single-sided pages, every 12 months, or as needed, whichever comes first.		

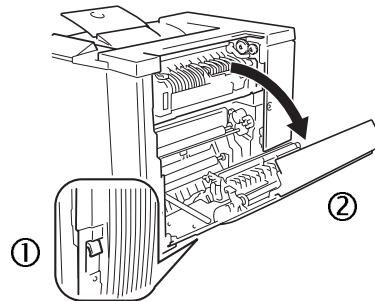
Media Rollers

The accumulation of paper dust and other debris on the paper transport roller can cause media-feeding problems.

Tray 1 (Multipurpose Tray) Interior Feed Rollers

- 1 Remove all media from Tray 1.

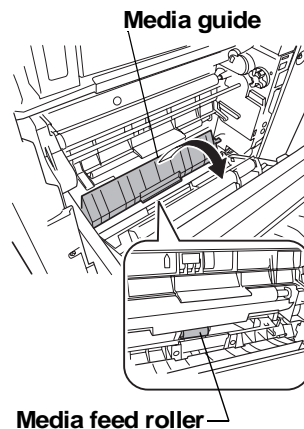
- 2 Pull the right-side door release ①, and then open the right-side door ②.



- 3 While pressing down the media guide with one hand, clean the feed roller by wiping it with a soft, dry cloth.



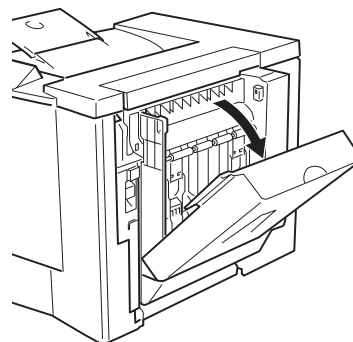
While the door is open, the paper feed roller inside the right door can also be cleaned. While pressing the paper guide down with one hand, clean the paper feed roller by wiping it with a soft, dry cloth.



- 4 Close the media guide.
- 5 Close the right cover.
- 6 Load the media into the tray again.

Duplex Option Feed Rollers

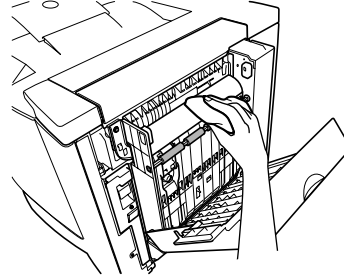
- 1 Turn off and unplug the printer and disconnect the interface cable.
- 2 Open the cover of the duplex option.



- 3 Clean the feed rollers by wiping them with a soft, damp cloth that has been wrung out well.
- 4 Close the duplex option cover.
- 5 Plug in the printer; reconnect the interface cable, and turn the printer on.



In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

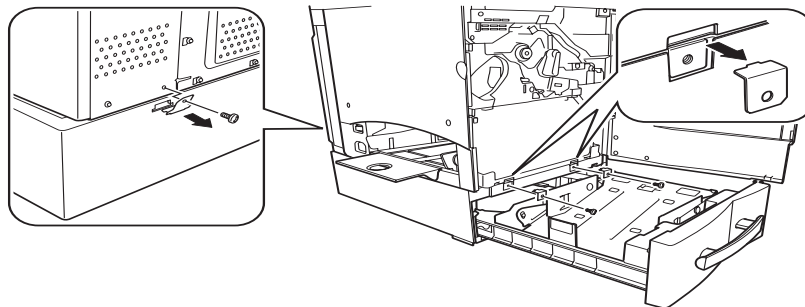


Tray 2 (Optional Lower Feeder Unit) Media Rollers

- 1 Turn off and unplug the printer and disconnect the interface cable.
- 2 Remove paper from Tray 2.
- 3 Remove the brackets (two at the front and one at the back) used to attach the lower feeder unit to the printer.



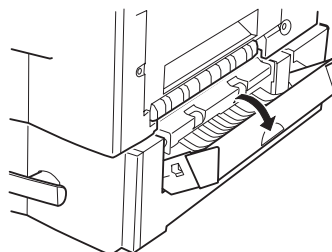
Opening the front door and removing the waste toner bottle first will permit a clearer view of these brackets.



WARNING!

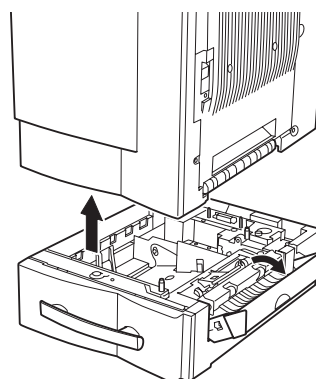
Your printer weighs approximately 62 lbs (28 kg) with consumables installed. Be sure to have help when lifting and moving it.

- 4 Open the right door of the lower feeder unit.

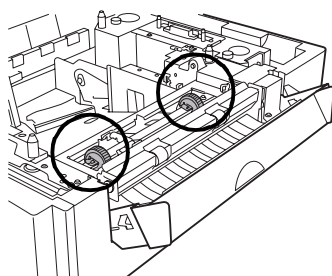


- 5 Lift the printer off of the lower feeder unit.

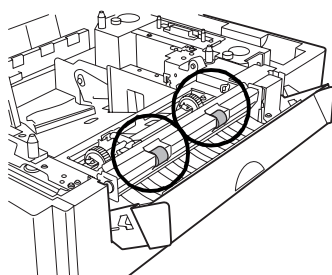
The printer must be lifted by two people grasping the handles



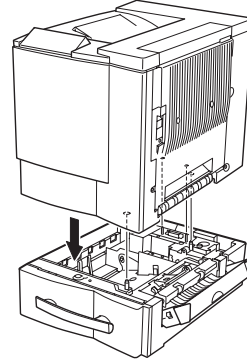
- 6 Wipe the paper feed rollers with a soft, damp cloth.



- 7 Wipe the paper feed rollers inside the right door with a soft, damp cloth.



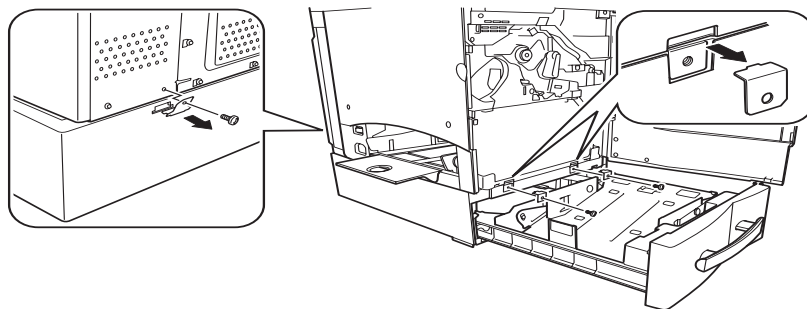
- 8 With the right door still open, place the printer on the lower feeder unit.



- 9 Install the brackets (two at the front and one at the back), and then close the right door.



Reinstall the waste toner bottle if you removed it and close the front door if you opened it.



- 10 Slide the tray back in.

- 11 Plug in the printer; reconnect the interface cable and turn the printer on.



In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

Printer Interior and Laser Lens Cover

- 1 Open the front door.

2 Remove the waste toner bottle.

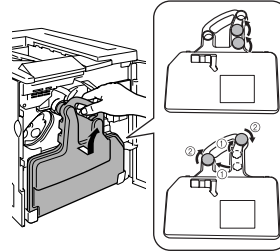


The waste toner bottle contains waste toner. Be careful not to tilt the bottle while removing it.

3 Holding the waste toner bottle vertically, plug the two openings with the caps.



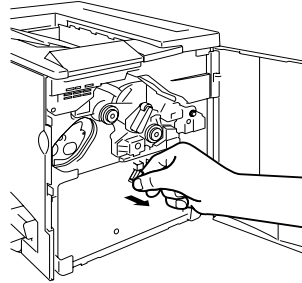
Place the removed waste toner bottle, with the openings facing up, on a stable surface (not the printer).



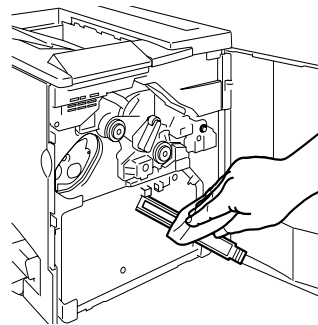
4 Pull out the laser lens cover.



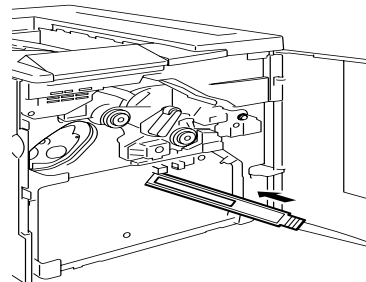
The laser lens cover cannot be removed. Do not pull it with too much force.



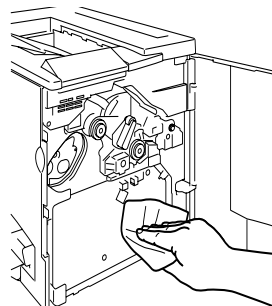
5 Wipe the surface of the laser lens cover with a soft, dry cloth.



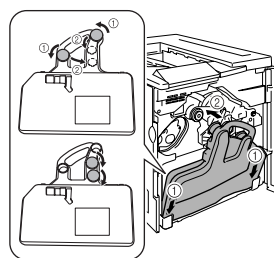
6 Reinsert the laser lens cover.



- 7** Wipe the inside of the printer with a soft, dry cloth.



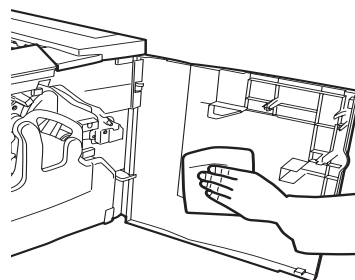
- 8** Hold the waste toner bottle, removed in step 2, vertically, and then remove the two caps from the openings. Mount the removed caps onto the cap holders, and then turn the caps clockwise to secure them.



- 9** Insert the bottom of the waste toner bottle into its compartment in the printer, and then install the bottle.

- 10** Wipe the inside of the front door with a soft, dry cloth.

- 11** Close the front door.



Troubleshooting

9

Introduction

This chapter provides information to aid you in resolving printer problems you may encounter, or at least guide you to the proper sources for help.

Verifying Printer Configuration Information

There are two ways to get configuration information so you can verify that the printer is printing correctly:

- On the startup page that prints automatically when you turn on the printer.



If you don't want a startup page to print each time you turn on the printer, you can turn it off in the System Default/Startup Options/Start Page menu.

- Using PageScope Light.
- On a configuration page printed through the printer menu.

Press Key	(Until) Display Reads
	MAGICOLOR 2350 IDLE
▼	MAGICOLOR 2350 PRINT MENU
▼	PRINT MENU MENU MAP
▶	PRINT MENU CONFIGURATION
▼	CONFIGURATION *YES
Menu Select ←	*YES IS SELECTED
The configuration page prints and the message window reads: PRINT MENU CONFIGURATION	
▲	MAGICOLOR 2350 IDLE

Preventing Media Jams

To avoid media jams, make sure that:

- Media matches the printer specifications
- Media is flat, especially on the leading edge
- The printer is on a hard, flat, level surface
- You have correct media type selected if you're printing on envelopes, labels, thick stock, or transparencies
- You store media in a dry location away from moisture and humidity
- You always adjust the media width regulation guides in Tray 1 *after* inserting the media (a guide that is not properly adjusted can cause poor print quality, media jams, or printer damage)
- Transparencies are removed from the output tray immediately after printing to avoid static buildup
- You load the media for single-sided pages printing-side up in Tray 1 or 2 (*Many manufacturers place an arrow on the end of the wrapper to indicate the printing side.*)

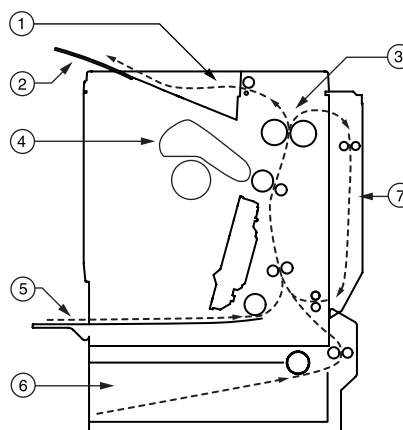
Also make sure that the media is not:

- Folded, wrinkled, or excessively curled
- Double feeding
 - *Unless you are using transparencies, remove the media and fan the sheets*
 - *If you are using transparencies, make sure they have not been fanned since fanning causes static*
- Mixed, with more than one type, size, or weight in a tray at the same time
- Filled beyond the media fill marker in input trays
- Filled beyond the capacity of the output tray (*The face-down output tray has a 200-sheet capacity—jamming may occur if you allow media to accumulate more than 200 sheets at a time*)

Understanding the Media Path

Understanding the printer's media path will help you locate media jams.

- 1 Media exit unit
- 2 Output tray
- 3 Transfer belt
- 4 Toner cartridge
- 5 OPC drum
- 6 Laser
- 7 Tray 1 (multipurpose tray)
- 8 Tray 2 (optional lower feeder unit and 500-sheet media tray)
- 9 Fuser unit
- 10 Duplex option
- 11 Transfer roller
- 12 Registration rollers
- 13 Pickup rollers



Tray 1 (Multipurpose Tray)

The multipurpose tray is located at the left of the printer. The media is picked up from Tray 1, passed through the registration rollers, between the OPC drum and the transfer roller, through the fuser unit, and delivered via the media exit unit to the output tray on top of the printer.

Tray 2 (Optional Lower Feeder Unit with 500-Sheet Media Tray)

The media tray is located at the bottom front of the printer. The media is picked up from the tray, passed through the registration rollers, between the OPC drum and the transfer roller, through the fuser unit, and delivered via the media exit unit to the output tray on top of the printer.

Duplex Option

The media is picked from either media tray, passed through the registration rollers, between the OPC drum and the transfer roller and through the fuser unit, moved to the output tray briefly, pulled back into the duplex option where the media undergoes a change in direction, cycled through the OPC, transfer and fuser units again, and delivered via the media exit unit to the output tray, which is the top of the printer.



Since several sheets cycle through the printer/duplex unit at the same time, recovering from a media jam may require the removal of more than one sheet.

Clearing Media Jams

To avoid damage, always remove jammed media gently, without tearing it. Any pieces of media left in the printer, whether large or small, can obstruct the media path and cause further jams. Do not reload media that has jammed.

Attention

The image is not fixed on the media before the fusing process. If you touch the printed surface, the toner may stick to your hands, so be careful not to touch the print face when removing the jammed media. Make sure not to spill any toner inside the printer.

Unfused toner can dirty your hands, clothes, or anything else it gets on.

If you accidentally get toner on your clothes, lightly dust them off as much as possible. If some toner remains on your clothes, use cool, not hot water, to rinse the toner off, provided your clothing is washable. If toner gets on your skin, wash it off with water or a neutral detergent.

WARNING!



If you get toner in your eyes, wash it out immediately and consult a doctor. Material Safety Data Sheets (MSDS) information can be found at www.minolta-qms.com (click on the Answer Base).

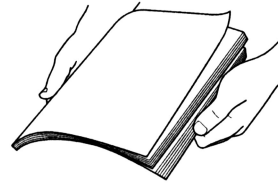
If, after clearing the media jam, the jam message in the control panel window persists, open and close any of the printer's doors. This should clear the jam message.

