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**QMS<sup>®</sup> *magicolor*<sup>®</sup> 2+**  
**Print System**  
**Operation**

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**1800546-001A**

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# 1

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## Introduction

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### **In This Chapter . . .**

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  - “About the Printer” on page 1-2
  - “About the Documentation” on page 1-3
  - “About This Manual” on page 1-8
  - “What’s Next?” on page 1-10
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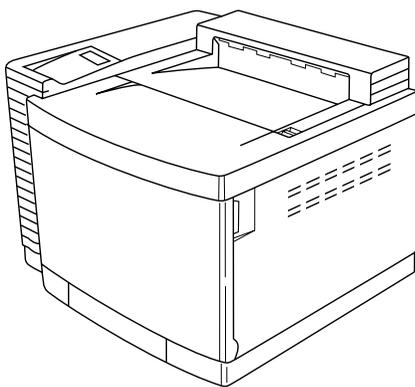
# Introduction

This manual provides an overview of your printer documentation and information on installing consumables such as media and toner cartridges. You'll also find information on advanced printing features, printer care, print quality, and troubleshooting. Use this manual in conjunction with your other QMS *magicolor 2+* documentation.

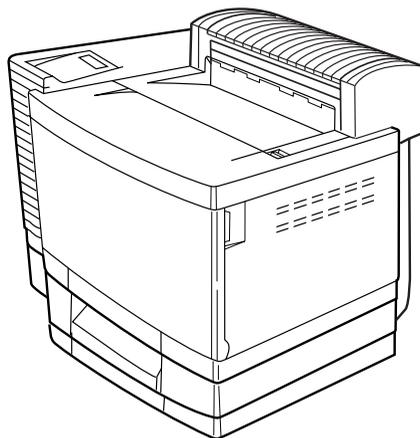
## About the Printer

The QMS *magicolor 2+* Print System comes in three models: CXE, GXE, and EXD.

**CXE, GXE**



**EXD**



## Standard Features

QMS <i>magicolor</i> 2+ CXE	QMS <i>magicolor</i> 2+ GXE	QMS <i>magicolor</i> 2+ EXD
<ul style="list-style-type: none"><li>■ 32 MB DRAM (upgradable to 384 MB)</li><li>■ 600x600 dpi</li><li>■ Manual duplex printing</li><li>■ 250-sheet letter/A4 media cassette</li></ul>	<ul style="list-style-type: none"><li>■ 80 MB DRAM (upgradable to 384 MB)</li><li>■ 2400x600 dpi</li><li>■ Manual duplex printing</li><li>■ 250-sheet letter/A4 media cassette</li></ul>	<ul style="list-style-type: none"><li>■ 192 MB DRAM (upgradable to 384 MB)</li><li>■ 2400x600 dpi</li><li>■ Automatic duplex printing</li><li>■ 250-sheet letter/A4 media cassette and 250-sheet letter/A4 lower input feeder</li><li>■ IDE internal hard disk drive</li><li>■ Time-of-day clock</li></ul>
<ul style="list-style-type: none"><li>■ Softloadable system code via flash memory</li><li>■ 16 ppm (pages-per-minute) monochrome/4 ppm color print speed (letter/A4 paper; 600x600 dpi)</li><li>■ PostScript Level 2, HP PCL and HP-GL 2 fonts, and Line Printer emulations</li><li>■ RISC (NEC 4310)-based controller</li><li>■ Centronics/IEEE 1284 parallel, RS-232C serial, and QMS CrownNet 10BaseT/100BaseTX Ethernet (EtherTalk, LAN Manager/LAN Server, NetWare, TCP/IP) interfaces</li><li>■ Microsoft Plug and Play support (parallel only)</li><li>■ Energy Star compliant</li></ul>		

## About the Documentation

The documentation provides a window into the many capabilities of your printer. The more familiar you are with the documentation, the easier it'll be for you to achieve the results you want from your printer. This section gives you an idea of how we've organized information and which documents you'll probably refer to the most.

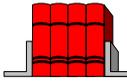
## Standard Product Documentation

	<p><b>QMS magicolor 2+ Print System Installation Guide</b></p>	<p>This guide assists in getting the printer up and running. It is to be used as a quick setup reference only and should be used in conjunction with the full manuals.</p> <p>» <b>Note:</b> <i>This guide is also in Adobe Acrobat PDF format on the magicolor 2+ Documentation CD-ROM.</i></p>
	<p><b>QMS magicolor 2+ Print System Operation</b></p>	<p>You're looking at this document right now. It introduces the printer and documentation and explains the control panel.</p> <p>This manual guides you through the day-to-day operation of your printer. It includes information on printing files, adding print media, and replacing toner. It also includes information on handling, cleaning, and maintaining your printer; improving print quality; and troubleshooting printer problems.</p> <p>» <b>Note:</b> <i>This manual is also included as an Adobe Acrobat PDF file on the magicolor 2+ Documentation CD-ROM.</i></p>
	<p><b>Connecting Your QMS Print System</b></p>	<p>This manual guides you through connecting your printer to a computer or a network and configuring your printer for network printing.</p> <p>» <b>Note:</b> <i>This manual is also included as an Adobe Acrobat PDF file on the Software Utilities CD-ROM.</i></p>
 <p>magicolor 2+ Documentation CD-ROM</p>	<p><b>QMS magicolor 2+ Print System Options</b></p> <p>(Adobe Acrobat PDF)</p>	<p>Refer to this manual for information on installing and using printer options: emulations, security key, memory upgrades, fonts, interfaces, hard disks, and system software updates.</p>

 magicolor 2+ <i>Documentation</i> CD-ROM	<p><b><i>QMS magicolor 2+ Print System Reference</i></b></p> <p>(Adobe Acrobat PDF)</p>	<p>Refer to this manual when you need to change your printer's configuration. It also provides information on typefaces and fonts, job accounting, printer memory, and other advanced printer features. The system administrator should get the most use from this manual.</p>
 <i>Software Utilities</i> CD-ROM	<p><b><i>QMS Crown Remote Console User's Guide</i></b></p> <p>(Adobe Acrobat PDF)</p>	<p>This manual describes how to use the Remote Console software to access printer information and change printer configuration settings from anywhere on the network.</p>
 <i>Software Utilities</i> CD-ROM	<p><b><i>QMS Crown Network Notes</i></b></p> <p>(Adobe Acrobat PDF)</p>	<p>Refer to this document for network tips. It discusses 3Com 3+Open, Banyan VINES, LAN Manager-based LANs, Novell NetWare, TCP/IP, UNIX, DECnet, and VMS. In most cases, only advanced network users and system administrators need this information.</p>
 <i>Software Utilities</i> CD-ROM	<p><b><i>QMS CrownNet System Administrator's Guide</i></b></p> <p>(Adobe Acrobat PDF)</p>	<p>Refer to this manual when configuring the printer's QMS CrownNet 10BaseT/100BaseTX Ethernet or optional QMS CrownNet Token-Ring interface and when using the QMS CrownAdmin software.</p>
 <i>Software Utilities</i> CD-ROM	<p><b><i>QMS Crown Document Option Commands</i></b></p> <p>(Adobe Acrobat PDF)</p>	<p>This manual lists and explains all QMS Document Option Commands (DOCs), software codes you insert in documents to enable printer features that can't be accessed by your application or page description language. Printer-supported DOCs are listed in appendix C, "Document Option Commands," of the <i>Reference</i> manual. In most cases only advanced users or system administrators need this information.</p>

## **Related Documentation**

Several other documents are also helpful when using your printer:

 <p><b>Other Reference Sources</b></p>	<p>Don't forget that your application documentation, host operating system documentation, and network documentation all contain useful printing information.</p> <p>Further information on QMS printers is available through the Internet. See appendix A, "QMS Customer Support" for details.</p>
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## **Manuals on the CD-ROMs**

The manuals included on the *QMS magicolor 2+ Print System Documentation* and *QMS Software Utilities* CD-ROMs are in Adobe Acrobat PDF format. We've also provided the Acrobat Reader and QuickTime programs on both CD-ROMs. The CD-ROM insert provides instructions on installing them.

### **About Adobe Acrobat Reader**

Adobe Acrobat PDF-formatted manuals give you more flexibility and convenience than do hardcopy manuals when you have to access information. Here are some of the advantages PDF-formatted manuals provide:

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- You can view the manuals on web browsers using the Acrobat plug-in.
- You can view the manuals on-screen in different formats (side-by-side or two-up, one page at a time, scrolling two-up, article flow, and zooming capability up to 800%).
- You can conduct full-text searches through all of the manuals.
- You can watch QuickTime video clips on Windows and Macintosh platforms that enhance the text and illustrations for a number of commonly performed procedures. (When installing the Reader, be sure to select the option to install QuickTime.)

- You can print only the manual pages that you need.
- The PDF-formatted manuals have been enhanced for on-screen viewing and navigation. Throughout each manual are numerous hotlinks to cross-reference points. The table of contents and the index are fully hotlinked to their respective page references, and all World Wide Web addresses are linked to their respective home pages.

We hope you enjoy using the Acrobat software to access the information in your manuals. They'll never become dog-eared and yellowed or collect dust on some forgotten shelf with quick online access. Your PDF-formatted manuals will empower you to take full advantage of all the capabilities of your printer.

### **Using Adobe Acrobat Reader**

When you use Acrobat to view your manuals, keep the following tips in mind for using some of the navigation features built into Acrobat and your manuals.

- You may view the document in three different styles: page only, with bookmarks, or with thumbnails. Try each to see which you like best. Viewing with bookmarks will enable you to use a quick table of contents to move around the document.
- The toolbar also gives you quick access to page navigation features. For example, you may click a button to advance (>) or reverse (<) one page, go to the start (|<) or end (>|) of the document, or use the history button (<<) to go to the previous pages you viewed. There are other buttons in the toolbar to change view or magnification of the document.
- As you browse through the document the open hand tool will sometimes turn into a pointing hand. You have discovered an embedded link in the manual. You will find these links in the table of contents, index, www addresses, and cross references. Click on the link to jump to a new location.
- You may discover a movie camera icon on Windows and Macintosh platforms. Click the icon to play a QuickTime video clip of the procedure described in the text.
- Use the Acrobat Reader Online Help for a more complete explanation of these features.



### **A Note on Media**

All QMS manuals are also available in hard copy. In the US, contact QMS Supplies and Accessories at 1 (800) 523-2696 for purchase information. Elsewhere, refer to appendix A, "QMS Customer Support."

In addition, many applications, utilities, and printer drivers on the *QMS Software Utilities* CD-ROM are available on alternate media. Contact your local vendor for media availability and purchase information. You can also download many of these files via ftp from our World Wide Web Server at <http://www.qms.com> or our ftp resource at <ftp.qms.com>. Refer to appendix A, "QMS Customer Support," for sales and support locations and telephone numbers.

## **About This Manual**

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<b>1</b>	<b>Introduction</b>	Provides an overview of this guide.
<b>2</b>	<b>About Your Printer</b>	Provides further information about getting acquainted with your printer and introduces the parts of the printer control panel.
<b>3</b>	<b>Consumables</b>	Describes the media that's best suited for your printer; how to load paper, envelopes, labels, and transparencies; and how to replace the toner cartridges, OPC belt cartridge, fuser oil bottle, cleaning roller, and waste toner pack.
<b>4</b>	<b>Advanced Printing Features</b>	Explains how to collate output, print a status page, cancel a print job, and end a print job.
<b>5</b>	<b>Color Printing</b>	Describes how to print documents in color.
<b>6</b>	<b>Printer Care</b>	Describes how to handle and clean the printer.

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<b>7</b>	<b>CrownView Printer Web Page</b>	Contains information on how to access and use the printer's web page.
<b>8</b>	<b>Media Jams</b>	Explains how to locate and clear media jams.
<b>9</b>	<b>Troubleshooting Printer Problems</b>	Lists printer status messages, outlines printer and print quality problems and solutions, and describes how to place a service call.
<b>A</b>	<b>QMS Customer Support</b>	Provides product sales and support telephone numbers, and describes how to communicate with QMS through the Internet.
<b>B</b>	<b>Configuration Menu</b>	Provides a view of the printer's configuration menu.
<b>C</b>	<b>Repacking the Printer</b>	Explains how to repack the printer in case you need to relocate or ship your printer after it's been installed.

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**Index**

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## **Typographic Conventions**

The following typographic conventions are used in this manual:

Mixed-Case Courier	Text you type, and messages and information displayed on the screen
<i>Mixed-Case Italic Courier</i>	Variable text you type; replace the italicized word(s) with information specific to your printer or computer
UPPERCASE COURIER	Information displayed in the printer message window
<b>lowercase bold</b>	PostScript operators and DOS commands
<i>lowercase italic</i>	Variable information in text
UPPERCASE	File and utility names

## About the Documentation

	Press the Enter key (PC) or Return key (Macintosh).
	Press and hold down the Ctrl key (PC).
	In Adobe Acrobat PDF versions of the manual, click to play a QuickTime video clip of the procedure described in the text.

» **Note:** *Notes contain tips, extra information, or important information that deserves emphasis or reiteration.*

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◆ **Caution:** *Cautions present information that you need to know to avoid equipment damage, process failure, or extreme annoyance.*

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⚠ **WARNING!** *Warnings indicate the possibility of personal injury if a specific procedure is not performed exactly as described in the manual.*

**ACHTUNG!** *Bitte halten Sie sich exakt an die im Handbuch beschriebene Vorgehensweise, da sonst Verletzungsgefahr bestehen könnte.*

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## What's Next?

Chapter 2, "About your Printer" provides information about getting acquainted with your printer and introduces the parts of the printer control panel.



# 2

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## About Your Printer

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### In This Chapter . . .

- “Introduction” on page 2-2
  - “Getting Acquainted with Your Printer” on page 2-2
  - “The Control Panel” on page 2-6
  - “Message Window” on page 2-6
  - “Control Panel Indicators” on page 2-7
  - “Control Panel Keys” on page 2-8
  - “What’s Next?” on page 2-10
-

# Introduction

This chapter provides information about getting acquainted with your printer and introduces the parts of the printer control panel. See the *Reference* manual for information about location, computer, and power requirements.

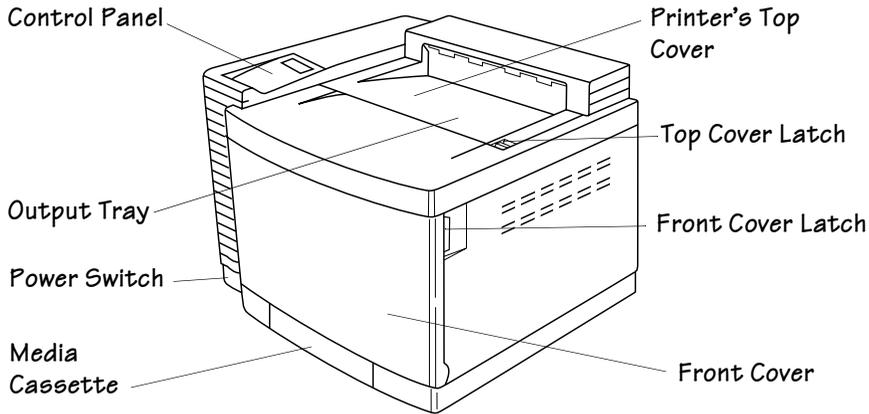
## Getting Acquainted with Your Printer

Be sure you have followed the steps for unpacking and setting up your printer listed in the *Installation Guide*.

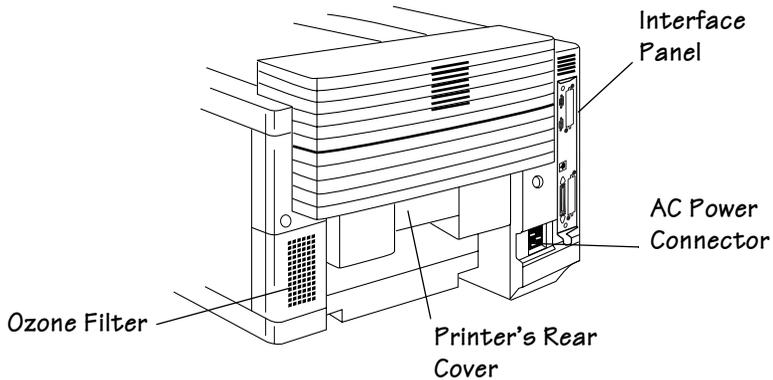
Before operating the printer, you should become familiar with certain physical items, as shown on the following pages.

- » **Note:** *If you're using the Acrobat PDF version of this manual, the parts of the printer are hotlinked—by clicking on that portion of the illustration, you will go to the section in the Installation Guide or Operation manual that pertains to that part.*

## CXE, GXE Models

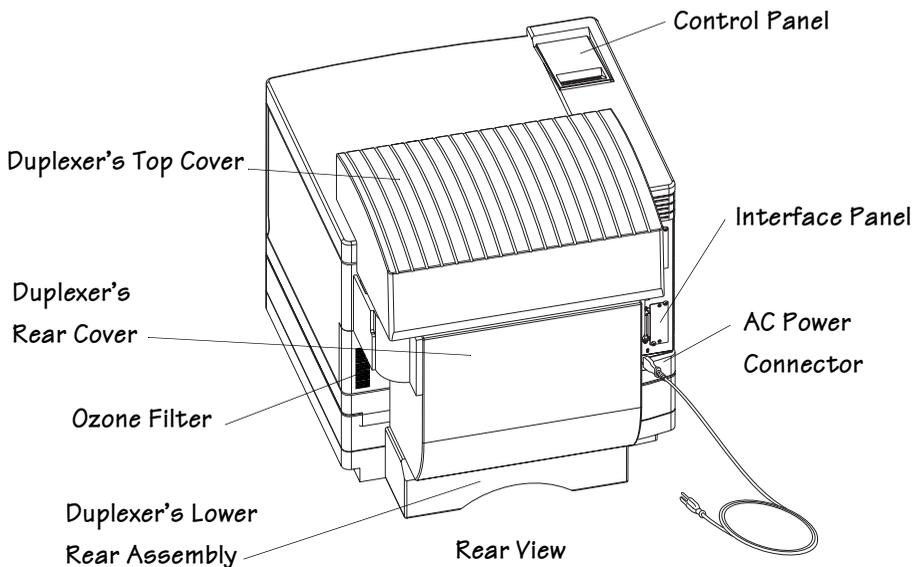
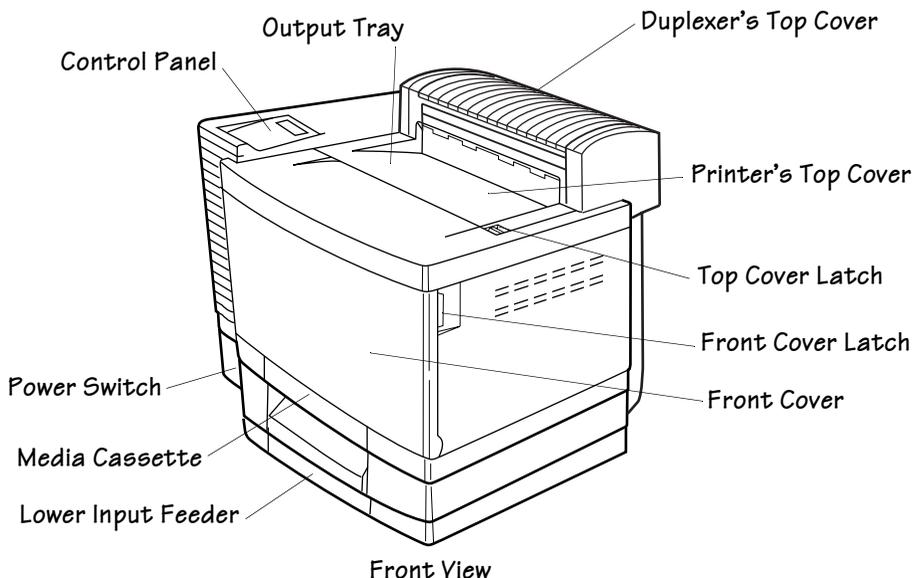


Front View

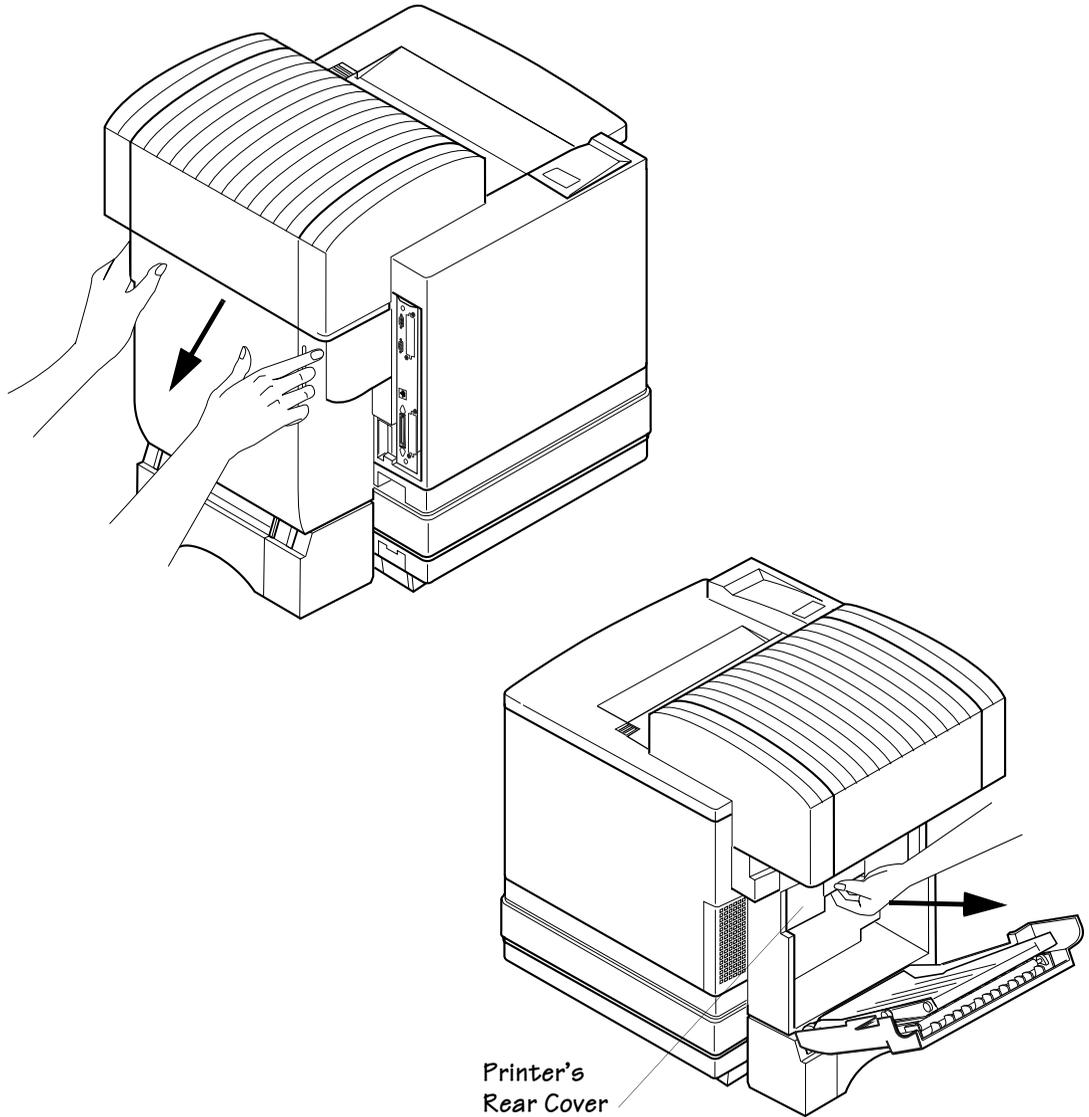


Rear View

### EXD (Duplex) Model

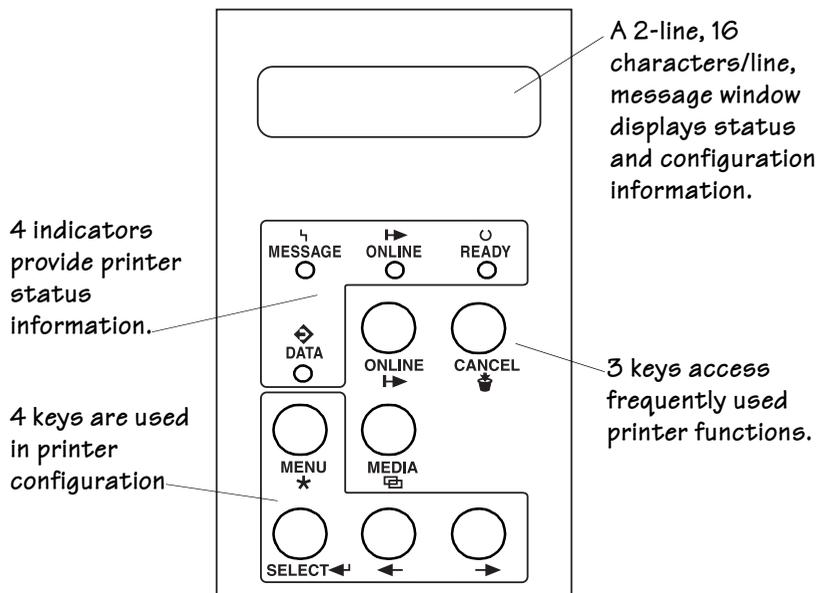


**Access to the Printer's Rear Cover through the Duplexer**



# The Control Panel

The control panel, located on the front 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.



## Message Window

The control panel message window provides status and configuration information. Status messages are listed in chapter 9, "Troubleshooting," of this manual. Printer configuration is explained in chapter 4, "Printer Configuration," of the *Reference* manual.

## Setting the Message Window Language

<b>Menu</b>	Administration/Miscellaneous/Keypad Language
<b>Purpose</b>	Change the message window language.
<b>Choices</b>	English, French, Italian, German, Spanish, Portuguese
<b>Default</b>	English
<b>Notes</b>	The printer must be restarted for changes to this menu to take effect. You can either let the printer restart automatically after you save the change and exit from the configuration menu, or you can wait for the change to take effect the next time you manually turn on the printer.

## Control Panel Indicators

Four indicators display printer status information.

<b>Indicator</b>	<b>Off</b>	<b>On</b>
 <b>READY</b>	The printer is not ready to print. » <b>Note:</b> <i>When this indicator is blinking, the printer is warming up or is in Energy Saver mode.</i>	The printer has finished warming up and is ready to print.
 <b>ONLINE</b>	The printer is off line and not ready to accept data.	The printer is on line and ready to accept data.
 <b>MESSAGE</b>	No problem.	The printer requires operator attention (usually accompanied by a status message in the message window).

## Control Panel Keys

Indicator	Off	On
 DATA	The printer is not receiving data.	The printer is receiving or processing data through one or more of its simultaneous interfaces (usually accompanied by a status message in the message window).

# Control Panel Keys

## Online, Media, and Cancel Keys

These keys access frequently used printer functions.

Key	Function
<b>ONLINE</b> 	<p>The Online key switches the printer between on-line to off-line status.</p> <p>When off line, the printer continues printing until it has finished all jobs received, but it doesn't accept any new data. Although jobs continue to compile and print using the data already received, a job may be interrupted.</p> <p>If a remote console has taken the printer off line, pressing the Online key on the control panel will not take effect until the console puts the printer back on line.</p> <p>» <b>Note:</b> <i>You must take the printer off line before using all other keys except the Cancel and Media keys.</i></p>
<b>MEDIA</b> 	<p>Use the Media key to set the media cassette to the correct type when switching between plain paper and transparencies (Automatic mode) or other types such as envelopes, glossy stock, labels, transfer media, and thick stock (Thick Stock mode).</p> <hr/> <p>◆ <b>Caution:</b> <i>Failure to set the Media key when switching media types results in unsatisfactory printing results.</i></p> <hr/> <p>» <b>Note:</b> <i>The Media key on the Control Panel must be used in conjunction with setting Thick Stock in the driver (Paper tab, Media Type option) to enable the proper toner adherence.</i></p>

Key	Function
<b>CANCEL</b> 	<p>The Cancel key allows you to cancel one or all print jobs. (See chapter 4, “Advanced Printing Features,” in the <i>Operation</i> manual for complete information.) It also allows the user to end a job.</p> <p>If the printer is on line, press the Cancel key to cancel the page currently printing. To cancel the entire print job, use the printer driver.</p> <p>If you press the Cancel key by mistake, or if you decide not to cancel a print job after pressing this key, press the Menu key to “cancel” the Cancel key’s function.</p>

## Menu, Select, Previous, and Next Keys

The Menu, Select, Previous, and Next keys are used in printer configuration (explained in detail in chapter 4, “Printer Configuration,” of the *Reference* manual). Before using any of these keys, press the Online key to take the printer off line.

Key	Function
<b>MENU</b> 	The Menu key provides access to the configuration menu. First press the Online key to take the printer off line, and then press the Menu key to access the configuration menu. When you’re changing the printer configuration, press this key to cancel a change (before pressing the Select keys), to return to a previous menu, or to return to a previous character when entering character information.
<b>SELECT</b> 	Press Select to access a menu or to choose a displayed menu option.
	Press the Previous key to return to the previous selection or option for the current menu. When changing character information, use this key to return to the previous choice for the current input character.
	Press the Next key to advance to the next selection or option in the current menu. When changing character information, use this key to advance to the next choice for the current input character.

# What's Next?

Now that you've become acquainted with your printer, refer to *Connecting Your QMS Print System* manual to connect your printer either directly to a computer or to a network.

The following chapter 3 in this manual, "Consumables," explains how to load and use consumables.



# 3

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## Consumables

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### In This Chapter . . .

- “Introduction” on page 3-2
- “Loading the Media Cassette” on page 3-2
- “Using Media Other Than Paper” on page 3-7
- “Using Toner Cartridges” on page 3-16
- “Replacing a Toner Cartridge” on page 3-18
- “Replacing the OPC Belt Cartridge” on page 3-21
- “Replacing the Fuser Oil Bottle and Oil Cleaning Roller” on page 3-24
- “What’s Next?” on page 3-26

# Introduction

This chapter covers basic printer operation, such as loading paper, transparencies, labels, and envelopes; and how to replace a toner cartridge, the OPC belt cartridge, the fuser oil bottle, the cleaning roller, and the waste toner pack.

## Loading the Media Cassette

This section discusses loading the media cassette with paper. If you're using another type of media, refer to "Using Media Other Than Paper" on page 3-7 for information.

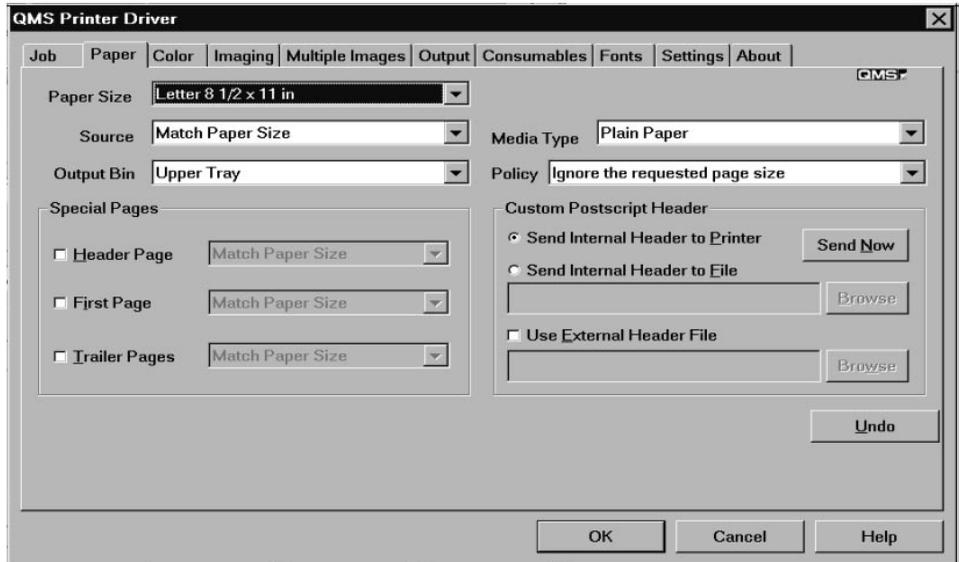
### Paper Specifications

<b>Input</b>	<b>Cassette</b>	Letter/A4 or universal
	<b>Capacity</b>	250 sheets of 20 lb bond (75 g/m <sup>2</sup> ) paper; capacity for other weights varies accordingly
<b>Type</b>	<ul style="list-style-type: none"><li>■ Any standard or recycled office paper suitable for plain-paper laser printers, such as<ul style="list-style-type: none"><li>– Xerox 4024</li><li>– Hammermill Laser Print</li></ul></li><li>■ Letterhead/memo paper</li></ul>	
<b>Weight</b>	Long-grain plain paper, 16–24 lb bond (60–90 g/m <sup>2</sup> )	
<b>Media Type</b>	Plain Paper	
<b>Print Mode</b>	Automatic	
<b>Duplexing</b>	Supported up to 28 lb bond (105 g/m <sup>2</sup> ). See "Duplex (2-Sided) Printing" in chapter 4.	
<b>Notes</b>	<p>We do not recommend using perforated or prepunched paper.</p> <p>You should test any stock thicker than 24 lb bond (90 g/m<sup>2</sup>) to ensure that its performance is acceptable.</p> <p>» <b>Note:</b> For <i>magicolor 2+</i>, <i>universal</i> is the cassette size, not the paper size called <i>Universal</i> on other QMS products.</p> <p>Media Type is set in the printer driver. Print Mode is set with the Media key in the control panel.</p>	

## Prepare the Printer

In the printer driver (Paper tab, Media Type option), select Plain Paper.

- » **Note:** A printer driver is illustrated below. Refer to Connecting Your QMS Print System for more information about drivers.



Refer to “Configuring the Print Mode” on page 3-8 in this manual if you have set the printer for Thick Stock mode and wish to print on plain paper or transparency media. See chapter 2, “Print Media,” in the *Reference* manual for more information about media types, input source, and cassette location.