Handling Media Jams by Location

Location of Jam	Page Reference
Tray 1	Page 119
Tray 2	Page 119
Inside the printer	Page 121
Near the duplex option	Page 124
In the output tray	Page 124

Tray 1 (Multipurpose Tray)

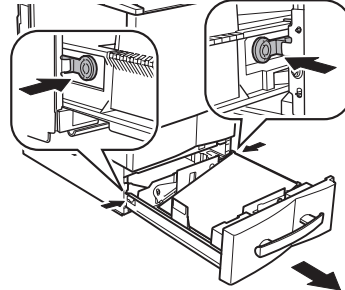
- 1 Remove the media from the multipurpose tray.
- 2 Carefully remove the jammed media and discard it.
 *Do not reinsert media that has jammed.*
- 3 Fan the removed media to prevent static buildup and even up the front edges.
 *Don't fan transparencies because fanning increases static in them.*
- 4 Reinsert the media printing face up.
*Make sure the media is lying flat and doesn't exceed the media limit mark.
Check to see if the media width guides are correct.*
- 5 Open the right-side door, then close it.
After the jam is cleared, opening and closing the door removes the media jam message.



Tray 2 (Optional Lower Feeder Unit Media Tray)

- 1 Slide Tray 2 open and remove the media from it.

- 2 While pressing in the tab on each side of the media tray, remove the media tray.



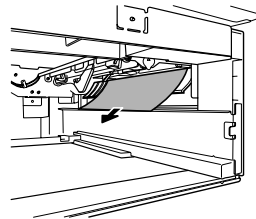
- 3 Carefully remove the jammed media and discard it.



If media is difficult to remove, open the right side door of the lower tray. This releases the tension on the jammed media.



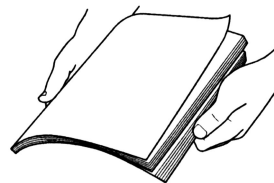
Do not reinsert media that has jammed.



- 4 Fan the removed media to prevent static buildup and even up the front edges.

- 5 Reinsert the media printing face up.

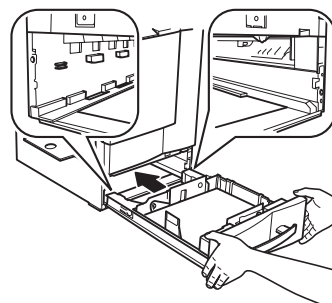
Make sure the media is lying flat, is under the media separating tabs, and doesn't exceed the media limit mark.



- 6 Slide the tray back into the printer.

- 7 Open the right-side door, then close it.

After the jam is cleared, opening and closing the door removes the media jam message.

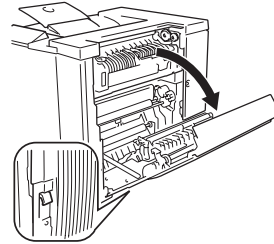


Inside the Printer

Media Path Jam

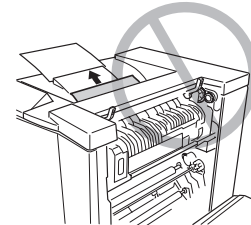
- 1 Pull the right door release lever, and then carefully open the right door.

If Tray 2 is installed, the lower-right door opens at the same time that the right door is opened.

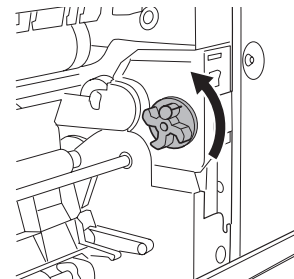


Attention

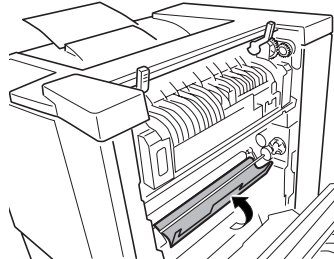
Do not pull jammed media from the top of the printer through the fuser unit; otherwise, unfused toner may dirty the fuser rollers.



If it is difficult to remove the jammed media, turn the misfeed-clearing dial counterclockwise to feed the media downward.



- 2 If a misfeed occurs in the vertical transport area, open the inner media guide, and then pull the misfed media down to remove it.
- 3 Close the inner media guide.



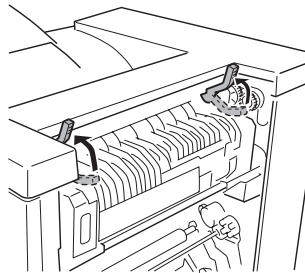
Fuser Unit Jams

WARNING!

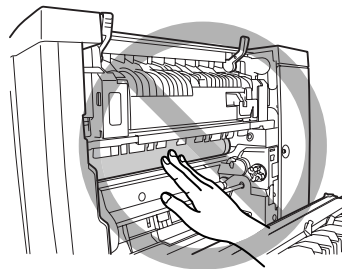
The fuser unit is hot! Do not remove a jam in this area until the fuser unit cools.



- 1 Lift up the two fuser unit levers.

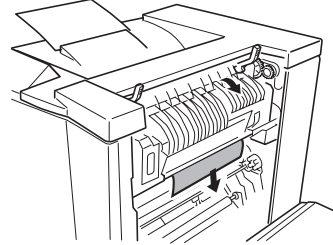


When removing the jammed media, be careful not to touch the transfer belt. Touching the transfer belt may result in decreased print quality.



- 2 Open the misfeed-clearing guide for the fuser unit, and then, while checking the misfeed, pull the jammed media down to remove it.

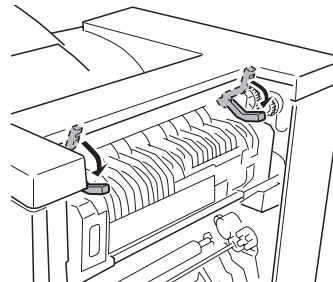
- 3 Close the misfeed-clearing guide for the fuser unit.



- 4 Lower the two fuser unit levers.

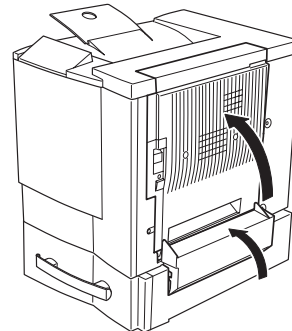
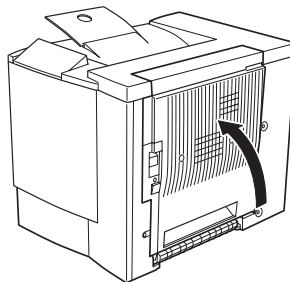
Attention

Be sure to lower the two fuser unit levers before closing the right door. If the levers are not lowered, the right door cannot be closed.



- 5 Close the right-side door.

If the optional lower feeder unit is installed, close the lower-right door.

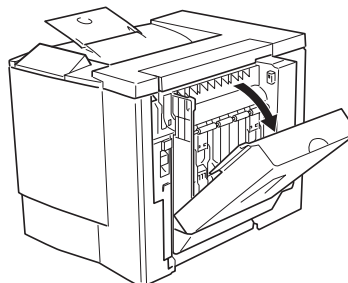


Check the release lever to make sure the door is securely closed.

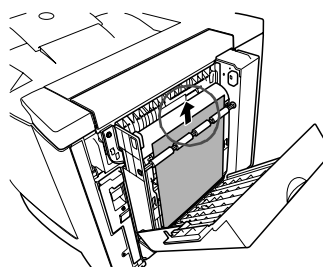
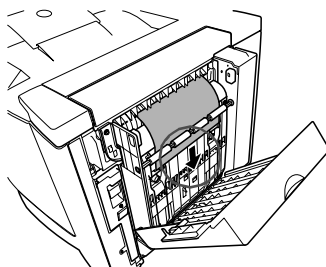
After the jam is cleared, opening and closing the door removes the media jam message.

Duplex Option

- 1 Pull the top of the duplex option to open the duplex option cover.



- 2 Remove the jammed media in the directions shown in the illustrations.



- 3 Close the duplex option's cover.

If the optional Tray 2 is installed, close the lower-right door.

Output Tray

Remove jammed media from the output tray by gently pulling it to the left away from the media exit area.



Sometimes media that jams in the output tray is pulled back into the duplex option, even if the job was not duplexed. If that happens, remove the media from the duplex option following the instructions in "Duplex Option" on page 124.

Solving Problems with Media Jams



Frequent jams in any area indicate that area should be checked, repaired, or cleaned. Repeated jams may also happen if you're using unsupported print media.

Symptom	Cause	Solution
Several sheets go through the printer together.	The front edges of the media are not even.	Remove the media and even up the front edges, then reload it.
	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Too much static electricity is present.	<ul style="list-style-type: none">■ If you are using paper, fan it before putting it in the printer.■ If you are using transparencies, do not fan them before putting them in the printer.
Media jam message stays on.	Right-side door needs to be opened and closed again to reset the printer.	Open and close the right-side door of the printer again.
	Some media remains jammed in the printer.	Recheck the media path and make sure you have removed all of the media jams.

Symptom	Cause	Solution
Duplex option jams.	The wrong media is being used.	Use only supported media. See "Media Specifications" on page 23.
		Only plain paper, 16-24 lb (60-90 g/m ²) can be aut duplexed if the optional duplex unit is installed and the media type is set properly in the driver.
		Make sure that you have not mixed media types in your multipurpose tray.
		Do not duplex thick stock, envelopes, labels, or transparencies.
		For custom-sized media, see "Media Specifications" on page 23 to make sure the size you are using can be duplexed
	Media may still be jammed.	Recheck the media path inside the duplex unit and make sure that you have removed all of the jammed media.
	Media jammed in exit may be caught in duplexer.	Sometimes when media jams in the exit path, it is caught in the duplexer, even if the job is not being duplexed. Remove it as you would any other duplex option jam.

Symptom	Cause	Solution
Media is jamming.	The media is not correctly positioned in the tray.	Remove the jammed media and reposition the media properly in the tray.
	The number of sheets in the tray exceeds the maximum allowed.	Remove the excess media and reload the correct number of sheets in the tray.
	The media guides are not correctly adjusted to the media size.	Adjust the regulation guides in the tray to match the size of the media.
	The media in the optional tray is not under the media separating tabs.	Remove the media and reload it so that the right-front and right-rear corners are under the media-separating tabs.
	Warped or wrinkled media is loaded in the tray.	Remove the media, smooth it out, and reload it. If it still jams, do not use that media.
	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Thick stock, labels, envelopes, postcards, or transparencies are loaded in Tray 2.	Special media must be loaded in Tray 1 only.
	The recommended transparency (OHP) or label paper is facing the wrong way in Tray 1.	Load the transparencies or labels according to the manufacturer's instructions.
	Envelopes are facing the wrong way in Tray 1.	Load the envelopes in Tray 1 so the flaps are facing down.
		If the flaps are on the short edge, set the envelopes in Tray 1 so that the flaps enter the printer first.

Symptom	Cause	Solution
Media is jamming.	Multiple sheets of transparency (OHP) media are collecting static electricity in the tray.	Remove the transparencies and load them in the tray one sheet at a time. Do not fan large quantities of transparencies before loading them.
	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Unsupported media (wrong size, thickness, type, etc.) is being used.	Use media that is covered by the printer warranty.
	Media supply roller is dirty.	Clean the media supply roller. For more details, refer to "Media Rollers" on page 105.

Solving Other Problems

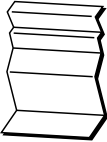
Symptom	Cause	Solution
Printer power is not on.	The power cord is not correctly plugged into the outlet.	Turn the power switch off (O position), then remove the power cord from the outlet and plug it back in.
	Something is wrong with the outlet you are using for the printer.	Plug another electrical appliance into the outlet and see whether it operates properly.
	The power switch is not correctly turned on (I position).	Set the power switch to the off (O) position, then set it back to the on (I) position.
	The printer is connected to an outlet with a voltage or frequency that does not match the printer specifications.	Use a power source with the specifications listed in appendix A, "Technical Specifications."

Symptom	Cause	Solution
The control panel displays <i>X</i> LOW / REPLACE? much sooner than expected.	A high-capacity toner cartridge was installed, but the toner size was set at standard capacity.	In the Quality/Toner menu, choose Change Size and then select the capacity listed on the cartridge label.
	The toner cartridge is defective.	Remove the toner cartridge and check for damage. If it is damaged, replace it (Quality/Toner/Replace).
You can't print a configuration page.	The printer is not ready when Configuration was selected from the Print menu.	Make sure that the printer is ready before trying to print the configuration page.
	The tray does not have media.	Check that the media trays are loaded with media, in place and secure.
	The printer's doors aren't closed securely.	Make sure the doors are closed securely. <i>Close all doors gently to avoid jarring the printer.</i> Make sure the waste toner bottle is installed correctly.
	There is a media jam.	Check for a media jam.
Data was sent to the printer, but it doesn't print.	An error message is displayed in the message window.	Handle according to the message displayed.
Printing takes too much time.	The printer is set to a slow printing mode (for example, for OHP, thick stock, or some other special kind of media).	It takes more time to print with special media. When using regular paper, make sure that the media type is set properly in the driver and the control panel.
	The printer is set to power saving mode.	It takes a little time for printing to start in power saving mode.
	The job is very complex.	Wait. No action needed.
	The printer memory is insufficient.	Add more memory.



Symptom	Cause	Solution
Blank pages come out during a printing job.	One or more of the toner cartridges is defective, empty, or missing.	Check the toner cartridges. The image does not print if the cartridges are empty.
	The wrong media is being used.	Check that the media type and size set in the driver and the control panel matches the media loaded in the printer.
Not all pages print.	The printer has the wrong kind of cable, or the printer is not configured for the correct cable and port.	Check your cable.
	The Cancel key was pressed.	Make sure no one pressed the Cancel key while your job was printing.
	The media tray is empty.	Refill the tray.
	A document is printed with an overlay file that was created by a non-magicolor 2350 driver.	Print the overlay file using a magicolor 2350 driver from the magicolor 2350 <i>Software Utilities</i> CD-ROM.
Only one copy of a multicopy, collated job prints.	The printer doesn't have a hard disk or there isn't enough space on the hard disk.	Add a hard disk. If a hard disk is already installed, clear some unneeded files off of it or add a larger hard disk.
Printer resets or turns off frequently.	The power cord is not properly connected to the AC outlet.	Turn off the unit, confirm that the power cord is properly connected to the AC outlet, and turn the unit back on.
	A system error occurred.	Contact Technical Support with the error information. See the <i>Service & Support Guide</i> for a list of sources of service and support in the Americas. The most up-to-date worldwide information can be found at www.minolta-qms.com .




Symptom	Cause	Solution
You experience problems with duplexing.	Media or settings are not correct.	For aut duplexing, make sure that you have a duplex option installed.
		Make sure you are using correct media. <ul style="list-style-type: none"> ■ See table on Page 23 for supported media for both standard and custom-sized media. ■ Do not duplex thick stock, envelopes, labels, postcards, or transparencies. ■ Make sure that you have not mixed media types in Tray 1.
		Make sure that your document has more than one page.
		Use the printer driver to make sure that the duplex unit is in the Installed Options list.
		In the printer driver (Paper tab, Layout tab, or Page Setup tab, depending on your operating system), choose whether to print duplex documents so they flip as on a clipboard or as in a loose-leaf notebook.
		For N-up on duplexed pages, choose Collate only in the printer driver. Do not set collation in the application.
You hear unusual noises.	The printer is not level.	Put the printer on a flat, hard, level surface not to exceed $\pm 1^\circ$ slant in any direction.
	The media tray is not installed correctly.	Remove the media tray that you are printing from and reinsert it completely into the printer.
	There is a foreign object stuck inside the printer.	Turn off the printer and remove the object. If you cannot remove it, contact Service. See the <i>Service & Support Guide</i> or www.minolta-qms.com for the office closest to you.