## Loading the Media Cassette

### Prepare the Paper

- 1 **Take a stack of about 250 sheets (½ ream).**
  - » **Note:** *Don't unwrap the paper above the printer as this might cause paper particles to fall into the printer.*
- 2 **Holding the stack with one hand, fan the paper with the other.**

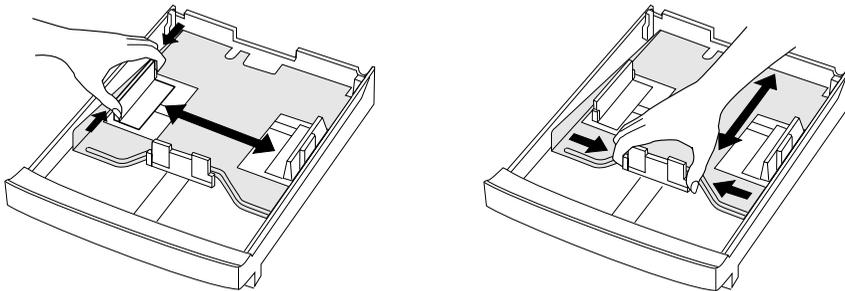
This gets air through the sheets and prevents static buildup.
- 3 **Take off the top and bottom sheets.**

Residual glue buildup on these sheets may cause media jams.

### Load the Cassette

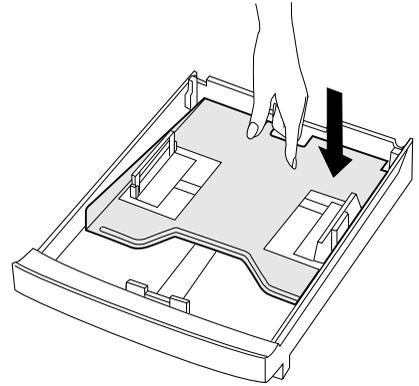
- 1 **Remove the media cassette from the printer.**
- 2 **Adjust the media guides to fit the size paper you're loading.**

Squeeze the retainers at the ends of the left width guide and/or the length guide, move the guide to the appropriate location (media sizes are listed on the cassette), and release the retainers.



## Loading the Media Cassette

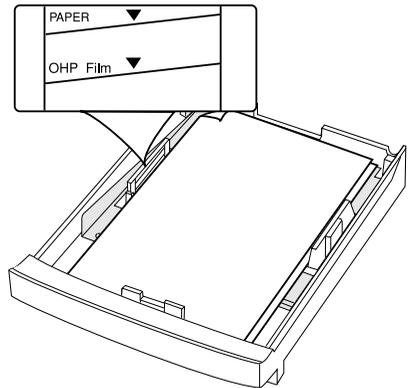
- 3 Push the media pressure plate down to lock it in position.**



- 4 Load the paper.**

A fill limit mark is provided on the inside left side of the cassette. The media cassette holds 250 sheets of 20 lb bond (75 g/m<sup>2</sup>) paper. (Paper is packed in reams of 500 sheets.) Do not overfill the cassette.

The printing side of the paper should face up. An arrow on the paper package label indicates the face-up side of the paper.



- 5 Slide the media cassette back into the printer.**

## Loading the Media Cassette

- ◆ **Caution:** After 200 1-sided pages (or 100 2-sided pages) of a **continuous** print run of plain paper, the magicolor 2+ automatically pauses for 3 minutes to cool down the engine. This occurs for monochrome or color printing. After this initial cooldown pause, the printer automatically resumes its printing. From that point forward while doing continuous printing, the 3-minute cooldown pause occurs every 50 pages until the continuous printing stops.

After an extended idle period, this 50-page limit automatically resets to 200 pages. This process is provided to maintain the rated duty cycle of the printer and to ensure reliable printer operation.

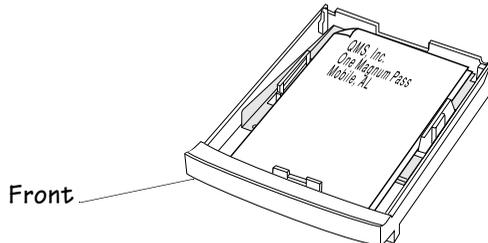
## Using Letterhead and Memo Media

<b>Formatting</b>	Format letterhead or memo data within your application. Try printing your data on a plain sheet of paper first to check placement.	
<b>Input</b>	<b>Cassette</b>	Letter/A4 or universal
	<b>Capacity</b>	Up to 250 sheets, depending on the thickness of the media
<b>Type</b>	Refer to "Paper Specifications" on page 3-2.	
<b>Weight</b>	Refer to "Paper Specifications" on page 3-2.	
<b>Media Type</b>	Plain Paper	
<b>Print Mode</b>	Automatic	
<b>Notes</b>	Check your application documentation for other information about printing on letterhead and memo media.	

## Loading and Printing Letterhead and Memo Media

- 1 In the printer driver (Paper tab, Media Type option), select Plain Paper.
- 2 On the control panel, press the Media key to select printing in the Automatic mode.
- 3 Remove the media cassette from the printer (and remove any media in the cassette).
- 4 Load the new media.

- » **Note:** Load the media printing-side up with the top of the media (the letterhead or memo information) toward the back of the cassette.



*If you have an EXD model and wish print on both sides, load the media printing-side down with the top of the media (the letterhead or memo information) toward the front of the cassette.*

**5 Slide the media cassette back into the printer.**

**Setting the Letterhead Option—EXD Model Only**

On the EXD model, in the Administration/Engine/Letterhead menu, there is an option that will allow you to put both simplex and duplex jobs on letterhead paper from the same inputbin (cassette) without having to sort the pages manually.

The pages must be loaded printing-side down in the input bin with the top of the media (the letterhead or memo information) toward the front of the cassette.

- » **Note:** You may notice a decrease in the printing speed depending on the mix of simplex and duplex pages.

## Using Media Other Than Paper

- 
- ◆ **Caution:** Although the QMS magicolor 2+ was designed for occasional 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, glossy stock, labels, thick stock, transfer media, or transparencies) may adversely affect print quality or reduce engine life.
-



**3 Press the Select key when the message window displays the specified print mode.**

**4 Press the Online key.**

The message window displays the message

SAVE CHANGES?  
\*NO

**5 Press the Next key to select YES .**

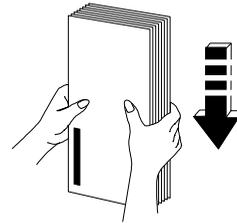
The printer goes on line and is ready to print.

## Using Envelopes

<b>Formatting</b>	Your printer receives the instructions to print on envelopes from your application.  <ul style="list-style-type: none"> <li>■ Print on the front 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.</li> <li>■ See your application documentation for specific information on printing envelopes.</li> </ul>	
<b>Input</b>	<b>Cassette</b>	Letter/A4 or universal
	<b>Location</b>	Upper input feeder only
	<b>Capacity</b>	Up to 15, depending on the thickness of the envelopes
<b>Type</b>	<ul style="list-style-type: none"> <li>■ Use common office envelopes with diagonal joints, sharp folds and edges, and ordinary gummed flaps, such as <ul style="list-style-type: none"> <li>– Commercial #10: Great White</li> <li>– International DL: Great White</li> </ul> </li> </ul>	
<b>Media Type</b>	Thick Stock	
<b>Print Mode</b>	Thick Stock	
<b>Notes</b>	<ul style="list-style-type: none"> <li>■ <b>You can print envelopes from either the letter/A4 or the universal cassette, but the media cassette must be located in the upper input feeder position only.</b></li> <li>■ Use envelopes approved for laser printing.</li> <li>■ You can print <i>only</i> on the address side of the envelope.</li> <li>■ Envelopes should be dry. Do not preseat envelopes.</li> </ul>	

### Loading and Printing Envelopes

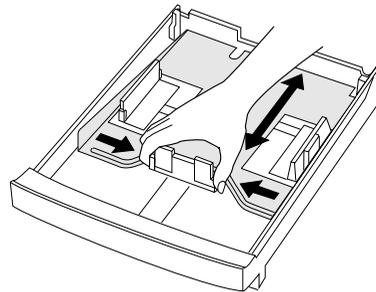
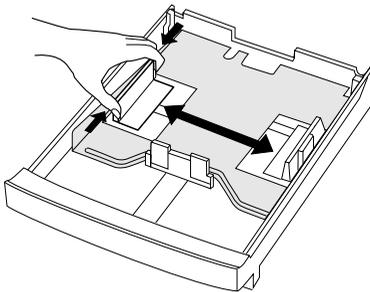
- 1 In the printer driver (Paper tab, Media Type option), select Thick Stock.
- 2 On the control panel, press the Media key to select printing on thick stock.
- 3 Place the envelopes on a flat surface, and flatten them by pressing down the corners.
- 4 Flex the envelope stack (including the edges) to remove any stiffness.
- 5 Correct any dog-eared corners, and then tap the envelopes on a flat surface to align them.



- 6 Remove the media cassette from the printer (and remove any media in the cassette).
- 7 Adjust the media guides to the length and width of the envelopes.

Squeeze the retainers at the ends of the left width guide and/or the length guide, move the guide to the appropriate location (media sizes are listed on the cassette), and release the retainers.

- » **Note:** *Make sure the guides are snug enough to keep the envelopes straight, but not so tight that they buckle the envelopes.*



- 8 Place the envelope stack into the cassette with the printing-side up.**
- » **Note:** *Check your application documentation to determine if the flap should be placed on the left or on the right. You can also print a single envelope to check the orientation before printing multiple copies.*
- 9 Slide the media cassette back into the printer.**

The media cassette must be located in the upper input feeder position.
- 10 Open the flap of each envelope immediately (before it cools) after the envelope is delivered to the output tray.**
- » **Note:** *Because the envelopes pass through heated rollers, the gummed area on the flaps may seal. Using envelopes with emulsion-based glue avoids this problem.*

## Using Glossy Stock

<b>Formatting</b>	Format the information to be printed on the glossy (book) stock within your application. Try printing your data on a plain sheet of paper first to check placement.	
<b>Input</b>	<b>Cassette</b>	Letter/A4 or universal
	<b>Capacity</b>	Up to 50 sheets, depending on the thickness of the media
<b>Type</b>	■ We recommend – Warren Spectratech Coated Lustro Laser Gloss	
<b>Weight</b>	80 lb book (118 g/m <sup>2</sup> )	
<b>Media Type</b>	Thick Stock	
<b>Print Mode</b>	Thick Stock	

## Loading and Printing Glossy Stock

- 1 In the printer driver (Paper tab, Media Type option), select Thick Stock.**
- 2 On the control panel, press the Media key to select printing on thick stock.**
- 3 Remove the media cassette from the printer (and remove any media in the cassette).**

## Using Media Other Than Paper

- 4 Load the new media.
- 5 Slide the media cassette back into the printer.

## Using Labels

<b>Formatting</b>	Format label data within your application. Try printing your data on a plain sheet of paper first to check placement.	
<b>Input</b>	<b>Cassette</b>	Letter/A4 or universal
	<b>Capacity</b>	Up to 50 sheets, depending on the thickness of the labels
<b>Type</b>	■ Use only labels recommended for laser printers, such as — Avery 5260	
<b>Weight</b>	24–42 lb (90–157 g/m <sup>2</sup> )	
<b>Media Type</b>	Thick Stock	
<b>Print Mode</b>	Thick Stock	
<b>Notes</b>	■ Avoid using labels with exposed adhesive; it may stick to the toner cartridge or the fixing roller, causing labels to peel off and media jams to occur. ■ Use only labels recommended for laser printers, such as Avery 5260 ■ Adhesive label stock in sizes letter or A4 ■ A label consists of a face sheet (the printing surface), adhesive, and a carrier sheet — The face sheet must follow to the plain paper specification listed on “Paper Specifications” on page 3-2. — The face sheet surface must cover the entire carrier sheet, and no adhesive should come through on the surface. ■ The adhesive and carrier sheet must withstand the fusing temperature (392° F/200° C). ■ Check your application documentation for other information on printing labels.	

## **Loading and Printing Labels**

- 1 In the printer driver (Paper tab, Media Type option), select Thick Stock.
  - 2 On the control panel, press the Media key to select printing on thick stock.
  - 3 Remove the media cassette from the printer (and remove any media in the cassette).
  - 4 Load the new media.
- » **Note:** *If your label stock has a top-of-page, place the top-of-page toward the rear of the printer.*
- 5 Slide the media cassette back into the printer.
  - 6 In the Operator Control/Media/For Upper Bin menu, select Thick Stock.

## **Using Thick Stock**

<b>Formatting</b>	Format the information to be printed on the thick stock within your application. Try printing your data on a plain sheet of paper first to check placement.	
<b>Input</b>	<b>Cassette</b>	Letter/A4 or universal
	<b>Capacity</b>	Up to 50 sheets, depending on the thickness of the media
<b>Type</b>	<ul style="list-style-type: none"> <li>■ Thick stock, such as <ul style="list-style-type: none"> <li>– Warren Spectratech Index</li> <li>– Hammermill ColorCopyCover</li> <li>– Weyerhaeuser Cover/Card</li> </ul> </li> </ul>	
<b>Weight</b>	Long-grain thick stock, up to 43 lb bond (163 g/m <sup>2</sup> )/60 lb cover (162 g/m <sup>2</sup> )/90 lb index (163 g/m <sup>2</sup> )	
<b>Media Type</b>	Thick Stock	
<b>Print Mode</b>	Thick Stock	
<b>Notes</b>	<p>You should test the number of sheets of thick stock a media cassette can hold to ensure that its performance is acceptable. Do not exceed the fill level on the inside left side of the cassette.</p> <p>Remember to reset the Media key and the printer driver when switching from thick stock to plain paper or transparencies.</p>	

## Using Media Other Than Paper

- 1 In the printer driver (Paper tab, Media type option), select Thick Stock.
- 2 On the control panel, press the Media key to select printing on thick stock.
- 3 Remove the media cassette from the printer (and remove any media in the cassette).

◆ **Caution:** *Do not mix thick stock with any other media in the same cassette, as this will cause printer jamming.*

- 4 Load the new media.
- 5 Slide the media cassette back into the printer.

## Using Transfer Media

<b>Formatting</b>	Format the information to be printed on the transfer media within your application. Try printing your data on a plain sheet of paper first to check placement.	
<b>Input</b>	<b>Cassette</b>	Letter/A4 or universal
	<b>Capacity</b>	Up to 50 sheets, depending on the thickness of the transfer media
<b>Type</b>	■ We recommend – Conde Systems LaserMprints	
<b>Weight</b>	Varies. Do not exceed the limits for thick stock, up to 43 lb bond (163 g/m <sup>2</sup> ).	
<b>Media Type</b>	Thick Stock	
<b>Print Mode</b>	Thick Stock	

## Loading and Printing Transfer Media

- 1 In the printer driver (Paper tab, Media Type option), select Thick Stock.
- 2 On the control panel, press the Media key to select printing on thick stock.
- 3 Remove the media cassette from the printer (and remove any media in the cassette).
- 4 Load the new media.
- 5 Reinsert the media cassette in the printer.

## Using Transparencies

<b>Formatting</b>	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.	
<b>Input</b>	<b>Cassette</b>	Letter/A4 or universal
	<b>Capacity</b>	Up to 50 sheets, depending on the thickness of the transparencies » <b>Note:</b> <i>If you have problems feeding 50 sheets, try loading only 5–10 sheets at a time. Loading a large number of transparencies at a time may cause static buildup, thus causing feeding problems.</i>
<b>Type</b>	<ul style="list-style-type: none"> <li>■ Use any transparencies (also known as OHP film) that meet normal photocopier standards and that can withstand the fusing temperature (392° F/200° C). We recommend <ul style="list-style-type: none"> <li>— Xerox 3R3117</li> <li>— 3M CG3700</li> <li>— 3M CG3710</li> </ul> </li> </ul>	
<b>Weight</b>	24–41.75 lb (90–157 g/m <sup>2</sup> )	
<b>Media Type</b>	Transparency	
<b>Print Mode</b>	Automatic	
<b>Notes</b>	<ul style="list-style-type: none"> <li>■ Use only transparency sizes letter and A4</li> <li>■ 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, refer to chapter 6, “Printer Care,” for instructions on how to clean the printer.</li> <li>■ Check your application documentation for other information about printing on transparencies.</li> </ul>	

### Loading and Printing Transparencies

- 1 In the printer driver (Paper tab, Media Type option), select Transparency.
  - 2 On the control panel, confirm that the Media key is set on Automatic.
- » **Note:** *Transparencies are automatically “sensed” in the Automatic mode. Do not select Thick Stock, even if the transparencies are thicker than 20 lb bond (75 g/m<sup>2</sup>).*

## Using Toner Cartridges

- 3 Remove the media cassette from the printer (and remove any media in the cassette).

◆ **Caution:** *Do not leave paper in the cassette, or the printer will not automatically sense that transparencies are present.*

- 4 Load the new media.
- 5 Slide the media cassette back into the printer.

## Using Toner Cartridges



Characters and images are created in your laser printer through a process that applies toner (made of carbon particles) to the page in the printer's fusing unit. When an image is formed, a positive electrical charge is applied to transfer the image to the page. The toner cartridge contains the toner and the photosensitive drum (which functions like photographic film) needed to operate the laser printer.

### Toner Cartridge Life

A toner cartridge contains enough toner to print the following number of letter/A4-size pages:

Color	Rated life @ normal 5% page coverage
Black	10,000 pages
Yellow	6,000 pages
Magenta	6,000 pages
Cyan	6,000 pages

- » **Note:** *Black starter toner cartridges at normal 5% coverage will print 5,000 letter/A4-size pages\*, while the yellow, magenta, and cyan will each print 3,000 pages.*

When toner runs low in a cartridge, `x Toner Low` displays in the message window. It's your option whether to continue printing; usually, parts of the page print lighter.

When toner is low, it's sometimes helpful to take the cartridge out of the printer and redistribute the toner by gently rocking the cartridge horizontally side to side (as you do for a new cartridge) five or six times. Then reinstall the cartridge. If the `x Toner Low` message remains in the message window after you redistribute the toner, you must replace the toner cartridge.

The printer stops 330 pages after detecting that toner in a cartridge is low. `x toner Empty` displays in the message window.

## Refilled Toner Cartridges

Refilled toner cartridges may produce variations in toner quality and reliability and may reduce the print quality of your documents. Use of refilled or remanufactured toner cartridges will void your warranty.

## Ordering Toner Cartridges

Choosing the right consumables for your QMS *magicolor* 2+ printer will not only increase its reliability and performance, but also minimize the risk of damage. Only QMS toner cartridges are designed to meet the exact specifications of your QMS printer, guaranteeing maximum performance, efficiency, and long life.

In the US, call 1 (800) 523-2696 for information on ordering toner cartridges and other consumables. In other countries, see appendix A, "QMS Customer Support" for the telephone number of the QMS office nearest you.

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\* A **plane** is a single pass of the OPC belt (one toner color). For example, a one-color, single-sided (simplex) print job makes one pass (one plane), and a two-color print job makes two passes (two planes). A single-sided color **page** (also called a **face**) consists of four passes (or planes) of the OPC belt, since most color print jobs use all four toner colors. A two-sided (also known as duplex or two-faced) color page may consist of up to eight passes of the OPC belt, since most color print jobs use all four toner colors.

Consumable life is expressed in simplex pages (1 face). A duplex page (2 faces) is equivalent to two simplex pages.

## Replacing a Toner Cartridge

### Toner Cartridge Storage

- Keep toner cartridges in their packaging until you're ready to install them.
- Store toner cartridges 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 80% without condensation.
- Keep toner cartridges level during storage. Do not stand or store cartridge on their ends or turn upside down; the toner inside the cartridges may become caked or unequally distributed.
- Keep toner cartridges away from salty air environments and corrosive gases such as aerosols.
- Keep toner cartridges away from disk drives and floppy disks. The magnets in the cartridge can damage stored data.

## Replacing a Toner Cartridge

Your printer uses four toner cartridges: black, yellow, magenta, and cyan.

- 1 **Open the printer's front cover.**
- 2 **Remove and discard the empty toner cartridge.**

---

◆ **Caution:** *Dispose the used toner cartridge according to your local regulations. Do not dispose of it by burning.*

---

- 3 **Remove the toner cartridge from its shipping carton.**

---

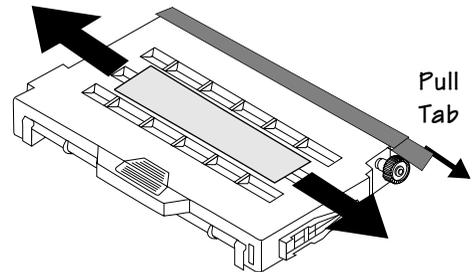
◆ **Caution:** *Do not hold the toner cartridge vertically.*

---

## Replacing a Toner Cartridge

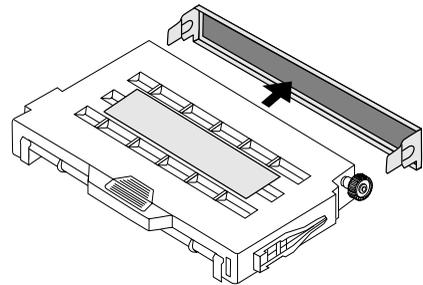
### 4 Distribute the toner in the cartridge.

Holding the cartridge with both hands, gently rock it from horizontally side-to-side five or six times.



### 5 Pull the tab to remove the tape.

### 6 Remove the protective cover.



---

◆ **Caution:** *Each toner cartridge has a colored label that corresponds to a colored label to the right of the cartridge slots. Always install the toner cartridge in the slot with a label of the same color. If a toner cartridge doesn't slide in easily, don't force it.*

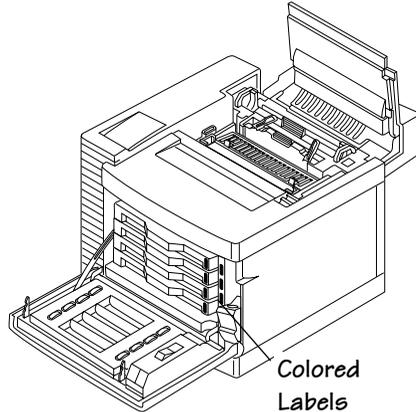
---

### 7 Install the toner cartridge.

Align the toner cartridge with the cartridge guides, and gently push the cartridge into the printer until you begin to feel resistance. Then pull the cartridge back approximately 1/4 inch.

## Replacing a Toner Cartridge

- ◆ **Caution:** *Do not push the toner cartridge in until you hear a click. If you hear a click, you've locked it into place against the OPC belt cartridge and your prints may be smudged.*
- 



- » **Note:** *While the cartridges may appear not to be fully inserted, gently closing the front cover will guide them to their proper operating position.*
- 8 Close the printer's front cover.**
  - 9 In the Operator Control/Consumables/Item Replaced/x Toner menu choose Yes to reset the consumables usage monitoring system.**
- » **Note:** *When you replace a toner cartridge after an x toner Empty message displays in the message window, the engine automatically recovers.*

To access consumables usage information, use the Operator Control/Consumables/Print Statistics menu or the CrownView printer web page.

# Replacing the OPC Belt Cartridge

- 
- ◆ **Caution:** *The OPC belt is extremely sensitive to bright light and direct sunlight. Always leave it in its protective bag until you're ready to install it. Any exposure to light should be limited to less than two minutes, or permanent damage could result. If you suspect a belt is damaged due to exposure to light, put the belt in a dark place to recover. Depending on the amount of exposure, recovery may take up to two hours. Recovery time is dependent on the amount of exposure sustained, and recovery is not guaranteed.*

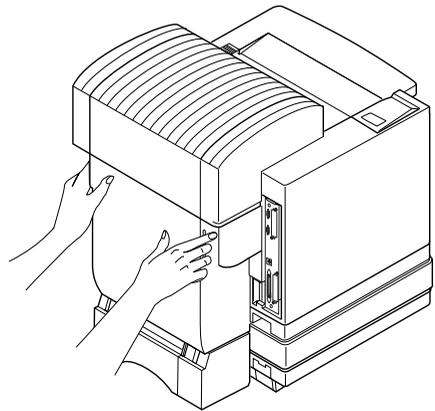
*Also, handle the cartridge carefully. The belt is also extremely sensitive to hand oils and scratches, both of which reduce print quality.*

---

- 1 **If you have an EXD model, open the duplexer's rear cover.**

- 
- ◆ **Caution:** *Always open the duplexer's rear cover before opening the top of the printer. Forced opening of the printer's top cover first may damage the unit.*
- 

If not, skip to step 2.

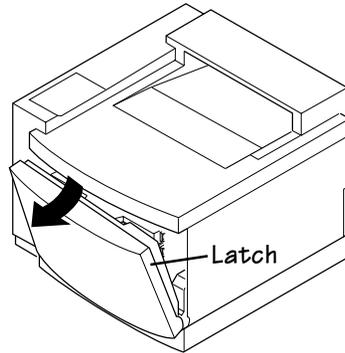


## Replacing the OPC Belt Cartridge

- 2 If it's not already open, open the printer's front cover.

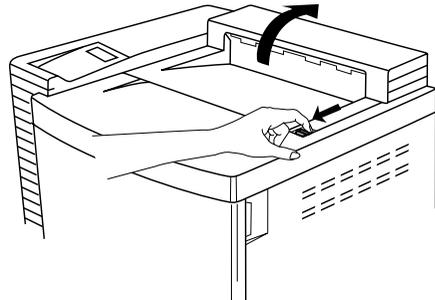
Squeeze the latch near the upper-right corner of the cover.

- » **Note:** *The illustrations for steps 2 through 8 show the printer without the duplexer. However, the instructions are the same for all models.*

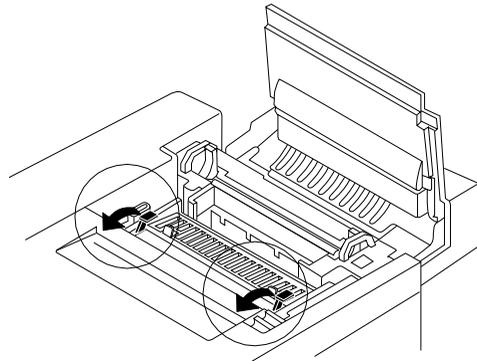


- 
- ◆ **Caution:** *This is necessary as it pulls the toner cartridges forward slightly to make room for the OPC belt cartridge. You could damage the OPC belt if you don't do this.*
- 

- 3 Pull the latch to release the top cover, and then open the printer's top cover.



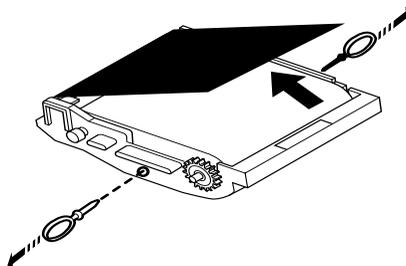
- 4 Rotate up the two green lock levers (one on each side of the OPC belt cartridge opening) to prepare the opening for the cartridge.



## Replacing the OPC Belt Cartridge

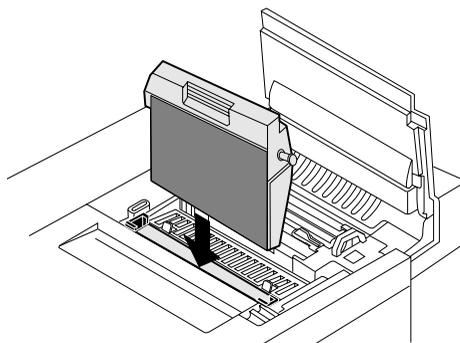
- 5 Remove the protective sheet from the cartridge, and then pull out the two orange tension-release pins (one on each side of the cartridge).

» **Note:** Save the spacers in case you need to repack the printer for relocation or shipping later.



- 6 Holding the cartridge above the printer, align the guide pins on the cartridge with the guide slots in the green lock levers.

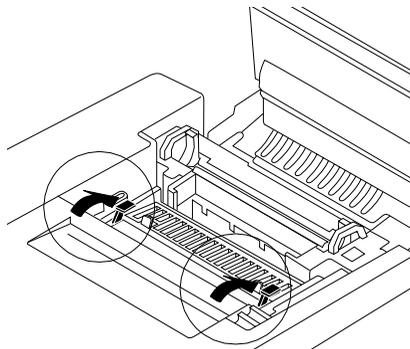
The gear on the cartridge goes to the right, and the green surface of the cartridge faces you.



- 7 Gently guide the cartridge into the printer.

◆ **Caution:** The cartridge should slide easily into the printer. Don't force it.

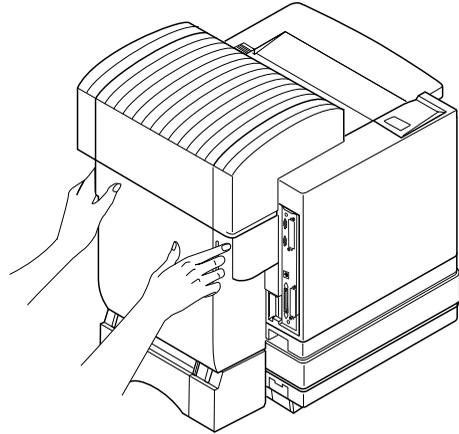
- 8 Rotate the two green lock levers to secure the OPC belt cartridge in the printer.
- 9 Close the printer's front and top covers.
- 10 If you have an EXD model, close the duplexer's rear cover.



# Replacing the Fuser Oil Bottle and Oil Cleaning Roller

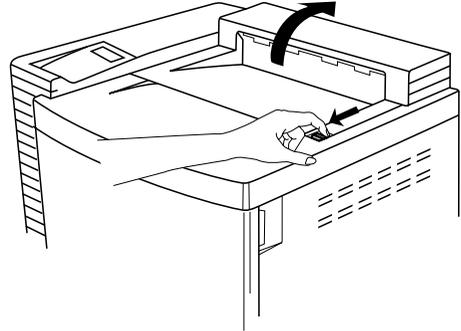
- 1 If you have an EXD model, open the duplexer's rear cover.

If not, skip to step 2.



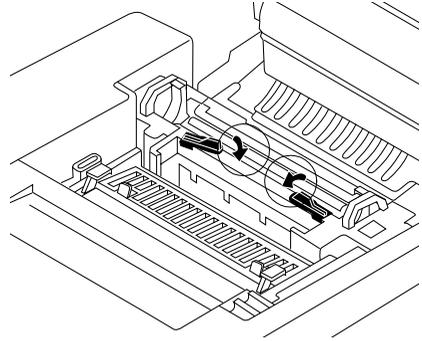
- 2 Pull the latch to release the top cover, and then open the printer's top cover.

» **Note:** The illustrations for steps 2 through 7 show the printer without the duplexer. However, the instructions are the same for all models.



## Replacing the Fuser Oil Bottle and Oil Cleaning Roller

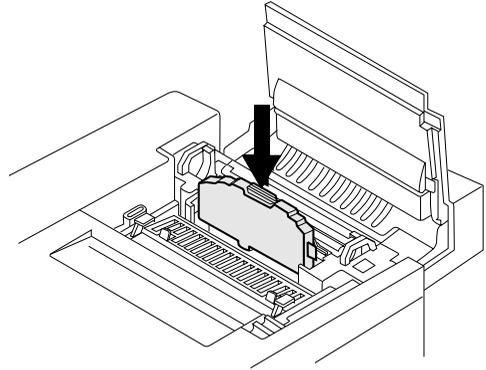
- 3 Open the two green oil cleaning roller lock levers by rotating them toward you.



- 4 Lower the oil bottle into its slot.

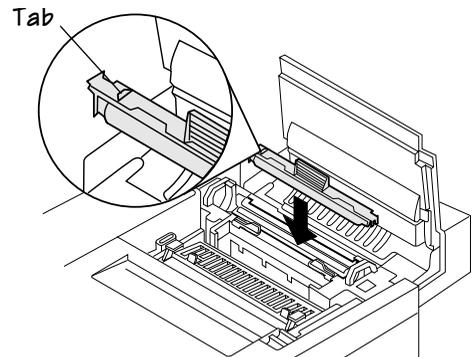
The tab on the side of the bottle must be on the right.

- » **Note:** Because the first oil bottle must prime the printer, it has less than the normal 12,000-page (1-sided) life expectancy.



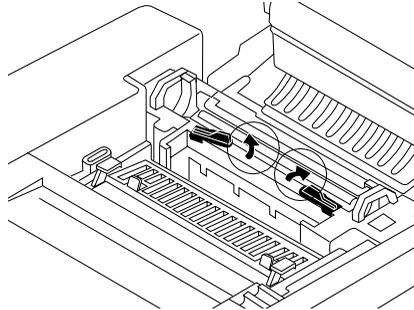
- 5 Install the oil cleaning roller in its slot.

The tab on the top of the oil cleaning roller must be on the left.



## What's Next?

- 6 Close the two green lock levers by rotating them away from you.
- 7 Close the printer's top and front covers.
- 8 If you have an EXD model, close the duplexer's rear cover.



## What's Next?

Chapter 4, "Advanced Printing Features," explains how to collate output, print a status page, cancel a print job, and end a print job.



# 4

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## Advanced Printing Features

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### In This Chapter . . .

- “Introduction” on page 4-2
  - “High-Resolution Printing” on page 4-2
  - “Printing PDF Files” on page 4-5
  - “Cassette Chaining” on page 4-6
  - “Collating Output” on page 4-7
  - “Duplex (2-Sided) Printing” on page 4-10
  - “Printing on Standard and Custom Media Sizes” on page 4-11
  - “Working with Status Pages” on page 4-11
-

# Introduction

This chapter describes changing print resolution, chaining paper cassettes, collating output, printing a status page, cancelling a print job, and ending a print job.

## High-Resolution Printing

QMS technology provides a print resolution for almost every application or budget. The QMS *magicolor 2+* supports each of the following resolutions at up to rated engine speed:

<b>300x300 dpi</b>	Built into all <i>magicolor 2+</i> Print Systems, this resolution has the fastest processing time for producing draft-quality output. 300x300 dpi resolution is also required by some printer emulations.
<b>600x600 dpi</b>	The standard resolution in the <i>magicolor 2+</i> is also the standard resolution for business documents. 600x600 dpi resolution provides excellent print quality for most business applications, such as letters, proposals, and presentations. With 600 dpi in both horizontal and vertical directions, it also provides the best quality line drawings for engineering applications.
<b>1200x600 dpi</b>	For improved halftone quality in graphics and images, 1200x600 dpi resolution is available for all media sizes on the <i>magicolor 2+</i> GXE and EXD. The <i>magicolor 2+</i> CXE is also capable of producing 1200x600 dpi resolution through the installation of additional memory.
<b>2400x600 dpi</b>	For graphic arts and desktop publishing applications, where the best quality graphics and photorealistic images are required, the <i>magicolor 2+</i> GXE and EXD Print Systems come standard with 2400x600 dpi resolution for many media sizes. The <i>magicolor 2+</i> CXE Print System is also capable of producing 2400x600 dpi resolution through the installation of additional memory.

## How Much Memory Do You Need?

- » **Note:** If a certain resolution is chosen and the minimum amount of memory is not installed in the printer, the file is printed using the next lower resolution that can handle the job. For example, if you attempt to print a 4-color image at 2400x600 dpi resolution on legal media, but the printer has only 32 MB of RAM instead of the required 88 MB minimum, the file prints at 600x600 dpi.

### Minimum System Memory Requirements—Simplex Only CXE, GXE, EXD

Media Size	300x300/600x600		1200x600		2400x600	
	Mono	4-Color	Mono	4-Color	Mono	4-Color
Letter/A4	32 MB	32 MB	32 MB	44 MB*	32 MB	76 MB*
Legal	32 MB	32 MB	32 MB	52 MB*	32 MB	92 MB**

- » **Note:** These values are for a printer without a hard disk. For a printer with a hard disk installed and disk swapping enabled, add an additional 8 MB of RAM for each media size.

\* Additional memory required on a *magicolor 2+* CXE

\*\*Additional memory required on a *magicolor 2+* CXE and *magicolor 2+* GXE

### Minimum System Memory Requirements—Duplex EXD

Media Size	300x300		600x600		1200x600		2400x600	
	Mono	4-Color	Mono	4-Color	Mono	4-Color	Mono	4-Color
Letter/A4	32 MB	32 MB	32 MB	44 MB	32 MB	76 MB	44 MB	140 MB
Legal	32 MB	32 MB	32 MB	52 MB	32 MB	96 MB	52 MB	172 MB

- » **Note:** For a printer with a hard disk installed and disk swapping enabled, add an additional 8 MB of RAM for each media size.

### Framebuffer Requirements—Duplex at Speed—EXD

Media Size	600x600		1200x600		2400x600	
	Mono	4-Color	Mono	4-Color	Mono	4-Color
Letter/A4	32 MB	60 MB	36 MB	108 MB	60 MB	204 MB
Legal	36 MB	72 MB	42 MB	132 MB	72 MB	252 MB

## High-Resolution Printing

You may also need additional memory (SIMMs) for the following:

- To print complex graphics or complex PostScript documents
- For increased collation performance
- For increased spooling performance

### Setting the Default Resolution

<b>Menu</b>	Administration/Engine/Def Resolution
<b>Choices</b>	300 dpi—300x300 dpi resolution 600 dpi—600x600 dpi resolution 1200 dpi—1200x600 dpi resolution 2400 dpi—2400x600 dpi resolution
<b>Default</b>	600 dpi, 1200 dpi, or 2400 dpi—your printer's default is the highest resolution available for the amount of RAM installed in the printer (see "Minimum System Memory Requirements—Simplex Only CXE, GXE, EXD" on page 4-3 and "Minimum System Memory Requirements—Duplex EXD" on page 4-3 for more information).
<b>Notes</b>	<p>Whenever possible, set the print resolution through your application. If the print resolution can't be set through the application, you can set it through the configuration menu, the printer driver, or QMS Document Option Commands (DOCs).</p> <p>If you want the printer to use a lower default resolution when you restore defaults, set this option to your choice (and make any other necessary configuration settings), and then use the Administration/Miscellaneous/Save Defaults menu to save your custom defaults. See "Working with Custom Configurations" in chapter 4, "Printer Configuration," of the <i>Reference</i> manual for more information.</p> <p>In addition, after you lower the default resolution, you should reconfigure the printer memory (Administration/Memory/Quick Config menu) to distribute it better for that particular resolution. For example, if you set the default resolution to 600 dpi when your printer has enough memory to print at 2400 dpi, the frame buffer remains configured for 2400 dpi, which means that printer memory that could be better used somewhere else is being wasted.</p>

# Printing PDF Files

Your *magicolor 2+* has the ability to print PDF files directly just as it does for PostScript and PCL files. This can be a time-saving feature. Direct printing removes the need to open the file in an application, such as Acrobat Reader, then print the file via a PostScript or PCL driver. Your QMS *magicolor 2+* supports PDF version 1.2 and below.

The PDF file can be sent to the printer using any method (lpr, ftp, etc.) that is normally used to print PostScript or PCL files.

## Adjusting Memory Clients for PDF Printing

The unique structure of PDF files requires that you make some adjustments to your printer's default memory clients. All PDF files contain information at the end of the files that is needed to correctly format them in the printer. Because of this, the entire file must be spooled into the printer before it can be interpreted. In order to spool the entire job into the printer, the Host Input (Spool) memory client may need to be adjusted.

To determine the required size for the Host Input memory client, you first need to estimate the maximum file size of the PDF files that you will be printing. Once you have determined the maximum file size, add 10% to this number and this becomes your required Host Input memory size. In the event that you experience problems, you may want to increase the Host Input memory size further.

The maximum size of PDF files which may be printed on the *magicolor 2+* is determined by the amount of installed memory, including RAM and an internal hard disk. Adding additional RAM memory or an internal hard disk will allow you to print larger PDF files. However, we recommend an internal hard disk for optimum performance when printing large PDF files.

Refer to "Memory," in chapter 5 of the *Reference* manual on how to adjust the memory clients.

## Print Preformatted Files Using CrownView

Your *magicolor 2+* also provides a utility via the CrownView web page for printing PDF files directly from the host using the browser. Users will be presented with a Browse button that, when selected, will enable a file chooser on the host. Users then select the file that they want to send to the printer, and the file is transferred and printed.

## Cassette Chaining

This file must be in a format that can be interpreted by the printer. This requires Internet Explorer 4.x or Netscape 3.x or higher.

- » **Note:** *The Browse button will not be presented on earlier browsers.*

Once the Browse button is selected, the normal file chooser for the given host platform will be opened. The user then selects the file that he wants to transfer, and selects OK. To transfer the file, the user selects the Send to File button to transfer and print the data. The text can be changed.

Refer to chapter 7, "CrownView Printer Web Page," for more information on how to utilize this feature.

# Cassette Chaining

If you have an optional lower input feeder, you may choose to have the printer automatically draw media from the other cassette (inputbin) when the current cassette empties. This is called cassette chaining, and it provides a total media input capacity of 500 sheets.

## Enabling/Disabling Cassette Chaining

There are several ways to enable/disable cassette chaining:

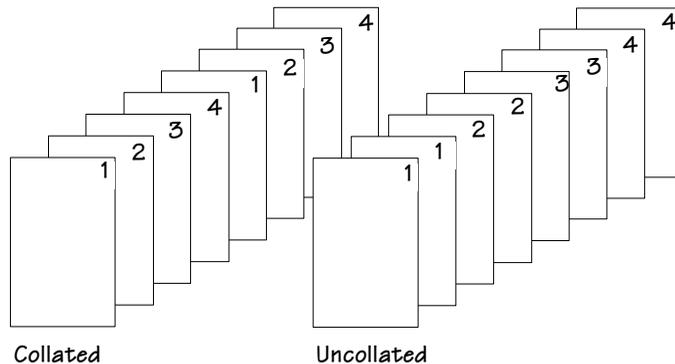
- Use your application. (Check the documentation to see if your application includes a specific procedure for using a dual-cassette printer.)
- Select an alternate cassette for chaining in the QMS Advanced Level 2 Windows printer driver.
- On a network, use CrownAdmin to select the media cassettes and/or the media source.
- Using CrownView via the CrownView operator control screen.
- Configure the printer through the configuration menu.

## Using the Configuration Menu

<b>Menu</b>	Operator Control/Chain Inputbins
<b>Choices</b>	On—Switches to the next cassette with the same size and type of media when the default cassette is empty. Off—Doesn't switch cassettes; uses only the default cassette.
<b>Default</b>	On
<b>Notes</b>	Use the Operator Control/Inputbin menu to set the default inputbin.

# Collating Output

You can print multiple copies of documents either as complete sets in numeric order (collated) or as separate sheets. The following figure shows collated and uncollated stacking for two copies of a four-page file.



The main advantage of collation is convenience and the time savings derived from not having to separate and sort individual copies of a document. Each copy of the document exists as a whole unless chunk collation has occurred.

## Enabling/Disabling Collation

There are several ways to enable/disable collation:

- Use your application. (Check the documentation to see if your application includes a specific procedure for collating pages.)

## Collating Output

- Select collation in the driver or PPD.
- On a network, use CrownAdmin to select collation.
- Using CrownView via the CrownView operator control screen.
- Configure the printer through the configuration menu.

### Using the Configuration Menu

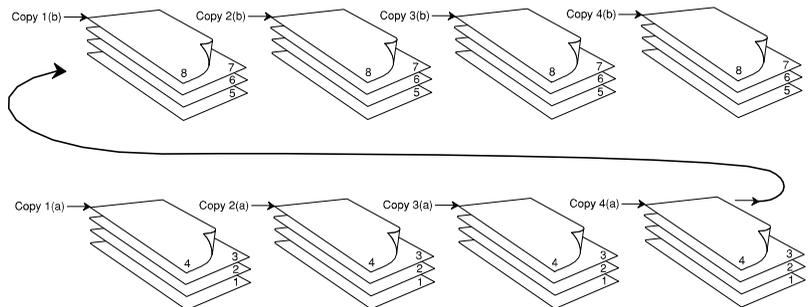
Menu	Operator Control/Collation
Choices	On, Off
Default	Off

## Working with Chunk Collation

For a multiple copy document with collation On, there must be enough display list memory to hold the display list blocks for all pages in the collation range. (For more information on Display List blocks, see “Display List” in chapter 5, “Additional Technical Information,” in the *Reference* manual.) If there’s not enough memory, then a collation boundary is forced after the last compiled page of the collation range.

### Chunk Collation

This mechanism of introducing a forced boundary—or breaking a document down into several smaller, more manageable sets—is known as chunk collation. For example, in the following illustration, copies “a” and “b” of each set must be manually combined to create one collated document. The order of printing is copy 1(a), copy 2(a), copy 3(a), copy 4(a), copy 1(b), copy 2(b), copy 3(b), and copy 4(b).



## Improving Collation Performance

To avoid chunk collation, your printer must have sufficient memory to store an entire document before printing begins. Of course, this always depends on the complexity of your print job versus the amount of available memory in your printer. To improve collation, increase the Display List memory client or reduce the resolution of the print job.

To improve collation performance, which allows you to collate longer and more complex print jobs on your printer, you can do one of the following:

- Add more printer memory, which automatically increases the display list client's memory settings.
- Take any memory not being used by other clients, and add it to the Administration/Memory/Manual Config K Mem Display memory setting.

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◆ **Caution:** *Use this option only if you're familiar with adjusting memory clients' values. (Refer to chapter 4, "Printer Configuration," in the Reference manual for information.) Incorrect use of this option could cause your system to operate incorrectly.*

---

- If your printer has an optional hard disk, set the Administration/Memory/Enable Disk Swap menu to On. This distributes any extra memory to all clients.
- Collate through your application.

» **Note:** *Collating through your application is more time consuming than collating through the printer. The application sends the complete job the requested number of times rather than sending it once and holding data in printer memory.*

# Duplex (2-Sided) Printing

Select paper with high opacity for duplex printing. Opacity refers to how effectively paper blocks out what is written on the opposite side of the page. If the paper has low opacity (high transparency), then the printed data from one side of the page will show through to the other side. For best results, print a small quantity to make sure the opacity is acceptable.

## CXE, GXE—Manual Duplexing

While the QMS *magicolor* 2+ CXE and GXE don't have an automatic duplexing option, you can duplex print manually: Print on one side of the paper, reinsert the printed sheet(s) into the media cassette (blank side up and the top of the page toward the back of the printer), and then print the second side.

- » **Note:** *Media jams may occur if the printed sheet(s) reinserted in the media cassette are not entirely flat.*

## EXD—Auto Duplexing

2-sided (duplex) printing can be done automatically with the QMS *magicolor* 2+ EXD. There is no need to manually reinsert the paper.

Plain paper and limited thick stock up to 28 lb bond (105 g/m<sup>2</sup>) can be auto duplexed. For heavier weights, manual duplexing is recommended.

In the printer driver (Job tab, Duplex Options), select Long Edge (flipped horizontally as in a loose-leaf notebook) or Short Edge (flipped vertically as on a clipboard).

- » **Note:** *Duplexed letterhead must be loaded face-down with the top of the media (the letterhead or memo information) toward the front of the cassette.*

# Printing on Standard and Custom Media Sizes

The QMS *magicolor* 2+ prints on a wide variety of media sizes. However, the way you identify the size to the printer varies:

- **Standard “sensed” media sizes**—The printer automatically senses seven media sizes—A4, B5 JIS, Com 10\*, Executive, Foolscap, Legal, and Letter. To print on these media sizes, you need to do no more than load the media in the cassette.
  - **Standard “non-sensed” media sizes**—The printer can print on seven media sizes—A5\*, B5 ISO, DL Envelope\*, Folio, SP Folio, Statement\*, UK Quarto—that it can’t automatically sense. To print on these media sizes, you must load the media in the cassette and then choose the appropriate size from either the Operator Control/Custom Bin/Upper or Operator Control/Custom Bin/Optional menu.
  - **Nonstandard “non-sensed” media sizes**—The printer can also print on nonstandard media sizes up to 8.5" x 13.8" (215.9 x 350.5 mm). To print on these media sizes, you must load the media in the universal cassette, choose Universal from the Operator Control/Custom Bin/Upper or Operator Control/Custom Bin/Optional menu, and then identify the media size in your application.
- » **Note:** *If you preview your file in your application, the dimensions of the Universal media size rather than your custom size will be shown in the preview window, and your document will be imaged in the lower-left corner of this media size. You must manually move the margins in from the left and right as well as up from the bottom to define the correct imageable area for your custom media size.*

## Working with Status Pages

### Identifying a Status Page Type

<b>Menu</b>	Administration/Special Pages/Status Page Type
<b>Choices</b>	Standard, Advanced
<b>Default</b>	Standard

\* This media size can be printed only from a cassette installed in the upper/standard position.

## **Standard**

This one-page document provides

- Printer identification (the printer's name, serial number, firmware information, and number of sheets/faces printed during the life of the printer)
- » **Note:** *The number of sheets/faces statistics differ from the number of sheets printed statistics in CrownView and the consumables statistics page (Operator Control/Consumables/Print Statistics), which refer to the number of sheets/faces printed to date during the current consumables tracking period (Administration/Consumables/Start Period menu).*
- Printer settings (printer setup options for paper handling)
- Current memory configuration (printer memory settings)
- Timeouts (printer timeout settings)
- Communication settings and input buffer sizes (host-printer communication settings, including spooling memory sizes)
- Tickmarks in the lower-left corner for image alignment

## **Advanced**

This multipage document provides

- All the information from the standard status page
- The configuration menu settings
- A full list of fonts and downloaded emulations

## **Printing a Status Page**

<b>Menu</b>	Administration/Special Pages/Print Status
<b>Choices</b>	No, Yes
<b>Default</b>	Yes

# Cancelling/Ending Print Jobs

The Cancel key has three functions:

- It cancels the oldest print job in the system.
- It cancels all jobs with a printing, interpreting, terminating, or spooled status.
- It allows you to send an end-of-job indicator to a currently compiling print job waiting on incoming data.

You don't have to press the Online key before using the Cancel key.

## Cancelling a Print Job

Press this key...	to...	The message window reads...
<b>Cancel</b>	Access the Job Cancel menu.	JOB CANCEL CANCEL JOB
<b>Cancel</b> or <b>Select</b>	Cancel the oldest job in the queue.	CANCEL JOB IS SELECTED

## Cancelling all Print Jobs

Press this key...	to...	The message window reads...
<b>Cancel</b>	Access the Job Cancel menu.	JOB CANCEL CANCEL JOB
<b>Next (twice)</b>	Advances to the Cancel All Jobs mode.	JOB CANCEL CANCEL ALL JOBS
<b>Cancel</b> or <b>Select</b>	Cancel all jobs with a printing, interpreting, spooled, or terminating status. The CANCEL ALL JOBS message displays until all print jobs are completely removed.	CANCEL ALL JOBS IS SELECTED

## What's Next?

### Ending a Print Job

Use this procedure when you are sure the job has finished being sent from the host and the message window displays

```
WAITING ON INPUT
END JOB?
```

- » **Note:** *This procedure does not end print jobs that are still receiving data. Its only purpose is to provide an end-of-job indicator for a print job that does not have one. You can identify an end-of-job indicator in the Administration/Communications/Parallel and Administration/Communications/Serial menu. (Refer to chapter 5, "Additional Technical Information," in the Reference Manual for a complete discussion of End Job Mode.*

Press this key...	to...	The message window reads...
Cancel	Access the Job Cancel menu.	JOB CANCEL CANCEL JOB
Next (twice)	Advance to the End Job mode.	JOB CANCEL END JOB
Cancel or Select	Select End Job.	END JOB IS SELECTED

## What's Next?

Chapter 5, "Color Printing," explains advanced color laser technology.



# 5

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## Color Printing

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### **In This Chapter . . .**

- “Introduction” on page 5-2
- “QMS QCOLOR Technology” on page 5-2
- “Printer Drivers” on page 5-10
- “Downloading Custom Profiles” on page 5-22



# Introduction

Your QMS *magicolor 2+* Print System features advanced color laser technology that produces inexpensive and durable color prints at 300x300, 600x600, 1200x600, and 2400x600 dpi on plain paper, envelopes, glossy stock, labels, thick stock, transfer media, and transparencies.

## Color Management and Control

Color management has always been a source of contention for graphic designers and publishers who rely on precise color to portray proofs and designs. These color experts want to predictably control and fine tune output color to suit personal and client needs. On the other hand, novice color users don't want to hassle with cumbersome color control devices just to get color output that matches what they see on their screen.

The QMS *magicolor 2+* Print System was designed with both sectors in mind—offering a host of color screening, matching, and calibration tools for both the beginner and professional color user.

## QMS QCOLOR Technology

Color management does not mean all devices will match exactly. It does ensure the closest possible color transformation. QMS QCOLOR technology offers four methods for color matching across devices:

- QMS QCOLOR automatic color correction
- Supplied ICC printer profiles
- Built-in color rendering dictionaries (CRDs)
- Supplied PANTONE®\* Color simulation tables

QMS QCOLOR technology takes the guesswork out of color reproduction by automatically optimizing color output. Now even a novice can produce professional quality, colorized documents without the use of sophisticated manual optimization techniques.

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\* PANTONE® and other Pantone, Inc. trademarks are the property of Pantone, Inc.

QMS QCOLOR is comprised primarily of these built-in and software-supported color control features:

- QMS QCOLOR automatic color correction (printer-resident ICC color matching)
- Built-in color rendering dictionaries
- Host-based ICC color matching profiles
- PANTONE® Color simulation tables
- Color calibration
- Colorific monitor calibration
- QMS ColorDepth screening technology

To help you optimize color output, QMS developed QCOLOR, which provides automatic or custom color control. QCOLOR dynamically configures the QMS *magicolor 2+* for the best output quality based on the contents of the document and the media on which it will be printed. QCOLOR matching capabilities include automatic color correction, CIE-based (*Commission Internationale de l'Éclairage*, the International Commission on Illumination) color matching, PANTONE Color simulation, ICM (Image Color Matching) 2.0, and ColorSync 2.x support by means of ICC (International Color Consortium) 3.2-compliant printer profiles.

## **QMS QCOLOR Automatic Color Correction**

QMS QCOLOR automatic color correction (printer-resident ICC color matching) is an ICC color management system built into the QMS *magicolor 2+*. Its color matching method (CMM) functions similarly to ColorSync—color management software developed by Apple.

QMS QCOLOR automatic color correction accepts source (monitor) and destination (printer or press) device profiles in the ICC format, then uses these profiles to perform color space transformations.

The QMS *magicolor 2+* ships with built-in profiles for matching common RGB types, such as sRGB, Trinitron G1.8 D550, PrePress, and Apple RGB. Press profiles such as SWOP, Eurocolor, InkJet Proofer, and Commercial are also included for simulating press output. ICC-compliant profiles for other monitors or output devices may be downloaded to disk for custom color matching.

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<sup>†</sup> PANTONE® and other Pantone, Inc. trademarks are the property of Pantone, Inc.

The following is a summary of QMS QCOLOR automatic color correction features:

- **Ease of use across applications:** With QMS QCOLOR, it's as easy to get great color from a PowerPoint presentation as it is from a desktop publishing application, such as QuarkXPress. QMS QCOLOR's color matching methods are simple for both novice and professional color users to navigate.
- **Single-button control:** Whether accessing through the printer driver, or from the printer's front panel, QMS QCOLOR's single-button controls enable automatic correction of uncalibrated RGB or CMYK color files.
- **Printer-resident CMS:** Because QMS QCOLOR automatic color correction is built into the printer, it works well in all computing environments and with most design, publishing, and office applications.
- **Industry-standard profiles:** QCOLOR uses industry-standard ICC profiles for compatibility with popular input and output devices.
- **Supports host-based color management systems:** Easily disable QMS QCOLOR automatic color correction when using host-based ColorSync or ICM color matching.
- **Profiles for common monitors and output devices:** QMS QCOLOR offers default color matching for a variety of common monitors and printing presses.
- **Download device profiles:** For custom color matching, QCOLOR supports downloaded (to disk only) ICC profiles.
- **Support for Internet standard:** QMS QCOLOR uses sRGB for Internet-standard default color matching.
- **Individual page element correction:** QCOLOR separately color corrects (matches) graphics, text, and images on a single page using printer-resident CRDs.

### **The RGB Source Choices**

Listed below are the choices that you will have within your driver for selecting an RGB Source. Depending on the installed driver and the specific operating system, these choices appear in different places. Use RGB Source to indicate the type of computer monitor for color matching.

- None (no color management)
- sRGB (a common standard color space based on the average performance of PC monitors) also known as standard color space used on the world wide web

- Trinitron G1.8 D50 (listed on the configuration menu as Trin G1.8 D50 or Sony Trinitron)—a widely available CRT found in many monitors
- Apple RGB (Apple 13" Monitor, the default Photoshop setting listed in the configuration menu as Apple 13)
- PrePress (the SMPTE-240M standard), also known as Adobe RGB

### **Simulation Choices**

You will need to set a simulation choice if you intend to utilize the built-in color management system on the *magicolor 2+*. These choices allow the *magicolor 2+* to simulate a target device. The desired device could be another printer, a printing press, or a predetermined printing standard. Listed below are the simulation choices available through the operator control panel or the software driver.

- SWOP (Specifications for Web Offset Publications)
- Eurocolor
- Commercial
- CMYK Display
- InkJet Proofer
- None (no simulation but limits the total area coverage)

Depending on your color matching needs, custom ICC profiles can be downloaded to the *magicolor 2+*. You will need to use the CrownAdmin software provided on the *QMS Software Utilities* CD-ROM. Refer to the CrownAdmin or printer driver's online help.

## **Color Matching with QMS Advanced Level 2**

Your printer's QMS Advanced Level 2 capabilities allow it to accept device-independent CIE color specification directly (in addition to CMYK or RGB color specifications). This means that if you have an application that supports QMS Advanced Level 2 printing (such as Adobe PhotoShop) or if you use the QMS-developed driver for Windows or the *magicolor 2+* PPD for Macintosh, your printer will perform color matching automatically. These drivers work with the printer-resident color rendering dictionaries to match colors.

The advantages of the QMS Advanced Level 2 color matching are that it is portable, it is application- and printer-resident (there's nothing else to buy), and it is performed

at the printer level (so it doesn't tie up your host). However, no on-screen preview of output is provided, and you are not warned if a color is out of printer's gamut (color range).

### **Built-in Color Rendering Dictionaries**

For those who rely on the PostScript page description language for CIE-based color space matching, the QMS *magicolor 2+* has three built-in Color Rendering Dictionaries (CRDs)—Business, Colorimetric, and Photographic to produce printer-calibrated images.

The **Business CRD** simulates colors found on the typical RGB computer display and is intended for use with business graphics. This CRD is best utilized when printing transparencies or documents requiring a high level of color saturation.

The **Colorimetric CRD** can be used for very basic color matching and one-to-one conversion of CIE color to CMYK color. For those colors that cannot be produced on the printer, the closest color the printer can produce is substituted.

The **Photographic CRD** is used for optimizing the quality of photographic images. Colors that are out of the printer's gamut (color range) are replaced with the closest color in gamut. When this substitution is made, other specified colors, whether in the printer's gamut range or not, are adjusted equivalently so that the overall image appearance and contrast is maintained. This technique is known as gamut compression.

- » **Note:** *The default CRD is either the Business, Colorimetric, or Photographic. The printer's default CRD can be changed through the Macintosh and Windows drivers or, if your application requires you to use a non-QMS driver, you can change the CRD at the printer's control panel (Administration/Emulations/PostScript/Color Rendering menu). See chapter 4, "Printer Configuration," of the Reference manual for information on using the control panel.*

### **Host-Based Color Matching**

For creative professionals opting to use a host-based color management system (CMS), QMS provides ICC printer profiles to define the printer's color space to the CMS. These profiles are compatible with all standard color management systems, including Apple ColorSync and Windows ICM.

A few well-known color management systems include Kodak CMS, Pantone® POCE®, Apple ColorSync, Microsoft ICM, Color Solutions ColorBlind, and Linotype-Hell LinoColor. The following are shipped with your printer

- Apple ColorSync/ICC device profiles for 600, 1200, and 2400 dpi
- Windows ICM device profiles for 600, 1200, and 2400 dpi

Instructions for installation and use are included on the *QMS Software Utilities* CD-ROM or on the supplemental color disk provided with the printer.

Here is a list of some applications that support ICC profiles:

- Adobe PageMaker
- Adobe Photoshop
- ColorBlind Edit
- CorelDRAW 7 and 8
- LivePicture
- QuarkXPress

OS CMSs include

- ColorSync 2.x (Macintosh)
- ICM 2.0 (Windows)

Application-level CMSs include

- Kodak CMS
- ColorSolution ColorBlind Parachute
- Pantone POCE®

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<sup>1</sup> PANTONE® and other Pantone, Inc. trademarks are the property of Pantone, Inc.

## **PANTONE®\* Color Simulation Tables**

Another method of color matching supported by the QMS *magicolor 2+* via QMS QCOLOR technology is PANTONE.

PANTONE, a standard color system within the graphic arts and prepress industry, specifies hundreds of spot colors, each identified by a unique number.

Each PANTONE Color can be simulated on a printer with the specific CMYK data provided by Pantone, Inc. for optimal representation of PANTONE Colors.

Within a supporting application, the desired PANTONE Color number and the corresponding CMYK value are accessed from a look-up table for the printer. QMS provides PANTONE Color look-up (or simulation) tables for supporting popular design and publishing applications:

<b>Supported Design and Publishing Applications</b>		
CorelDRAW	Illustrator	PageMaker
FreeHand	Micrografx Designer	Photoshop
		QuarkXPress

If a particular application does not support PANTONE® Colors, but does allow process color specification, the CMYK values may be entered directly. The QMS *magicolor 2+* ships with software on the *QMS Software Utilities* CD-ROM to print a complete set of PANTONE Charts with the appropriate CMYK values.

The advantages of using PANTONE as a color simulation system is it is very easy to use, is widely supported, and is great for spot color.

## **Color Calibration**

Another area of color control of particular concern to designers, publishers, and printers is color calibration. For these graphics professionals, it is important to maintain consistent and stable toner densities from day to day, and from one supply change to the next, to ensure predictable color.

QMS offers an alternative method for color-calibrating the QMS *magicolor 2+*: optional instrument-based calibration software—ColorEncore. Owners of the QMS *magicolor*

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2+ can purchase this optional host-based software, Southwest Software's Color-Encore for *magicolor* printers, that requires the use of a densitometer (not included) to perform calibration. Refer to ColorEncore's software documentation for installation and usage.

Once installed, users simply print a target page from the software application and measure the page with the densitometer. The measurement results are used by the software application to return the QMS *magicolor 2+*'s primary toner densities to factory levels.

To calibrate the *magicolor 2+*, select the *magicolor 2* calibration sets in ColorEncore.

## **Colorific**

Colorific is monitor calibration software that ships with the *magicolor 2+*. This software, which is available for both Windows and Macintosh operating systems, allows you to calibrate your monitor to a standard monitor profile that is supported by the CMM built into the *magicolor 2+*. For best monitor to printer color matching, Colorific software must be used to calibrate the monitor. Once the monitor is calibrated, the printer's built-in ICC color matching, when set to sRGB source data, ensures that printed output matches the monitor. For more information concerning the use of the Colorific software, refer to the instructions that were provided on the *QMS Software and Utilities* CD-ROM.

## **QMS ColorDepth Screening Technology**

Line screening and halftones are factors that highly influence color image rendering. In conventional printing, color images are composed of tightly arranged dots (or halftones) that are spaced in a regular pattern and appear solid to the eye. Tonal changes are made by changing the size, or amplitude, of each dot. This technique is known as Amplitude Modulation, or AM screening.

QMS QCOLOR provides a preset AM halftone setting, referred to as QMS ColorDepth. ColorDepth is designed to eliminate rosette and moiré patterns, (or steps) in color gradations by increasing the total number of gray levels (color shades) available in the printer. It also resolves many problems associated with traditional color screening. QMS QCOLOR screening can provide the equivalent of approximately 120 shades per primary color at 600 dpi—for a total of 1.7 million colors. At 1200 dpi, ColorDepth provides approximately 200 shades per primary color for contone-quality images.

# Printer Drivers

Printer drivers offer a convenient, graphical interface for selecting document output attributes. QMS has developed its own series of drivers, compatible with several major operating systems, that make the full functionality of the QMS *magicolor 2+* available with a click of a mouse.

- QMS Advanced Level 2 PostScript driver for Windows 95/98
- QMS Advanced Level 2 PostScript driver for Windows NT 4.0

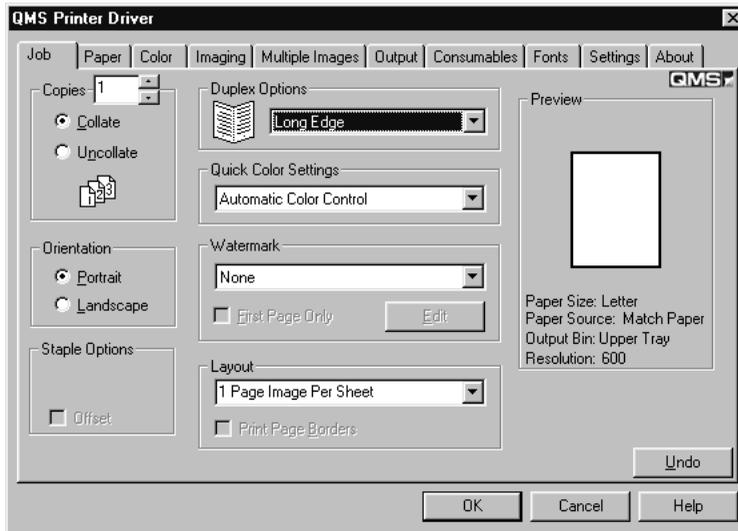
The QMS *magicolor 2+* also supports the following host operating environments by providing a QMS Advanced Level 2 PPD (PostScript Printer Description) file to use in conjunction with the PostScript driver supplied by the operating system manufacturer:

- Microsoft Windows 95/98
- Microsoft Windows NT 3.51/4.0
- Macintosh System 7.5.5, and 8.x (LaserWriter 8.x)
- Microsoft Windows 3.1 WPDs.

## Accessing Color Matching for Windows 95/98

- 1 If you haven't already, install the QMS Advanced Level 2 Windows driver.
- 2 Open or create the file you want to print.
- 3 From the File menu, choose Print Setup or Print.
- 4 In the Print Setup dialog box, make sure QMS *magicolor 2+* is selected, then choose the Options or Properties button.

- 5 On the Job tab (Windows 95) (example below) or Paper tab (Windows 98) you will be presented with 11 choices for Quick Color Settings.



The choices are

- Automatic Color Control
- Disable Printer Color Matching
- Internal ICC Color Matching (RGB, CMYK)
- SWOP Simulation (CMYK)
- Eurocolor (CMYK)
- Commercial Press Simulation (CMYK)
- Photographic (RGB w/CRD)
- Business Graphics (RGB w/CRD)
- Text and Spot Color (RGB w/CRD)
- Color as Grayscale
- Color as All Black

- 6 Depending on your printing needs, you must select **Automatic Color Control** or one of the other selections listed above on the driver's **Color** tab to set your color configuration.
- » **Note:** *The only way to control color is through the Color tab in the driver. Then your choice will be displayed on the Job tab (Windows 95) or Paper tab (Windows 98).*

These next sections explain some of the settings in the driver.

### Quick/Custom Configuration

This setting will allow you to choose preset configurations or you can set your own custom configurations which you have the option to save within the driver. Listed below are the user-selectable settings for the Quick/Custom Configuration for Color Matching.

- **Automatic Color Control**—provides best all-around color matching for most documents
- **Disable Printer Color Matching**—allows for host-based color management
- **Internal ICC Color Matching (RGB, CMYK)**—provides ICC-based color matching with RGB Source set to sRGB and CMYK Simulation set to None
- **SWOP Simulation (CMYK)**—provides ICC-based color matching with RGB Source set to sRGB and CMYK Simulation set to SWOP
- **Eurocolor Simulation (CMYK)**—provides ICC-based color matching with with RGB Source set to sRGB and CMYK Simulation set to Eurocolor
- **Commercial Press Simulation**—provides ICC-based color matching with RGB Source set to sRGB and CMYK Simulation set to Commercial Press Simulation
- **Photographic (RGB w/CRD)**—provides PostScript-based color matching using CRDs for CIE RGB objects with a photographic/perceptual intent
- **Business Graphics (RGB w/CRD)**—provides PostScript-based color matching using CRDs for CIE RGB objects with a graphics intent
- **Text and Spot Color (RGB w/CRD)**—provides PostScript-based color matching using CRDs for CIE RGB objects with an emphasis on text objects

- **Color as Grayscale**—prints all colors as a grayscale
- **Color as All Black**—prints all colored objects as black

If you configure different CRDs or a different color space, you will need to save those custom settings. Click Save and you will be prompted to name your new custom configuration. Be sure to set the Quick Color Setup under the Job tab to Custom so that your settings will take effect.

### Automatic Color Control

Automatic Color Control is the best option for most jobs, because it's designed to provide the best color output for a large variety of documents. However, if the automatic setting doesn't provide satisfactory color output for a particular page element or document type, then go to the Color tab where more specific settings can be made.