Symptom	Cause	Solution
The printer pauses.	<p>The printer pauses for the color calibration procedure (also known as the Auto-Image Density Control [AIDC] cycle). The length of this automatic cycle depends on environmental factors, number of pages printed, and whether a new toner or OPC drum has been installed.</p> <p><i>This process ensures reliable printer operation with optimum output quality. If you open the door before the display reads MAGICOLOR 2350/IDLE, the printer stops and repeats the calibration cycle.</i></p>	<ul style="list-style-type: none"> ■ Wait approximately 150 seconds after rebooting your printer when there has been an environmental change such as in temperature or humidity. ■ Wait approximately 170 seconds after 200 1-sided pages of a continuous print run. ■ Wait approximately 215 seconds when the printer is “waking up” from ENERGY SAVER and 1,000 or more pages have been printed since the last AIDC cycle. ■ Wait approximately 305 seconds after the installation of a new toner cartridge or OPC drum or if you start an AIDC cycle manually using the control panel or PageScope Light.
You cannot access PageScope Light.	Your printer is not connected to a network.	Make sure your printer is connected to your workstation via TCP/IP and that you are using a supported Internet browser.
You cannot change the options in PageScope Light.	The administrator has set a password in PageScope Light or at the printer's control panel.	Either obtain the password from your system administrator or use printer driver and application print dialog boxes to set your preferences.




Symptom	Cause	Solution
Language choices appear wrong in PageScope Light.	The Katakana characters required for the last language choice are not available in your system fonts.	The default font needs to be set for MS Gothic.
	You are using an old version of NetScape or Internet Explorer.	Make sure you are using Netscape 6.0 or later or Internet Explorer 5.0 or newer.
Your print job is not aligned properly on a custom-size page.	Custom media size doesn't match the size identified in the printer.	Check that the Input Tray is set to Custom at the control panel and that the exact dimensions are entered in the control panel menu, PageScope Light, or the printer driver.
Media is wrinkled. 	The media is moist from humidity or having water spilled on the paper supply.	Remove the moist media and replace it with new, dry media.
	The transfer roller or fuser unit may be defective.	Check them for damage. If necessary, contact Technical Support with the error information. Refer to the <i>Service & Support Guide</i> or www.minolta-qms.com for support telephone numbers.
	Unsupported media is being used.	Use MINOLTA-QMS-approved media. Refer to chapter 2 for details. Check www.minolta-qms.com/products/ for currently approved media.
Multi-paged, legal-sized color documents print slowly.	The printer is not correctly optimized.	In the System Default/Startup Options/Optimize Media menu, choose For Legal.
Print Errors occur when printing PCL files.		In the System Default/Startup Options/Optimize PDL menu, choose For PCL.
Errors occur when printing PDF files.		In the System Default/Startup Options/Optimize PDL menu, choose For PDF.


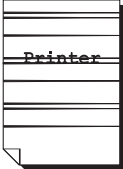
Solving Problems with Printing Quality


Symptom	Cause	Solution
<p>Nothing is printed, or there are blank spots on the printed page.</p> 	One or more of the toner cartridges is damaged.	Remove the toner cartridge (Quality/Toner/Replace) and check for damage. If necessary, replace it.
	Media mode set in the printer driver does not match media in the printer.	Select the proper setting in the printer driver (plain paper, thick stock, label stock, or transparency) or change the media in the printer tray to match the driver setting.
	The OPC drum cartridge is damaged.	Remove the OPC drum cartridge and check for damage. If it is damaged, replace the OPC drum cartridge and waste toner bottle.
	The media is moist from humidity.	Adjust the humidity for paper storage. Remove the moist media and replace it with new, dry media.
	The power source does not match the printer specifications.	Use a power source with the proper specifications.
	Several sheets are being feed at the same time.	Remove the media from the tray and check for static electricity. Fan plain paper or other media (but not transparencies), and replace it in the tray.
	Media is not set properly in the media tray(s).	Remove the media, tap it to straighten it out, return it to the media tray, and realign the media guides.
<p>Entire sheet is printed in black or color.</p> 	The printer is not on a level surface.	Relocate the printer on a flat, hard, stable, level surface.
	One or more of the toner cartridges is defective.	Remove the toner cartridge (Quality/Toner/Replace) and check for damage. If necessary, replace it.
	The OPC drum cartridge is damaged.	Remove the OPC drum cartridge and check for damage. If it is damaged, replace the OPC drum cartridge and waste toner bottle.

Symptom	Cause	Solution
<p>Image is too light; there is low image density.</p> 	Laser lens cover is dirty.	Clean the laser lens cover and perform an AIDC calibration cycle through the Quality/AIDC/Request AIDC menu. Wait until the test is finished and MAGICOLOR 2350/IDLE is displayed.
	The media is moist from humidity.	Remove the moist media and replace with new, dry media.
	There is not much toner left in the cartridge.	Replace the toner cartridge. (Quality/Toner/Replace)
	One or more of the toner cartridges is defective.	Remove the toner cartridges (Quality/Toner/Replace) and check for damage. If necessary, replace it.
	Media type may be set incorrectly.	When printing thick stock, envelopes, labels, and transparencies, specify the appropriate media type in the printer driver and at the control panel.
<p>Image is too dark.</p> 	One or more of the toner cartridges is defective.	Remove the toner cartridge (Quality/Toner/Replace) and check for damage. If necessary, replace it.
	The OPC drum cartridge is damaged.	Remove the OPC drum cartridge and check for damage. If it is damaged, replace the OPC drum cartridge and waste toner bottle
<p>Image is blurred; background is lightly stained; there is insufficient gloss of the printed image.</p> 	One or more of the toner cartridges is defective.	Check the toner cartridges. If necessary, replace them. (Quality/Toner/Replace)
	The OPC drum may be misinstalled or defective.	Reinstall the OPC drum cartridge. If it is damaged, replace the OPC drum cartridge and waste toner bottle.

Symptom	Cause	Solution
<p>The print or color density may be uneven.</p> 	One or more of the toner cartridges may be near empty or damaged.	Install new toner cartridges. (Quality/Toner/Replace)
	The OPC drum may have been installed improperly or be defective.	Reinstall the OPC drum cartridge. If necessary, replace the OPC drum cartridge and waste toner bottle.
	The printer is not on a level enough surface.	Level the printer (not exceeding $\pm 1^\circ$ slant at any point around the machine).
<p>Irregular print or mottled image appears.</p> 	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Humidity may be too high.	Adjust the humidity in the paper storage area.
	Media doesn't meet printer specifications.	Use media that is covered by the printer warranty. For information about approved media, go to www.minolta-qms.com . After selecting your country, choose Support & Drivers, select your printer, and then choose Media Recommendations.
	One or more of the toner cartridges is defective.	Remove the toner cartridge (Quality/Toner/Replace) and check for damage. If necessary, replace it.
	The OPC drum cartridge is damaged.	Remove the OPC drum cartridge and check for damage. If necessary, replace the OPC drum cartridge and waste toner bottle.
<p>There is insufficient fusing or the image comes off when rubbed.</p> 	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Media with specifications not covered by the printer warranty is being used.	For information about approved media, go to www.minolta-qms.com . After selecting your country, choose Support & Drivers, select your printer, and then choose Media Recommendations.
	The media type may be incorrectly set.	When printing envelope, glossy stock, labels, transfer media, transparencies, and thick stock, the appropriate media type must be specified in the printer driver and the printer control panel.

Symptom	Cause	Solution
<p>There are toner smudges or residual images.</p> 	One or more of the toner cartridges is misinstalled or defective.	<p>If the toner smudges are on only the front of the page:</p> <p>Remove the toner cartridge and check for damage. If it is damaged, replace it (Quality/Toner/Replace menu).</p>
<p>There are toner smudges on the back side of the page (whether or not it has been duplexed).</p> 	<p>The paper transport rollers may be dirty.</p>	<p>Clean the paper transport and pressure rollers.</p> <p>If you think the transport roller should be replaced, contact Technical Support with the error information. See the <i>Service & Support Guide</i> for a list of sources of service and support. The most up-to-date information can be found at www.minolta-qms.com.</p>
	The media path is dirty with toner.	Print several blank sheets and the excess toner should disappear.
	One or more of the toner cartridges is defective.	Remove the toner cartridge (Quality/Toner/Replace) and check for damage. If necessary, replace it.
	The OPC drum cartridge is defective.	Remove the OPC drum cartridge and check for damage. If necessary, replace the OPC drum cartridge and waste toner bottle.
<p>Abnormal areas (white, black, or color) appear in a regular pattern.</p> 	<p>The laser lens cover may be dirty.</p>	Check to see if the laser lens cover is dirty. If necessary, clean it with a clean, soft, dry cloth.
	The toner cartridge is damaged.	Remove the toner cartridge with the color causing the abnormal image. Replace it with a new toner cartridge.
	The OPC drum cartridge is damaged.	Replace the OPC drum cartridge and waste toner bottle.

Symptom	Cause	Solution
Image defects. 	The laser lens cover may be dirty.	Check to see if the laser lens cover is dirty. If necessary, clean it with a clean, soft, dry cloth.
	The toner cartridge is leaking.	Remove the toner cartridge with the color causing the abnormal image. Replace it with a new toner cartridge (Quality/Toner/Replace menu).
	The OPC drum cartridge is damaged	Replace the entire OPC drum cartridge and waste toner bottle.
Lateral lines or bands appear on image. 	The printer is not on a level enough surface.	Level the printer (not exceeding $\pm 1^\circ$ slant)
	The media path is dirty with toner.	Print several sheets and the excess toner should disappear.
	One or more of the toner cartridges are defective.	Remove the toner cartridge (Quality/Toner/Replace) and check for damage. If necessary, replace it.
	The OPC drum surface is scratched or damaged.	Remove the OPC drum cartridge and check the green photosensitive surface for scratches. If necessary, replace the OPC drum cartridge and waste toner bottle.
Colors look drastically wrong.	One or more of the toner cartridges are malfunctioning or expired.	Remove the toner cartridges (Quality/Toner/Replace) and verify that the toner is distributed evenly on the cartridge roller, and reinstall the toner cartridges.
	One or more of the toner cartridges are low or out.	Check the control panel for a X LOW REPLACE? > or X EMPTY REPLACE? > message. If necessary, replace the specified toner cartridge.

Symptom	Cause	Solution
Colors are not registering properly; colors are mixed or have page-to-page variation.	The front door may not be properly closed.	Make sure that the printer's front door is closed.
	The OPC drum cartridge is not correctly seated.	Remove the OPC drum cartridge and reinstall it.
	One or more of the toner cartridges are defective.	Remove the toner cartridge (Quality/Toner/Replace) and check for damage. If necessary, replace it.
	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
The color reproduction or color density is poor. 	The paper image transfer is defective.	Check the OPC drum cartridge. If necessary, replace the drum cartridge.
	The Auto-Image Density Control (AIDC) detection sensor is dirty.	<p>Clean the laser lens cover (See "Printer Interior and Laser Lens Cover" on page 109). The AIDC sensor is cleaned automatically when you open and close the printer's front door to clean the laser lens cover. Then perform an AIDC calibration cycle through the Quality/AIDC/Request AIDC menu or through PageScope Light. Wait until the test is finished and MAGICOLOR 2350/IDLE is displayed.</p> <p>If the problem persists, contact Technical Support. See the <i>Service & Support Guide</i> for a list of sources of service and support. The most up-to-date worldwide information can be found at www.minolta-qms.com.</p>

If the problem is not resolved, even after all of the above have been performed, contact Technical Support with the error information. Go to www.minolta-qms.com/support/ or see the *Service & Support Guide* for support telephone numbers.

Status, Error, and Service Messages

Status, error, and service messages are displayed in the control panel message window. They provide information about your printer and help you locate many problems. When the condition associated with a displayed message has changed, the message is cleared from the window.

Standard Status Messages

This message...	means...	do this...
CALIBRATING	After 200 1-sided pages of a continuous print run, after replacing consumables, and after rebooting your printer after environmental changes, your printer automatically pauses to do an Auto-Image Density Control (AIDC) cycle. <i>The cycle lasts 170 seconds after a 200-page print run and 215 or 305 seconds in other circumstances. This process ensures reliable printer operation with optimum output quality.</i>	No action needed.
CANCELLING JOB	The job is being cancelled.	
COPYING # OF #	The printer is printing a job in collation copy mode.	
ENERGY SAVER	The printer is in energy saver mode to reduce power consumption during periods of inactivity. When a print job is received, the printer returns to normal power within 180 seconds.	
FIRMWARE UPDATE DOWNLOAD IMAGE	The printer is ready for a firmware update	Begin download of firmware update.
FIRMWARE UPDATE FORMATTING	The printer is formatting the flash to accommodate firmware update.	No action needed.

This message...	means...	do this...
FIRMWARE UPDATE READING IMAGE	The printer is reading a new image for the flash firmware.	No action needed.
FIRMWARE UPDATE SELECTED	Acknowledges that the user has requested an update.	
FIRMWARE UPDATE WRITING IMAGE	The printer is writing a new image to the flash firmware.	
INITIALIZING	The printer is initializing.	
MAGICOLOR 2350 IDLE	The printer is on and ready to receive data.	
PRINTING	The printer is printing.	
PROCESSING	The printer is processing data.	
STARTING SYSTEM	The printer is starting the system firmware image.	
WARMING UP	The printer is warming up.	

Error Messages

This message...	means...	do this...
AIDC ERROR	AIDC sensor error.	Open and close the front cover to clean the AIDC parts.
CANNOT ROTATE CARTRIDGE	The toner cartridge carousel cannot turn.	Try again or continue printing without changing the cartridge, if Quality/Toner Action/Low is set to Continue.
DISK ACCESS ERROR (<i>FILE TYPE</i>)	The hard disk is full or broken and accounting data has been lost.	Use the Cancel key to release files temporarily. Reformat or replace hard disk.
DISK FULL	The hard disk is full.	Use the Cancel key to release files temporarily; reformat or replace the hard disk.
DISK NEAR FULL	The hard disk is nearly full.	Delete files or formatting you no longer need.

This message...	means...	do this...
DOWNLOAD IMAGE TO ENET PORT	An error has been detected in the system image.	Download the system image to the Ethernet port via FTP.
EMAIL ERROR ACC DATA TRANS	Email notification has been stopped for some time and data will be lost soon.	Correct the error if possible or wait for server access; the message clears when the email has been transmitted.
EMAIL ERROR EVENT NOTIFY	Email notification has stopped because of server, network address, or other errors.	Correct the error if possible or wait for server access; the message clears when the email has been transmitted.
ERROR LOADING IMAGE	Generic message when the problem doesn't match any other specific error.	Try the download process again.
EMAIL NOTIFY ERROR JOB-END	Failure to send email because the server is down, there is a configuration or network connection error, or the email address is wrong.	No action needed.
FIRMWARE ERROR INVALID IMAGE	The download image was the wrong version or could not be decompressed.	Begin the download process again.
FIRMWARE UPDATE FORMAT ERROR	An error occurred while formatting.	Begin the download process again.
MAIN UNIT COVER OPEN	The door to the upper media path is open.	Close the door.
MEDIA MISMATCH	The media type set with the printer driver is different from the type of media loaded.	Check media settings; load correct media.
NETWORK CONFIG ERROR (TYPE)	A network error has occurred in the specified type of network.	Correct the network error.

This message...	means...	do this...
OPC DRUM LOW	The OPC drum will need to be replaced soon.	Make sure you have a new OPC drum on hand.
OPC DRUM MISSING	The OPC drum is not installed.	Install the OPC drum.
OPC OUT	The OPC drum needs to be replaced.	Replace OPC drum and waste toner bottle.
PAPER JAM DUPLEX	Media has jammed in the optional duplex unit.	Locate and remove the jam.
PAPER JAM EXIT	Media has jammed between the print engine and the output tray.	Locate and remove the jam.
PAPER JAM FUSER	Media has jammed in the fuser unit.	Locate and remove the jam.
PAPER JAM TRANSFER	Media has jammed in the transfer area.	Locate and remove the jam.
PAPER JAM TRAY 1	Media has jammed while being pulled from the multipurpose tray.	Locate and remove the jam.
PAPER JAM TRAY 2	Media has jammed while being pulled from the optional lower feeder unit.	Locate and remove the jam.
PAPER MISMATCH	The paper size set with the printer driver is different from the size of paper loaded.	Check paper size settings; load correct size.
PUT X IN TRAY Y	The media tray "Y" (specified tray) is out of media. Load media size and type "X."	Load more media.
REPLACE OPC	The OPC drum needs to be replaced.	Replace OPC drum and waste toner bottle.
REPLACE OPC DRUM	The OPC drum needs to be replaced.	Replace OPC drum and waste toner bottle.