- » **Note:** *For the Windows 95/98 QMS Advanced Level 2 driver, Automatic Color Control is the default setting in the driver. If you print using the default driver settings, printer-resident ICC color matching will be enabled. Select Automatic Color Control for color matching with Colorific software.*

### Color Separations

This setting allows a full color job to be separated into four color process output. If a job is sent to the printer that contains CMYK information and this setting is on, the printer will separate the cyan, magenta, yellow, and black pages. The default setting for Color Separations is off.

### Use Internal ICC Color Matching

The *magicolor 2+*'s built-in ICC color matching is always active. Listed below are the user-selectable settings that allow precise color management for your particular application or predetermined color management workflow.

### RGB Source

The choices for RGB Source are None, sRGB, Trinitron G1.8D50, Apple RGB, PrePress, and Printer Default.

When Internal ICC Color Matching is selected, the RGB Source has to be set from the above list or you have the option of creating your own custom RGB Source profile with the Colorific software that was included with your *magicolor 2+*. See the Colorific README file located on the *QMS Software Utilities* CD-ROM for more details on how to create and load a customer RGB Source profile.

- » **Note:** *The default setting for RGB Source is set to sRGB.*

### **Simulation**

The choices for Simulation are SWOP, Eurocolor, Commercial, CMYK Display, Inkjet Proofer, None, and Printer Default.

When Internal ICC Color Matching is selected, the Simulation can be set from the above list to allow the *magicolor 2+* to simulate another color output device's color space, such as SWOP or Eurocolor.

- » **Note:** *The default setting for Simulation is set to None which provides the optimum output quality of the magicolor 2+.*

### **Use CRD Color Matching**

Another selectable option for the *magicolor 2+*'s built-in color matching. Listed below are the user-selectable settings when you click on the Configure button next to Use CRD Color Matching.

- Images
- Graphics
- Text

You will be able to select Business, Colorimetric, Printer Default or the Photographic CRD for Images, Graphics, or Text. The default CRD for Images and Graphics is Photographic, and for and Text the default CRD is Business.

### **CRD Color Space**

You are able to select a CRD Color Space within the Use CRD Color Matching on the Color tab. Click on Configure and you will be able to select Device RGB, sRGB, Trinitron G1.8D50, Apple RGB, Printer Default, or PrePress as a CRD Color Space. The default setting for CRD Color Space is Device RGB.

You can also load custom CRD Color Space profiles from this option. The README file for Colorific and CrownAdmin explain how to load custom CRD color spaces.

## **Accessing Color Matching for Microsoft Windows NT 4.0**

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- 1 If you haven't already, install the QMS NT Windows driver.

- 2 Open or create the file you want to print.
- 3 From the File menu, choose Print Setup or Print. You can also right mouse click the driver and select Document Defaults.
- 4 You will be presented with two tabs, Page Setup and Advanced. Click on the Advanced tab to view the tree structure. Select Document Options, then Printer Features to view color options. Listed below are the color features available for the *magicolor 2+*.
  - Color Model
  - Color Rendering Dictionaries
  - ICC Color Matching

### **Color Model**

There are two color models the user can select from:

- Color
- Monochrome

Color is the default setting for the *magicolor 2+* and allows, as the name implies, full color printing. The Monochrome setting allows 8-bit black and white printing.

### **Color Rendering Dictionaries**

From the tree structure, you will be able to select a CRD. You may choose from Photographic, Business, and Colorimetric. This feature is on by default for the Windows NT driver. Listed below are the user-selectable settings from the tree structure for the Color Rendering Dictionaries.

- Text
- Line Art
- Images

The halftone setting for Text, Line Art, and Images is enhanced. You will be able to select Business, Colorimetric, or the Photographic CRD for Images, Line Art or Text. The default CRD for Images and Line Art is Photographic and for Text the default CRD is Business.

### ICC Color Matching

If ICC Color Matching is enabled you can set an ICC RGB Source and the ICC Simulation. ICC Color Matching is on by default for the Windows NT driver.

### ICC RGB Source

The choices are None, sRGB, Trinitron G1.8 D50, Apple RGB, PrePress, Custom 1, Custom 2, Custom 3, and Printer Default.

When Internal ICC Color Matching is selected, the RGB Source has to be set from the above list or you have the option of creating your own custom RGB Source profile with the Colorific software that was included with your *magicolor 2+*. Please see the Colorific README file located on the *QMS Software Utilities* CD-ROM for more details on how to create and load a customer RGB Source profile.

- » **Note:** *The default setting for RGB Source is set to sRGB*

### Simulation

The choices are None, SWOP, Inkjet Proofer, Eurocolor, CMYK Display, Commercial, Custom 1, Custom 2, Custom 3, and Printer Default.

When Internal ICC Color Matching is selected, the Simulation can be set from the above list to allow the *magicolor 2+* to simulate another color output device's color space, such as SWOP or Eurocolor.

- » **Note:** *The default setting for Simulation is set to None.*

## Procedure for Creating and Saving a Custom Color Configuration for Microsoft NT 4.0

Depending on what driver you have selected (third-party driver or the QMS driver), you will have different options for custom configuration that will appear in the driver's print window.

### WPDs

Depending on your version of Windows and your printing environment, you may encounter printing problems with the Windows driver. If so, use Microsoft's Windows driver with the Windows Printer Description (WPD) file.

WPD files are analogous to PPD files. They are configuration files used to indicate to a print manager (driver) the capabilities of the printer described by the file. A major difference between a WPD file and a PPD file is that a PPD file is "human-readable"; it consists of actual ASCII text that you can look through and understand (if you speak PostScript). A WPD file is "compiled." It is in a binary form that is only for use with the Windows 3.x PostScript driver. To install the WPD:

**1 In the Start menu, choose the Control Panel icon.**

**2 Choose the Printers icon.**

The Printers dialog box opens and displays the list of installed printers. If no printer is installed, the dialog box expands downward to display a list of printers available to Windows 95/98. If the dialog box is already expanded, skip to step 5.

**3 Click the Add button.**

**4 In the List of Printers box, select Install Unlisted or Updated Printer.**

**5 Click on the Install button and another dialog box appears, asking for the disk that has the unlisted or updated driver file on it.**

**6 Insert the QMS *Software Utilities* CD-ROM.**

**7 Type**

`x:\platform\windows\wpd3x`

(where x is the drive in which you inserted the CD-ROM) or use the Browse option to select that same path.

### 8 Choose OK.

You should see a list of available QMS printers.

### 9 Select the QMS printer that you are installing the WPD driver for and choose OK.

Windows may or may not ask for the updated driver, depending on what has already been installed. If it does not ask for an updated driver, the QMS printer that you selected will appear in the list of installed printer.

## Accessing Color Matching for Macintosh

You will find that the *magicolor 2+* provides an array of robust color matching options that allows the user to custom tailor a specific color matching setup for his or her particular needs. Below is the list of color matching options available for Macintosh.

- ColorSync Color Matching
- Printer-Resident ICC Color Matching
- QMS Advanced Level 2 Color Matching

Since the *magicolor 2+* offers multiple color matching options, remember that only one color management system can “drive” the printer at a time. Please read the following sections thoroughly to ensure that you understand how to select each of these color matching options.

### ColorSync Color Matching

ColorSync is host-based color matching software that is provided by Apple. Current versions of the Macintosh system software install and support the ColorSync color matching software. To determine if you have this software installed on your Macintosh, check the Control Panels folder in the Apple menu. If you need to install ColorSync, locate your Macintosh System Software CD-ROM and run the Installer.

To invoke ColorSync color matching you will need to perform the following steps:

- 1 **Make sure you've installed the *magicolor 2+* PPD and you have the *magicolor 2+* ICC profiles installed correctly on your Macintosh. If you have not, locate the *QMS Software Utilities* CD-ROM that shipped with your printer and install these first.**

- 2 Prepare your document for color printing and access the Print dialog box by selecting Print.. from the File menu. Once you are in the main print dialog box, select Color Matching from the General pop-up menu.
- 3 You will be presented with three pop-up menus once you are in the Color Matching section. Listed below are the three menus.
  - Print Color
  - Intent
  - Printer Profile
- 4 You will need to change the Print Color: pop-up menu from Color/Grayscale to ColorSync Color Matching. If this selection is not made, you will not activate ColorSync, even though the software is installed on your Macintosh.
- 5 You will have multiple choices for the Intent: pop-up menu. If you are unsure of what to choose, leave this at the default setting, Auto Selection or refer back to the ColorSync documentation that was included with your Macintosh.
- 6 In the Printer Profile: pop-up menu, you will need to select *magicolor 2+* from the list of printers. If you do not see the *magicolor 2+* listed, then you do not have the ICC profiles installed correctly. With System 8.1, the ICC profiles are stored in the System Folder inside a folder titled, "ColorSync Profiles."
- 7 As stated at the beginning of this section, only one color management system can be active at a time. Access Printer Specific from the General pop-up menu in the print dialog box. Set ICC RGB Source to None, and set ICC Simulation to None.

QMS recommends using ColorSync since most of the popular graphics applications on the market today support this method of color matching, and ColorSync is recognized as the standard for color matching on Macintosh computers.

### **Printer-Resident ICC Color Matching**

In addition to ColorSync, the *magicolor 2+* supports ICC color matching that is built into and performed on the printer. Printer resident matching is faster than host-based color matching (ColorSync) since the calculations for color matching take place on the printer and not the Macintosh.

To invoke the printer resident color matching you will need to perform the following steps:

- 1 Make sure you've installed the *magicolor 2+* PPD and you have the *magicolor 2+* ICC profiles installed correctly on your Macintosh. If you have not, locate the *QMS Software Utilities* CD-ROM that shipped with your printer and install these first.**
- 2 Prepare your document for color printing and access the Print dialog box by selecting Print.. from the File menu. Once you are in the main print dialog box, select Color Matching from the General pop-up menu.**
- 3 You will be presented with three pop-up menus once you are in the Color Matching section. Listed below are the three menus.**
  - Print Color
  - Intent
  - Printer Profile
- 4 You will need to change the Print Color: pop-up menu from ColorSync Color Matching to Color/Grayscale. If this selection is not made, you will not activate the printer resident color matching.**
- 5 Select Color Options from the General pop-up menu. Set ICC Color Matching to Enabled. Listed below are the options you will need to set to use the printer resident color matching.**
  - ICC RGB Source
  - ICC Simulation

RGB Source allows you to pick the type of monitor you are using. Normally you will select Apple RGB since this is a common profile for most Macintosh monitors. The ICC Simulation choice will allow you to simulate another color output device's color space, such as SWOP or Eurocolor. Leave the ICC Simulation setting at None if you do not want to simulate another printer.

PrePress users are allowed to download their own custom ICC profiles via CrownAdmin software located on the *QMS Software Utilities* CD-ROM. These custom ICC profiles are activated by selecting Custom1, Custom2, and Custom3 from the ICC RGB Source or the ICC Simulation pop-up menus. These are only available once profiles have been successfully downloaded to the printer.

## QMS Advanced Level 2 Color Matching

The third and final color matching option for the *magicolor 2+* is obtained by utilizing the QMS Advanced Level 2 functions available through the LaserWriter driver. QMS Advanced Level 2 color matching allows the user to access the printer's Color Rendering Dictionaries, commonly known as CRDs. Listed below are the steps required to activate QMS Advanced Level 2 color matching.

- 1 **Make sure you've installed the *magicolor 2+* PPD and you have the *magicolor 2+* ICC profiles installed correctly on your Macintosh. If you have not, locate the *QMS Software Utilities* CD-ROM that shipped with your printer and install these first.**
- 2 **Prepare your document for color printing and access the Print dialog box by selecting Print.. from the File menu. Once you are in the main print dialog box, select Color Matching from the General pop-up menu.**
- 3 **You will be presented with three pop-up menus once you are in the Color Matching section. Listed below are the three menus.**
  - Print Color
  - Intent
  - Printer Profile
- 4 **You will need to change the Print Color: pop-up menu from Color/Grayscale to Postscript Color Matching. If this selection is not made, you will not activate the CRDs that are built into the *magicolor 2+* for this type of color matching.**
- 5 **In the Printer Profile: pop-up menu, you will need to select *magicolor 2+* from the list of printers. If you do not see the *magicolor 2+* listed, you do not have the ICC profiles installed correctly. With System 8.1, the ICC profiles are stored in the System Folder within a folder titled ColorSync Profiles.**
- 6 **Select Color Options from the General pop-up menu. Set ICC RGB Source to None, and set ICC Simulation to None. As stated before, only one method can be used for color matching. Listed below are the options you will need to set to use the QMS Advanced Level 2 color matching.**
  - Color Rendering Dictionaries
  - CRD RGB Source

## Downloading Custom Profiles

You have three CRD choices: Photographic, Business, and Colorimetric. Depending on your output need, select an appropriate CRD from this menu.

# Downloading Custom Profiles

With the introduction of the *magicolor 2+*, we have also added a CRD RGB Source selection in the Printer Specific pop-up menu. The CRD RGB Source allows you to pick the type of monitor you are using. Again, you will select Apple RGB since this is a common profile for most Macintosh monitors. This feature will allow a more accurate screen to final output match when using this QMS Advanced Level 2 Color Matching option.

As you have discovered, the *magicolor 2+* provides a variety of color matching options that allows you to custom tailor a specific color matching setup for your particular needs.

The *magicolor 2+* allows the downloading of custom ICC profiles that will be stored on the printer. These custom profiles can be accessed through a PPD or a QMS-supplied driver on a per-job basis. From the keypad, you can also set a custom profile as the default on the printer. To view the current profiles on the *magicolor 2+*, access Special Pages under the Administration menu and select Yes under CMM Profile Page.

Listed below are the steps for downloading a custom ICC profile to the *magicolor 2+* printer. Your *magicolor 2+* must be an EXD model or a *magicolor 2+* that has an internal hard drive. You can not download profiles to external hard drives.

### 1 After a custom ICC RGB Source or Simulation profile has been created, rename the profile so it can be recognized by the printer.

This renaming is done, so the PPD for Macintosh, Windows 95 PPD, and Windows NT driver can correctly identify the profile.

You must name your custom ICC RGB Source profile either *custrgb1.icc*, *custrgb2.icc*, or *custrgb3.icc*. Listed below is an example of some custom ICC RGB Source profiles and how they would be renamed.

User-Defined Name	<i>magicolor 2+</i> Naming for PPDs
CORLMTL.ICC	<i>custrgb1.icc</i>

MYPROF.ICC	custrgb2.icc
UMAXD50.ICC	custrgb3.icc

- » **Note:** *If you do not rename your files correctly, the magicolor 2+ PPDs can not select the custom profiles. However, you will still be able to download the profiles and use them as a default setting for the RGB Source and Simulation for ICC Color Matching.*
- 2 Once you have renamed your custom ICC RGB Source or Simulation, you will need to used CrownAdmin to download a profile to the *magicolor 2+*.**
  - 3 Locate your *QMS Software Utilities* CD-ROM and install CrownAdmin if necessary. Download the custom profile via CrownAdmin.**
    - Select PS Utilities... from the Printer menu.
    - Under the Download tab select Destination as Other.
    - Select the Local Files... button and specify the ICC profile to download.
    - Click Open.
    - Select Remote Path... and go to USR.
    - Click Select.
  - 4 Verify the destination as **SYS:/USR/\*.\***.**

You might need to type this information in, if it is not present.
  - 5 Select Download to send the custom ICC RGB Source or Simulation profile to the *magicolor 2+*'s internal hard drive.**
  - 6 Verify the SProfile.ps file contains the correct file name.**

You can use a text editor such as Notepad or SimpleText to change the file name listed in the SProfile.ps file.
  - 7 Download the file SProfile.ps to register the profile.**
    - Select PS Utilities... from the Printer menu.
    - Under the Download tab, select Destination as PostScript.
    - Select the Local Files... button and specify the SProfile.ps.
    - Click Open.

## Profiling Your Printer

- Select Remote Path... and go to PostScript.
- Click Select.

To view the current profiles on the *magicolor 2+* access Special Pages under the Administration menu and select Yes under CMM Profile Page.

To utilize your custom profiles, you will need to select Custom 1, Custom 2 or Custom 3 from the RGB Source or the Simulation pop-up menus located under Printer Specific Options in the Print dialog box for Macintosh. In Windows 95, you can utilize your profiles from the Color tab by selecting Configure for ICC Color Matching or selecting Document Defaults in the QMS Windows NT driver.

- » **Note:** *You can only download one custom profile at a time to the magicolor 2+. After each download of a custom ICC profile, be sure to send the SProfile.ps file to ensure that the new custom profile is available for use or restart the magicolor 2+.*

## Profiling Your Printer

The *magicolor 2+* may be profiled using third-party software such as ColorBlind MatchBox. Refer to the vendor's software documentation for installation and usage instructions. Once created, a new ICC profile can be downloaded to the *magicolor 2+* to recharacterize the printer's entire color matching system.

Details for downloading for recharacterization are not included in this manual. These instructions may be found in the Frequently Asked Questions (FAQs) on the QMS website at <http://www.qms.com/support>. Perform a keyword search for "mc2+ and profiling".

These instructions will include the required driver, configuration, and other steps for profiling the *magicolor 2+* printer.

## What's Next?

Chapter 6, "Printer Care," explains how to handle and clean the printer.



# 6

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## Printer Care

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### **In This Chapter . . .**

- “Introduction” on page 6-2
  - “Handling the Printer” on page 6-2
  - “Cleaning the Printer” on page 6-3
  - “Maintenance Schedule” on page 6-20
  - “Replacing the Fuser Oil Bottle and Cleaning Roller” on page 6-24
  - “Replacing the OPC Belt Cartridge” on page 6-28
  - “Replacing the Ozone Filter” on page 6-31
  - “Replacing the Waste Toner Pack” on page 6-32
  - “What’s Next?” on page 6-33
-

# Introduction

This chapter describes how to handle and clean the printer.

Blurred or splotchy prints and paper jams can result from dusty printer parts. Regular cleaning takes only a few minutes and helps ensure print quality. Printer parts that require cleaning are the paper pickup rollers and the outside surface of the printer.

## Handling the Printer

Handle the printer with care to preserve its life. Abuse may cause damage. Keep the following guidelines in mind:

- Do not place anything on the top of the printer.
- If you have an EXD model, always open the duplexer's rear cover before opening the printer's top cover.
- Avoid spraying cleaning solution directly on the printer's surface; the spray could penetrate through the air vents of the printer and damage the internal circuits.
- Be careful when cleaning the inside or removing paper jams, as the fuser assembly and other internal parts become very hot. Open the printer cover, and let the interior of the printer cool before handling the inside of the printer.
- Always close the printer covers 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 open for any length of time, especially in well-lit places; light may damage the OPC belt cartridge.
- Do not open the printer during printing and 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.

- Lift the printer from the bottom only, using the carrying grips under each side corner. Make sure two people are available to lift the printer when moving it.
- Keep the following in mind when storing the printer for an extended period:
  - Unplug the printer.
  - Remove the toner and OPC belt cartridges from inside the printer. After removing the cartridges, return them to their original packaging. If the original packaging is not available, protect the toner cartridges from spilling toner, and protect the OPC belt cartridge from damage and light.
  - See appendix B, “Technical Specifications,” in the *Reference* manual for storage specifications.

## Cleaning the Printer

Paper dust may accumulate inside the printer. This could affect the printer's performance. To prevent any potential problems associated with this, you should clean your printer on a regular basis. You need to clean both the inside and outside of the printer.

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**⚠ WARNING!** *Turn off the printer, unplug the power cord, and disconnect all interface cables before cleaning.*

**⚠ ACHTUNG!** *Ziehen Sie den Netzstecker aus der Steckdose bevor Sie den Drucker reinigen.*

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### Guidelines for Cleaning Inside the Printer

- Either clean the printer before use, or allow a few minutes after unplugging it to allow the fusing unit to cool down.
- Turn off the printer, unplug the power cord, and disconnect all interface cables before cleaning inside the printer.
- 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 covers and the interior of the printer body.
- Use only dry, lint-free cotton cloths or swabs.

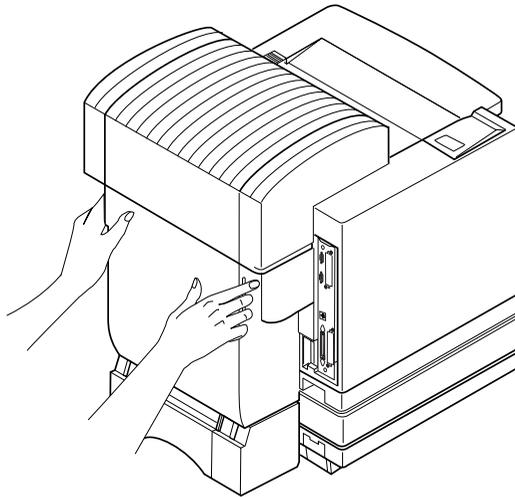
## Cleaning the Printer

- If you have an EXD, always open the duplexer's rear cover before opening the printer's top cover.
- Make sure any parts removed during cleaning are replaced before you plug in the power cord, reconnect the interface cables, and turn on the printer.

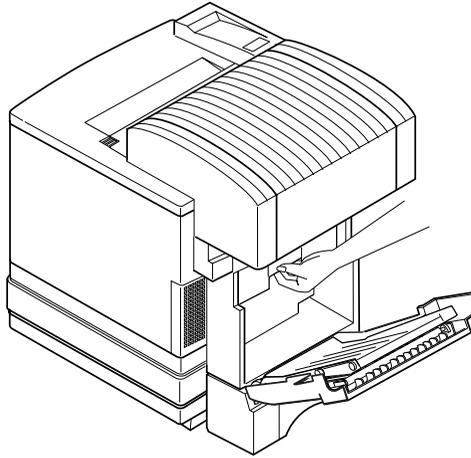
## Cleaning the Transfer Unit

These items in the transfer unit require cleaning:

- Registration rollers
  - Transfer roller
  - Paper discharge
- » **Note:** *A dry cotton cloth and dry cotton swab are required for these procedures.*
- 1 Turn off and unplug the printer.**
  - 2 If you have an EXD model, open the duplexer's rear cover.**  
If not, skip to step 3.

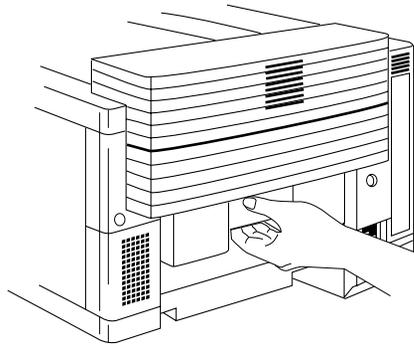


Reach into the duplexer's rear cover to access the printer's rear cover.



### 3 Open the printer's rear cover.

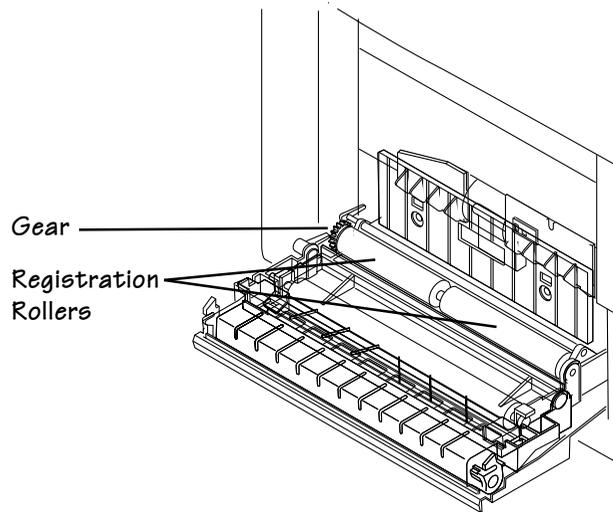
- » **Note:** *The illustrations for steps 3 through 8 show the printer without the duplexer. However, the instructions are the same for all models.*



### 4 Using a dry cotton cloth, clean any paper dust and toner buildup from the registration rollers.

## Cleaning the Printer

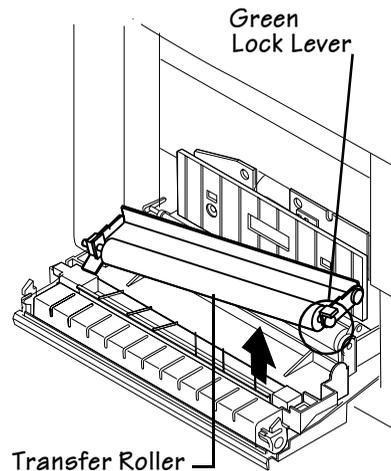
You can manually rotate the rollers while cleaning them by turning the gear on the left end of the roller shaft.



### 5 Clean the transfer roller.

- a Remove the transfer roller unit by lifting the green lock lever at the right end of the transfer roller unit until the unit is freed, and then lifting the unit out.

» **Note:** *Because you cannot see when the unit is released, it's best to lift the unit and the green lock lever at the same time.*



- b Using a dry cotton cloth, clean any paper dust and toner buildup from the transfer roller.

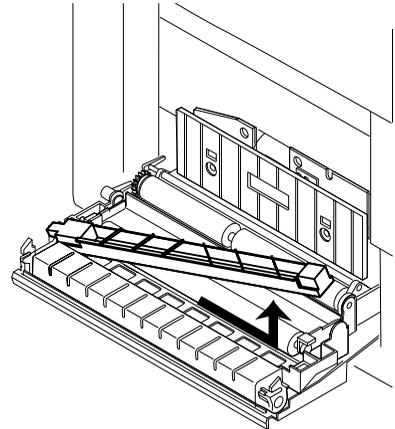
» **Note:** *Manually rotate the roller while cleaning it.*

- c Reinstall the transfer roller in the transfer unit.

### 6 Clean the paper discharger.

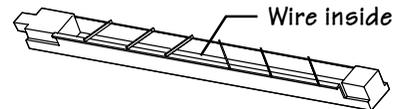
- a Remove the paper discharger by pushing it to the right and then lifting it up and out of the transfer unit. (It comes out after the tabs on the charger have cleared their retainers.)

- b Using a dry cotton cloth, clean any paper dust and toner buildup from the outside of the paper discharger.



- c Using a dry cotton swab, clean any paper dust and toner buildup from the interior of the paper discharger.

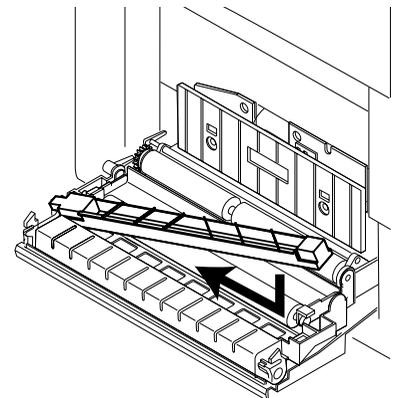
- d Using a dry cotton swab, clean the paper discharger wire.



- e Reinstall the paper discharger in the transfer unit, and then push it down and to the left to lock it in place.

### 7 Clean any paper dust and toner buildup found on the transfer unit itself.

### 8 Close the printer's rear cover.



## Cleaning the Printer

- 9 If you have a duplexer, using a dry cotton cloth, clean any paper dust and toner buildup from the interior of the duplexer.

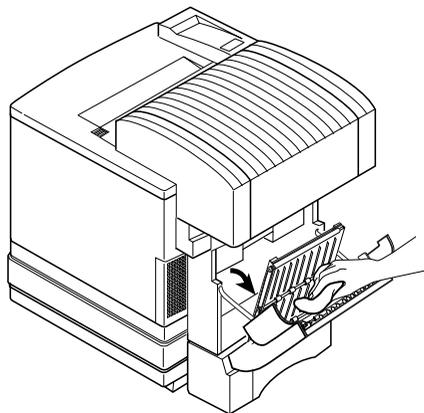


If not, skip to step 17.

- » **Note:** A dry cotton cloth is required for these procedures.

- 10 Tilt the paper path toward the inside of the printer.

Using a dry cotton cloth, clean any paper dust and toner buildup from the interior of the paper path.



- 11 Clean the registration rollers.

- 12 Close the duplexer's rear cover.

- 13 Remove the duplexer's lower rear assembly.

- 14 Using a dry cotton cloth, clean any paper dust and toner buildup from the lower rear assembly and its registration rollers.

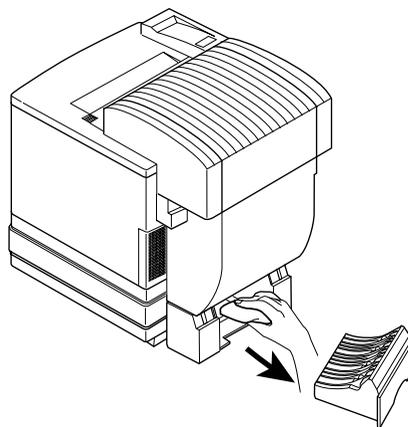


- 15 Reach underneath the printer and clean with a dry cotton cloth.

- 16 Reinsert the duplexer's lower rear assembly.

- 17 Plug in the printer, and turn it on.

- » **Note:** In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."

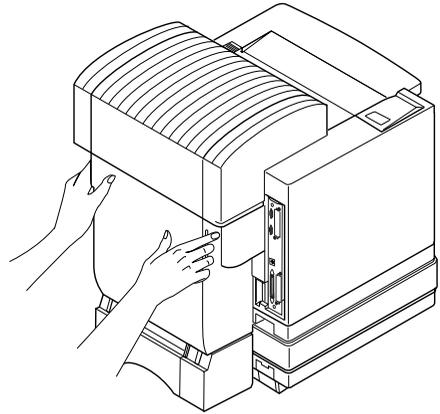


## Cleaning the Paper Exit Rollers

» **Note:** A dry cotton cloth is required for this procedure.

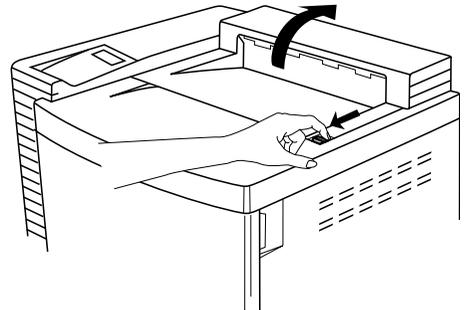
- 1 Turn off and unplug the printer.
- 2 If you have an EXD, open the duplexer's rear cover.

If not, skip to step 3.



- 3 Pull the latch to release the top cover, and then open the cover.

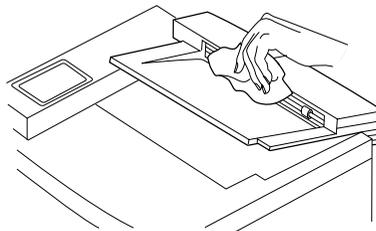
» **Note:** The illustrations for step 3 and step 4 show the printer without the duplexer. However, the instructions are the same for all models.



## Cleaning the Printer

- 4 Using a dry cotton cloth, clean the paper exit rollers.

While manually rotating each paper exit roller, clean each roller.



- 5 Close the printer's top cover.

- 6 If you have a duplexer, close the duplexer's rear cover.

If not, go on to step 7.

- 7 Plug in the printer, and turn it on.

- » **Note:** *In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."*

## Cleaning the OPC Belt Cartridge

- ◆ **Caution:** *The OPC belt is extremely sensitive to touch. Always handle the cartridge so you don't touch the surface of the belt. Any body oil left on the surface of the belt will prevent toner from adhering to the belt which results in poor image quality. Also, keep the cartridge away from anything that may scratch the surface of the belt. Any scratches will show in the image produced.*

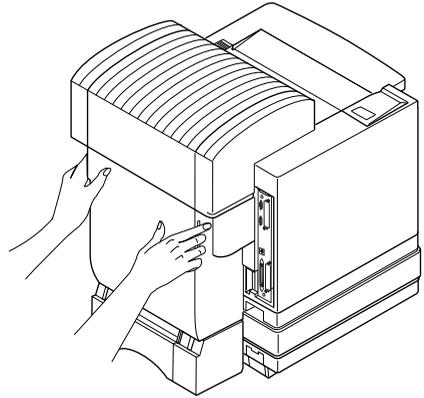
*The OPC belt is also extremely sensitive to bright light and direct sunlight. Always leave it in its protective bag until you are ready to install it. Any exposure to light should be limited to two minutes. If you suspect the belt is damaged due to exposure to light, put the belt in a dark place to recover. Depending on the amount of exposure, recovery may take up to two hours. Recovery time is dependent on the amount of exposure sustained. Recovery is not guaranteed.*

» **Note:** A dry cotton cloth is required for this procedure.

**1** Turn off and unplug the printer.

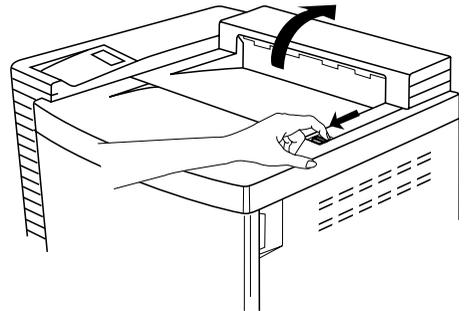
**2** If you have an EXD, open the duplexer's rear cover.

If not, skip to step 3.



**3** Pull the latch to release the top cover, and then open the cover.

» **Note:** The illustrations for step 3 and step 4 show the printer without the duplexer. However, the instructions are the same for all models.



**4** Open the printer's front cover, release the OPC belt cartridge green lock levers, and remove the OPC belt cartridge.

## Cleaning the Printer

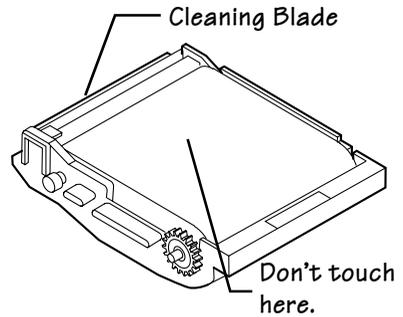
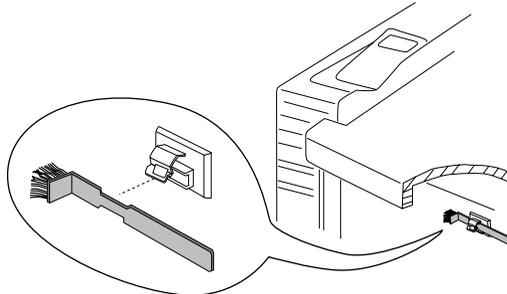
- 5 Using a dry cotton cloth, clean any toner buildup from around the cleaning blade.

◆ **Caution:** *Don't touch the edge of the cleaning blade.*

- 6 Clean any paper dust and toner buildup found on the OPC belt cartridge itself.

◆ **Caution:** *Handle the cartridge carefully. The belt is very sensitive to hand oils and scratches, both of which reduce print quality.*

- 7 Remove the corona wire cleaning brush from inside the front of the printer.

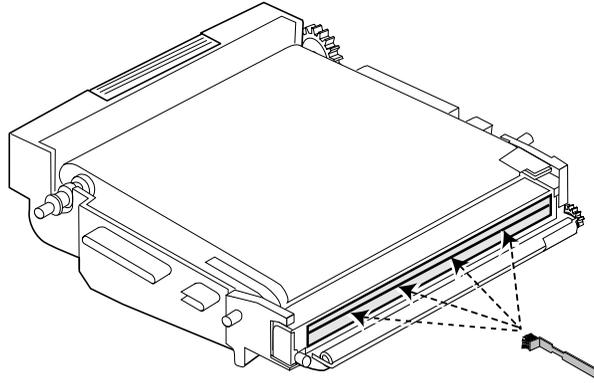


- 8 Turn the OPC belt cartridge so that the handle is facing away from you.

- 9 Use the brush to clean the corona wire inside end of the OPC belt cartridge.

◆ **Caution:** *The corona wire is very delicate. Do not press hard on the wire.*

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- 10 Reinstall the OPC belt cartridge, and secure its green lock levers.
- 11 Return the corona wire cleaning brush to its holder, and then close the printer's front and top covers.
- 12 If you have a duplexer, close the duplexer's rear cover.

### Cleaning the Laser Lens

It's necessary to clean the laser lens only when you find vertical white or light-color streaking in all primary colors on your printouts.

*A dry cotton cloth or dry cotton swab is required for this procedure.*

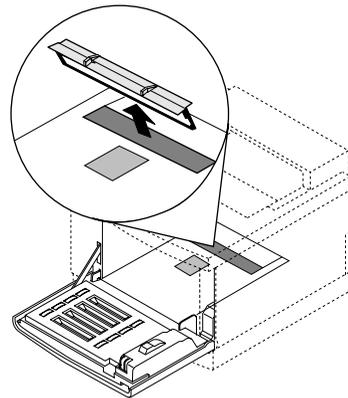
- 1 **Open the printer's front cover.**
- 2 **Remove the four toner cartridges.**
- 3 **Remove the laser lens.**

Use the two tabs on top of the lens.

- 4 **Using a dry cotton cloth, wipe the lens.**
- 5 **Reinstall the laser lens.**

It slides in at a 45° angle.

- 6 **Reinstall the four toner cartridges.**
- 7 **Close the printer's front cover.**



### Cleaning the Duplexer

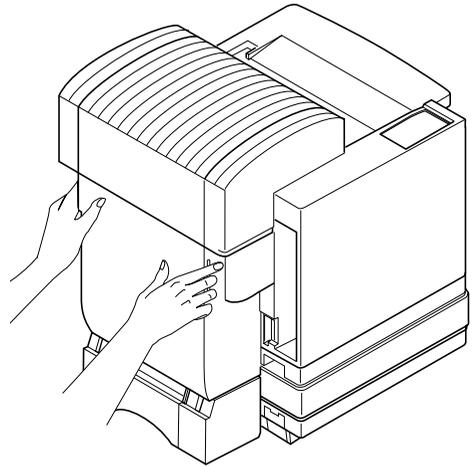
If you have an EXD model, you should clean the inside of the duplexer on a regular basis.

» **Note:** *A dry cotton cloth is required for this procedure.*

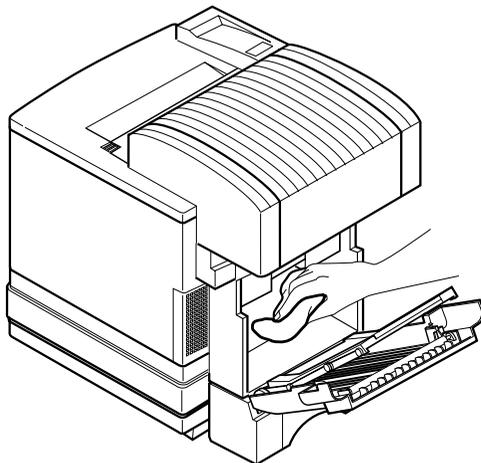
- 1 **If you have a duplex model, follow steps 2 through 14.**

If not, skip to "Cleaning the Exterior of The Printer" on page 6-19.

- 2 Turn off and unplug the printer.
- 3 Open the duplexer's rear cover.  
Do not open the printer's rear cover.



- 4 Clean the duplexer with a dry cotton cloth. 



## Cleaning the Printer

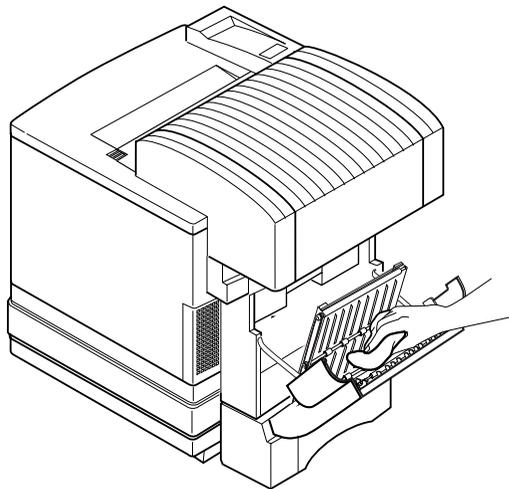
5 Tilt the paper path toward the inside of the printer.

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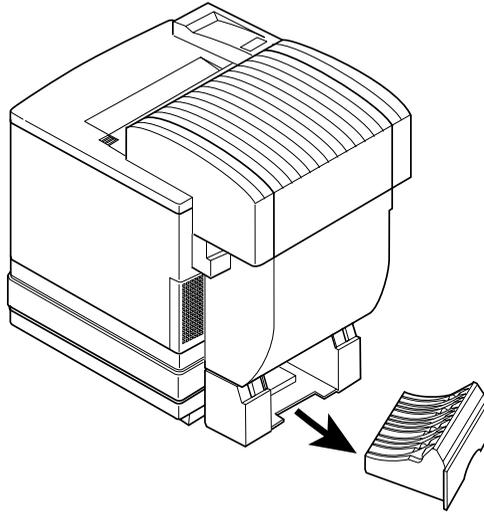
◆ **Caution:** *Hold the paper path unit by its corners to avoid the unit catching your fingers between it and the cover.*

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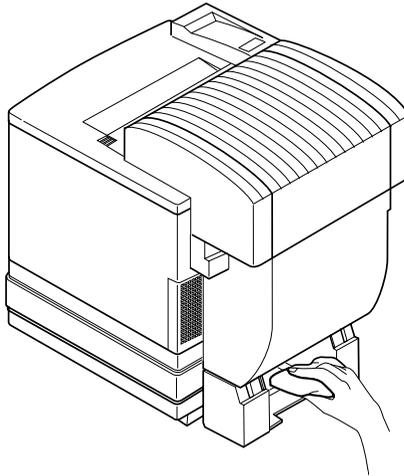
6 Clean the registration rollers with a dry cotton cloth.



- 7 Remove the duplexer's lower rear assembly. 

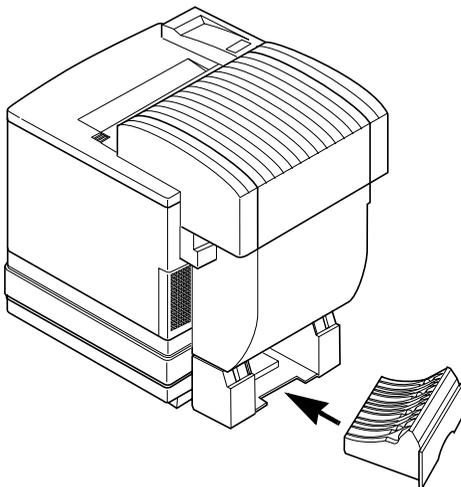


- 8 Clean the registration rollers with a dry cotton cloth.  
9 Reach underneath the printer and clean with a dry cotton cloth.



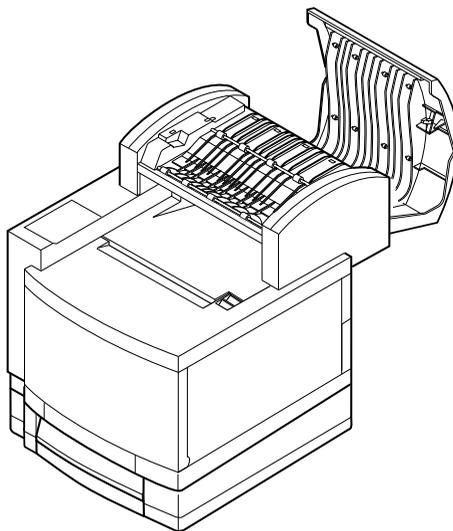
## Cleaning the Printer

10 Reinsert the duplexer's lower rear assembly.



11 Open the duplexer's top cover.

» **Note:** Use two hands to open the duplexer's top cover to avoid twisting its hinge.



### 12 Clean the registration rollers with a dry cotton cloth.

While manually rotating each paper exit roller, clean each roller.

### 13 Close the duplexer's top cover.

## Cleaning the Exterior of The Printer

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 **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.

**ACHTUNG!** Ziehen Sie den Netzstecker aus der Steckdose bevor Sie den Drucker reinigen. Verschütten Sie kein Wasser oder andere Flüssigkeiten auf dem Drucker, da das Gerät sonst beschädigt wird oder die Gefahr eines elektrischen Schlages besteht.

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To protect your printer and maintain its appearance, clean the exterior regularly. Use the following guidelines:

- Use only a dry or slightly damp, lint-free, soft cloth moistened only with water or mild detergent.
- Never use cleaning solutions that contain solvents, such as alcohol and benzene. Solvents may damage the printer's finish.
- Always test any cleaning solution 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.
- Never spray a cleaning solution directly on the printer as the cleaning solution will penetrate to the interior of the printer and cause damage.

# Maintenance Schedule

## Cleaning Schedule

Every 20,000 single-sided pages, a thorough cleaning should be performed by the user.

<b>This item needs cleaning...</b>	<b>After...</b>	<b>By...</b>
If you have the duplex model, the duplex unit paper guides	Every 20,000 single-sided pages, or 12 months, whichever comes earlier.	User See information about cleaning the duplexer on page 6-8.
If you have the duplex model, the duplex unit roller	Every 20,000 single-sided pages, or 12 months, whichever comes earlier.	User See information about cleaning the duplexer on page 6-8.
Laser lens	Only when you find vertical white or light-colored streaking in all primary colors on your printouts.	User See "Cleaning the Laser Lens" on page 6-14.
OPC belt cartridge and corona wire (also known as the OPC charge wire)	Every 20,000 single-sided pages, or 12 months, whichever comes earlier.	User See "Cleaning the OPC Belt Cartridge" on page 6-10.
Paper discharger	Every 20,000 single-sided pages, or 12 months, whichever comes earlier.	User See "Cleaning the Transfer Unit" on page 6-4.
Paper exit rollers (also known as paper guides)	Every 20,000 single-sided pages, or 12 months, whichever comes earlier.	User See "Cleaning the Paper Exit Rollers" on page 6-9.
Printer exterior	As needed	User See "Cleaning the Exterior of The Printer" on page 6-19.

## Maintenance Schedule

This item needs cleaning...	After...	By...
Printer interior	Every 20,000 single-sided pages, or 12 months, whichever comes earlier.	User See "Guidelines for Cleaning Inside the Printer" on page 6-3.
Registration roller	Every 20,000 single-sided pages, or 12 months, whichever comes earlier.	User See "Cleaning the Transfer Unit" on page 6-4.
Transfer roller	Every 20,000 single-sided pages, or 12 months, whichever comes earlier.	User See "Cleaning the Transfer Unit" on page 6-4.

## Preventive Maintenance Schedule

This item needs preventive maintenance...	After...	By...
Printer—20,000-page preventive maintenance	20,000 single-sided pages.	User See the standard "Cleaning Schedule" on page 6-20.
Printer—60,000-page preventive maintenance	60,000 single-sided pages.	QMS National Service or a QMS-authorized service provider
Printer—120,000-page preventive maintenance	Replace 120K kit displays in the message window (after 120,000 single-sided pages).	QMS National Service or a QMS-authorized service provider

## **Replacement Schedule**

### **By the User**

<b>This item needs replacing...</b>	<b>After...</b>	<b>By...</b>
Cleaning roller	Check fuser cleaning roller or Replace cleaning Roller displays in the message window (after 12,000 single-sided pages at 5% coverage of each color).	User  See "Replacing the Fuser Oil Bottle and Cleaning Roller" on page 6-24.
Fuser cleaning roller	12,000 pages.	User  See "Replacing the Fuser Oil Bottle and Cleaning Roller" on page 6-24.
Fuser oil bottle	Check fuser oil & cleaning roller displays in the message window (after approximately 12,000 single-sided pages; however, fuser oil bottle life is media dependent—coarser paper requires more oil).	User  See "Replacing the Fuser Oil Bottle and Cleaning Roller" on page 6-24.
OPC belt cartridge (with charger unit)	Replace OPC displays in the message window (maximum life—50,000 planes, usually occurs with continuous use; minimum life—20,000 planes, usually occurs with intermittent use although other factors also affect cartridge life).	User  See "Replacing the OPC Belt Cartridge" on page 6-28.
Ozone filter	60,000 planes or every 12 months, whichever comes earlier.	User  See "Replacing the Ozone Filter" on page 6-31.

## Maintenance Schedule

Toner	10,000 single-sided pages—black; after 6,000 single-side pages—yellow, magenta, cyan @ 5% coverage of each color.	User See “Replacing a Toner Cartridge” on page 3-18.
Waste toner pack	Check waste Toner displays in the message window (after 12,000 single-sided pages—or 24,000 planes—at 5% coverage of each color).	User See “Replacing the Waste Toner Pack” on page 6-32.

### By the QMS Authorized Service Provider

This item needs replacing...	After...	By...
Drum assembly	120,000 single-sided pages.	QMS National Service or a QMS-authorized service provider
Fuser unit	Replace fuser displays in the message window (after 60,000 single-sided pages maximum at an equal mix of black and 4-color pages, all with 5% coverage of each color).	QMS National Service or a QMS-authorized service provider
Paper discharger	120,000 single-sided pages at 5% coverage of each toner color.	QMS National Service or a QMS-authorized service provider
Transfer roller	120,000 single-sided pages at 5% coverage of each toner color.	QMS National Service or a QMS-authorized service provider

# Replacing the Fuser Oil Bottle and Cleaning Roller

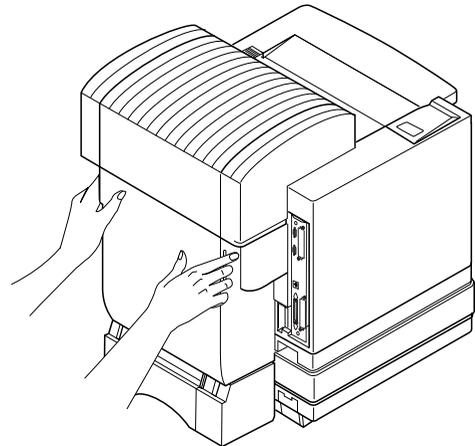
- 
- ◆ **Caution:** *The fuser unit is an integral part of the imaging process and is also expensive to replace. Fuser life will be shortened (or the fuser permanently damaged) if the oil bottle and cleaning roller are not changed when needed and installed properly. This type of damage is not covered under warranty or service contract.*
- 

- ⚠ **WARNING!** *The fuser unit can become extremely hot and cause severe burns. Make sure the unit is cool before handling it.*

**ACHTUNG!** *Die Fixiereinheit kann sehr heiß werden, so daß Verbrennungsgefahr besteht. Bitte lassen Sie die Fixiereinheit einige Zeit abkühlen, bevor Sie diese berühren.*

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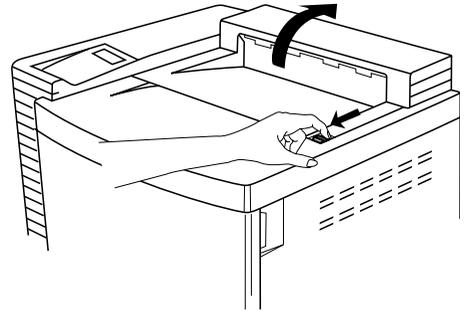
- 1 Turn off the printer.
- 2 If you have an EXD, open the duplexer's rear cover.  
If not, skip to step 3.



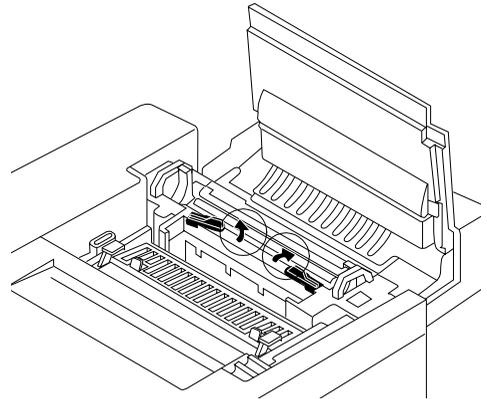
## Replacing the Fuser Oil Bottle and Cleaning Roller

- 3 Pull the latch to release the top cover, and then open the cover.

» **Note:** The illustrations for steps 4 through 11 show the printer without the duplexer. However, instructions are the same for all models.

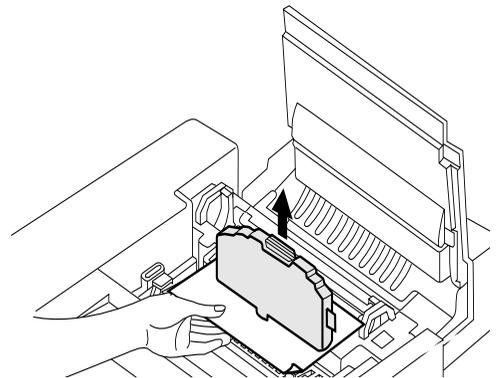


- 4 Open the printer's top cover.
- 5 Open the two green cleaning roller lock levers.



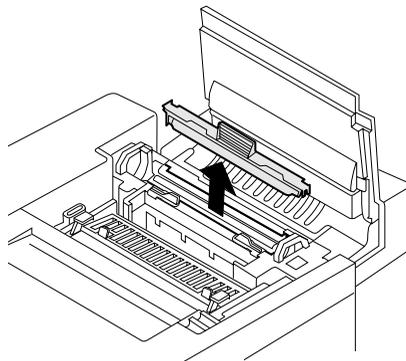
- 6 Remove the old oil bottle.

◆ **Caution:** Hold a sheet of paper under the oil bottle while removing it, so oil doesn't drip into the printer.



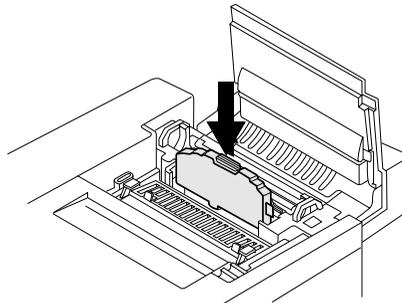
## Replacing the Fuser Oil Bottle and Cleaning Roller

- 7 Remove the old cleaning roller.



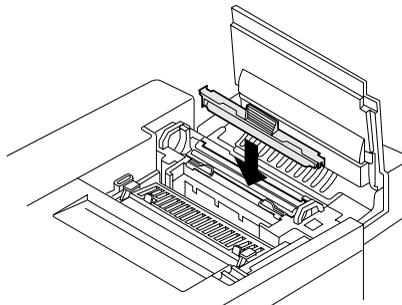
- 8 Lower the new oil bottle into its slot.

The tab on the side of the bottle must be on the right.



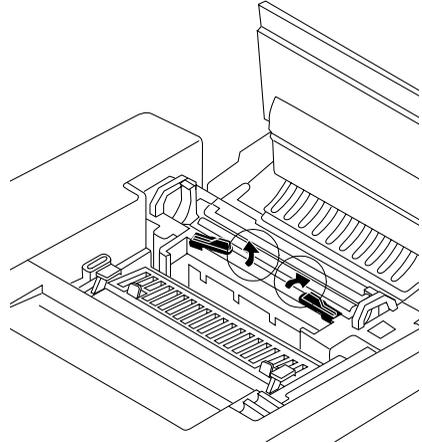
- 9 Install the cleaning roller in its slot.

The tab on the top of the cleaning roller must be on the left.



## Replacing the Fuser Oil Bottle and Cleaning Roller

- 10 Close the two green lock levers.
- 11 Close the printer's top cover.
- 12 If you have a duplexer, close the duplexer's rear cover.
- 13 Turn on the printer.
- 14 Reset the consumables usage monitoring system.
  - a In the Operator Control/Consumables/Item Replaced/Fuser Oil menu choose Yes.
  - b In the Operator Control/Consumables/Item Replaced/Cleaning Roller menu choose Yes.



- » **Note:** *When you replace the fuser oil bottle and cleaning roller after a FUSER OIL EMPTY or CHECK CLEANING ROLLER message displays in the message window, the engine automatically recovers. However, you must manually reset the consumables usage monitoring system to ensure accurate consumables monitoring.*

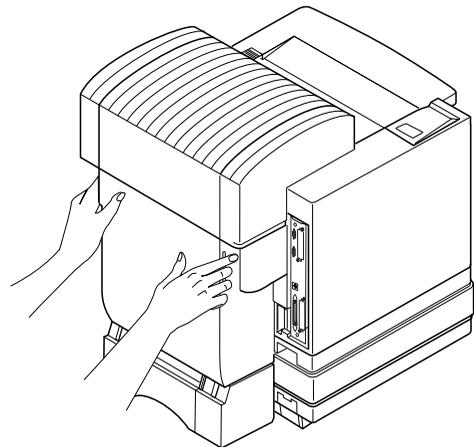
To access consumables usage information, use the Operator Control/Consumables/Print Statistics menu or the CrownView printer web page.

# Replacing the OPC Belt Cartridge

- 
- ◆ **Caution:** *The OPC belt is extremely sensitive to bright light and direct sunlight. Always leave it in its protective bag until you're ready to install it. Also, handle the cartridge carefully. The belt is also extremely sensitive to hand oils and scratches, both of which reduce print quality.*
- 

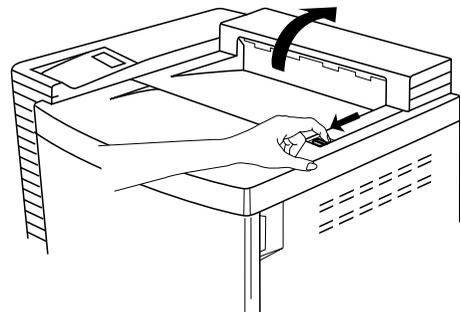
- 1 Turn off the printer.
- 2 Open the printer's front cover.
- 3 If you have an EXD, open the duplexer's rear cover.

If not, skip to step 4.



- 4 Pull the latch to release the top cover, and then open the cover.

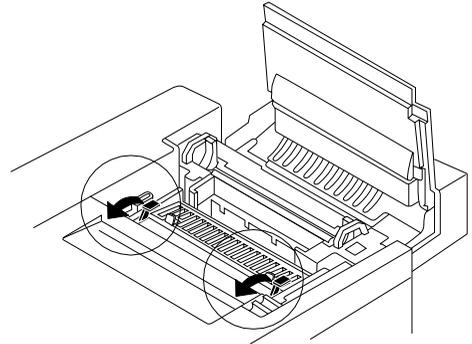
- » **Note:** *The illustrations for steps 4–12 show the printer without the duplexer. However, the instructions are the same for all models.*



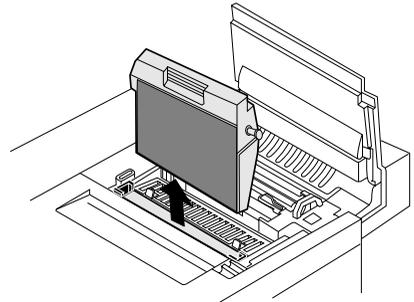
## Replacing the OPC Belt Cartridge

- ◆ **Caution:** *This is necessary as it pulls the toner cartridges forward slightly to make room for the OPC belt cartridge. You could damage the OPC belt if you don't do this.*

- 5 Rotate up the two green lock levers (one on each side of the OPC belt cartridge) to release the cartridge.

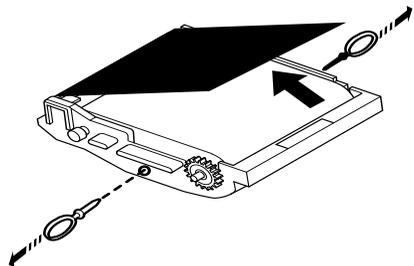


- 6 Pull the cartridge straight up and out of the printer, and then discard it.



- 7 Remove the protective sheet from the cartridge, and then pull out the two tension-release pins (one on each side of the cartridge).

- ◆ **Caution:** *Don't touch the green material on the cartridge. It scratches easily.*

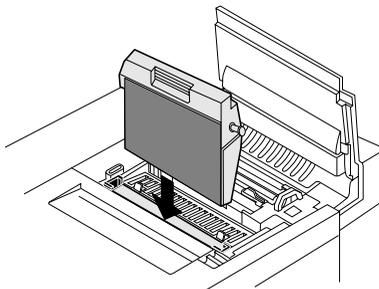


## Replacing the OPC Belt Cartridge

- 8 Holding the cartridge above the printer, align the guide pins on the cartridge with the guide slots in the green lock levers.

The gear on the cartridge goes to the right.

- 9 Gently guide the cartridge into the printer.



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◆ **Caution:** *The cartridge should slide easily into the printer. Don't force it.*

---

- 10 Rotate the two green lock levers to secure the OPC belt cartridge in the printer.

- 11 Close the printer's front and top covers.

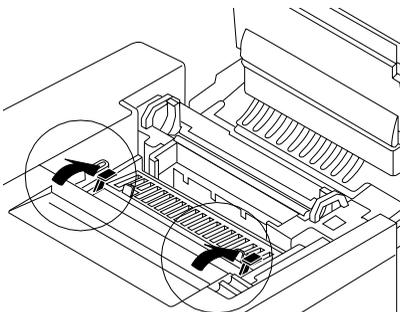
- 12 If you have a duplexer, close the duplexer's rear cover.

- 13 Turn on the printer.

- 14 In the Operator Control/Consumables/Item Replaced/OPC Cartridge menu choose Yes to reset the consumables monitoring system.

» **Note:** *When you replace the OPC belt cartridge after a REPLACE BELT message displays in the message window, the engine automatically recovers. However, you must manually reset the consumables usage monitoring system to ensure accurate consumables monitoring.*

To access consumables usage information, use the Operator Control/Consumables/Print Statistics menu or the CrownView printer web page.



# Replacing the Ozone Filter

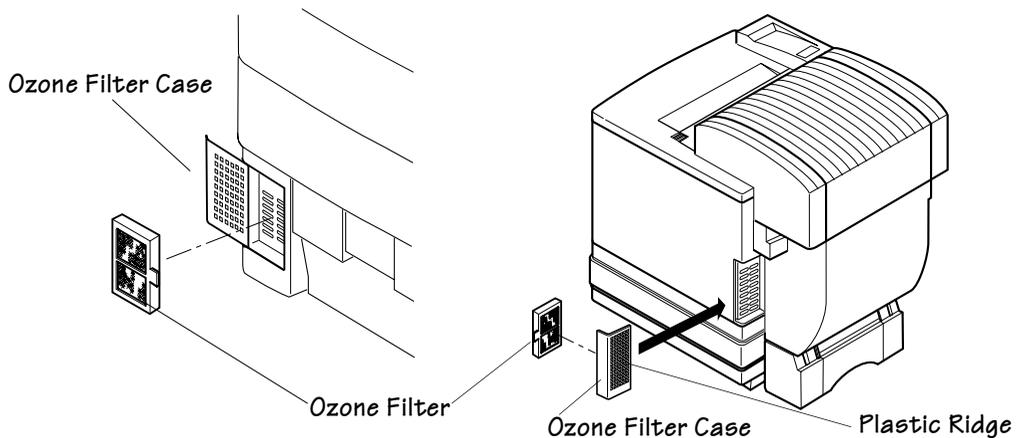
The ozone filter reduces exhausted ozone gas.

**1 Remove the ozone filter case on the left rear of the printer.**

On the Duplex Model, use the plastic ridge on the right of its case to pry the ozone filter case away from the printer.

**CXE, GXE**

**EXD**



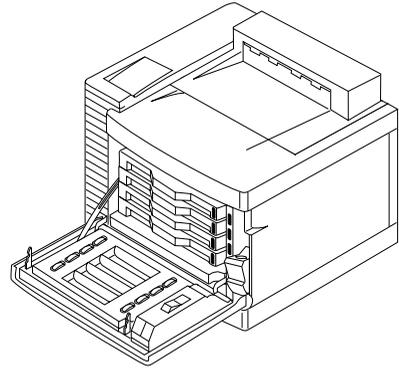
- 2 Remove the ozone filter from the case.**
- 3 Install a new ozone filter in the case.**
- 4 Reinstall the ozone filter case.**
- 5 Discard the old ozone filter.**

# Replacing the Waste Toner Pack

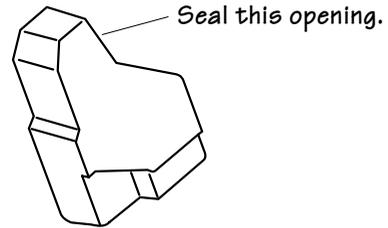
The waste toner pack collects the waste toner from the printing process so you can conveniently throw it away.

- 1 **Open the printer's front cover.**
- 2 **Remove the waste toner pack.**

The illustration for this step shows the printer without the duplexer. However, the instructions are the same for all models.



- 3 **Use the label on the side of the old waste toner pack to seal the opening, and then dispose of the pack in accordance with safety laws and regulations in your area.**



- 4 **Insert the new waste toner pack.**
- 5 **Close the printer's front cover.**
- 6 **In the Operator Control/Consumables/Item Replaced/Waste Toner Pack menu choose Yes to reset the consumables monitoring system.**

» **Note:** *When you replace the waste toner pack after a CHECK WASTE TONER message displays in the message window, the engine automatically recovers. However, you must manually reset the consumables usage monitoring system to ensure accurate consumables monitoring.*

To access consumables usage information, use the Operator Control/Consumables/Print Statistics menu or the CrownView printer web page.

# **What's Next?**

Chapter 7, "CrownView Printer Web Page," explains the printer web page and web page help system.





# 7

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## **CrownView Printer Web Page**

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### **In This Chapter . . .**

- “Introduction” on page 7-2
  - “Setting up the Printer Web Page” on page 7-2
  - “Printer Home Page” on page 7-6
  - “Web Page Help System” on page 7-30
-

# Introduction

QMS CrownView is a printer-based application using the World Wide Web portion of the Internet as a framework for the QMS *magicolor* 2+ Print System. This feature allows you to monitor printer consumables as well as access information that is normally available only by printing a status page.

Inside your new QMS printer resides an HTTP (Hyper-Text Transfer Protocol) based web page that can be accessed from the most common web browser software, such as Netscape Navigator and Microsoft Explorer. This web page gives you access to the most frequently accessed printer configurations and gives you instant access to printer status. Anyone on your company intranet can access the QMS printer through their web browser software.

- » **Note:** *The sample windows and dialog boxes shown in this chapter are as they appear in Netscape Navigator and Internet Explorer, and coincide with the step-by-step instructions provided.*

This chapter provides you with details on

- Setting up and using the web page
- The different types of pages in the printer
- Accessing the QMS web site and performance support

## Setting up the Printer Web Page

Setting up the printer web page to run on your intranet involves two basic steps:

- Determining the name and address of your printer
- Setting up the “no proxy” preferences in your browser software

### Determining the Printer Name

The printer web page can be accessed only through the assigned name of the printer or the IP address. It is more convenient for you to use a name than the address. The

name for the printer comes from the IP host table on the computer system and is usually assigned by the system administrator, for example, QMS *magicolor 2+* Print System.

### Setting Up Your Browser Software

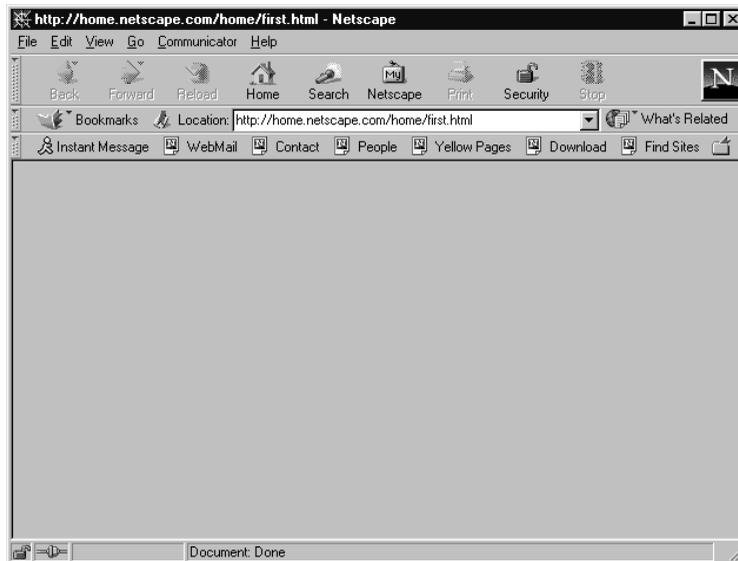
Since your printer will reside on your intranet and will not be accessible beyond the firewall of your network, you must set up the proper “preferences” in your browser software. Your printer name or IP address must be added to the “no proxy” list in the preferences dialog box of the browser.

» **Note:** *You need to do this procedure only once.*

The sample screens in this chapter may be different from yours depending on your version and platform in use.