This message...	means...	do this...
REPLACE WASTE TONER	The waste toner bottle is full.	Replace the waste toner bottle.
TIME OF DAY CLOCK FAILURE	The optional time-of-day clock has stopped working.	Replace the battery on the hard disk daughterboard with time-of-day clock.
TRAY # OPEN	The door of the active media tray is open.	Close the door.
TRAY 2 PATH COVER OPEN	The door to the lower feeder unit is open.	Close the door.
WASTE TONER MISSING	The waste toner bottle is not installed.	Insert a waste toner bottle.
WASTE TONER NEAR FULL	The waste toner bottle is almost full.	Make sure you have a new waste toner bottle on hand.
X EMPTY	The "X" (specified color) toner cartridge is empty.	Install "X" color toner cartridge; press the right arrow to enter the toner replacement sequence.
X EMPTY REPLACE? >>	The "X" (specified color) toner cartridge is empty.	Install "X" color toner cartridge; press the right arrow to enter the toner replacement sequence.
X LOW	The "X" (specified color) toner cartridge is low.	Make sure you have "X" color toner on hand; or press the right arrow to enter the toner replacement menu.
X LOW REPLACE? >>	The "X" (specified color) toner cartridge is low.	Make sure you have "X" color toner on hand; or press the right arrow to enter the toner replacement menu.
X TONER MISSING	The "X" (specified color) toner cartridge is missing.	Install "X" color toner cartridge; press the right arrow to enter the toner replacement menu; then install new a toner cartridge.

Service Messages

A service message sometimes occurs as a result of an unusual combination of events, not because of an actual problem. When the printer stops and a service message displays in the message window, turn the printer off and then back on. This often clears the service message indicator, and printer operation resumes. Always try this before making a service call.

Service calls should be placed to the vendor from whom you purchased the printer. If you cannot get service from your vendor, see the *Service & Support Guide* or www.minolta-qms.com for additional contact information.

This service message...	means...	do this...
SERVICE CALL 0B XFER FAN	The transfer fan is malfunctioning.	Contact your vendor with the error information. If you cannot get service from your vendor, see the <i>Service & Support Guide</i> or www.minolta-qms.com for support contact information.
SERVICE CALL 0C PWR SUPPLY FAN	The power supply fan is malfunctioning.	
SERVICE CALL 0E SUCTION FAN	The suction fan is malfunctioning.	
SERVICE CALL 1A FUSER UNIT	The fuser unit is having temperature control problems.	
SERVICE CALL 1B FUSER UNIT		
SERVICE CALL 2A MEM MALF DATA	The printer memory is malfunctioning.	
SERVICE CALL 2B MEM MALF ACCESS		
SERVICE CALL 04 ENGINE BOARD	The engine board requires service.	
SERVICE CALL 05 FLASH ROM	The flash ROM is malfunctioning.	Retry loading engine firmware; then call service if necessary.

This service message...	means...	do this...
SERVICE CALL 08 MAIN MOTOR	The printer motor requires service.	Contact your vendor with the error information. If you cannot get service from your vendor, see the <i>Service & Support Guide</i> or www.minolta-qms.com for support contact information.
SERVICE CALL 10 LASER UNIT	The polygon motor requires service.	
SERVICE CALL 12 LASER UNIT	The laser unit requires service.	
SERVICE CALL 14 XFER ROLLER	The transfer roller requires service.	
SERVICE CALL 15 XFER BELT	The transfer belt requires service.	
SERVICE CALL 16 XFER BELT		
SERVICE CALL 17 TONER RACK	The toner carousel requires service.	
SERVICE CALL 18 FUSER UNIT	The fuser unit requires service.	
SERVICE CALL 19 FUSER UNIT		
SERVICE CALL 21 TRANS DET SENS	The transfer detection sensor requires service.	
SERVICE CALL 29 MEM MALF COUNTER	The engine memory has malfunctioned.	
FIRMWARE UPDATE WRITING ERROR	The FLASH memory is malfunctioning and needs to be replaced.	
NETWORK ERROR (TYPE)	A fatal error has occurred.	

Additional Assistance

If you've followed all of the instructions in this guide and still have problems you can't solve, check our Answer Base at www.minolta-qms.com/support for a solution.

You can also refer to the *Service & Support Guide* or visit our web site at www.minolta-qms.com for current information on getting help.

Installing Accessories **10**

Introduction

Attention

It's very important to protect the printer controller board and any associated daughterboard or module from electrostatic damage while performing any task involving the controller board.

Attention

Use of accessories not manufactured/supported by MINOLTA-QMS is not supported by your printer and will void your warranty.

This chapter provides information about the following accessories. Contact your local vendor or www.minolta-qms.com for compatibility and purchase information.

Dual In-Line Memory Modules (DIMMs)	64, 128, or 256 MB PC-100- or PC-133-Compliant SDRAM DIMM, up to a maximum of 384 MB.
Duplex Option	Automatic duplexing
Lower Feeder Unit	500-sheet media tray included
Internal Hard Disk Kit	6 GB or larger hard disk and daughterboard
Internal Hard Disk Daughterboard Kit	Daughterboard for installing internal hard disk

These accessories are also supported. Check www.minolta-qms.com for information about additional accessories.

Buzzbox	Via parallel port (US only)
Wireless Interface	802.11b or Bluetooth via parallel port
Network Option	Token-Ring via external connection
Convenience Copier	SC-215 via parallel port

Attention

Installing accessories always requires that the printer and accessories are turned off and unplugged during installation.

Antistatic Protection

Attention

It's very important to protect the printer controller board and any associated daughterboard or module from electrostatic damage while performing any task involving the controller board.

If an antistatic wrist strap is provided in your printer option kit, attach one end of it to your wrist and the other end to the bare metal chassis on the back of your printer. Never attach the wrist strap to any piece of equipment with an electrical current present. Turn off all power switches first. Plastic, rubber, wood, painted metal surfaces, and telephones are not acceptable grounding points.

If you don't have an antistatic wrist strap, discharge your body's static electric charge by touching a grounded surface before you handle any printer boards or components and before removing the controller board. Also avoid walking around after grounding yourself.

Dual In-Line Memory Module (DIMM)

Dual in-line memory modules (or DIMMs) are compact circuit boards with surface-mount memory chips.

Your printer comes with 128 MB SDRAM printer memory. However, you can upgrade to a maximum of 384 MB of RAM through the installation of an additional DIMM. Additional memory must be 64, 128, or 256 MB, PC-100- or PC-133-Compliant SDRAM DIMM.



You will need additional memory (DIMM) to duplex print at high resolution or to print legal size pages at high resolution. Additional memory may also improve printer performance.

How Much Memory Do You Need?

The amount of memory installed in your printer governs which resolutions can be used with each media size.

If you select a resolution but do not have enough memory installed, the file will print with the next highest resolution for which there is enough memory. For example, if you attempt to print a duplex job with 4-color graphics at Post Script High or PCL Enhanced resolution on legal media, but the printer has only 128 MB of RAM installed, the file prints at Standard resolution.

Your printer will print all print jobs at the highest resolution that the installed memory will support.

Basic Functionality

Print Type Media Size	Simplex			Duplex		
	Standard: 600 x 600 dpi	PCL Enhanced: 1200 x 1200 dpi	PostScript High: 600 x 600 with contone	Standard: 600 x 600 dpi	PCL Enhanced: 1200 x 1200 dpi	PostScript High: 600 x 600 with contone
Monochrome						
Letter/A4	128 MB	128 MB	128 MB	128 MB	128 MB	128 MB
Legal	128 MB	128 MB	128 MB	128 MB	128 MB	128 MB
Color						
Letter/A4	128 MB	128 MB	128 MB	128 MB	192 MB	192 MB
Legal	128 MB	192 MB	192 MB	128 MB	256 MB	256 MB
Notes	If you attempt to print a job at PCL Enhanced or PostScript High resolution and you do not have enough memory installed to support that resolution, the job prints at Standard resolution.					



The printer comes with one DIMM slot.

Standard Memory	Supports up to...
128 MB	4-color simplex printing on letter/A4 media at all resolutions; 4-color duplex printing on letter/A4 media at standard resolution; and 4-color simplex and duplex printing on legal-size media at standard resolutions

Check the configuration page from the control panel (Print Menu/ Configuration Page) or use PageScope Light to make sure the printer has enough RAM installed.

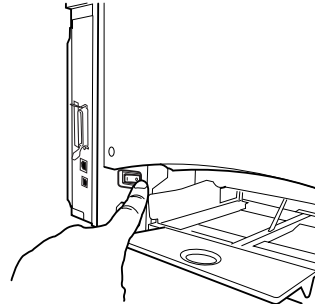
Installing a DIMM



Attention

It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 149. In addition, always handle circuit boards by the edges only.

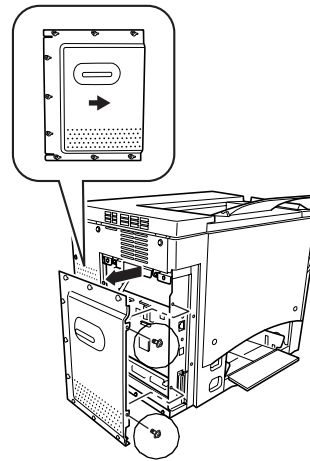
- 1 Turn off the printer and disconnect the power cord and interface cable.



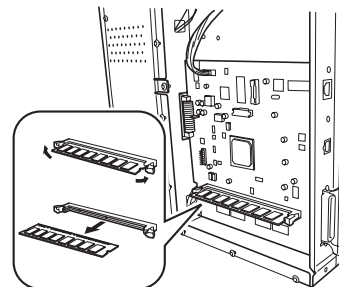
- 2 Remove the rear panel from the printer to access the controller board.

Using a screw driver, loosen the nine screws on the top, left and bottom of the panel, but do not remove them from the printer.

- 3 Remove the two screws shown in the illustration. Slide the panel slightly to the right and lift it off the printer.

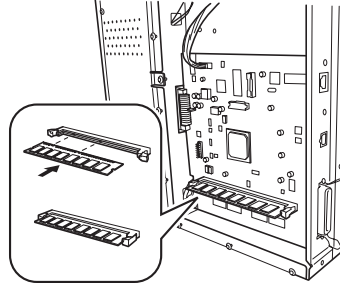


- 4 If there is no DIMM installed in your printer, skip to Step 5. If there is a DIMM installed, removed it.
 - a Using both thumbs, pull the latches (one on each side of the DIMM connector) outward.
 - b Lift the DIMM straight out of the DIMM connector.



- 5 Insert the new DIMM straight down into the DIMM connector until the latches snap into the locked position.

Observe the keyed side of the DIMM to align it with the connector. If you cannot snap the DIMM into place, do not force it. Reposition it, making sure that the bottom of the DIMM is seated completely in the connector. When installed properly, the DIMM stands upright firmly in place.



- 6 Reinstall the rear panel of the printer.

Align the panel and tighten the nine screws that you loosened in Step 2. Then replace the two screws removed in Step 3.

- 7 Reconnect all interface cables.

- 8 Reconnect the power cord, and turn on the printer.



In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

- 9 Print a configuration page from the printer controller (Print Menu/Configuration Page) or use PageScope Light to verify that the total size of the RAM installed in your printer is listed.

Installed Memory is included in the Printer Information section of the Configuration Page and on PageScope Light's Configuration section.

Duplex Option

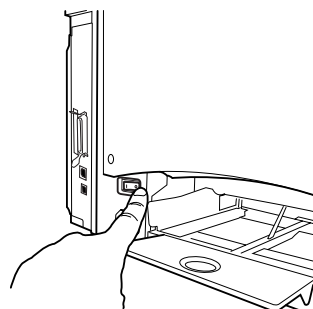
Duplex (2-sided) printing can be done automatically with a duplex option and enough memory installed. See “Duplexing” on page 32 and “Basic Functionality” on page 150.

Kit Contents

- Duplex option
- Two thumbscrews

Installing the Duplex Option

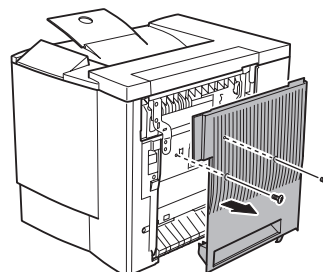
- 1 Turn off the printer, and unplug the power cord and interface cable.



- 2 Remove the cover from the right side of the printer. Use a Phillips screwdriver to remove the two screws securing the right cover.



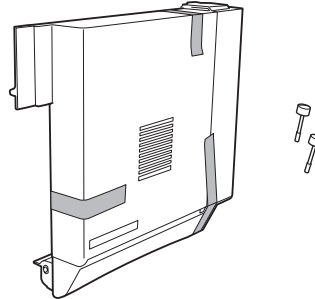
Keep the removed cover and screws in a safe place for future use.



- 3 Remove the duplex option from the shipping carton.
- 4 Remove any tape from the duplex unit.

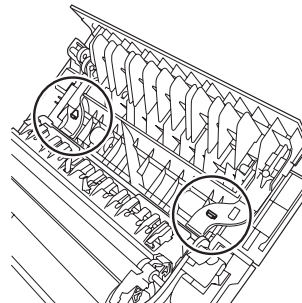
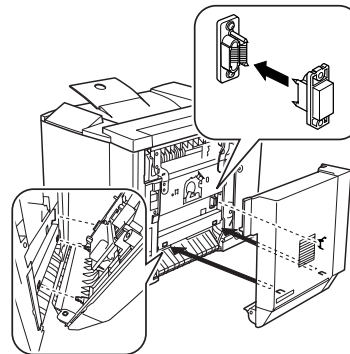


*We **strongly** suggest that you save the packing materials in case you ever need to move or ship the printer.*



- 5 Attach the duplex option to the printer.

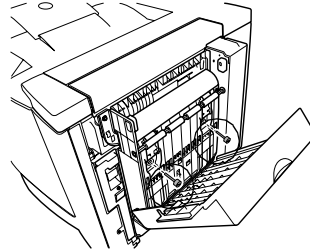
- a Hook the two tabs at the bottom of the duplex option onto the notches on the right side of the printer.
- b Push the duplex option towards the printer until it clicks on top.
- c While still supporting the duplex unit, carefully open the right-side door and check that the tabs on the duplex option are correctly hooked onto the printer.



Attention

If the duplex option is released before it is secured with the screws, it may fall and break. Be sure to keep the top of the duplex option supported until the screws are tightened.

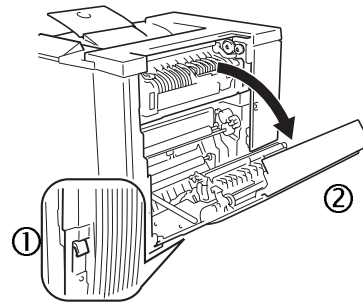
- d Open the duplex option's cover and tighten the two thumbscrews that came with the duplex option to secure the unit to the printer.



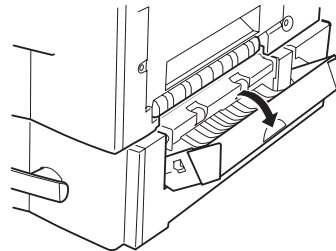
- e Close the duplex option's cover.

6 Attach the support wire for the duplex option to the printer.

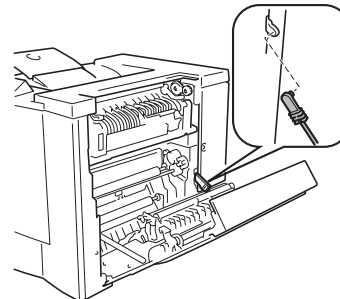
- a Pull the right-side door release lever and open the right-side door.



If you have a lower feeder unit attached, you will first need to open the lower right-side door.