#### For Netscape

1 Start your web browser.



2 Access the Options menu and choose Network Preferences.

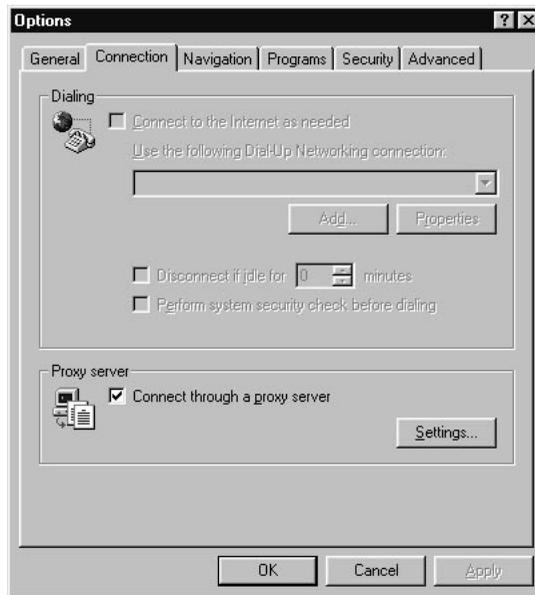
3 Select the Proxies tab in the dialog box.

## Setting up the Printer Web Page

- 4 Select the Manual Proxy Configuration radio button and press the View... button.
- 5 In the No Proxy For: text box, type a comma after the last entry, and then type the printer name or the IP address of your QMS *magicolor 2+*.
- 6 Choose OK twice.
- 7 Enter the printer name or IP address in the Location: URL address box to access the printer home page.

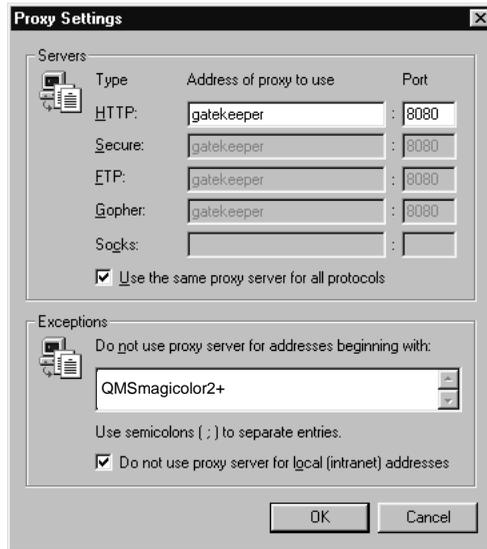
### For Internet Explorer

- 1 Start your web browser.
- 2 Access the View menu and choose Options.
- 3 Select the Connection tab on the dialog box.



- 4 Click the Settings button to display the Proxy Settings dialog box.

- 5 In the Exceptions text box, type a comma after the last entry and then type the printer name or the IP address.



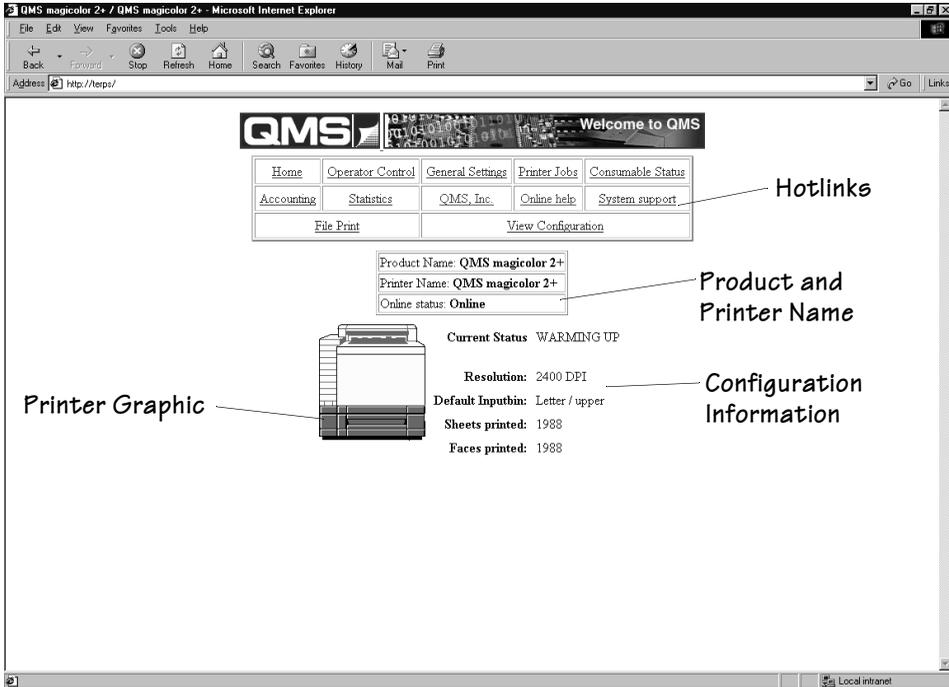
- 6 Click OK.
- 7 Now you should be able to enter the printer name in the URL address box to access the printer home page.



# Printer Home Page

The Home Page is the starting point for all access to the printer web pages. On this page you will find hotlinks to all of the supporting web pages for your printer.

- » **Note:** *The illustration below shows the printer without the duplexer.*



The printer home page provides the following information.

<b>Product Name</b>	Identifies the particular printer that you are browsing. This printer is pictured in the graphic with all installed paper handling options.
	<b>Configuration Menu:</b> No equivalent

<b>Printer Name</b>	Shows the name you have assigned to your printer. The default printer name is the same as the product name.
	<b>Configuration Menu:</b> Administration/Communications/Networkx/CrownNet/NetWare/Printer Name menu or the Administration/Communications/Networkx/CrownNet/LanManager/Printer Name menu
<b>Online Status</b>	Shows whether the printer is Offline or Online.
	<b>Configuration Menu:</b> No equivalent
<b>Current Status</b>	Echoes the status message in the printer control panel message window.
	<b>Configuration Menu:</b> No equivalent
<b>Resolution</b>	Identifies the resolution and halftone.
	<b>Configuration Menu:</b> Administration/Engine/Def Resolution
<b>Default Inputbin</b>	Identifies the input cassette or tray, the media size, and the percent filled with media.
	<b>Configuration Menu:</b> Operator Control/Inputbin
<b>Sheets Printed</b>	Lists the number of sheets of media printed to date during the current consumables tracking period (Administration/Consumables/Start Period menu).
	<p>» <b>Note:</b> <i>This number differs from the number of sheets printed statistics on the printer's startup and status pages, which refer to the total number of sheets of media printed during the life of the printer.</i></p>
<b>Faces Printed</b>	Lists the number of page faces printed to date.
	<p>» <b>Note:</b> <i>This number differs from the number of faces printed statistics on the printer's startup and status pages, which refer to the total number of page faces printed during the life of the printer.</i></p>
<b>Hotlinks</b>	Take you to other pages of status, configurations, or help information. Each of these hotlinks is fully explained in this chapter.
	<b>Configuration Menu:</b> No equivalent

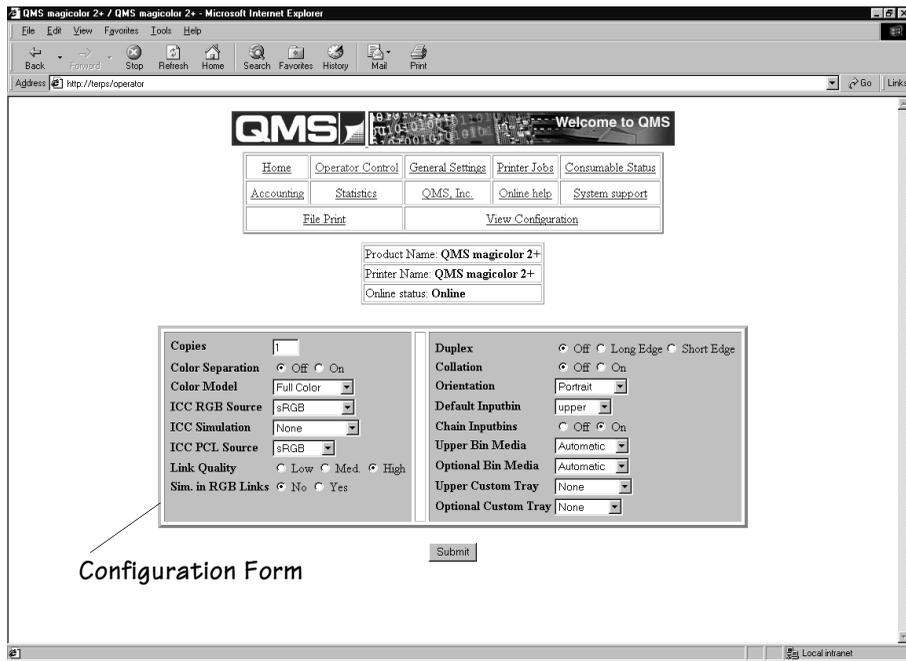
## Home

The Home hotlink simply returns you to the printer home page when it is selected.

## Operator Control

The Operator Control hotlink on the home page jumps to the Operator Control page. This page contains a form which allows you to configure settings in your printer.

After you make your choices, choose the Submit button to make them take effect.



The Operator Control page contains the following options. For complete information on any options see chapter 4, “Printer Configuration,” of the *Reference* manual.

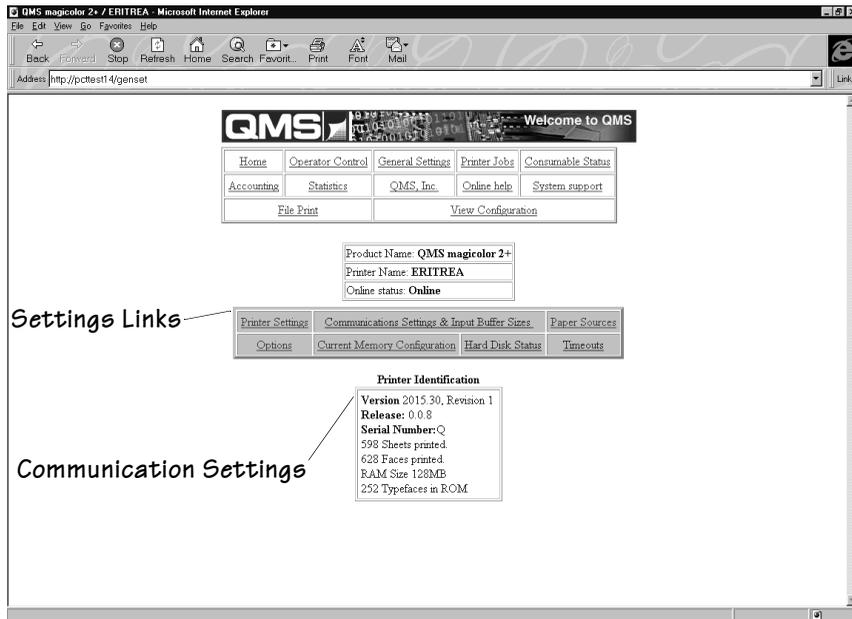
<b>Copies</b>	Allows you to enter the number of copies to print.
	<b>Configuration Menu:</b> Operator Control/Copies
<b>Color Separation</b>	Allows you to turn color separations Off or On.
	<b>Configuration Menu:</b> Operator Control/Color Separation

<b>Color Model</b>	Allows you to select between full-color or monochrome mode.
	<b>Configuration Menu:</b> Operator Control/Color Model
<b>Color Matching</b>	Allows you to turn color matching Off or On.
	<b>Configuration Menu:</b> Operator Control/Color Matching
<b>ICC RGB Source</b>	Allows you to select None, Trin G1.8 D50, sRGB, PrePress, or Apple RGB.
	<b>Configuration Menu:</b> Operator Control/Color Matching/ICC RGB Source
<b>ICC Simulation</b>	Allows you to select None, SWOP, Inkjet Proofer, Eurocolor, CMYK Display, or Commercial.
	<b>Configuration Menu:</b> Operator Control/Color Matching/ICC Simulation
<b>ICC PCL Source</b>	Allows you to select sRGB.
	<b>Configuration Menu:</b> Operator Control/Color Matching/ICC PCL Source
<b>Link Quality</b>	Allows you to select Low, Medium or High link quality.
	<b>Configuration Menu:</b> Operator Control/Color Matching/Link Quality
<b>SIM in RGB Links</b>	Allows you to select No or Yes to SIM in RGB Links.
	<b>Configuration Menu:</b> Operator Control/Color Matching/Sim. in RGB Links
<b>Duplex [EXD model only]</b>	Allows you to turn duplexing Off, duplexed on the Long Edge [flipped horizontally as in a loose-leaf notebook] on the driver), or duplexed on the Short Edge [flipped vertically as on a clipboard] on the driver) if you have an EXD model.
	<b>Configuration Menu:</b> Operator Control/Duplex
<b>Collation</b>	Allows you to turn collation Off or On.
	<b>Configuration Menu:</b> Operator Control/Collation
<b>Orientation</b>	Allows you to select Portrait or Landscape orientation.
	<b>Configuration Menu:</b> Operator Control/Orientation
<b>Default Inputbin</b>	Allows you to choose Upper or Optional as the input source.
	<b>Configuration Menu:</b> Operator Control/Inputbin

<b>Chain Inputbins</b>	Allows you to set input bin chaining Off or On.
	<b>Configuration Menu:</b> Operator Control/Chain Inputbins
<b>Upper Bin Media</b>	Allows you to specify the type of media in the upper (standard) cassette so the printer can optimize output for that media type. The choices are Automatic or Thick Stock.
	<b>Configuration Menu:</b> Operator Control/Media/For Upper Bin
<b>Optional Bin Media</b>	Allows you to specify the type of media in the optional cassette so the printer can optimize output for that media type. The choices are Automatic or Thick Stock.
	<b>Configuration Menu:</b> Operator Control/Media/For Upper Bin
<b>Upper Custom Tray</b>	Specifies the media size in the upper (standard) cassette if it's something other than A4, Legal, or Letter (the typical sizes the cassette expects).
	<b>Configuration Menu:</b> Operator Control/Custom Bin/Upper
<b>Optional Custom Tray</b>	Specifies the media size in the optional cassette if it's something other than A4, Legal, or Letter (the typical sizes the cassette expects).
	<b>Configuration Menu:</b> Operator Control/Optional Custom Tray

## General Settings

The General Settings hotlink takes you to the General Settings page.



This page provides hotlinks to several groups of printer configuration settings. Each is described in more detail in the following pages:

- “Printer Settings” on page 7-12
- “Communication Settings & Input Buffer Sizes” on page 7-13
- “Paper Sources” on page 7-14
- “Options” on page 7-15
- “Current Memory Configuration” on page 7-15
- “Hard Disk Status” on page 7-17
- “Timeouts” on page 7-17

## Printer Home Page

You can view this information to see the status of the printer, but you can change it only by accessing the printer's configuration menu through the printer control panel, a remote or local console, or CrownAdmin.

### Printer Settings

This table provides you with data relative to the settings of the printer.

<b>Compatibility Level</b>	Identifies the PostScript emulation level.
	<b>Configuration Menu:</b> No equivalent
<b>Do Startup Page</b>	Identifies whether the printer startup page is turned on or off.
	<b>Configuration Menu:</b> Administration/Startup Options/Do Start Page
<b>Do Error Handler</b>	Identifies whether the PostScript Error Handler is loaded into memory when the printer is turned on. Error Handler is a diagnostic tool that identifies PostScript errors encountered during a print job.
	<b>Configuration Menu:</b> Administration/Startup Options/Do Error Handler
<b>Do Sys/Start</b>	Identifies whether the printer controller checks the hard disk for a PostScript file named Sys/Start and then executes the file. This file does not print.
	<b>Configuration Menu:</b> Administration/Startup Options/Do Sys/Start
<b>Is Password 0?</b>	Identifies whether the Administration menu password is set. 0=On
	<b>Configuration Menu:</b> Installation/Use Admin Pwd
<b>Duplex [EXD Models Only]</b>	Identifies whether the duplex option is Off, duplexed on the Long Edge (flipped horizontally as in a loose-leaf notebook), or duplexed on the Short Edge (flipped vertically as on a clipboard) if you have an EXD model.
	<b>Configuration Menu:</b> Operator Control/Duplex

<b>Default Chaining</b>	Identifies whether tray chaining is Off or On. Tray chaining allows the printer to draw media from another input source with either the same or any size of media (dependent on the choice selected) automatically when the first input source empties.
	<b>Configuration Menu:</b> Operator Control/Chain Inputbins
<b>Default Paper Tray</b>	Tells you which input source is the default.
	<b>Configuration Menu:</b> Operator Control/Inputbin
<b>Number of Paper Trays</b>	Tells you the number of input sources available on your printer.
	<b>Configuration Menu:</b> No equivalent.
<b>Page Stack Order</b>	Tells you what order (e.g., face down) the page stack will be in.
	<b>Configuration Menu:</b> No equivalent
<b>Left Margin</b>	Identifies the amount (in .01" increments) the image is adjusted horizontally on the page.
	<b>Configuration Menu:</b> Administration/Engine/Image Alignment/ Horiz Offset
<b>Top Margin</b>	Identifies the amount (in .01" increments) the image is adjusted vertically on the page.
	<b>Configuration Menu:</b> Administration/Engine/Image Alignment/ Vertical Offset
<b>Resolution</b>	Identifies the printer resolution.
	<b>Configuration Menu:</b> Administration/Engine/Def. Resolution

**Communication Settings & Input Buffer Sizes**

This hotlink displays a screen that shows the communications settings of the printer.

<b>Serial IF</b>	Identifies the settings for the serial interface.
	<b>Configuration Menu:</b> Administration/Communications/Serial
<b>Parallel IF</b>	Identifies the settings for the parallel interface.
	<b>Configuration Menu:</b> Administration/Communications/Parallel

<b>IF 1</b>	Identifies the settings for the optional Optional NIC interface, if installed. » <b>Note:</b> <i>You won't see this in the front panel until this option is installed.</i>
	<b>Configuration Menu:</b> Administration/Communications/Optional NIC
<b>IF 2</b>	Identifies the settings for the Resident NIC (CrownNet for Ethernet) interface.
	<b>Configuration Menu:</b> Administration/Communications/Resident NIC
<b>Shared Spooling Size</b>	Identifies the total amount of spooling space shared by the interfaces
	<b>Configuration Menu:</b> No equivalent

**Paper Sources**

This hotlink provides media source information.

<b>Upper</b>	Identifies the type and size of media currently installed in the upper tray. The choices are Automatic or Thick Stock.
	<b>Configuration Menus:</b> Operator Control/Custom Bin/Upper, Operator Control/Media/For Upper Bin
<b>Optional</b>	Identifies the type and size of media currently installed in the optional lower input feeder. The choices are Automatic or Thick Stock.
	<b>Configuration Menu:</b> Operator Control/Custom Bin/Optional, Operator Control/Media/For Optional Bin

- » **Note:** *Remember the Media key on the Control Panel must be used in conjunction with setting Thick Stock in the driver (Paper tab, Paper Type option).*

## Options

<b>Disk(s)</b>	Identifies how many hard disks are attached to the printer and what their addresses are.
	<b>Configuration Menu:</b> No equivalent
<b>Emulations</b>	Identifies the installed emulations.
	<b>Configuration Menu:</b> No equivalent
<b>Duplexer</b>	Identifies if a duplexer is installed.
	<b>Configuration Menu:</b> No equivalent

## Current Memory Configuration

Memory configuration affects the number of jobs that can be accepted by the printer, the number of options available simultaneously, the number of downloadable fonts and emulations that can be stored, and overall printer performance.

<b>Host Input Spool</b>	Shows the size (in KB) of the Host Input field, also known as K Mem for Spool. This memory client stores incoming data from all the interfaces until the emulation can process the print job.
	<b>Configuration Menu:</b> Administration/Memory/Manual Config/ K Mem for Spool
<b>Display List</b>	Shows the size (in KB) of the Display List, also known as K Mem Display. This client stores compressed representations, or blocks, of the pages to be printed.
	<b>Configuration Menu:</b> Administration/Memory/Manual/Config/ K Mem Display
<b>PostScript Font Cache</b>	Shows the size (in KB) of the Font Cache, also known as K Mem for PS Fonts. This memory client stores bitmapped representations of previously scaled PostScript fonts.
	<b>Configuration Menu:</b> Administration/Memory/Manual Config/ K Mem for PS Fonts
<b>PostScript Heap</b>	Shows the size (in KB) of the Heap, also known as K Mem for PSHeap, PostScript VM, and Virtual Memory. This client holds downloaded fonts, PostScript operators, and forms.
	<b>Configuration Menu:</b> Administration/Memory/Manual Config/ K Mem for PSHeap

<b>Framebuffer</b>	Shows the size (in KB) of the Frame Buffer. This client holds rasterized or bitmapped images of page faces which are ready to be sent to the print engine.
	<b>Configuration Menu:</b> Administration/Memory/Manual Config/Framebuffer
<b>Color Matching</b>	Shows the size (in KB) of the Color Matching client. This client is used for color matching. The choices are ICC RGB Source, ICC Simulation, ICC PCL Source, Link Quality, and SIM in RGB Links.
	<b>Configuration Menu:</b> Administration/Memory/Manual Config/Color Matching
<b>Emulation</b>	Shows the size (in KB) of the Emulation client, also known as K Mem Emulation. This client is used to store any optional emulations, such as LN03 Plus.
	<b>Configuration Menu:</b> Administration/Memory/Manual Config/K Mem Emulation
<b>Emulation Temporary</b>	Shows the size (in KB) of the Emulation Temporary client. This client is used by non-PostScript emulations for storing downloaded (soft) fonts, forms, or macros.
	<b>Configuration Menu:</b> Administration/Memory/Manual Config/K Mem Emul. Temp
<b>HP Storage Pool</b>	Shows the size (in KB of RAM) of the HP Storage Pool client dedicated to the HP emulation interpreter, which is used to process HP emulations.
	<b>Configuration Menu:</b> Administration/Memory/Manual Config/HP Storage Pool
<b>Disk Cache</b>	Shows the size (in KB) of the Disk Cache. This memory client stores frequently used data in system memory instead of continually storing and retrieving it from a hard disk.
	<b>Configuration Menu:</b> Administration/Memory/Manual Config/K Mem Disk Cache

<b>System Use</b>	Shows the size (in KB) of the System Use. Also known as System Memory, this non-configurable client is the amount of RAM used to run the printer's operating system. It's never increased or decreased. The system memory subtracted from the total amount of RAM identifies the amount of RAM available for all the other memory clients.
	<b>Configuration Menu:</b> No equivalent
<b>Printer Memory</b>	Shows the size (in KB) of the total amount of RAM that your printer has.
	<b>Configuration Menu:</b> Administration/Memory/Manual Config/MB Printer Mem

### Hard Disk Status

This hotlink provides the status of the hard disk.

<b>Disk(s)</b>	Provides the name, size, and free space on all attached hard disks.
	<b>Configuration Menu:</b> No equivalent
<b>Total</b>	Identifies the total space and free space on all attached hard disks.
	<b>Configuration Menu:</b> No equivalent

### Timeouts

This hotlink provides the status on established timeouts.

<b>Wait</b>	Shows the maximum number of seconds the PostScript emulation waits for incoming data before ending the job.
	<b>Configuration Menu:</b> Administration/Communications/Timeouts/PS Wait Timeout
<b>Job</b>	This shows the maximum number of seconds the printer processes a PostScript job before it ends the job.
	<b>Configuration Menu:</b> Administration/Communications/Timeouts/Job Timeout

<b>Emulation</b>	Shows the maximum number of seconds emulations other than PostScript wait for incoming data.
	<b>Configuration Menu:</b> Administration/Communications/Timeouts/Emulation Timeout
<b>ESP</b>	Shows the maximum amount of time ESP will wait to get a minimum amount of data before selecting an emulation.
	<b>Configuration Menu:</b> Administration/Communications/Timeouts/ESP Timeout

## Printer Jobs

The Printer Jobs hotlink on the home page jumps to the Printer Jobs page. This page contains information about the current jobs the printer is processing and information on the previous five jobs printed.

**Current Job Status**

Product Name: QMS magicolor 2+
Printer Name: ERITREA
Online status: Online

**Current Jobs**  
No Current Jobs

**Previous Jobs**

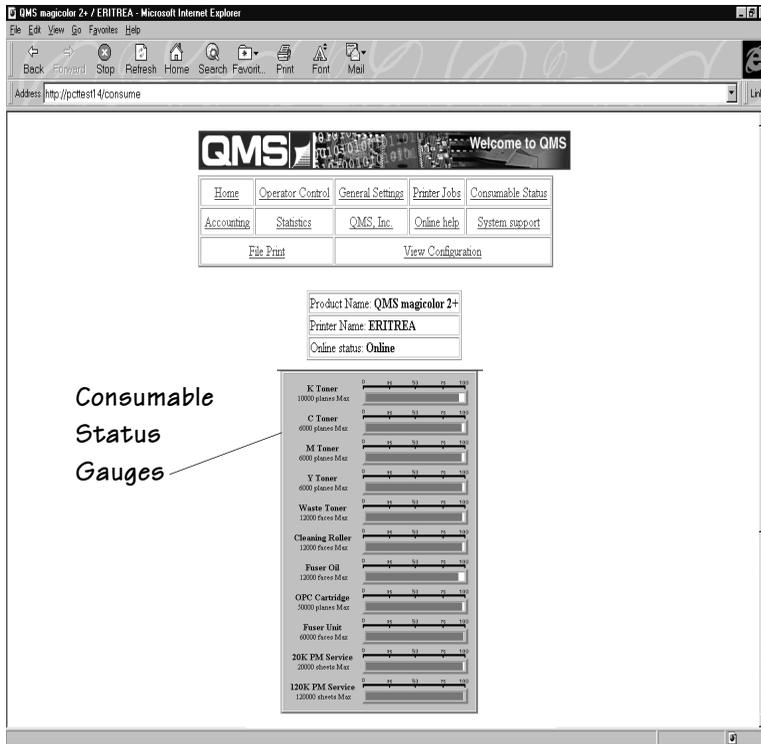
Job	Status	Prio	Owner	Title	Interface	Sheet	Page
1	Printed	1	Unknown	Untitled	Fast-Ethe-NI	0	0

<b>Job</b>	Indicates the job number of the current print jobs and up to five previous print jobs.
	<b>Configuration Menu:</b> No equivalent.
<b>Status</b>	Indicates the status of each job. (Interpreting, Spooling, Spooled, Printing, Printed)
	<b>Configuration Menu:</b> No equivalent
<b>Prio[rity]</b>	Shows the priority of each job.
	<b>Configuration Menu:</b> No equivalent
<b>Owner</b>	Shows the name of the owner of each current job.
	<b>Configuration Menu:</b> No equivalent
<b>Title</b>	Shows the title of each job.
	<b>Configuration Menu:</b> No equivalent
<b>Interface</b>	Identifies the interface over which the job was sent to the printer.
	<b>Configuration Menu:</b> No equivalent
<b>Sheet</b>	Shows the number of physical sheets of media printed for each job.
	<b>Configuration Menu:</b> No equivalent.
<b>Page</b>	Indicates the number of pages printed for each job.
	<b>Configuration Menu:</b> No equivalent

## Consumable Status

The Consumable Status hotlink on the home page jumps to the Consumable Status page. This page contains information about the level of usage of all of the printers' consumables.

- » **Note:** *The scales are an estimate, reported as a percentage, and do not indicate the exact amount of consumables used. In addition, the life expectancy of each consumable is based on printing under specific operating conditions, such as media type, number of color planes, page size, and page coverage (usually 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.*



<b>Consumable Name</b>	Identifies the consumable (for example, Black Toner or 20K PM Service).
	<b>Configuration Menus:</b> Operator Control/Consumables and Administration/Consumables
<b>Consumable Max Number</b>	Shows the maximum capacity of the consumable (for example, 10000 planes or 120000 sheets).
	<b>Configuration Menus:</b> Operator Control/Consumables and Administration/Consumables
<b>Consumable Usage Gauges</b>	Shows the remaining amount of the consumable (in percentages, not planes, faces, or sheets).
	<b>Configuration Menus:</b> Operator Control/Consumables and Administration/Consumables

## Accounting

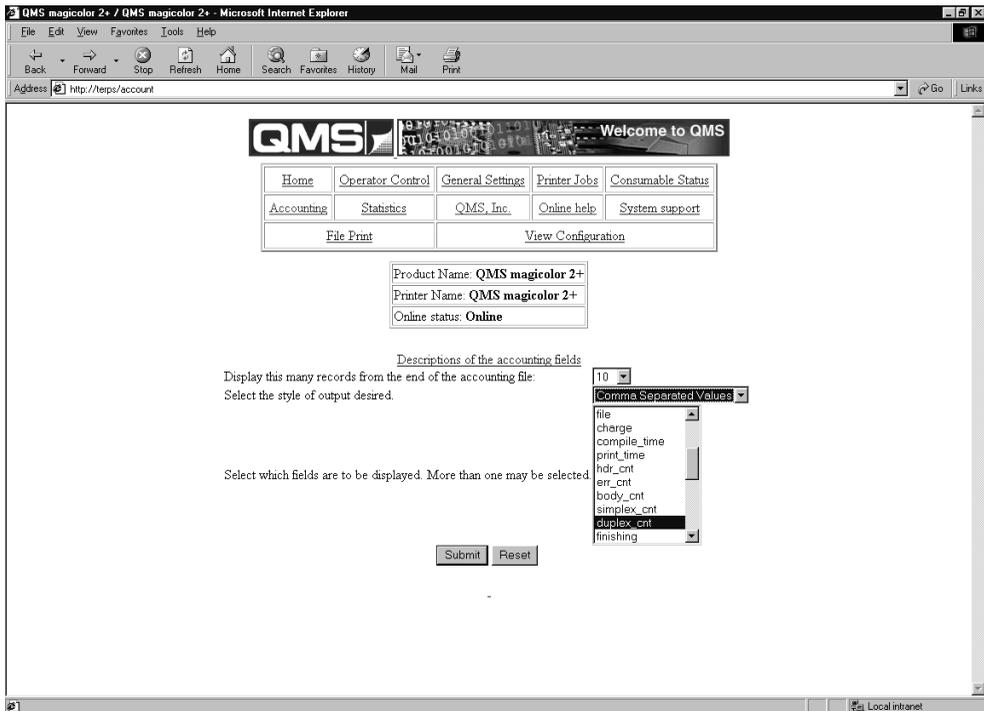
The Accounting hotlink on the home page jumps to the Accounting page, which contains information about accounting configuration settings.

When accounting is enabled, the information may be retrieved via the printer's internal Accounting page, as well as by other methods.

- » **Note:** *Installation of the optional printer hard disk is required to support the Accounting feature.*

On entry to the Accounting page, if accounting records are available, the user is presented with a table which can be used to select only the record fields desired.

The user can specify the number of accounting records to display, as well as the display format: HTML, or Comma Separated Values (CSV). Multiple fields may be highlighted for display. The user may then either reset his selections (using the Reset button), or submit them (using the Submit button) for processing.



## Printer Home Page

After clicking on the Submit button, the user is linked to a new web page that offers display choices for the accounting information.

The accounting records may be displayed immediately in the user's web browser, or uploaded as a file to the host for later printing.

If Accounting is disabled, the following information is displayed:

<b>Mode</b>	Shows whether accounting is enabled or disabled.
	<b>Configuration Menu:</b> Operator Control/Accounting/Mode
<b>Disk Space</b>	Shows how much disk space is allocated to job accounting files.
	<b>Configuration Menu:</b> Operator Control/Accounting/Disk Space
<b>File Segment</b>	Shows whether accounting information is stored in the printer in a single file or in multiple files.
	<b>Configuration Menu:</b> Operator Control/Accounting/File Segment

## Statistics

The Statistics hotlink on the home page jumps to the Statistics page. This page can be used to view current statistics about the consumables.

QMS magicolor 2+ / QMS magicolor 2+ - Microsoft Internet Explorer

Address: http://reputata

QMS Welcome to QMS

Home Operator Control General Settings Printer Jobs Consumable Status  
 Accounts Statistics QMS, Inc. Online help System support  
 File Print View Configuration

Product Name: QMS magicolor 2+  
 Printer Name: QMS magicolor 2+  
 Online status: Online

System Release: 1.0.0 Serial Number: Q  
 [Error: NVRAM/TOD Count Mismatch]

### Statistics

Consumables	E Toner	Max. Life	% Remaining	Count
				Remaining
E Toner	10000	83%	8310	
C Toner	6000	81%	4876	
M Toner	6000	84%	5081	
Y Toner	6000	78%	4712	
Waste Toner	12000	88%	10626	
Cleaning Roller	12000	88%	10626	
Fuser Oil	10000	83%	10001	

Partial Sample Only

<b>Sheets</b>	Sheets all sizes	1989	1989	1989
	Paper Sheets	1989	1989	1989
	Transparency	0	0	0
	Normalized Sheets	1988.9	1988.9	1988.9
	Normalized Faces	1988.9	1988.9	1988.9
<b>Faces</b>	Monochrome K	1049	1049	1049
	Color	940	940	940
<b>Planes</b>	E Planes	1762	1762	1762
	C Planes	914	914	914
	M Planes	891	891	891
	Y Planes	938	938	938
	Total Planes	4505	4505	4505
<b>Coverage</b>	Average %K	4.6	4.6	4.6
	Average %C	3.6	3.6	3.6
	Average %M	2.3	2.3	2.3
	Average %Y	3.2	3.2	3.2
	Total %Coverage	13.8	13.8	13.8
	Standard Faces	1374.0	1374.0	1374.0

Notes:  
 1) Coverage numbers are normalized to a letter size face  
 2) Standard Faces are letter size faces at 5% coverage each color

<b>Consumables</b>	Shows Max. Life, % Remaining, and Count Remaining of consumables
	<b>Configuration Menu:</b> No equivalent
<b>Maintenance</b>	Shows Max. Life, % Remaining, and Count Remaining for maintenance
	<b>Configuration Menu:</b> No equivalent
<b>Sheets</b>	Shows the number of sheets printed for the Lifetime, User, and service periods
	<b>Configuration Menu:</b> No equivalent
<b>Faces</b>	Shows the number of faces printed for the Lifetime, User, and service periods
	<b>Configuration Menu:</b> No equivalent
<b>Planes</b>	Shows the number of planes printed for the Lifetime, User, and service periods
	<b>Configuration Menu:</b> No equivalent
<b>Coverage</b>	Shows the average page coverage for Lifetime, User, and service periods
	<b>Configuration Menu:</b> No equivalent

## System Support Page

The System Support hotlink on the home page jumps to the System Support page. This page can be used to set up internal support for the printer as well as to link to the QMS web site.

**Support Form Data**

**System support**

Select the desired page refresh rate:  Off  15 Sec.  30 Sec.  60 Sec.  5 Min.