- b Pull the tab for the support wire on the right side of the duplex option, and then hook the wire onto the hook of the printer.
- c Close the right-side door.



7 Reconnect interface cable.

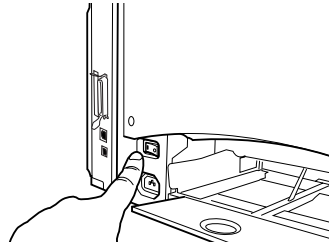
- 8 Reconnect the power cord, and turn on the printer.



In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

- 9 Check the configuration page from the control panel (Print Menu/Configuration Page) to verify the duplex option installation.

- 10 On the Settings tab of your printer driver, move the Optional Duplexer to the Installed Features area. (See Chapter 4).

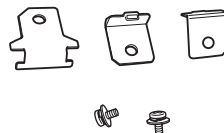
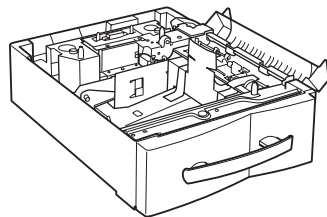


Optional Lower Feeder Unit and Tray 2

The optional lower feeder unit fits under the printer and increases your printer's media feed capacity by 500 letter/A4 sheets through Tray 2.

Kit Contents

- Lower feeder unit with a media tray (500-sheet capacity)
- Three metal brackets
 - Two front brackets
 - One rear bracket
- Two securing screws

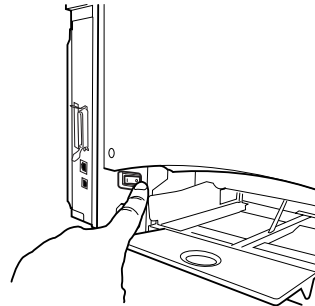


Installing the Lower Feeder Unit

Attention

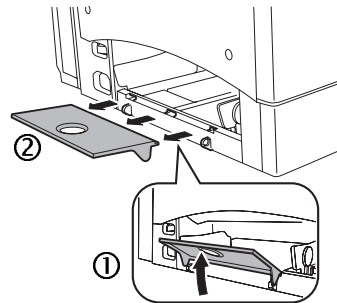
Since consumables are installed in the printer, be sure to keep the printer level when moving it in order to prevent accidental spills.

- 1 Turn off the printer, and unplug the power cord and interface cable.



- 2 Remove the media support from Tray 1.

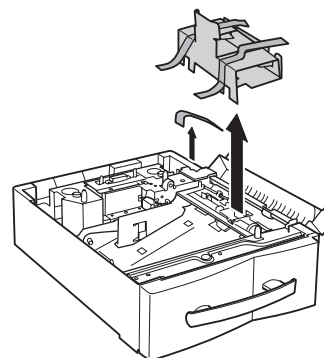
Lift the support slightly and snap it gently out of the printer.



- 3 Remove the lower feeder unit from the shipping carton, and place it on a table or flat surface near the printer.
- 4 Remove any tape and packing material from the lower feeder unit.



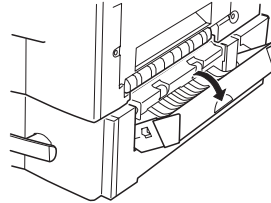
We **strongly** suggest that you save the packing materials in case you ever need to move or ship the printer.



- 5 Open the right door of the lower feeder unit.

! Attention

Be sure that the right door of the lower feeder unit is open when the lower feeder unit is attached to the printer; otherwise, the printer may fall off or the lower feeder unit may be damaged.



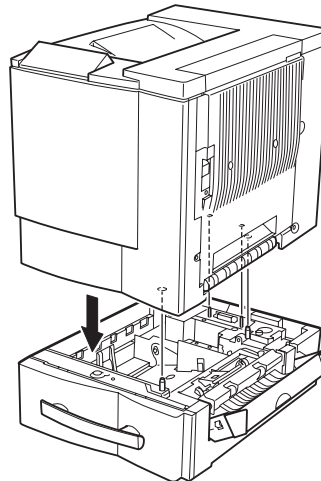
- 6 With another person's help, place the printer onto the lower feeder unit.

WARNING!

Your printer weighs approximately 62 lbs (28 kg) fully assembled. Be sure to have help when lifting and moving it.

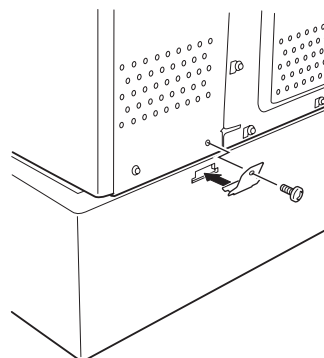
- 7 Align the positioning pins on the lower feeder unit with the holes in the bottom of the printer to stack them correctly.

If the left and back sides of the printer and the lower feeder unit are aligned, the positioning pins will correctly fit into place.



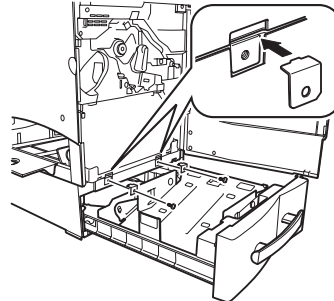
- 8 Attach the rear bracket.

- a Remove the screw on the back of the printer.
- b Hook the tabs on the bracket into the mounting holes in the lower feeder unit, and then align the screw hole in the bracket with the screw hole in the printer.
- c Using a screwdriver, tighten the screw to secure the bracket.



9 Attach the front brackets.

- a Pull open the front door of the printer, and then pull out the lower tray.
- b Hook the tabs on the two brackets into the mounting holes in the printer, and then align the screw holes in the brackets with the screw holes in the lower feeder unit.
- c Using a screwdriver, tighten the screws enclosed with the lower feeder unit to secure the brackets.

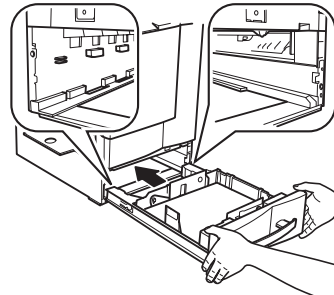


10 Close the right-side doors.

Attention

If the lower feeder unit is installed, the right-side door of the printer opens at the same time that the right door of the lower feeder unit is opened. Be sure to close the right door of the lower feeder unit when closing the right-side door of the printer.

11 Slide the tray back into the printer.



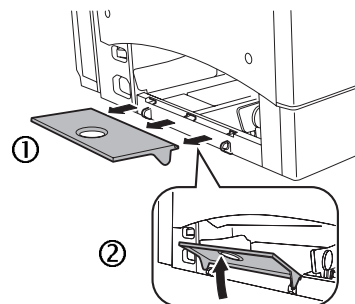
12 Reattach the media support.

13 Reconnect the interface cable.

14 Reconnect the power cord, and turn on the printer.



In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."



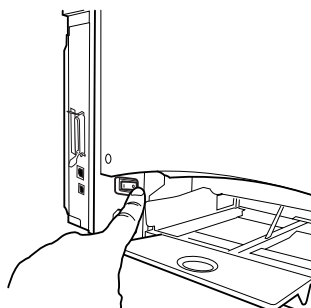
- 15 Check the configuration page from the control panel (Print Menu/Configuration Page) to verify that the lower feeder unit is installed.
- 16 On the Settings tab of your printer driver, move the Optional Input Bin to the Installed Features area. (See Chapter 4).

Installing an Internal Hard Disk

Your printer can use an optional internal IDE hard disk to enable features including proof and hold secure printing, collation, MOPY, PDF direct printing, font storage, and other tasks.

You have a choice of two internal hard disk options. You can choose a kit that contains a 2.5-inch, 6 GB or larger hard disk, the daughterboard, time-of-day clock, and appropriate connectors or a kit with just the daughterboard, time-of-day clock, and appropriate connectors, but no hard disk.

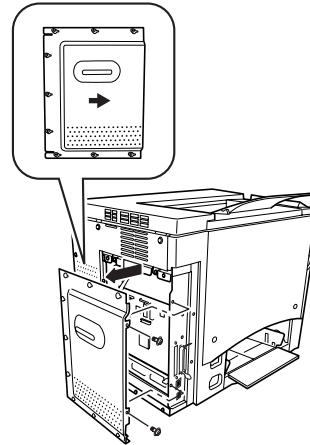
- 1 Turn off the printer, and unplug the power cord and interface cable.



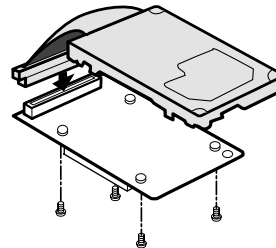
- 2 Remove the rear panel from the printer to access the controller board.

Using a screwdriver, loosen nine screws on the top, left and bottom of the panel, but do not remove them from the printer.

- 3 Remove the two screws shown in the illustration. Slide the panel slightly to the right and lift it off the printer.



- 4 Next prepare the daughterboard for installation. If you purchased an internal hard disk kit, skip to Step 6. If you purchased a hard disk from another vendor and purchased only the daughterboard kit, you must now attach the hard disk to the daughterboard.

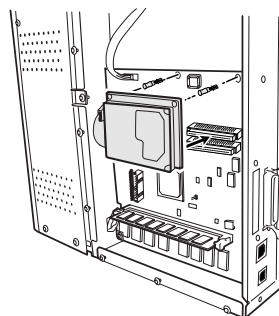



- 5 Attach the ribbon cable to the hard disk, aligning Pin 1 on the cable to pin 1 on the hard disk.

- 6 With the cable connected, set the hard disk flat on the daughterboard. Then, using a screwdriver, insert the four screws that came with the kit. Be careful not to overtighten the screws.

- 7 Align the daughterboard over its connector, matching Pin 1 on the daughterboard to Pin 1 on the controller board and matching the two white nylon standoffs to the holes in the controller board. Ease the pinned connectors together and snap the standoffs into place.

- 8 Slip the rear panel over the screws, then slide it slightly left and tighten the screws to secure the panel. Also replace the two screws removed in Step 3.



- 9 Reconnect the interface cable.
- 10 Reconnect the power cord, and turn on the printer.
 -  *In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."*
- 11 On the Settings tab of your printer driver, move the Optional Hard Disk to the Installed Features area. (See Chapter 4).

Repacking the Printer

11

Attention

Failure to follow these instructions could result in voiding your warranty.

Storing the Printer

Unplug the printer if you plan to store it for an extended period. Protect it from dust and from extremes of temperature and humidity.

Relocating Your Printer

Occasionally, you may have to move your printer to a different location, either nearby or to a distant location. To avoid damage to your printer, we advise you to follow the next instructions very carefully.

- 1 Turn off your printer.
- 2 Remove the power cord and all interface cables.
- 3 If you are moving to a distant location, follow the instructions for repacking the printer. (See "Repacking the Printer" on page 165.)
- 4 Relocate the printer.

WARNING!

Your printer weighs approximately 62 lbs (28 kg) with consumables installed. Be sure to have help when lifting and moving it.

- 5 Unpack and set up the printer in its new location.
Use the unpacking and setup instructions in the Installation Guide.
- 6 Reconnect the power cord and all interface cables.



We **strongly** suggest that you save the packaging materials in case you ever need to move or ship the printer and that US users order the MINOLTA-QMS 2300 Series Repacking Kit 2600733-100.

You can also refer to the *Service & Support Guide* for sources of service and support in many parts of the world. The most up-to-date worldwide information can be found at www.minolta-qms.com.

Repacking the Printer

Attention

Failure to follow these instructions could result in voiding your warranty.

If you need to relocate or ship your printer after it's been installed, follow the procedures in this chapter to prevent damage to the printer and to keep your warranty valid.

Attention

MINOLTA-QMS cannot be held responsible for damage to your printer during shipment that results from the improper packaging of your printer.

You must use the instructions given in this section before repacking the printer in its original shipping carton with the original packing materials. If you do not have your original packaging, you must order a MINOLTA-QMS 2350 Replacement Packaging Kit 2600723-200.

If you're relocating or returning the printer, you must also request a MINOLTA-QMS 2300 Series Repacking Kit 2600733-100.

These supplies must be replaced prior to shipping the printer. If you need replacement packaging, in the Americas, call MINOLTA-QMS Spares at (251) 633-4300 extension 2530 and request the kit(s) above. For locations outside the Americas, refer to www.minolta-qms.com.

If you have been instructed to return the printer to MINOLTA-QMS by a customer support representative in the Americas, be sure to write the RMA (Return Merchandise Authorization) number you received on the outside of the carton and on the outside of the consumables box before shipping the printer. If the RMA number is not *prominently* visible on the outside of the return inventory, we will not accept receipt.

You can also have a MINOLTA-QMS authorized service provider uninstall and repack your printer. For prices and availability, call 1 (877) 778-2657 in the Americas or see www.minolta-qms.com worldwide.

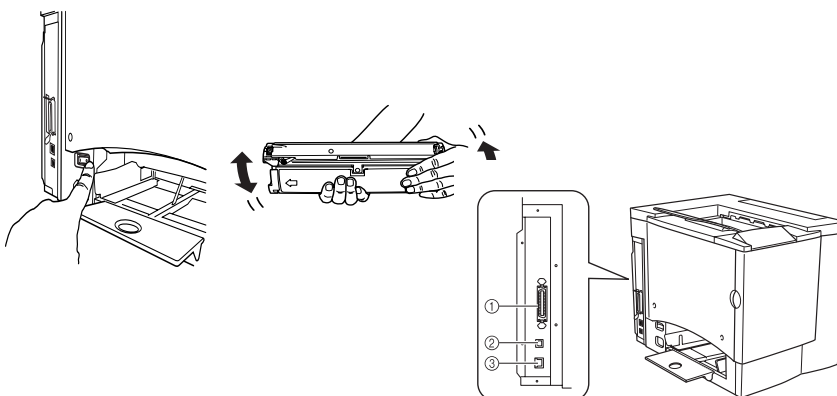
What's Involved?

Repacking your printer for shipment involves the following steps. Each is described in more detail in the following sections.

Obtain Proper Packaging:	
Original packaging or replacement packaging (MINOLTA-QMS 2350 Replacement Packaging Kit 2600723-200)	page 165
Repacking kit (MINOLTA-QMS 2300 Series Repacking Kit 2600733-100)	

Prepare the Printer for Shipment:	
A. Turn off the printer, unplug the power cord, and remove the interface cables.	page 166
B. Remove the media and the tray 1 media support.	page 167
C. Remove the duplex option and lower feeder unit, if attached, and repack them separately.	page 167
D. Remove the waste toner bottle, plug the openings, and dispose of it according to your local regulations.	page 170
E. Remove the OPC drum cartridge and repack it.	page 170
F. Remove the transfer belt and repack it.	page 172
G. Repack the printer for shipment.	page 173
H. Repack the OPC drum cartridge and transfer belt for shipment.	page 174

A. Turn off the Printer, Unplug the Power Cord, and Remove the Interface Cables

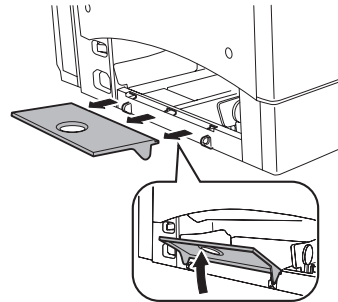


B. Remove the Media and the Tray 1 Media Support

- 1 Remove the media.

Place it in its original packaging and store in a cool, dark place on a level surface. Avoid moisture, excess humidity, direct sunlight, excess heat (above 95° F/35° C), and dust.

- 2 Lift the media support from the three holes in Tray 1 and remove the media support.