If you need assistance, contact:

Contact Number:

Printer help URL:

QMS Corporate URL:

For Product or Dealer Information:

SMTP Mail Server Address: \*

SMTP Sender's Domain: \*

Sender's address: \*

To: \*

CC (Separated by commas):

Subject:

When to send email on printer error:  Off  1 Min.  30 Min.  1 Hr.  Test

Email sent via: Resident NIC

*\* Indicates Required SMTP Parameter*

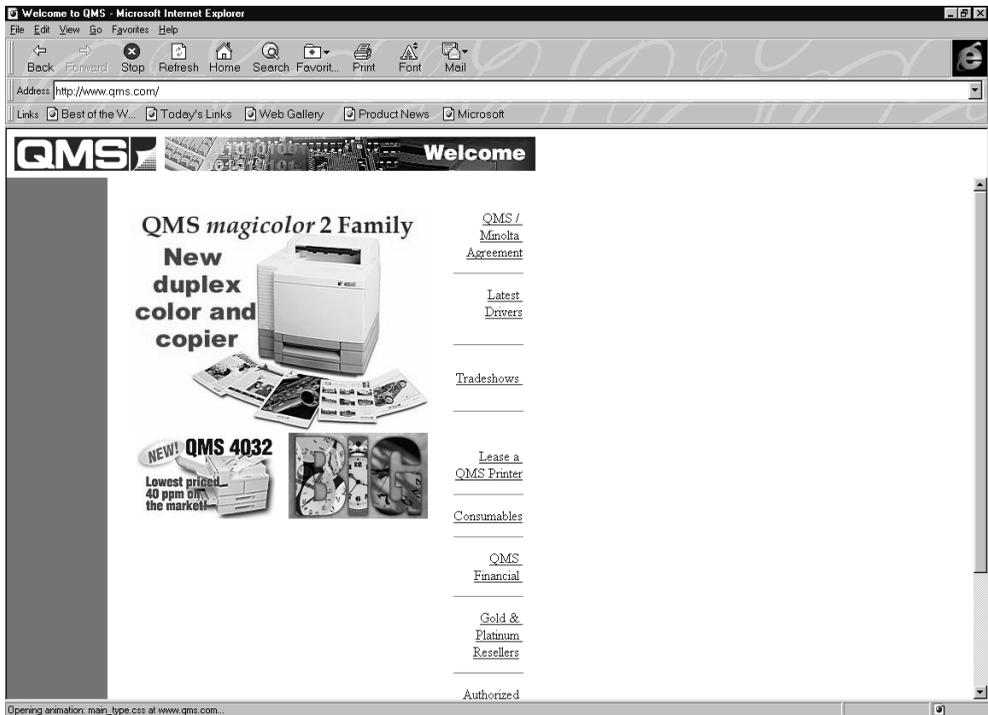
<b>Page refresh rate</b>	The rate at which information in the form is reset to the current printer settings.
<b>If you need assistance, contact</b>	A text box for entering the name of a local expert
	<b>Configuration Menu:</b> No equivalent
<b>Contact Number</b>	A text box for entering a local or QMS contact number
	<b>Configuration Menu:</b> No equivalent
<b>Printer Help URL</b>	A text box for entering a local or QMS printer help URL (web address)
	<b>Configuration Menu:</b> No equivalent
<b>QMS Corporate URL</b>	The QMS corporate URL (web address)
	<b>Configuration Menu:</b> No equivalent
<b>For Product or Dealer Information</b>	A text box for entering a local or QMS contact number
	<b>Configuration Menu:</b> No equivalent
<b>Email</b>	Text boxes for entering SMTP mail server address, sender's domain, sender's address, To: and CC information, and a subject line
	<b>Configuration Menu:</b> No equivalent
<b>When to send email on printer rate</b>	The rate for sending email
	<b>Configuration Menu:</b> No equivalent
<b>Email sent via</b>	The path email is sent (e.g., via Resident NIC)
	<b>Configuration Menu:</b> No equivalent

Once you've made the necessary changes, choose Submit.

- » **Note:** *If the page refresh rate is set to too small a time interval, you may lose your changes before you choose the Submit button.*

## QMS, Inc. Page

The QMS, Inc. hotlink on the home page jumps to the QMS web site configured on the System Support page (<http://www.qms.com>). From the QMS web site you can access information about other QMS printers, contact information, a FAQ database (Frequently Asked Questions at <http://www.qms.com/support>, then click on FAQs), printer manuals, and online performance support.

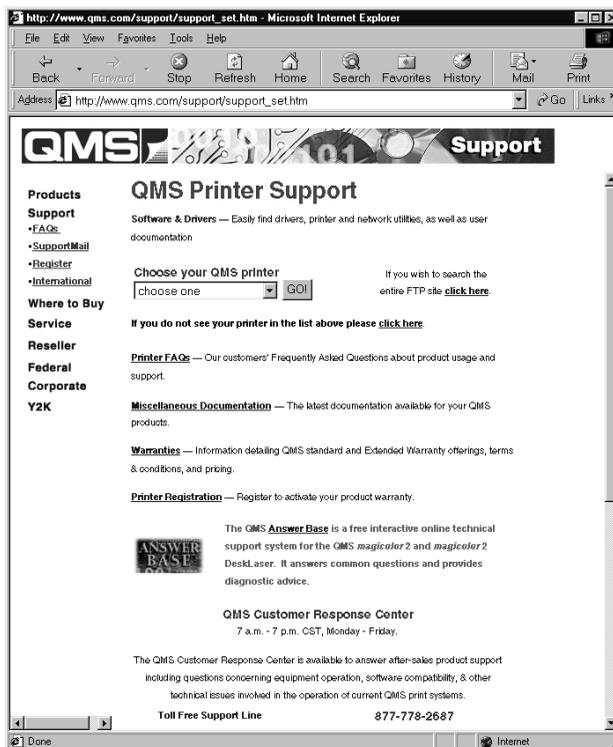


## Online Help Page

The Online Help hotlink on the home page jumps to any help information that has been configured on the System Support page (Printer Help URL). You can configure this to jump to your own help web site set up on your local intranet or to the QMS online performance support information for your QMS print system.

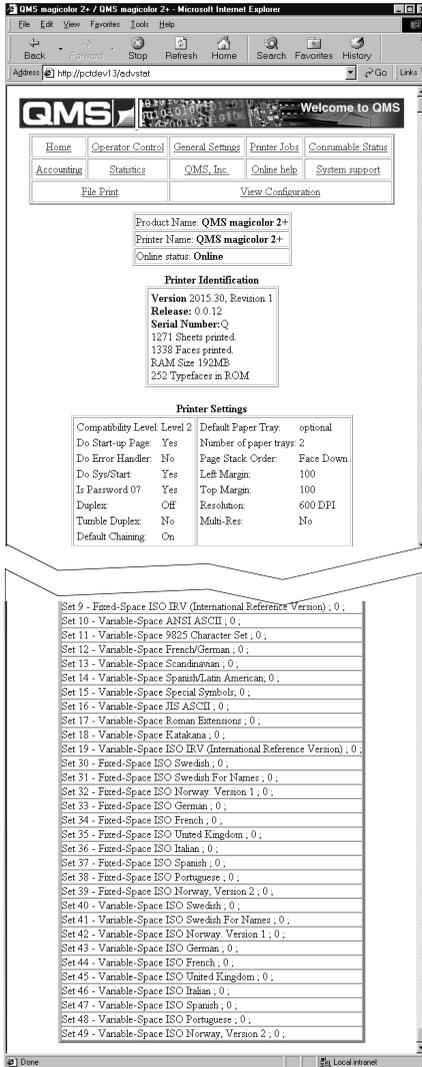
## Web Page Help System

Your printer web page is supported with help and support tools located at the QMS web site. If you typed in the QMS online performance support address on the System Support page (Printer Help URL), when you click on the Online Help button on the printer home page you'll be linked to an HTML page located at the QMS web site. From here you can link to a topic which applies to your specific problem. You can also access a list of current FAQs (Frequently Asked Questions at [http://www.qms.com/support/support\\_set.htm](http://www.qms.com/support/support_set.htm)), then click on FAQs) about your print system.



## View Configuration

This page provides a listing of all printer menus, the options available, and the current setting. The format of the page, and information provided is similar to that provided by the Advanced Status Page printout.



Partial  
Sample  
Only

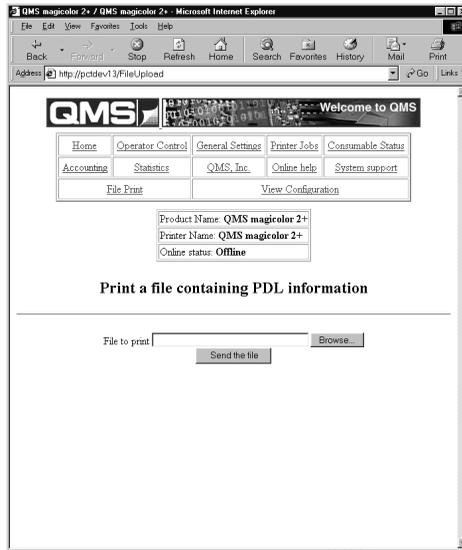
## File Print

- » **Note:** *File Print requires system code 5.31 or higher for 100 Mbit Ethernet (or EN5.31 or higher for 10 Mbit Ethernet) for this feature, or a message is displayed indicating that file printing support is not available. Check the startup page; if the system code is not 5.31 or higher for 100 Mbit Ethernet (or EN5.31 or higher for 10 Mbit Ethernet), contact the Customer Response Center to update the printer's software. See appendix A, "QMS Customer Support," for more information.*

This page allows the user to perform a direct print of a host file, which is already in a supported page description language format, such as PostScript, PDF, or PCL. The user enters the host path and file name of the file to be printed, up to 32 characters, and presses the Send the file button. A Browse button is provided which opens a file locator window, from which the user can simply click on the desired file to print.

- » **Note:** *The Browse button is supplied by the host browser. If the Browse button is not supported by the browser, file printing will not operate.*

If the Browse button is supported by the browser, the path and file name information is then automatically loaded, and the user needs only to press the Send the file button.



# **What's Next?**

Chapter 8, "Media Jams," explains automatic jam recovery, discusses how to prevent media jams, and then provides detailed information on how to find and remove media jams.





# 8

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## Media Jams

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### **In This Chapter . . .**

- “Introduction” on page 8-2
  - “Automatic Jam Recovery” on page 8-2
  - “Preventing Media Jams” on page 8-2
  - “Understanding the Media Path” on page 8-4
  - “Understanding Media Jam Status Messages” on page 8-6
  - “Removing Media Jams” on page 8-6
-

# Introduction

This chapter explains automatic jam recovery, discusses how to prevent media jams, and then provides detailed information on how to find and remove media jams.

## Automatic Jam Recovery

The QMS *magicolor* 2+ Print System provides automatic jam recovery (when enabled through the Administration/Engine/Page Recovery menu). After you remove any jammed media, printing automatically resumes from the page the printer stopped at when the jam occurred.

- » **Note:** *For automatic jam recovery to work, it is necessary to leave the printer turned on when you remove the jammed media. After the jam is cleared, open and close the top door before printing. Printing will not resume until you do this.*

## Preventing Media Jams

There are several things you can do to reduce the occurrence of media jams.

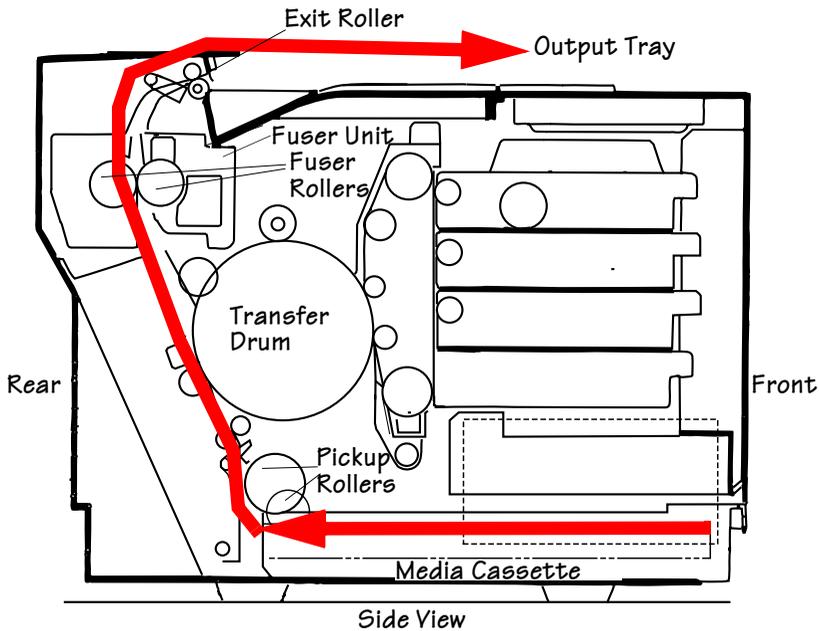
- Use media that matches the printer specifications.
- Make sure the media is not folded, wrinkled, or excessively curled.
- Do not overfill the media cassette. The cassette has a fill-limit mark on the inside left side.
- » **Note:** *Ensure that the media in the cassette is flat, especially on the leading edge.*
- If you have problems with double feeding, remove the media from the cassette and fan the sheets. They may be sticking together.
- » **Note:** *Do not fan transparencies since this causes static.*
- Remove transparencies from the output tray immediately to avoid static buildup.

- Do not allow the output tray to overfill.
- » **Note:** *The face-down output tray has a 250-sheet capacity. Jamming may occur if you allow media to accumulate more than 250 sheets at a time.*
- Store media in a dry location away from moisture and humidity.
- Make sure you've loaded the media printing-side up. Many manufacturers place an arrow on the end of the wrapper to indicate the printing side. If you can't determine which side of the media to print on, remove the media from the cassette, rotate the stack a half-turn, turn the stack over, and then place it back in the cassette.
- Ensure that you have the correct media type selected in the driver
  - Select Plain Paper for standard bond plain paper.
  - Select Thick Stock for envelopes, glossy stock, labels, thick stock, and transfer media.
  - Select Transparency for transparency media.
- Ensure that you have the correct print mode selected.
- » **Note:** *For media other than standard plain paper or transparencies, both the driver (Paper tab, Media Type option) **and** the Media key on the Control Panel (for the Print Mode) need to be selected to tell the printer that thick stock is loaded. It is important to use the Media key to set the tray to the appropriate print mode in order to obtain optimum printing results and to enable the toner to adhere better.*
- Ensure that the printer is on a hard, flat, level surface.
- Ensure that the cassette only contains one type of media at a time.

# Understanding the Media Path

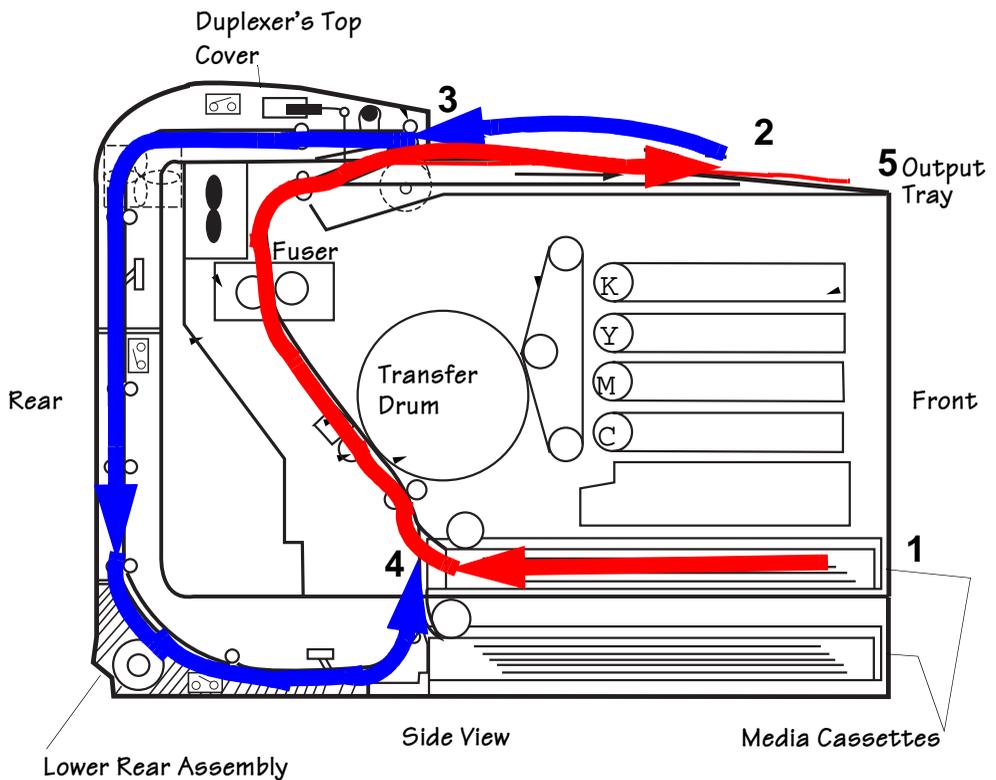
## CXE, GXE

Understanding the printer's media path will help you locate media jams. The media cassette is located at the bottom front of the printer. The media is picked from the cassette, passed under the transfer drum, passed through the fuser, and delivered via the paper exit unit to the media exit tray, which is the top of the printer. Access to the media path, in case of a media jam is through the printer's rear cover.



## EXD

Understanding the printer's media path will help you locate media jams. The media cassette is located at the bottom front of the printer. The media is picked from the cassette (shown as the number 1 on the diagram), passed under the transfer drum, passed through the fuser, momentarily emerges from the paper exit (2), reenters the duplexer (3), cycles through the transfer drum and fuser again (4), and is delivered via the paper exit unit to the output tray, which is the top of the printer (5). Access to the media path, in case of a media jam is through the duplexer's and the printer's rear covers.



- » **Note:** Since several sheets are cycling through the printer/duplexer at the same time, it only appears as if the back side of a duplexed sheet emerges instantly from the duplexer. If you experience a media jam, be sure to check which sheets have printed.

# Understanding Media Jam Status Messages

When a jam occurs, the message window on the control panel displays one of four messages: Misfeed Jam, Inner Jam, Outer Jam, Drum Jam, Or Duplex Jam. Frequent jams in any area indicate that area should be checked, repaired, or cleaned. Repeated jams may also happen if you're using the wrong weight print media.

- **Misfeed jams** occur in the standard upper input feeder or lower input feeder. A misfeed jam may be as simple as a sheet of media not being picked, or it may be that the media was picked but not fed properly. Access to this area is through the cassette slot.
- **Inner jams** occur in the transfer drum/transfer unit area. This type of jam means that the media did not make it to the paper exit area. Access to this area is through the printer's (and/or duplexer's) rear cover (and/or duplexer's lower rear assembly).
- **Outer jams** occur in the fuser/media exit area. Jams of this type usually means that media is stuck in the fuser/exit roller area. Access to this area is through the printer's (and/or duplexer's) top cover.
- **Drum jams** occur if the media winds around the transfer drum. Access to this area is through the printer's (and/or duplexer's) rear cover.
- **Duplex jams** occur in the duplexer area on the EXD models. Access to this area is through the duplexer's top cover, the duplexer's rear cover, and the duplexer's lower rear assembly.

## Removing Media Jams

- To avoid damage to rollers, always remove jammed media gently.
- Always try to remove jammed media without tearing it. Any pieces of media left in the printer, whether large or small, can obstruct the paper path and cause further jams.

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

### Misfeed Jams

- 1 Remove the media cassette(s).
- 2 Pull out the jammed media.
- 3 Ensure that the media is lying flat in the cassette(s) and that it doesn't exceed the media limit mark.
- 4 Slide the cassette(s) back into the printer.

### Inner Jams, Outer and Drum Jams

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

**ACHTUNG!** *Die Fixiereinheit wird sehr heiß! Bitte achten Sie darauf, daß sie diese einige Zeit abkühlen lassen, bevor Sie einen Papierstau beseitigen.*

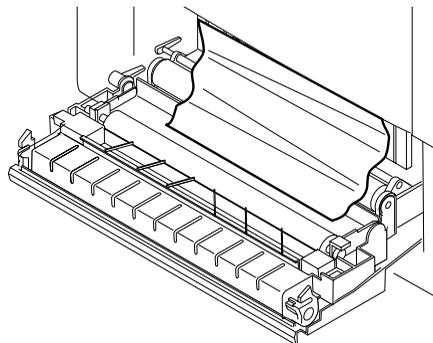
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- ◆ **Caution:** *Media that hasn't fully passed through the fuser contains unfused toner that can dirty your hands, clothes, or any thing else it gets on. If you accidentally get toner on your hands, wash them in cool water. If you accidentally get 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.*
- 

- 1 If you have a duplex model see “Duplexer Jams” on page 8-10.

The illustrations for steps 2 through 12 show the printer without the duplexer.

- 2 Open the rear cover of the printer.
- 3 Remove the jammed media by pulling it toward you.
- 4 Close the printer's rear cover.



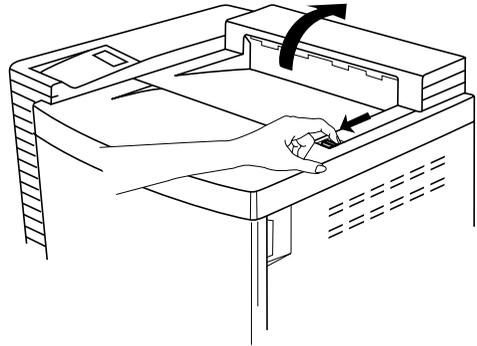
## Removing Media Jams

- 5 If there still is a jam message, open the printer's top cover.

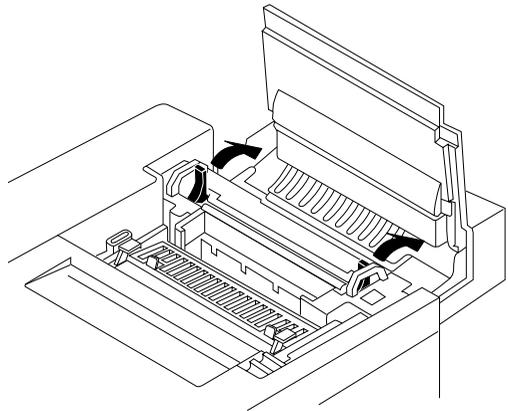
Pull the top latch to release the top cover.



**Caution:** *If you have a duplex model, make sure you have opened the duplexer's rear cover first. See "Duplexer Jams" on page 8-10. Forced opening of the top cover first may damage the unit.*



- 6 Remove the jammed media by pulling it toward you.
- 7 If it didn't come out easily, open the green fuser roller pressure release levers (one at each end of the fuser).



## Removing Media Jams

- 8 Remove the jammed media by pulling it from the bottom of the fuser (through the printer's [and/or the duplexer's] rear cover), not from the top of the fuser.

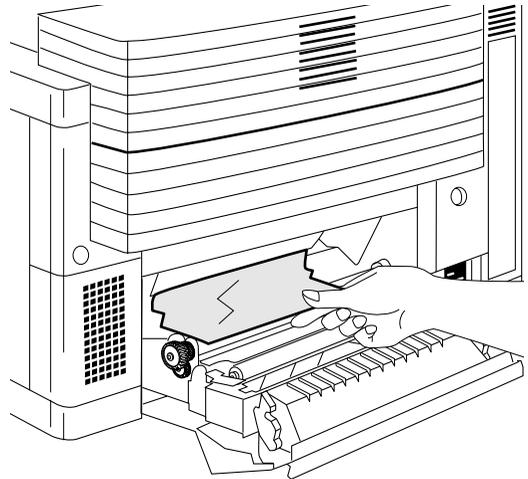
This prevents any unfused toner from dirtying the fuser rollers.



---

**Caution:** *Be careful not to touch the transfer drum while removing jammed media.*

---



- 9 Close the green fuser roller pressure release levers (one at each end of the fuser).
- 10 Close the top cover of the printer.
- 11 Close the rear cover of the printer.
- 12 Slide the cassette(s) back into the printer.

## Removing Media Jams

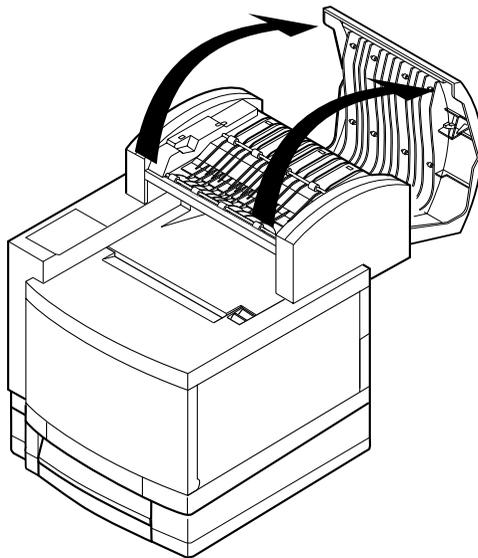
### Duplexer Jams

- 1 If you have a duplex model, open the duplexer's top cover.

If not, skip this section.

» **Note:** Use two hands to open the duplexer's top cover to avoid twisting its hinge.

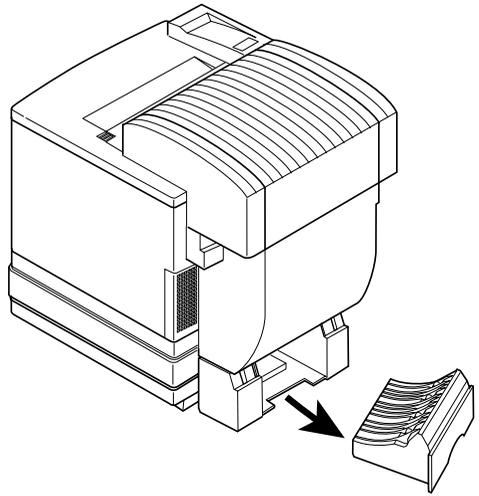
- 2 Remove the jammed media by pulling it toward you.
- 3 Close the duplexer's top cover.



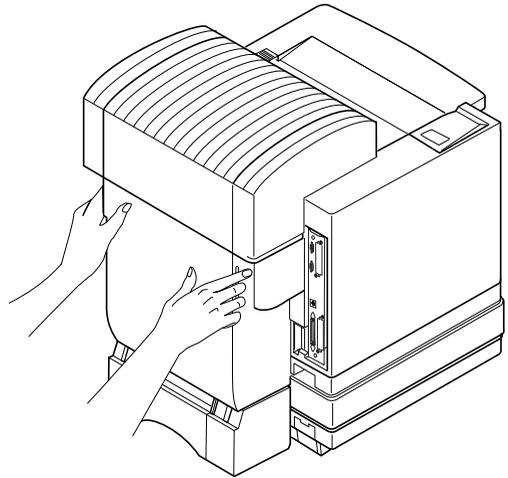
- 4 If there still is a jam message, open the media cassette.
- 5 Remove the jammed media by pulling it toward you.
- 6 Close the media cassette.

## Removing Media Jams

- 7 If there still is a jam message, remove the duplexer's lower rear assembly.
- 8 Remove the jammed media by pulling it toward you.
- 9 Reinsert the duplexer's lower rear assembly.



- 10 If there still is a jam message, open the duplexer's rear cover.



## Removing Media Jams

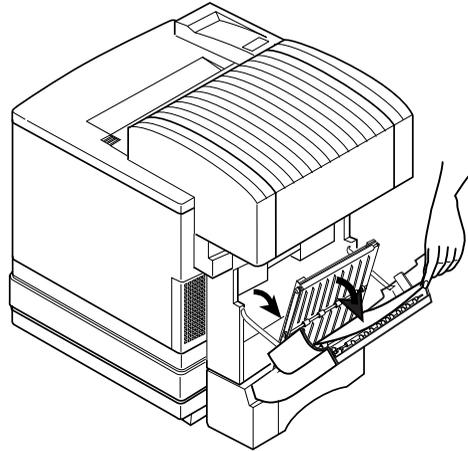
### 11 Tilt the paper path.

- ◆ **Caution:** *Hold the paper path unit by its corners to avoid the unit catching your fingers between it and the cover.*

### 12 Remove the jammed media in the paper path by pulling it toward you.

If the media came out easily, close the duplexer's rear cover.

If the media did not come out easily, keep the duplexer's rear cover open.

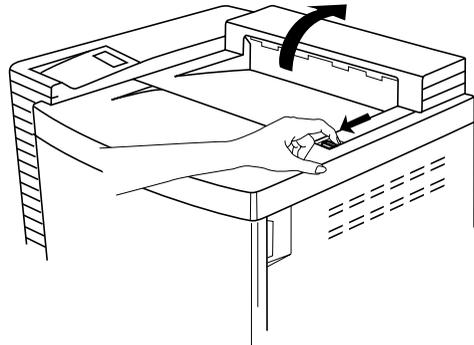


### 13 If there still is a jam message, open the printer's top cover.

Pull the top latch to release the top cover.

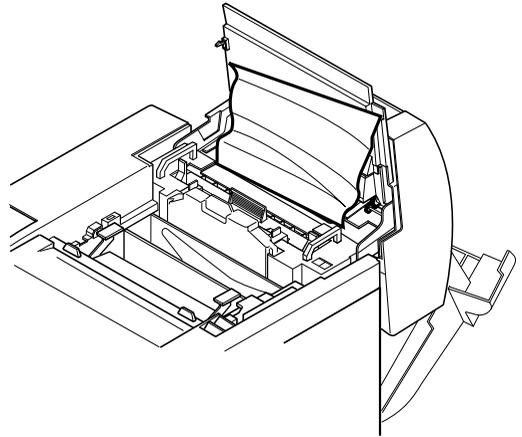
- » **Note:** *The illustration for step 13 shows the printer without the duplexer. However, the instructions are the same for both models.*

- ◆ **Caution:** *If you have a duplex model, make sure you have opened the duplexer's rear cover first. Forced opening of the top cover first may damage the unit.*



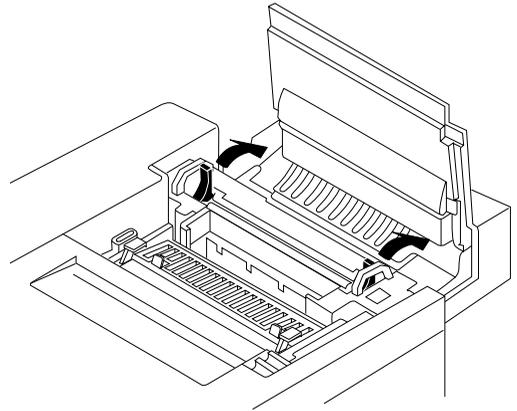
## Removing Media Jams

- 14 Remove the jammed media by pulling it toward you.



- 15 If it didn't come out easily, open the green fuser roller pressure release levers (one at each end of the fuser).

» **Note:** *The illustrations for steps 15 and 16 show the printer without the duplexer. However, the instructions are the same for both models.*



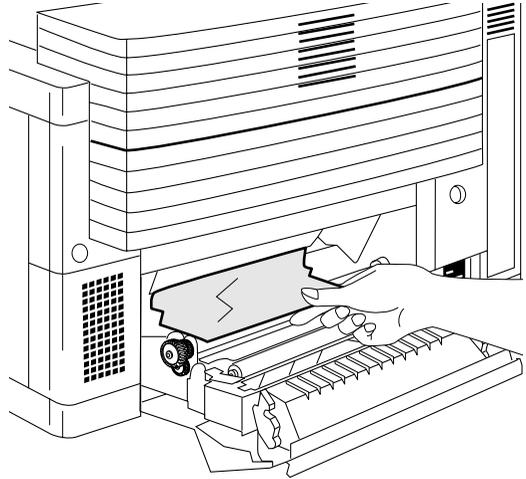
## What's Next?

- 16 Remove the jammed media by pulling it from the bottom of the fuser (through the printer's [and/or the duplexer's] rear cover), not from the top of the fuser.



**Caution:** *Be careful not to touch the transfer drum while removing jammed media.*

Removing the media from the bottom prevents any unfused toner from dirtying the fuser rollers.



- 17 Close the green fuser roller pressure release levers (one at each end of the fuser).
- 18 Close the printer's top cover.
- 19 Close the printer's rear cover.
- 20 Close the duplexer's rear cover.

## Other Jams

Remove jammed media from the output tray by gently pulling it toward you.

## What's Next?

Chapter 9, "Troubleshooting Printer Problems," provides information to aid you in resolving printer problems you may encounter, or at least guide you to the proper sources for help.



# 9

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## Troubleshooting Printer Problems

---

### **In This Chapter . . .**

- “Introduction” on page 9-3
  - “Status and Service Messages” on page 9-4
  - “HP-GL Error Codes and PCL Error Codes” on page 9-13
  - “Testing PC-Printer Communication” on page 9-14
  - “Testing Macintosh-Printer Communication” on page 9-22
  - “Printer Problem Checklist” on page 9-22
  - “OPC Belt Cartridge Problems” on page 9-24
  - “Control Panel Problems” on page 9-24
  - “Windows Driver Problems” on page 9-27
-

- “CrownNet Problems” on page 9-27
- “Output Problems” on page 9-29
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- “Placing a Service Call” on page 9-41

# 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. You'll find in this chapter tables of common status messages, a problem checklist, and actions you should take when a specific problem occurs. There are descriptions of common print quality problems with corresponding solutions. You'll also find the information you'll need to have before placing a service call if one becomes necessary.

## ***magicolor 2+* Answer Base**

The QMS Answer Base is a free interactive online technical support system for the QMS *magicolor 2+*. It answers common questions and provides diagnostic advice. To access the Answer Base, go to <http://www.qms.com/support>, and then select Answer Base.

The Answer Base helps you locate the information you need by asking you questions. In fact, it can provide results even when you don't quite know what to ask for or how to find it. Use the Answer Base before contacting technical support—you will likely find the answer to your question. However, if the answer is not available, you will be provided with specific QMS contact information to help solve your problem.

# Installation Troubleshooting

If you see this...	It's probably because...	Do this...
Colors aren't registering properly.	The OPC belt cartridge is not pushed all the way in.	Repeat the steps in "D. Installing the OPC Belt Cartridge," in the <i>Installation Guide</i> .
CHECK WASTE TONER message appears in the message window.	The waste toner pack isn't properly installed.	Make sure it sits loosely in its compartment and that the top of the pack is not wedged under the top of the compartment.
Printouts seem faded on one side of the page.	The printer is not on a level enough surface.	Level the printer surface. The slant of the surface holding the printer should not exceed 1.5° after the printer is placed on it (for example, a round pencil laid on the surface shouldn't roll in any direction).