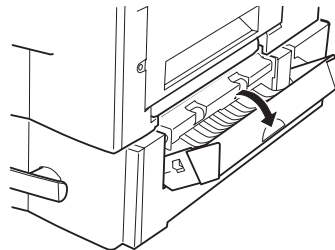
C. Remove the Options (if Attached)

Duplex Option

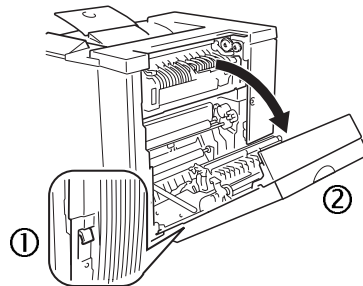


If you don't have a duplex option installed, skip to the next section.

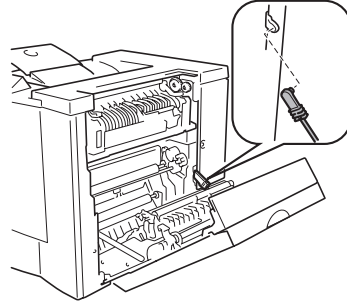
- 1 If you have a lower feeder unit attached, you first need to open the lower right-side door.



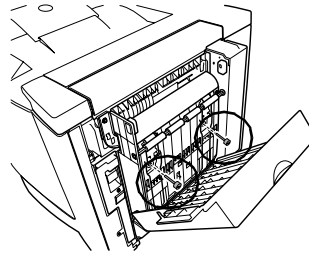
- 2 Pull the right-side door release lever, and open the right-side door.



- 3 Unhook the support wire.
- 4 Close the right-side door.



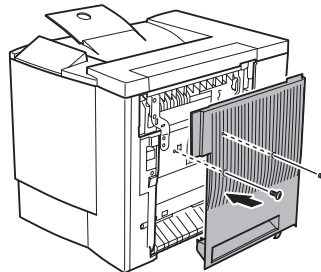
- 5 Open the duplex option's cover and loosen the two thumbscrews until the duplex option moves freely away from the right side of the printer.
- 6 Lift duplex option up and away from the printer.



- 7 Install the original right-side cover that came with the printer with two screws.
- 8 Repack the duplex option in its original shipping carton for storage or shipment.



If you're returning the printer for service, you don't need to return the duplex option, unless the problem is with the duplex option.



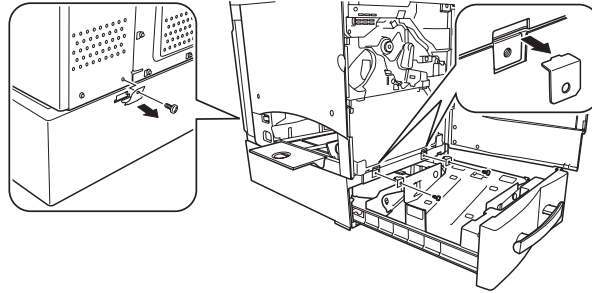
Lower Feeder Unit



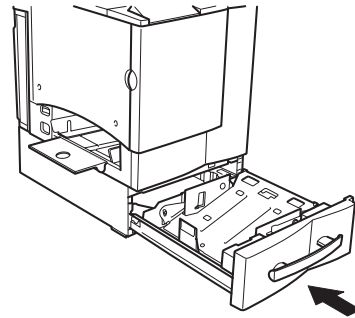
If you don't have a lower feeder unit installed, skip to the next section.

- 1 Slide tray 2 out of the printer and remove the media.

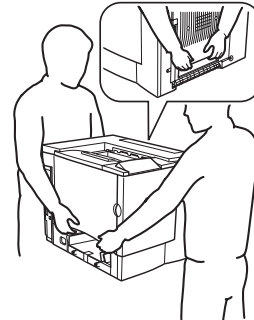
- 2 Remove the brackets (two at the front and one at the back) used to attach the lower feeder unit to the printer.



- 3 Slide the tray back into the printer.



- 4 With the help of another person, lift the printer by its carrying grips, and place it on a flat surface.



WARNING!

Your printer weighs approximately 62 lbs (28 kg). Be sure to have help when lifting and moving it.

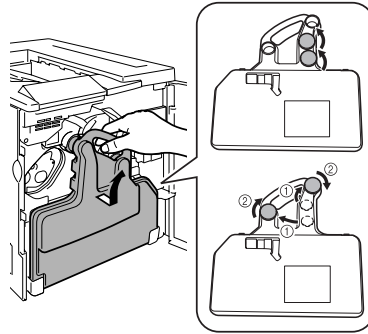
- 5 Repack the lower feeder unit in its original shipping carton for storage or shipment.



If you're returning the printer for service, you don't need to return the lower feeder unit unless instructed to do so.

D. Remove the Waste Toner Bottle, Plug the Openings, and Dispose of It According to Your Local Regulations


- 1 Open the printer's front door, grasp the waste toner bottle's handle, and pull the waste toner bottle outward and upward.
- 2 Carefully remove the waste toner bottle.
Keep the waste toner bottle upright while the openings are not covered, so the toner does not spill.
- 3 Place the removed waste toner bottle, with the openings facing up, on a stable surface (not the printer).
- 4 Remove the two caps by turning them ① counterclockwise.
- 5 Secure the two caps onto the two openings by turning them ② clockwise.
- 6 Dispose of the used waste toner bottle.

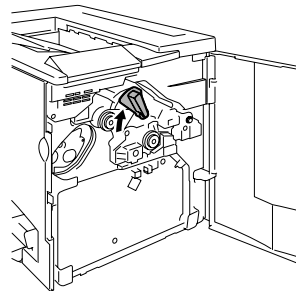


WARNING!

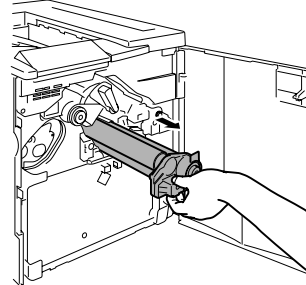
Dispose of the used waste toner bottle properly according to your local regulations (do not dispose of it by burning).

E. Remove the OPC Drum Cartridge

- 1 Rotate the transfer belt release lever clockwise to the top (11 o'clock) position.
 *This releases the pressure on the transfer belt unit.*



- 2 Grasp the release lever on the OPC drum cartridge, and then pull the cartridge straight out about 6 inches (152 mm).



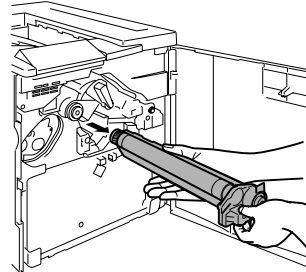
⚠ Attention

The OPC drum is extremely sensitive to bright light and direct sunlight. Any exposure to light should be avoided, or permanent damage could result.

Any damage resulting from mishandling of the OPC drum will void the warranty of the OPC drum.

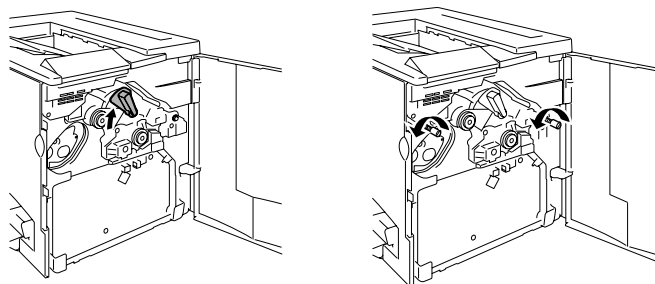
Also, handle the cartridge carefully by its sides so you don't touch the surface (the green part) of the drum. The drum is also extremely sensitive to hand oils and scratches, both of which reduce print quality.

- 3 Support the bottom of the drum with your hand, then carefully pull the cartridge toward you and remove it.
- 4 Place the OPC drum cartridge in the protective bag supplied in the repacking kit (*MINOLTA-QMS 2300 Series Repacking Kit 2600733-100*).

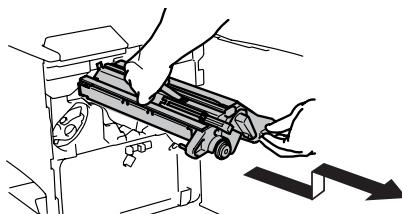


F. Remove the Transfer Belt

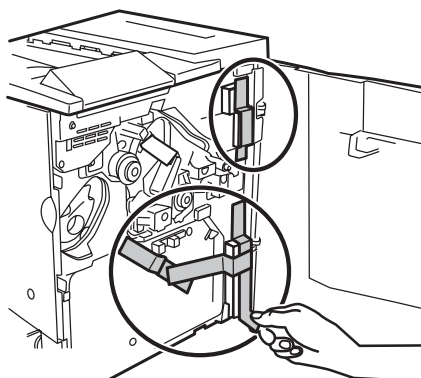
- 1 With the front door open and transfer belt release lever at its top (11 o'clock) position, loosen the two thumbscrews.



- 2 Grasp the transfer belt and pull it straight out and then lift it up.
- 3 Place the transfer belt and thumbscrews in the protective bag supplied in the repacking kit (*MINOLTA-QMS 2300 Series Repacking Kit 2600733-100*).



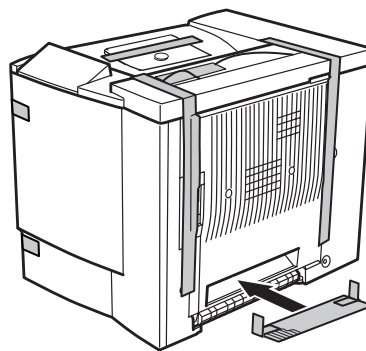
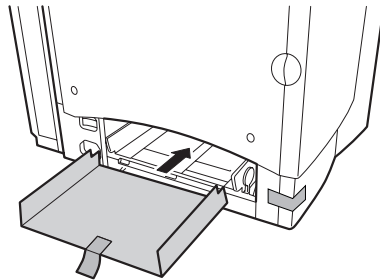
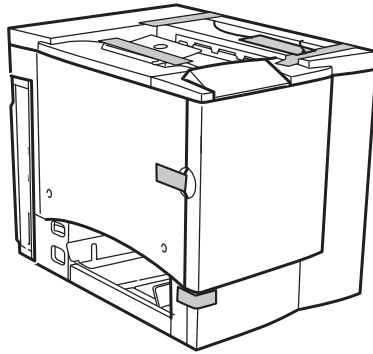
- 4 Replace the packaging and tape, then close the front door.



G. Repack the Printer for Shipment

Use your own original packaging or order MINOLTA-QMS 2350 Replacement Packaging Kit 2600723-200.

- 1 Replace the tape and packaging.

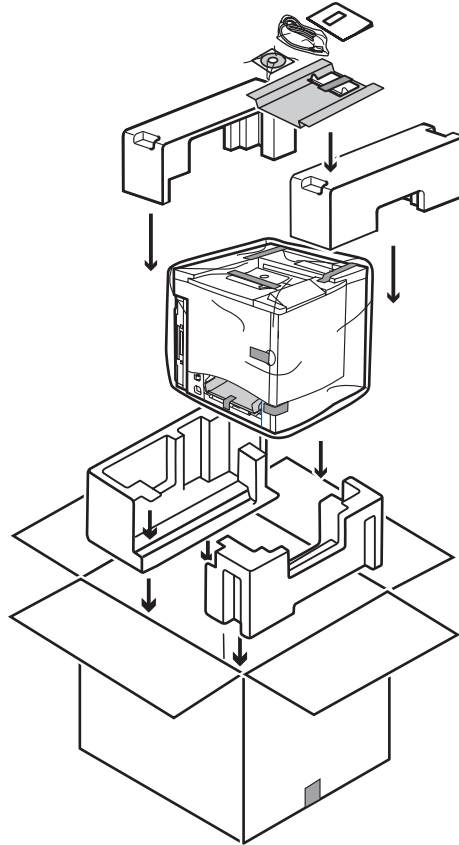


- 2 Place the lower cushions into the shipping carton.
- 3 Place the printer's plastic bag over the printer.
- 4 Pack the printer for shipment as shown.
- 5 If you're also shipping the power cord and any manuals with the printer, place them in the shipping carton.



Don't ship these items if you're returning the printer for service.

- 6 Securely tape the top flaps of the shipping carton closed.
- 7 Ship the printer.
If you return the printer for service in the Americas, be sure to write the RMA (Return Merchandise Authorization) number you received from your customer support representative on the outside of the carton before shipping the printer.

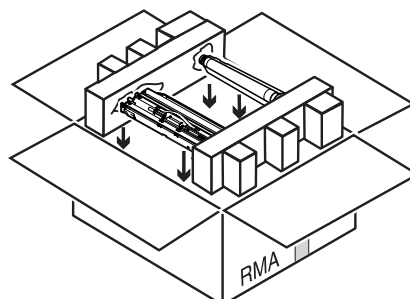


H. Repack the OPC Drum and Transfer Belt Unit for Shipment

- 1 Order the MINOLTA-QMS 2300 Series Repacking Kit 2600733-100.

- 2** Place the OPC drum and transfer belt unit (in their protective bags) in the appropriate position in the box supplied in the repacking kit.

If you return the printer for service in the Americas, be sure to also write the RMA (Return Merchandise Authorization) number you received from your customer support representative on the outside of the box before shipping the consumables.



- 3** Securely tape the top flaps of the box closed.

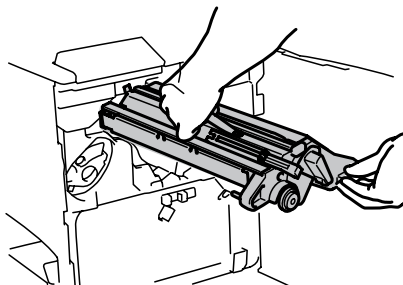
Reinstalling the Printer

If you are shipping the printer to another location, follow steps A–I below to reinstall the printer once received.

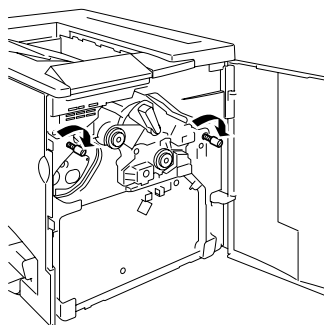
A. Unpack the printer carton.	Refer to the magicolor 2350 <i>Installation and User's Guides</i> .
B. Reinstall the transfer belt unit.	See "Reinstalling a Transfer Belt Unit" on page 176.
C. Install the OPC drum and return the transfer belt release lever to its correct position (7 o'clock).*	Refer to the magicolor 2350 <i>Installation and User's Guides</i> . *The printer must complete a 150-second calibration cycle after a consumable has been replaced. If you open the door before the message window reads MAGICOLOR 2350 / IDLE , the printer stops and repeats the calibration cycle.
D. Install a new waste toner bottle.	
E. Replace the toner cartridges.*	
F. Install the tray 1 media support and load the media.	
G. Reconnect the power cord and cables.	
H. Install the options.	
I. Turn the printer on.	

Reinstalling a Transfer Belt Unit

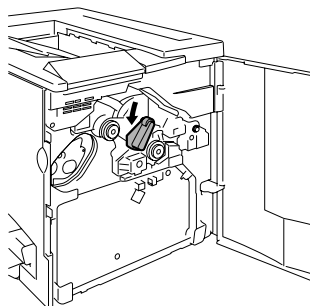
- 1 With the front door open, remove the transfer belt unit from its protective bag and reinsert it.



- 2 Tighten the two thumbscrews.



- 3 Rotate the transfer belt release lever counterclockwise to its correct (7 o'clock) position.
- 4 Close the front door.



***Technical
Specifications***

A

Requirements

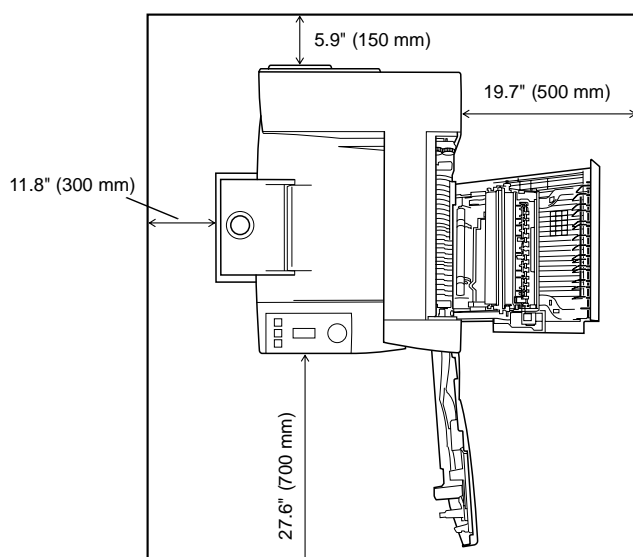
Space Requirements

The illustration below shows the amount of space required for operating the printer, replacing supplies, and removing media jams.

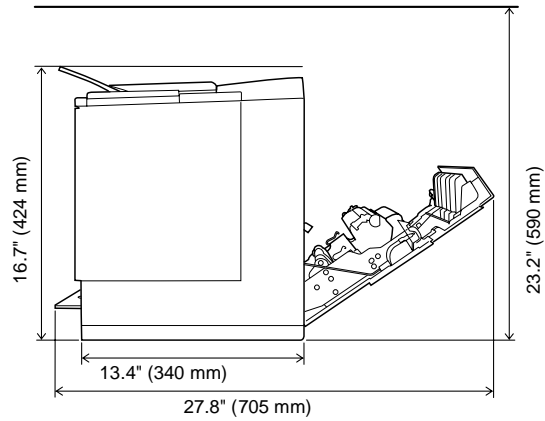


Allow enough space around the printer to provide adequate ventilation and easy servicing. For best output quality and longest consumables life, install the printer on a hard, flat, level (within $\pm 1^\circ$ slant) surface.

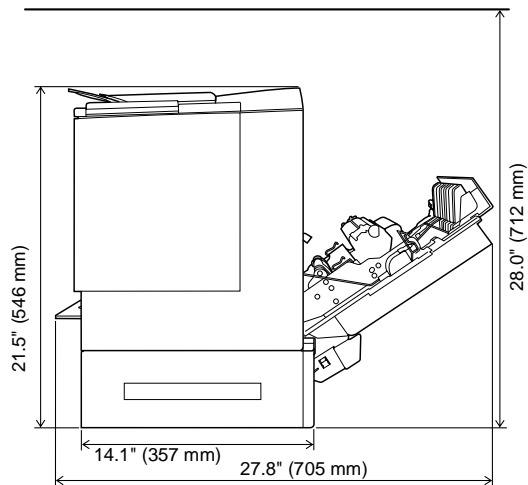
Top View



Front View



Printer with Accessories Front View



If you have added optional media feed unit, the printer's height will increase by approximately 5 inches (125.5 mm).

Location Requirements

- On a surface capable of supporting the printer, accessories, consumables, and media.

Component	Weight
Printer	55 lbs (25 kg)
Consumables (such as toner cartridge, OPC drum cartridge)	6.2 lbs (2.8 kg) (total)
Media	5.2 lbs (1.9 kg) per ream of 20 lb bond (75 g/m ²) paper
Lower feed unit (with Tray 2)	11.2 lbs (5.1 kg)
Duplex unit	3.97 lbs (1.8 kg)

With these characteristics...	But away from...
On a hard, flat, stable, level ($\pm 1^\circ$ or less slant at any point around the machine).	Direct sunlight. Heating and cooling sources, extreme temperature or humidity changes, wind, and dust. Open flames, items that burn easily.
Close to an easily accessible grounded power supply (on an exclusively dedicated power outlet) that meets printer specifications. Near your computer. At the length 6.5' (2 m) or less for an IEEE 1284 bidirectional parallel connection.	A connection to the same electrical circuit as high-current machines. Noise-generating equipment, such as a copier or air conditioner, and strong magnetic or electromagnetic fields, such as a refrigerator.
With enough space to allow adequate ventilation and easy servicing.	Water, water pipes, liquid (drink) containers, and corrosive chemicals or vapors, such as ammonia.
With an ambient temperature range of 50°–95° F (10°–35° C) and temperature gradient of 50° F (10° C) per hour or less.	Small, loose metal parts, such as paper clips and staples.
With relative humidity range of 15%–85% (noncondensing) and humidity gradient of 20% per hour or less.	Excessive vibration.
At an altitude of 0–8,202' (0–2,500m).	



A surface can be tested for levelness with a standard round pencil. If the pencil rolls, the surface is not level. Clear the area of cables or other obstructions that might prevent the printer from sitting directly on the flat, level surface.

WARNING!

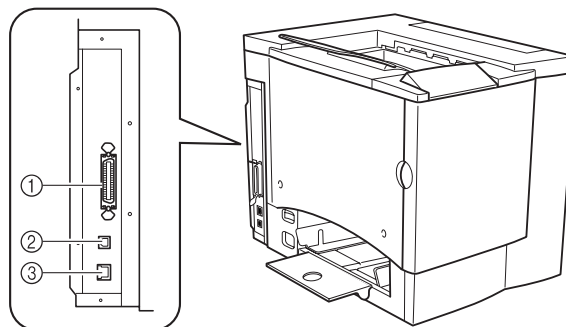
Obstructing the ventilation grilles could present a fire hazard.

- Do not tilt the printer more than $\pm 1^\circ$ when moving it.
- If the printer is located in a cold room that is rapidly heated, or if the printer is moved from a cold place to a warm, humid place, condensation may occur within the printer, degrading print quality. If this occurs, allow the printer to adapt to the environment for about one hour before use.
- If using a humidifier or water vaporizer in the room with the printer, use only purified or distilled water. Impurities in the water may be released into the air, where they can accumulate inside the printer and cause degraded printer output.

Attention

For products installed outside North America, do not connect the groundwire to gas or water pipes or grounding for telephones.

Interface Panel



① Parallel Port

Use a Centronics IEEE 1284 bidirectional parallel cable when connecting the parallel port on the printer to the parallel port on your computer.

② Ethernet Port

Use a twisted-pair (RJ45) Ethernet cable when connecting the Ethernet port on the printer to a 10BaseT/100BaseTX network connection.

③ USB (version 1.1) Port

Use a USB cable (Type B) when connecting the USB port on the printer to the USB port on your computer.

Power Requirements

WARNING!

Connect the power plug to an outlet with the same rated voltage as the printer. No other devices should be connected to this outlet, as overheating could cause fire or electric shock. The printer draws 13 A at 100V, 11 A at 120 V, or 7 A at 220-240 V. Your printer requires a properly grounded AC outlet. The grounding terminal on the power cable should be connected to a good earth ground to prevent electric shock and fire.



In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

Input Power	North America	120 VAC; 50/60 Hz $\pm 3\%$
	Europe	220–240 VAC; 50/60 Hz $\pm 3\%$
	Latin America	115/120 VAC 50/60 Hz $\pm 3\%$ 220–240 VAC 50/60 Hz $\pm 3\%$
	Notes: Amperage capacity at least 1.2 times that used by the printer.	
Voltage Fluctuation Rate and Rated Line Voltage	North America	120 VAC $\pm 10\%$
	Europe	220–240 VAC $\pm 10\%$
	Latin America	120 VAC $\pm 10\%$ 220–240 VAC $\pm 10\%$
	Notes: 10% of the rated line voltage for proper operation.	
Frequency Variation Rate	Within 50–60 ± 3 Hz	
Maximum Electrical Current	Required during operation is 13 amps for a 100 V, 11 amps for a 120 V system and 7 amps for a 220–240 V system.	
Noise-generating Equipment	Should not be connected to the same electrical outlet as the printer.	
Grounding	Your printer requires a properly grounded AC outlet.	

ENERGY STAR Compliance

The magicolor 2350 basic configuration is compliant with US Environmental Protection Agency (EPA) ENERGY STAR regulations. After a user-configurable period of inactivity, the printer changes to a low-power state (the engine remains on, but the fuser unit turns off). When a print job is received, the printer returns to normal power.



Engine and Controller Specifications

Engine

Engine		Minolta NC-L6001
Duty cycle	Simplex letter/A4 pages per month	1,000 average prints and up to 35,000 maximum prints per month*
Notes	The duty cycle is affected by the media type and percent coverage. *Continued usage at this rate will reduce the life of the printer.	

Print Speed—Simplex

The following table defines the maximum print speed in Pages Per Minute (ppm).

Page size	Monochrome ppm	4-color ppm
Letter/A4 or smaller	16	4
Legal/Folio	8	2
Transparency Film (Letter/A4)	2.5	1.6
Label/Thick (Letter/A4)	3.3	2.0

Print Speed—Autoduplex

The following table defines the maximum print speed in Pages Per Minute (ppm).



Page size	Monochrome ppm	4-color ppm
A4	10	4
Legal	3.24	1
Letter	10	4

General

Printer type	Desktop, non-impact, color printer
Print method	Scanner: Semiconductor laser with rotating mirror Recorder: Black writing electrophotographic Process: Cyan, magenta, yellow, and black toner image transfer to print media Fuser: Heated rollers
Resolution	<ul style="list-style-type: none"> ■ High: 600 x 600 dpi with contone imaging (PostScript) or Enhanced: 1200 x 1200 dpi (PCL) ■ Standard: 600 x 600 dpi ■ Draft: 600 x 600 dpi monochrome
Toner	Type: Dry, single component Packaging: User-replaceable toner cartridges
Warm-up time	Maximum: 100 V/120 V/220 to 240 V: 180 seconds
Input sources	Standard: 200-sheet multipurpose tray Optional: 500-sheet media feed unit
Output	200-sheet (Letter/A4) output tray on top of printer
Media sizes and weights	See "Media Types" on page 18.
Media type	Cut-sheet
Notes	The maximum media weight supported for duplex printing is 24 lb bond (90 g/m ²).

Controller

CPU	Power PC 405 Core (200 MHz)
Resident emulations	PostScript 3 PCL 5, XL PDF v. 1.3 —Requires optional hard disk Line printer —simple text data with several control commands Hexdump —Hexadecimal print out of data stream for troubleshooting purposes.

Fonts	137 PostScript fonts (plus 115 of the same fonts re-encoded for use in Central Europe and 3 re-encoded for ISOLatin1) 90 PCL fonts (80 scalable and 10 bitmap)
Standard interfaces	Ethernet —10BaseT/100BaseTX Parallel —Centronics/IEEE 1284 bidirectional USB —USB (version 1.1) Type B connector
RAM	Type: PC-100- or PC-133-Compliant SDRAM DIMMs Base system RAM: 128 MB Total RAM: Upgradable to 384 MB
Optional RAM	128 and 256 MB DIMMs  <i>For information about DIMMs recommended for your printer, see the magicolor 2350 Answer Base through the Internet at www.minolta-qms.com/support/ or contact Technical Support.</i>
Optional Hard Disk	Type: IDE Disk Drive Type: PIO Mode 4 compatible Size: 6 GB or larger
System software	Upgradable via FLASH.  <i>Check the magicolor 2350 Answer Base through the Internet at www.minolta-qms.com/support/ for information about the latest system software version.</i>

Electrical

Voltage and Power

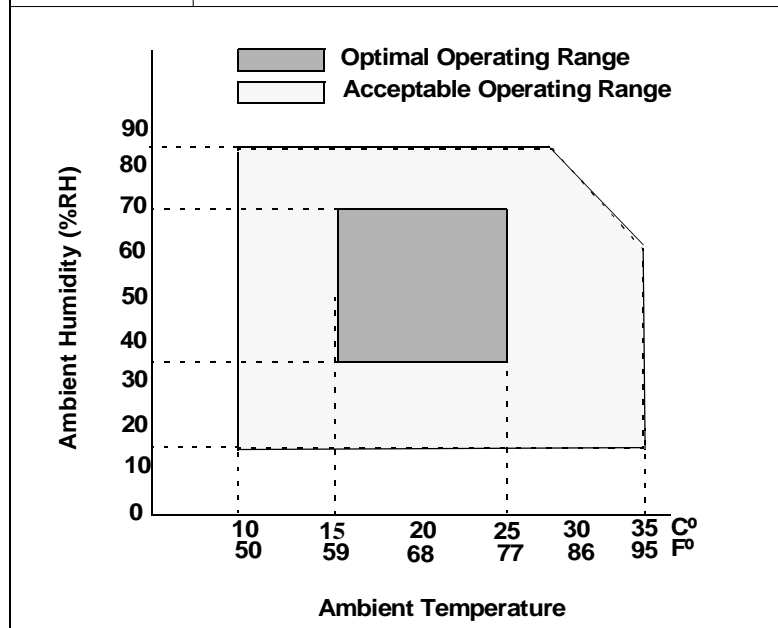
Voltage and frequency	US: 120 volts $\pm 10\%$ at 50/60 Hz ± 3 Hz International: 220–240 volts $\pm 10\%$ at 50 Hz ± 3 Hz		
Phase	Single		
Power consumption	Mode	Average	Maximum
	Black monochrome printing	600 W or less	1100 W or less
	Color printing	450 W or less	
	Standby	250 W or less	
	Power saver	30 W or less	
Certification	ENERGY STAR compliant		

Current

Mode	Maximum
Operation (120 V)	11.0A
Operation (220–240 V)	7.0 A
Rush Current	50 A or less (0-Peak)

Environmental

Acoustic noise data	Printing: Less than 54 dB (A) Standby: Less than 39 dB (A)
Noise Declaration for Germany	Maschinenlärminformationsverordnung 3. FSGV, 18.01.1991: Der höchste Schalldruckpegel beträgt 70 dB (A) oder weniger gemäß EN 27779.
Relative humidity	Operating: 15–85% RH (noncondensing) Transportation/Storage: 30–85% RH (noncondensing) Humidity Gradient: 20% per hour or less
Temperature range	Operating: 50–95° F (10–35° C) Transportation/Storage: 32–95° F (0–35° C) Temperature Gradient: 50° F (10° C) per hour or less
Altitude	Operating: 0–8,202 ft (0–2,500 m) Limit of Low Pressure: 74.1 kPa Transportation/Storage: Air pressure: 74.0-101.3 kPa
Inclination	Operating: $\pm 1^\circ$ or less slant at any point around the machine



Hazardous Chemical Substance Reporting

Material Safety Data Sheets (MSDS)	Title 29 CFR Ch. XVII, Part 1920.1200
EINECS/ELINCS (EU)	

Physical

	Main Body	Main Body with Lower Feeder Unit	Main Body with Lower Feeder Unit and Duplex Option
Dimensions	W: 14.02 in. (356 mm) H: 15.43 in. (392 mm) D: 19.69 in. (500 mm)	W: 14.17 in. (360 mm) H: 20.20 in. (513 mm) D: 19.69 in. (500 mm)	W: 15.98 in. (406 mm) H: 20.20 in. (513 mm) D: 19.69 in. (500 mm)
Weight	Main Body (including consumables, excluding media)		62.39 lbs (28.3 kg)
	Lower feeder unit		11.24 lbs (5.1 kg)
	Duplex option		3.97 lbs (1.8 kg)

Consumable Life Expectancies

The stated life expectancy of each consumable is based on printing under specific operating conditions, such as media type, page size, content of material printed, and page coverage (usually 5% coverage of letter/A4-size media). The actual life expectancy will vary (or be reduced) depending on these and other printing variables, including continuous (optimal consumable life) or intermittent (for example, one-page jobs) printing, ambient temperature, and humidity.

Use of consumables not manufactured by MINOLTA-QMS or use of nonsupported print media may cause damage to your printer and will void your warranty. If MINOLTA-QMS printer failure or damage is found to be directly attributable to the use of non-MINOLTA-QMS consumables and/or accessories, MINOLTA-QMS will not repair the printer free of charge. In this case, standard time and material charges will be applied to service your printer for that particular failure or damage.

Plain Paper

Consumable	This item needs replacing after...
OPC Drum Cartridge	Up to 45,000 continuous monochrome or 11,250 continuous four-color pages, or 10,000 intermittent (one-page jobs) monochrome or 7,500 intermittent color pages.
Toner Cartridge	Standard capacity: Approximately 1,500 single-sided pages per cartridge—yellow, magenta, cyan at 5% coverage of each color. High capacity: Approximately 4,500 single-sided pages per cartridge—black, yellow, magenta, cyan at 5% coverage of each color.
Waste Toner Bottle	Approximately 25,000 continuous monochrome or 21,600 intermittent (one-page jobs) monochrome, or 6,250 continuous or intermittent color pages (based on the standard mode with 5% toner coverage of letter/A4 media).

Special Media

Consumable	This item needs replacing by user after...
OPC Drum Cartridge	Up to 15,000 continuous monochrome or 7,500 continuous color pages, or 5,000 intermittent (one-page jobs) monochrome or 4,100 intermittent color pages.
Toner Cartridge (pages per cartridge at 5% coverage of each color)	Standard capacity (black): Approximately 1,500 continuous single-sided pages or 1,000 intermittent single-sided pages (if monochrome black printing only).
	Standard capacity (yellow, magenta, cyan): Approximately 1,500 continuous or intermittent single-sided pages.
	High capacity (black): Approximately 4,500 continuous single-sided pages or 3,200 intermittent single-sided pages (if monochrome black printing only).
	High capacity (yellow, magenta, cyan): Approximately 4,500 continuous or intermittent single-sided pages.
Waste Toner Box	Approximately 25,000 continuous or 14,400 intermittent (one-page jobs) monochrome pages or 6,250 continuous or intermittent color pages.

Contact your local vendor or www.minolta-qms.com for purchase information, part numbers, and pricing. To order approved media, go to www.q-shop.com. If you have questions, refer to www.minolta-qms.com/support and then click on the Answer Base.

Regulatory Compliance

CE Marking (Declaration of Conformity) For European Users
<p>This product complies with the following EU directives: 89/336/EEC, 73/23/EEC, and 93/68 EEC directives. This declaration is valid for the areas of the European Union.</p> <p>This device must be used with shielded interface cables. The use of non-shielded cable is likely to result in interference with radio communications, and is prohibited under EU directives.</p>

Electro-Magnetic Interference For All Users (Except for American and Canadian Users) Users
⚠ WARNING
<p>This is a Class B product. In a domestic environment, this product may cause radio interferences in which case the user may be required to take adequate measures.</p>

Interference-causing Equipment Standard (ICES-003 ISSUE 3) For Canada Users
<p>This Class B digital apparatus complies with Canadian ICES-003.</p> <p>Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.</p> <p>This device must be used with shielded interface cables. The use of non-shielded cable is likely to result in interference with radio communications, and is prohibited under ICES-003.</p>

cTick Mark	ACA (Australia) AS/NZS 3548	Class B ITE (Radio Communications Act of 1992)
Electromagnetic Emissions (EMI)	China GB 9254 FCC (USA) Title 47 CFR Ch.1, Part 15, Subpart B Industry Canada (Canada) ICES-003 Issue 3 International (EU) EU Directive 89/336/EEC EN 55022 (CISPR Pub. 22) EN 61000-3-2 EN 61000-3-3 Japan (VCCI) VCCI V-3/01.04 Harmonic Current Measure Guideline (2001) of JBMIA	Class B Class B Digital Device Class B Digital Device Class B ITE Harmonic Current Emissions Voltage Fluctuations and Flicker Class B ITE Class A
Energy Saver	ENERGY STAR (USA, EU, and Japan)	ENERGY STAR Compliant in basic configuration
Immunity Requirements (EU)	International (EU) EN 55024	Immunity Characteristics
Product Safety	UL (USA) cUL (Canada) International (EU) China	UL 60950 CAN/CSA C22.2 60950 EU Directive 73/23/EEC, EN 60950 and IEC 60950 GB 4943
Laser Safety	CDRH (USA) International (EU)	Title 21 CFR Ch. I, Subchapter J EN 60825-1 and IEC 60825-1

FCC Compliance Statement For American 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 when the equipment is operated in a commercial installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. Operation of this equipment in a residential area is likely to cause harmful interference, in which case, the user will be required to correct the interference at his own expense.

If this equipment does cause harmful interference to radio or 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.



This device must be used with shielded interface cables. The use of non-shielded cable is likely to result in interference with radio communications, and is prohibited under FCC rules.

Attention

Any modifications or changes to this product not expressly approved in writing by the manufacturer responsible for compliance to Federal Regulations could void the user's authority to operate this product within the Laws and Regulations of the Federal Communications Commission.

Safety Information

Toner	
 WARNING	
	Do not throw the toner cartridge or toner into an open flame. The hot toner may scatter and cause burns or other damage.
CAUTION: Keep out of reach of children.	

Replaceable Battery	
 WARNING	
	Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

Laser Safety	
<p>This printer is a page printer which operates by means of a laser. There is no possibility of danger from the laser, provided the printer is operated according to the instructions in this manual.</p> <p>Since radiation emitted by the laser is completely confined within protective housings and external covers, the laser beam cannot escape from the machine during any phase of user operation.</p> <p>This printer is certified as a Class 1 laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. This means that the printer does not produce hazardous laser radiation.</p>	

Internal Laser Radiation

Maximum Average Radiant Power: 4.68 μ W at the surface of the OPC drum

Wavelength: 770–795 nm

This product employs a Class IIb Laser Diode that has an invisible laser beam. The Laser Diode and Scanning Polygon Mirror are incorporated in the print head unit. The print head is in the interior of the printer in front of the toner cartridge. The laser beam is emitted from the print head unit, and then is radiated through the laser aperture to the interior of the printer.

⚠ WARNING

The internal components of the print head unit are **NOT A FIELD SERVICEABLE ITEM**. Therefore, the print head unit should not be opened under any circumstances.

Print head unit

Laser aperture

Laser Caution For United States Users—CDRH Regulations

This printer is certified as a Class I laser product under the Regulation Performance Standard according to the Food, Drug, and Cosmetic Act of 1990. Compliance is mandatory for laser products marketed in the United States, and is reported to the Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration (FDA) of the Department of Health and Human Services (DHHS). This means that the product does not produce hazardous laser radiation. The label shown below indicates compliance with the CDRH regulations and must be attached to laser products marketed in the United States.

Laser Safety Label—CDRH Requirement

⚠ WARNING

CAUTION: Use of controls, adjustments, or performance other than those specified in this manual may result in hazardous radiation exposure.

This is a semiconductor laser. The maximum power of the laser diode is 5 mW, and the wavelength is 770–795 nm.

International Notices—Power Cord
The following power cord requirements are in effect for your 220 V printer.
Minimum: 0.75 mm ²
Minimum: H05 VV - F
The male plug is certified in the country in which the equipment is to be installed, and the female plug is an IEC 60320 connector.
International Notices—Voltage
Attention Norwegian users: This equipment is designed to operate within an IT power system where the line-to-line voltage does not exceed 240 V.

For Norway Users
ADVERSEL Dersom apparatet brukes på annen måte enn spesifisert i denne bruksanvisning, kan brukeren utsettes for usynlig laserstråling som overskrider grensen for laser klass 1. Dette en halvleder laser. Maksimal effekt till laserdioder er 5 mW og bølgelengde er 770–795 nm.
For Finland, Sweden Users
LOUKAN 1 LASERLAITE KLASS 1 LASER APPARAT VAROITUS! Laitteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle. Tämä on puolijohdelaser. Laserdiodin suurin teho on 5 mW ja aallonpituus on 770–795 nm. VARNING! Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1. Det här är en halvledarlaser. Den maximala effekten för laserdioden är 5 mW och våglängden är 770–795 nm. VARO! Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. VARNING! Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

Ozone Release
During printer operation, a small quantity of ozone is released. This amount is not large enough to harm anyone adversely. However, be sure the room where the printer is being used has adequate ventilation, especially if you are printing a high volume of materials, or if the machine is being used continuously over a long period.

Dégagement d'ozone
L'imprimante dégage une faible quantité d'ozone durant son utilisation. Cette quantité n'est pas suffisamment importante pour être dangereuse. Cependant, veillez à ce que la pièce dans laquelle la machine soit adéquatement ventilée, surtout en cas d'impression de gros volumes ou en cas d'utilisation continue pendant un laps de temps très long.

This section contains detailed instructions on the operation and maintenance of this machine. To achieve optimum utility of this device, all operators should

carefully read and follow the instructions in this manual. Please keep this manual in a handy place near the machine.





Please read the next section before using this device. It contains important information related to user safety and preventing equipment problems.

Make sure you observe all of the precautions listed in this manual.



Note that some parts of the contents of this section may not correspond with the purchased product.

Warning and Precaution Symbols

 WARNING or  WARNING!	Ignoring this warning could cause serious injury or even death.
 CAUTION or  Attention	Ignoring this caution could cause injury or damage to property.

Meaning of Symbols



A triangle indicates a danger against which you should take precaution.



This symbol warns against burns.



A diagonal line indicates a prohibited course of action.



This symbol warns against dismantling the device.












A black circle indicates an imperative course of action.



This symbol indicates you must unplug the device.

⚠ WARNING

	<ul style="list-style-type: none"> Do not modify this product, as a fire, electrical shock, or breakdown could result. If the product employs a laser, the laser beam source could cause blindness. Do not attempt to remove the covers and panels which have been fixed to the product. Some products have a high-voltage part or a laser beam source inside that could cause an electrical shock or blindness.
	<ul style="list-style-type: none"> Only use the power cord supplied in the package. Failure to use this cord could result in a fire or electrical shock. Use only the specified power source voltage. Failure to do that could result in a fire or electrical shock. Do not use a multiple outlet adapter to connect any other appliances or machines. Use of a power outlet for more than the marked current value could result in a fire or electrical shock.
	Do not unplug and plug in the power cord with a wet hand, as an electrical shock could result.
	Plug the power cord all the way into the power outlet. Failure to do this could result in a fire or electrical shock.
	<ul style="list-style-type: none"> Do not scratch, abrade, place a heavy object on, heat, twist, bend, pull on, or damage the power cord. Use of a damaged power cord (exposed core wire, broken wire, etc.) could result in a fire or breakdown. Should any of these conditions be found, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative. In principle, do not use an extension cord. Use of an extension cord could cause a fire or electrical shock. Contact your authorized service representative if an extension cord is required.
	<p>Do not place a flower vase or other container that contains water, or metal clips or other small metallic objects on this product. Spilled water or metallic objects dropped inside the product could result in a fire, electrical shock, or breakdown.</p> <p>Should a piece of metal, water, or any other similar foreign matter get inside the product, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative.</p>
	<ul style="list-style-type: none"> If this product becomes inordinately hot or emits smoke, or unusual odor or noise, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative. If you keep on using it as is, a fire or electrical shock could result. If this product has been dropped or its cover damaged, immediately turn OFF the power switch, unplug the power cord from the power outlet, and then call your authorized service representative. If you keep on using it as is, a fire or electrical shock could result.
	Do not throw the toner cartridge or toner into an open flame. The hot toner may scatter and cause burns or other damage.
	Connect the power cord to an electrical outlet that is equipped with a grounding terminal.



- Do not use flammable sprays, liquids, or gases near this product, as a fire could result.
- Do not leave a toner cartridge or OPC drum cartridge in a place within easy reach of children.
- Licking or ingesting any of these things could injure your health.
- Do not let any object plug the ventilation holes of this product. Heat could accumulate inside the product, resulting in a fire or malfunction.
- Do not install this product at a site that is exposed to direct sunlight, or near an air conditioner or heating apparatus. The resultant temperature changes inside the product could cause a malfunction, fire, or electrical shock.
- Do not place the product in a dusty place, or a site exposed to soot or steam, near a kitchen table, bath, or a humidifier. A fire, electrical shock, or breakdown could result.
- Do not place this product on an unstable or tilted bench, or in a location subject to a lot of vibration and shock. It could drop or fall, causing personal injury or mechanical breakdown.
- After installing this product, mount it on a secure base. If the unit moves or falls, it may cause personal injury.
- Do not store toner units and OPC drum units near a floppy disk or watch that are susceptible to magnetism. They could cause these products to malfunction.



The inside of this product has areas subject to high temperature, which may cause burns. When checking the inside of the unit for malfunctions such as a paper misfeed, do not touch the locations (around the fuser unit, etc.) which are indicated by a "Caution! High Temperature!" warning label.



Do not place any objects around the power plug as the power plug may be difficult to pull out when an emergency occurs.



- The socket-outlet shall be installed near the machine and shall be easily accessible as the power plug may be difficult to pull out when an emergency occurs.
- Always use this product in a well ventilated location. Operating the product in a poorly ventilated room for an extended period of time could injure your health. Ventilate the room at regular intervals.
- Whenever moving this product, be sure to disconnect the power cord and other cables. Failure to do this could damage the cord or cable, resulting in a fire, electrical shock, or breakdown.
- When moving this product, always hold it by the locations specified in the user manual or other documents. If the unit falls it may cause severe personal injury. The product may also be damaged or malfunction.
- Remove the power plug from the outlet more than one time a year and clean the area between the plug terminals. Dust that accumulates between the plug terminals may cause a fire.
- When unplugging the power cord, be sure to hold onto the plug. Pulling on the power cord could damage the cord, resulting in a fire or electrical shock.

Working Safely with Your Laser Printer

WARNING!

Working improperly with the printer can result in health hazards, electric shocks, and even fires. Before you unpack the laser printer, you should make yourself familiar with this information on your safety and operating safety.

Power Supply/Cord/Plug
Do This...
Make sure that the power supply to the unit has the correct voltage. <i>Otherwise the result could be a fire or an electric shock.</i>
Make sure that the power cord is: <ul style="list-style-type: none">■ Switched off immediately and unplugged if the power supply cord is damaged. <i>Failure to do so could result in a fire or an electric shock.</i>■ Correctly plugged into the socket and that the socket is visible at all times and is readily accessible.■ Not underneath the printer or another machine as this can result in damage to that cord. <i>The result could be a fire or improper functioning of the unit in question.</i>■ Removed from the socket if the machine will not be in use for an extended period of time.
Use only extension cords that are designed for at least the maximum power rating of the machine. <i>Extension cords with lower ratings can result in the unit overheating and can even lead to a fire.</i>
DO NOT...
Pull on the cord to pull the power plug out of the socket as this may damage the cord. <i>The result could be an electric shock or a fire.</i>
<ul style="list-style-type: none">■ Remove from the power cord from the socket with wet hands as this may result in an electric shock.■ Place any heavy objects on the power cord.■ Do not pull or kink the cord as this can result in damage to the cord. The result could be an electric shock or a fire.■ Leave the power cord plugged into the socket when you move the printer. <i>Otherwise you may damage the cord. The result could be a short-circuit or a fire.</i>
Do not switch off the unit while printing is in progress.

Printer Body
Do This...
Perform only the procedures that are described in this manual. Using the machine improperly can result in a fire or an electric shock.
Notes on your safety and operating safety
Working improperly with the printer can result in health hazards, electric shocks and even fires. Before you unpack the laser printer, you should make yourself familiar with this information on your safety and operating safety.
If the machine becomes unusually hot, or if you notice smoke or an unusual odor coming from the machine, switch it off immediately and remove the power cord from the socket.
DO NOT...
Do not place: <ul style="list-style-type: none"> ■ Heavy objects on the machine. ■ Magnetic objects near the machine. ■ Coffee cups, drinks, bottles, or other containers with liquids in them on the machine. <i>If liquid enters the machine the result could be an electric shock or a fire. If liquid does get into the machine, switch it off immediately, disconnect the power cord.</i> ■ Paper clips, staples, or other small metal objects into openings on the machine. <i>The result could be an electric shock or a fire. If metal pieces are fed into the machine, switch it off immediately, disconnect the power cord.</i>
Do not open any covers on the machine while printing is in progress.
Do not use any flammable sprays, liquids or gases in the vicinity of the machine.
Do not remove any safety devices and do not alter the construction of the machine. The unit is equipped with high-voltage components. Using the machine improperly can result in a fire or an electric shock.

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