## Status and Service Messages

If you see this...	It's probably because...	Do this...
The colors look drastically wrong.	The toner cartridges are not correctly installed.	Check the toner cartridge installation. Refer to "C. Installing the Toner Cartridges," in the <i>Installation Guide</i> .
The startup page comes out skewed.	The transfer unit was jarred open during the installation and needs to be closed.	Refer to the steps in "B. Unpacking the Printer" in the <i>Installation Guide</i> for information on opening and closing the unit.

If you've followed all of the instructions in this chapter and still have problems you can't solve, see appendix A, "QMS Customer Support," for information on getting help.

# Status and Service Messages

Status 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.

## Status Messages

- » **Note:** *Status messages are not displayed while the printer is off line.*

This status message...	means...	Do this...
ACC ALREADY DISABLED	The accounting option selected is now in effect.	No action needed.
ACC ALREADY ENABLED	The accounting option selected is now in effect.	No action needed.
ACC DISABLED	The accounting option selected is now in effect.	No action needed.
ACC ENABLED	The accounting option selected is now in effect.	No action needed.

## Status and Service Messages

This status message...	means...	Do this...
ACC FILES GOT REMOVED	The accounting option is disabled and the accounting files are empty. After a reset, the files are removed. This prevents you from wasting disk space with empty accounting files.	No action needed.
ACC JOB FILE FULL  ACC PAPER FILE FULL	The job or paper file is full.	If you want accounting enabled, copy the job accounting and paper accounting files to floppy disk(s), or transfer them to your host computer using ftp (if available). Then reset the accounting files so that new jobs can be accepted. If you don't want to use accounting, you can disable it.
ACC FILE 95% FULL ACC FILE 90% FULL ACC FILE 85% FULL ACC FILE 80% FULL	The Job Accounting File is 80, 85, 90, or 95% full.	See ACC JOB FILE FULL message for action needed.
ACC FILES NOT EMPTY, CANNOT SHRINK, KEEPING OLD SIZE	The Job Accounting file can be reduced in size only after a reset when the file is empty.	No action needed.
x ACTIVE JOBS	The printer is on line. (x identifies the number of jobs in process.)	No action needed.
ADJUST <i>INPUTBIN</i> BIN	The specified cassette is not inserted correctly.	Adjust the cassette.
<i>INPUTBIN</i> BIN JAM	Media has jammed while being pulled from the specified cassette.	Clear the jam from the specified cassette.

## Status and Service Messages

This status message...	means...	Do this...
BACK PANEL OPEN	The rear cover over the transfer unit is not closed.	Close the rear cover.
BELT CARTRIDGE MIS-INSTALLED	The OPC belt cartridge is either missing or incorrectly installed.	Ensure that an OPC belt cartridge is correctly installed.
CANCEL JOB	The Cancel key has been pressed, and one or more of the print jobs in the print queue are being canceled.	Press Select and the oldest job in the print queue will be canceled.
CANCEL ALL JOBS	The Cancel key has been pressed, and one or more of the print jobs in the print queue are being canceled.	Press Select for all jobs with a printing, interpreting, spooled, or terminating status to be completely removed from the system.
CHECK CLEANING ROLLER	The cleaning roller needs to be replaced.	Install a new cleaning roller.
CHECK WASTE TONER	Either the waste toner pack is full and needs to be replaced, or it is incorrectly installed.	Ensure that the waste toner pack is not full and is correctly installed.
CLOSE ENGINE DOOR(S)	One or more of the front or side covers is open and must be closed.	Close the front or side covers.
COOLDOWN	After 200 1-sided (or 100 2-sided) pages of a continuous print run of plain paper, the <i>magicolor 2+</i> automatically pauses for 3 minutes to cool down the engine	No action needed.
CREATED FILE	The accounting file has been created.	No action needed.

## Status and Service Messages

This status message...	means...	Do this...
CREATING XXXXXXXXXXXXX FILE, PLEASE WAIT	The specified accounting file is created when accounting is enabled and the files are not in existence or these files are created following a Reset Accounting. (XXXXXXXXXXXX represents the Job Accounting or Paper Accounting file.	Wait. No other action needed.
DRUM JAM	Media has jammed in the drum area.	Locate and remove the jam.
DUPLEX JAM	Media has jammed in the duplexer.	Locate and remove the jam.
DUPLEX UNIT OPEN	One of the duplexer doors is open.	Ensure all doors are fully closed.
END JOB	The Cancel key has been pressed and the End Job option selected.	Press Select to provide an end-of-job indicator for a print job that does not have one
EXTENDED ACCOUNTING FILE SIZE	The size of the non-empty accounting file has been increased successfully.	No action needed.
FUSER MISINSTALLED	The fuser is not fully seated.	Ensure the fuser is fully seated.
FUSER OIL EMPTY	The oil bottle for the fuser is empty. The printer will not print any more copies until a new oil bottle is installed.	Install a new fuser oil bottle.

## Status and Service Messages

This status message...	means...	Do this...
FUSER OIL LOW	The oil bottle for the fuser unit is running low.	If you have a new fuser oil bottle on hand, you may want to install it now. If you don't, order one now. A limited number of copies (about 100) will still print. However, when the oil runs out, the printer stops and the <b>FUSER OIL EMPTY</b> message appears.
IDLE	The printer is on line, but no jobs are in process.	No action needed.
INITIALIZING	The printer is warming up and getting ready to go on line.	Wait. No other action needed.
INNER JAM	Media has jammed leaving the OPC belt cartridge area.	Locate and remove the jam.
INPUT IDLE PRINTING	The printer is on line and printing jobs already in the queue. No new jobs are arriving at the communication interfaces.	No action needed.
OUTER JAM	Media has jammed between the print engine and the output tray.	Locate and remove the jam.
OUTPUT BIN FULL	The media has exceeded the limit (such as over 250 sheets of 20 lb [75 g/m <sup>2</sup> ] bond) in the output bin.	Remove the media from the output bin.
MISFEED JAM	Media has jammed between the print engine and the input cassette.	Locate and remove the jam.
PRINTING STATUS	A status page is printing	Wait until after the status page prints, and the message clears.

## Status and Service Messages

This status message...	means...	Do this...
PUT <i>SIZE</i> PAPER IN <i>INPUTBIN</i> BIN	The Operator Control/Chain Inputbins is set to Off and the displayed cassette is empty. Refill it with the specified size media. <i>SIZE</i> is the media size detected by the engine, and <i>INPUTBIN</i> is the empty cassette.	Refill the cassette with the specified size media.
PUT <i>SIZE</i> PAPER IN ANY BIN	Operator Control/Chain Inputbins is set to On and a chained cassette is empty.	Refill the cassette with the specified size media.
REPLACE BELT	The OPC belt cartridge need replacing.	Install a new belt cartridge.
RESETTING ACCOUNTING	The reset accounting operation is in process.	No action needed.
TEST PRINT	A test print page is printing.	No action needed.
TONER MISINSTALLED	The toner cartridge is not installed.	Install a toner cartridge.
x TONER EMPTY	The x (color) toner cartridge is empty.	Replace the toner cartridge.
x TONER LOW	The x (color) toner is low. There is enough toner left to print 330 pages before the printer stops.	Redistribute the toner in the cartridge, or replace the cartridge.
TOP COVER OPEN	The top cover of the printer is not fully closed.	Ensure the top cover is fully closed.
TR UNIT MISINSTALLED	The transfer unit is not installed incorrectly.	Check the transfer unit installation.
TRANSPORT JAM	Media has jammed while passing through the engine.	Locate and remove the jam.
WAITING FOR IDLE	An active job is in process. Access to the menu is not allowed until the job is finished.	Wait until the print job is finished and the printer goes idle.

## Status and Service Messages

<b>This status message...</b>	<b>means...</b>	<b>Do this...</b>
WAITING ON INPUT END JOB?	The compiler is waiting on incoming data for the first job in the queue. The job may not have an end-of-job indicator and therefore cannot end. The message clears if more input arrives from the port or if you press the Cancel key. No other jobs can be printed until this job has ended.	Wait until the job is finished and the printer goes idle to access the configuration menu.
WARMING UP	The printer is warming up.	Wait. No other action needed.

**Service Messages**

This service message...	Means...
CALL FOR SERVICE C3 NVRAM ERROR	<p>An error has been detected with the item indicated in the service message. Correction of these errors is performed by qualified QMS service personnel only. Contact your QMS vendor.</p> <p>» <b>Note:</b> <i>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.</i></p> <p>Service calls should be placed to the vendor from whom you purchased the printer. If you cannot get service from your vendor, see appendix A, "QMS Customer Support," for more information.</p>
CALL FOR SERVICE C4 ENG CTRLR HW	
CALL FOR SERVICE C7 TIMING CLOCK	
CALL FOR SERVICE D1 Y CLUTCH	
CALL FOR SERVICE D2 M CLUTCH	
CALL FOR SERVICE D3 C CLUTCH	
CALL FOR SERVICE D4 K CLUTCH	
CALL FOR SERVICE D5 YK SOLND	
CALL FOR SERVICE D6 MC SOLND	
CALL FOR SERVICE E1 DEVLPR MOTOR	
CALL FOR SERVICE E2 MAIN MOTOR	
CALL FOR SERVICE E3 DRUM ERROR	
CALL FOR SERVICE E4 TONER SENSOR	
CALL FOR SERVICE E5 ROLLER SOLND	
CALL FOR SERVICE E6 CLEAN SOLND	
CALL FOR SERVICE E7 CLEAN CLUTCH	
CALL FOR SERVICE E8 FUSER CLUTCH	
CALL FOR SERVICE E9 BELT MARKER	
CALL FOR SERVICE EL ERASE LED	
CALL FOR SERVICE F0 COOLING FAN	
CALL FOR SERVICE F2 OZONE FAN	

## Status and Service Messages

This service message...	Means...
CALL FOR SERVICE F4 FUSER FAN	See the information on the previous page.
CALL FOR SERVICE F5 CHRГ HV UNIT	
CALL FOR SERVICE H0 FUSER THERM	
CALL FOR SERVICE H2 FUSER TEMP 2	
CALL FOR SERVICE H3 FUSER TEMP 3	
CALL FOR SERVICE H4 FUSER TEMP 4	
CALL FOR SERVICE L1 BEAM DETECTR	
CALL FOR SERVICE L2 SCANNER MOTR	
CALL FOR SERVICE LL LASER POWER	
CALL FOR SERVICE P1 DUP CTRLR HW*	
CALL FOR SERVICE P2 DUP NVRAM**	
CALL FOR SERVICE P4 DUP MOTOR**	
CALL FOR SERVICE P5 DUP SOLND**	
CALL FOR SERVICE P6 OPT FAN ERROR**	

\* DUP CTRLR HW: Duplex Controller Hardware error. The error messages P1 through P6 apply only to the EXD model.

\*\*The error messages P1 through P6 apply only to the EXD model.

# HP-GL Error Codes and PCL Error Codes

The following tables list error codes that could appear on the printer message window when running the HP-GL or PCL emulation.

HP-GL	
Error Code	Description
0	Not enough memory for job.
1	Too many transformations.
2	Math error.
3	Job aborted.
4	Instruction not recognized.
5	Wrong number of parameters.
6	Out of range parameter, or illegal character.
7	Not used.
8	Unknown character set.
9	Position overflow.
10	Buffer overflow.
11	Not used.

PCL	
Error Code	Description
0	Not enough memory for job.
1	State lost.
2	Math error.
3	Job aborted.
4	Out of memory for macros.
5	Disk full. Cannot store fonts.
6 - 13	Internal error 1 - 8.

# Testing PC-Printer Communication

To test communication between your printer and your PC, first create a short file that ejects a page from the printer. Then send the file to the printer.

## Creating the Test File

To create the test file, type the following commands at the DOS prompt:

```
copy con printest.ps↵  
showpage↵  
^D^Z↵
```

(All commands above except the DOS **copy** command are case sensitive and must be typed exactly as shown.) Showpage is a PostScript command that prints a blank page. The ↵ symbol means to press the Enter key. To produce the ^D and ^Z, press and hold down the Ctrl key while you type the appropriate letters (d and z). These characters signify the end of the file and must always be included.

## Sending the Test File

### Ethernet Communication

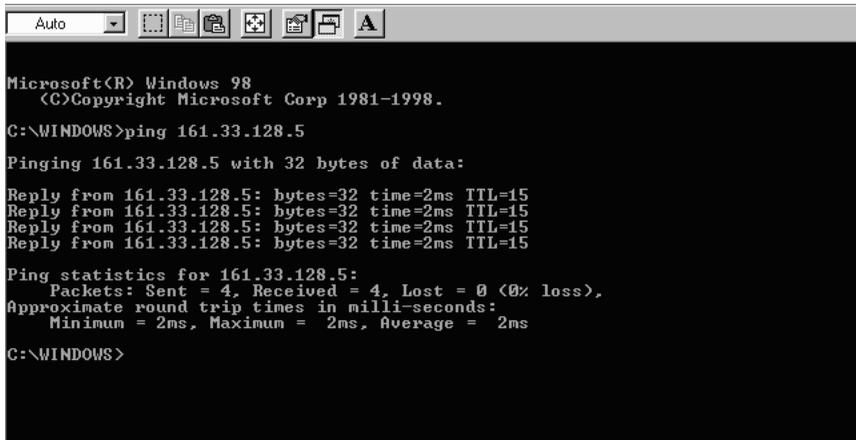
First you need to check and make sure the printer is on the network by pinging the printer.

If you have a PC:

- 1 **Go to Start/Programs/MS-DOS Prompt (Start/Programs/Command Prompt for NT).**
- 2 **In the DOS window, type:**

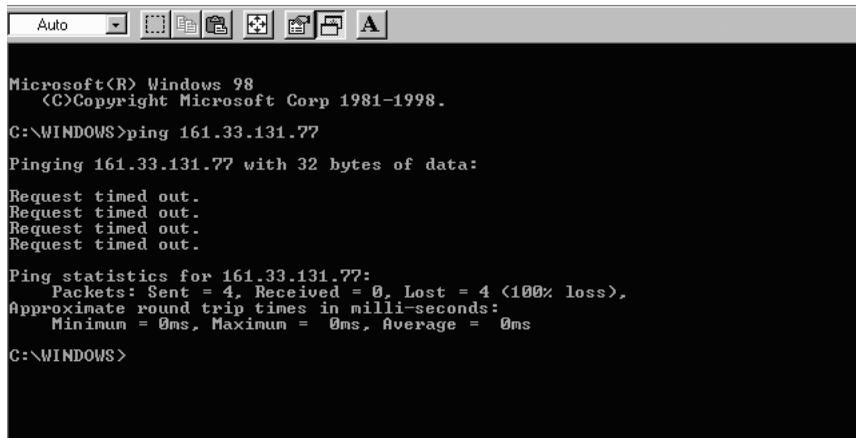
```
ping ipaddress↵          (for example, ping 161.33.128.5↵)
```

If everything is working correctly, you will see output such as:



```
Microsoft(R) Windows 98
(C)Copyright Microsoft Corp 1981-1998.
C:\WINDOWS>ping 161.33.128.5
Pinging 161.33.128.5 with 32 bytes of data:
Reply from 161.33.128.5: bytes=32 time=2ms TTL=15
Ping statistics for 161.33.128.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 2ms, Average = 2ms
C:\WINDOWS>
```

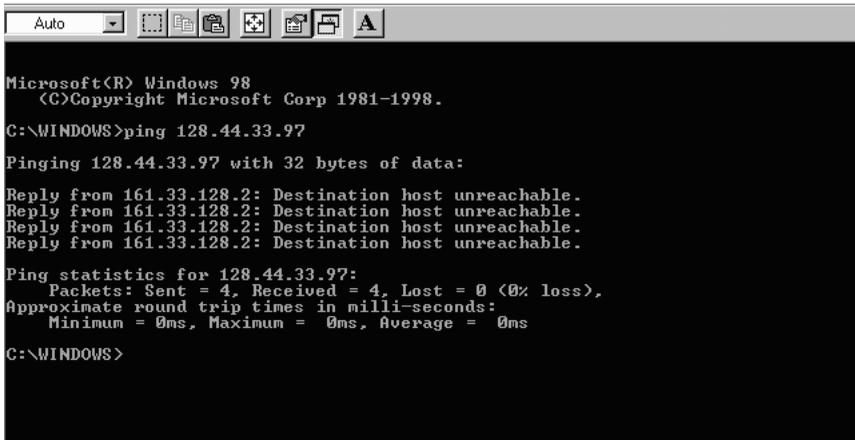
If it doesn't detect the printer on the network, which is usually an incorrect IP address or bad cabling, you will see the following:



```
Microsoft(R) Windows 98
(C)Copyright Microsoft Corp 1981-1998.
C:\WINDOWS>ping 161.33.131.77
Pinging 161.33.131.77 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 161.33.131.77:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\WINDOWS>
```

## Testing PC-Printer Communication

If you have the IP scheme set incorrectly on your PC, then you will get the following:



```
Microsoft(R) Windows 98
(C)Copyright Microsoft Corp 1981-1998.

C:\WINDOWS>ping 128.44.33.97

Pinging 128.44.33.97 with 32 bytes of data:

Reply from 161.33.128.2: Destination host unreachable.

Ping statistics for 128.44.33.97:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\WINDOWS>
```

- 3 If you are running a UNIX box:
  - a Open a window on your UNIX box.
  - b In the window, type:  
`ping ipaddress↵` (for example, ping 161.33.131.62↵)
- 4 Next, you need to ftp and “put” a job to make sure that the jobs are going through to the printer.

## ftp Testing Information

Determine if the printer is actually receiving data from the workstation. The printer can still be receiving data, even though nothing prints. Before following the instructions below, ensure that your printer is powered on.

- 1 On a Windows machine, access the DOS prompt through Start/Programs/MS-DOS Prompt.

- 2 Open an ftp session at your PC or workstation by typing one of the following commands:**

```
ftp printername␣    (for example, ftp pctdv6␣)
ftp ipaddress␣      (for example, ftp 161.33.128.5␣)
```

- 3 When prompted for a user name and password, press Enter for both.**

An ftp> prompt displays.

- » **Note:** *If a message displays denoting invalid password, contact your system administrator. Otherwise, continue.*

- 4 At the ftp> prompt, change to binary mode by typing**

```
bin␣
```

- 5 At the ftp> prompt, send the file to the printer by typing**

```
put filename␣
```

where *filename* is the name of the test file.

- » **Note:** *A text file is preferable.*

The printer's message window reads 1 Active Job to indicate that the file is being printed.

However, if you have no text file for this test, you can type in one of the following, (choose the line applicable to your workstation type):

- a For Windows 95/98, type

```
put c:\autoexec.bat␣
```

- b for Windows NT, type

```
put c:\winnt\system.ini␣
```

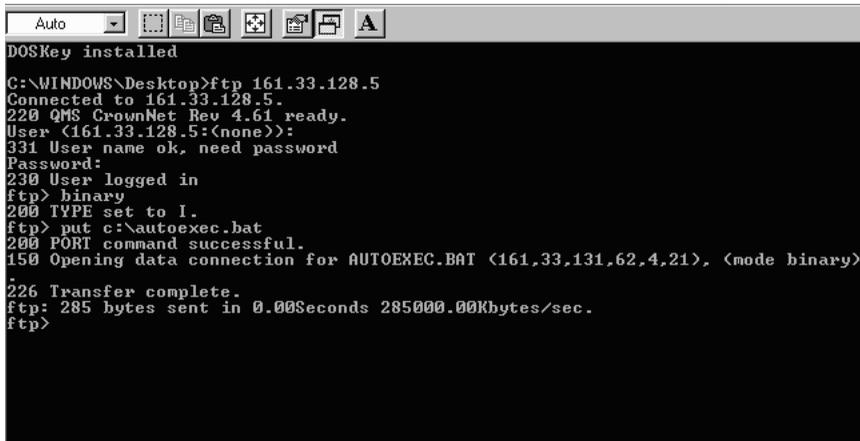
- c For UNIX, type

```
put /etc/hosts␣
```

The ftp> prompt returns when the file has finished.

## Testing PC-Printer Communication

The process will look like the following:



```
DOSKey installed
C:\WINDOWS\Desktop>ftp 161.33.128.5
Connected to 161.33.128.5.
220 QMS CrownNet Rev 4.61 ready.
User <161.33.128.5:(none)>:
331 User name ok, need password
Password:
230 User logged in
ftp> binary
200 TYPE set to I.
ftp> put c:\autoexec.bat
200 PORT command successful.
150 Opening data connection for AUTOEXEC.BAT (161.33.131.62.4.21). (mode binary)
226 Transfer complete.
ftp: 285 bytes sent in 0.00Seconds 285000.00Kbytes/sec.
ftp>
```

If a page prints out, then you are communicating correctly. If not, contact the Customer Response Center.

### 6 At the `ftp>` prompt, end the ftp session by typing

`quit`

## Parallel Communication

### 1 To send the PRINTTEST.PS file (you just created) to the printer, type

```
copy /b printest.ps lpt#
```

where # is the port number (1 to 3).

» **Note:** If the computer has more than one parallel port, they're probably labeled. If not, check the computer documentation for the LPT port names.

### 2 If the printer and PC are communicating, a blank page ejects from the printer.

If a blank page doesn't eject and you typed the file correctly, you may want to check your AUTOEXEC.BAT file to see if LPT1 (the parallel port) is being directed to COM1 (the serial port):

#### a If the AUTOEXEC.BAT file contains the line

```
MODE LPT1:=COM1:
```

delete it.

- b Then type

```
MODE LPT1: , , P↵
```

The “P” represents infinite retry and it tells the PC to send print jobs until the printer accepts them.

- c Restart the PC and retry the communication test.

Refer to your DOS documentation for more information.

## **Serial Communication**

- 1 **To send the PRINTEST.PS file you just created to the printer, type**

```
copy /b printest.ps com#↵
```

where # is the port number (1 to 4).

- » **Note:** *If the PC has more than one serial port, they're probably labeled. If not, check the PC's documentation for the COM port names.*

- 2 **If the printer and PC are communicating, a blank page ejects from the printer.**

If a blank page doesn't eject and you typed the file correctly, you may want to check your AUTOEXEC.BAT file in DOS to make sure that the printer's serial port settings match those of the PC.

- a Look for a command line like this in your AUTOEXEC.BAT file:

```
MODE COM1:9600,N,8,1,P↵
```

In this example, the serial port settings are 9600 for baud rate, N (no) parity, 8 data bits, and 1 stop bit. The “P” stands for infinite retry.

- » **Note:** *If the **mode** statement isn't in your AUTOEXEC.BAT file, you may temporarily set these parameters at the DOS prompt to continue this test by typing the **mode** statement as shown above. To make this setting permanent, you'll need to add this statement to your AUTOEXEC.BAT file.*

- b Restart the PC, and then check the startup page, which prints when you turn on the printer (unless you disabled it). This tells you the current serial port settings for the printer.

## Testing PC-Printer Communication

- c If the serial settings (baud rate, parity, data bits, and stop bits) shown on the startup page match those in your AUTOEXEC.BAT file, you need make no further changes. Go to the section “Changing Serial Settings” later in this chapter.

If the printer’s serial port settings are different from your PC’s settings, use the printer control panel, as described in the following section, “Changing Serial Settings,” to make them match.

### Changing Serial Settings

Since your printer is configured at the factory for the most typical printing environments, the serial settings in your AUTOEXEC.BAT file and on the startup page should be the same. However, if they differ, you must configure the printer to use the serial settings specified in the AUTOEXEC.BAT file. Use the information in the following table.

<b>Press this key... to...</b>	<b>to...</b>	<b>The message window reads...</b>
<b>Online/Offline</b>	Turn off the Ready indicator and enable printer configuration.	IDLE
<b>Menu</b>	Access the configuration menu.	CONFIGURATION OPERATOR CONTROL
<b>Next</b>	Advance to the Administration menu.	CONFIGURATION ADMINISTRATION
<b>Select</b>	Access the Administration menu.	ADMINISTRATION COMMUNICATIONS
<b>Select</b>	Access the Communications menu.	COMMUNICATIONS TIMEOUTS
<b>Next</b>	Advance to the Serial menu.	COMMUNICATIONS SERIAL
<b>Select</b>	Access the Serial menu.	SERIAL MODE
<b>Next</b> (one or more times)	Advance to the Baud Rate menu.	SERIAL BAUD RATE

Press this key...	to...	The message window reads...
<b>Select</b>	Access the Baud Rate menu.	BAUD RATE *9600
<b>Next</b> (one or more times)	Advance to the correct baud rate.	BAUD RATE #
<b>Select</b>	Select the displayed baud rate.	# IS SELECTED
		SERIAL BAUD RATE

» **Note:** *If you need to change other settings, press the Next key to access the appropriate menu option, and then return to the point where you press the Select key to access the Administration menu and select the new settings.*

<b>Online/Offline</b>	Access the Save Changes option.	SAVE CHANGES? *NO
<b>Next</b>	Advance to the Yes option.	SAVE CHANGES? YES
<b>Select</b>	Save changes.	IDLE
<b>Online/Offline</b>	Put the printer back on line (the Ready indicator lights).	IDLE

### Verifying the Serial Setting Changes

- 1 Turn the printer off and on again to produce a startup page.**
- 2 Compare the serial port settings listed on the startup page to those in your AUTOEXEC.BAT file.**
- 3 Try the communication test again.**

If a blank page ejects from the printer, the printer and the PC are communicating. If a blank page doesn't eject and you typed the file correctly, refer to your DOS documentation for more information.

# Testing Macintosh-Printer Communication

## Testing Macintosh Communication

You can check communication between the printer selected in the Chooser and the Macintosh by sending a file to the printer from an application (see your application documentation for more information) or by printing a directory, as described here:

- 1 Display a disk or folder window.**
- 2 Set up page information.**
  - a From the File menu choose Page Setup.
  - b Select paper size, orientation, and other necessary options.
  - c Choose OK.
- 3 Print a directory or a window.**
  - a From the File menu choose Print Directory or Print Window. A dialog box appears.
  - b Select the printing options you want, and then choose OK.

## Printer Problem Checklist

This section contains a list of possible printer problems and solutions. Be sure you've followed the steps in the QMS *magicolor 2+ Installation Guide*.

If there is no status message in the control panel message window, use the following steps to identify the source of your problem and to learn of possible solutions:

- 1 Does the printer power light come on?**

**YES** - Go to number 2.

**NO** - Check the following:

  - Is power supplied to the AC outlet.

- Is the power cord plugged securely into both the power outlet and the printer? Check the power cord connection.
- Is the printer power switch in the On position (pushed in)?
- Is the power outlet working?
- Does the line voltage from the power outlet match the printer's power requirements? See appendix B, "Technical Specifications," in the *Reference* manual.

**2 Can you print a status page?**

**YES** - Go to question 3.

**NO** - Check the following:

- Is the printer off line before you try to enter the Administration/Special Pages/Print Status menu? It should be.
- Does the cassette have paper? If it is out of paper, the PAPER OUT message displays and the Error indicator lights.
- Are all the printer covers closed securely?
- Is there a media jam? If a paper jam message displays and the Error indicator lights, go to one of the following sections in this chapter on clearing a media jam.

**3 Is the printer receiving data from the computer?**

**YES** - If the Data indicator blinks after a file is sent, the printer is receiving the data. Go to question 4.

**NO** - Check the following:

- Is the printer on line? The online indicator should be on and the message window should display IDLE.
- Has the emulation been changed from ESP to an emulation that doesn't match the file you are sending. See chapter 4, "Printer Configuration," in the *Reference* manual.
- Print a status page from the control panel. If you are using the serial interface, is the baud rate (speed of data transmission) of the printer, the computer, and your software application the same? See chapter 4, "Printer Configuration," in the *Reference* manual.

## OPC Belt Cartridge Problems

- If you still cannot identify the problem, contact your QMS vendor.
- 4 Is the printer printing codes or not printing at all when in ESP mode?**
- Reconfigure the port to the specific printer emulation of the file you are trying to print. See chapter 4, “Printer Configuration,” in the *Reference* manual for instructions.
  - If a PostScript file prints PostScript statements while the printer is in ESP mode, increase the ESP timeout. See chapter 4, “Printer Configuration,” in the *Reference* manual for instructions.
  - If you continue to have problems with the ESP mode selecting the appropriate printer emulation, contact the QMS Customer Resource Center. Refer to appendix A, “QMS Customer Support.”
- 5 Is the color wrong on prints?**
- Check to see that you have the correct settings on the printer’s Color tab. See “Printer Drivers” in chapter 5 of this manual.

## OPC Belt Cartridge Problems

The OPC belt 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 limited to less than two minutes. If you suspect the belt is damaged due to exposure to light, put the belt in a dark place to recover. Depending on the amount of exposure, recovery may take up to two hours. Recovery time is dependent on the amount of exposure sustained, and recovery is not guaranteed.

## Control Panel Problems

### Data Indicator Stays Lit

If the printer has warmed up and the Data indicator stays on, two problems may exist. If you are downloading additional typefaces, too many can overload the printer’s

memory, causing the printer to reset and lose information previously downloaded to RAM. Make sure you have enough printer memory.

On a LocalTalk network, Macintosh computers sometimes interfere with each other. If this happens often, reinstall the LaserWriter and Laser Prep files, which reset the printer. If neither of these is the problem, place a service call to your QMS vendor.

### No Advanced Status Page

If your printer prints a standard status page even though you've configured the printer in the Administration/Special Pages/Status Page Type menu to print an advanced status page, your printer probably doesn't have enough free memory available. To print an advanced status page you may need to increase the amount of memory assigned to the K Mem for PS Heap memory client or add more memory (see the "Memory" section in chapter 5, "Additional Technical Information," in the *Reference* manual for information about memory clients).

### No Startup Page

If the Ready indicator is on, but no startup page prints, check the following:

- 1 Make sure the option to print startup is enabled in Administration/Startup Options/Do Startup Page.**
- 2 Did you wait long enough? From a cold start, the printer takes approximately 3 minutes to warm up.**  
Be sure you wait long enough for a startup page before suspecting a problem.
- 3 Check that the paper cassettes are loaded with paper, in place and secure.**
- 4 Check for a media jam.**
- 5 Make sure a toner cartridge is installed.**
- 6 Perform a restore defaults on the printer.**

From your control panel, select Administration/Miscellaneous/Restore Defaults/Factory Defaults/Yes.

- 7 Can you print a simple sentence such as "This is a test." from a simpler application on your computer (for example, WordPad or Notepad)? From your start menu on your computer, select Start/Programs/Accessories/Wordpad.**

## Control Panel Problems

- 8 **Have you verified that the driver is the one for your particular QMS printer? Delete it and reinstall it.**
- 9 **If you are printing from Quark or PageMaker, have you installed the correct ppd/pdf?**
- 10 **Turn on error handler under Administration/StartupOptions/Do Error Handler/Yes.**
- 11 **Reboot the printer and reprint the job.**

Do you get an error page?

If you still have not solved the problem, call the Customer Response Center toll free at (877) 778-2687. See appendix A, "QMS Customer Support," for further information.

## Paper Jam Message Stays On

If a media jam message stays on, open the printer and clear the jam.

- 
- ◆ **Caution:** *If you have an EXD model, always open the duplexer's rear cover before opening the printer's or duplexer's top cover. Forced opening of the top cover first may damage the unit.*
- 

If the message is still there, try opening and closing the top of the printer again. See the preceding section on clearing media jams for more information.

## Printer Resets

Occasionally, Macintosh applications interfere with each other. Applications send a printer prep file to the printer at the beginning of each document. Other prep files cannot be sent without resetting the printer. Monitor your activities to see if there is a correlation between your use of a certain application and the printer resetting. If so, contact the application developer.

Downloading too many typefaces can overload the printer memory and cause the printer to reset to default. Additional memory (RAM), which can be used for font storage, is available and easily installed. Contact your local vendor for information on RAM upgrades.

If the printer resets in other circumstances, you should call your local vendor for service.

## **PostScript Errors**

If your printer is having trouble printing when using PostScript emulation, you should turn on the Error Handler in the control panel menu. Error Handler is a diagnostic tool that identifies PostScript errors encountered during a print job.

<b>Menu</b>	Administration/Startup Options/Do Error Handler
<b>Choices</b>	Yes—Load the Error Handler on reboot. No—Don't load the Error Handler on reboot.
<b>Default</b>	No
<b>Notes</b>	Refer to the <i>PostScript Language Reference Manual</i> (Adobe Systems Incorporated, Reading, PA: Addison-Wesley, 1990, ISBN 0-201-18127-4) for information on PostScript errors. You must reboot the printer after turning on the error handler.

# **Windows Driver Problems**

## **Printer Description Files**

Refer to the *Connecting Your QMS Print System* manual for installation instructions in case you need to reinstall your printer description files.

# **CrownNet Problems**

If you have trouble installing and setting up your QMS CrownNet interface, check the following:

- Refer to the *Connecting Your QMS Print System* manual for more information.
- If the printer requires a network interface card, is it correctly installed in the printer?
- Is the printer connected to the network?

## CrownNet Problems

- Is the printer plugged in, turned on, and correctly configured?
- Do the printer startup and status pages list the interface? Is the configuration information correct?
- Is the interface enabled?
- Is the appropriate protocol (or protocols) enabled?
- Are all printer and protocol addresses configured correctly?

The best method for solving CrownNet problems is to print a configuration page. Print a configuration page by doing the following.

- 1 Take the printer offline by pressing the Online button.**
- 2 Press the Menu button.**
- 3 Press Next (right arrow) until you see Administration. Press Select.**
- 4 Press Next (right arrow) until you see Communications. Press Select.**
- 5 Press Next (right arrow) until you see Resident NIC.**  
If you are printing from Token-Ring when you will see Optional NIC.
- 6 Press Next (right arrow) until you see CrownNet. Press Select.**
- 7 Press Next (right arrow) until you see Common. Press Select.**
- 8 Press Next (right arrow) until you see Config Page. Press Select.**
- 9 Press Next (right arrow) until you see Config Page Yes. Press Select.**
- 10 Press the Online key once, wait 5 seconds.**
- 11 Press the Online key again.**

The printer's Configuration Page will now print and will allow you to verify several settings:

- 1 Under the COMMON heading, verify Packets Transmitted and Packets Received are greater than zero:**

If packets received is 0, there is probably a problem with the network drop, bad hub port, bad cable, or there may be a conflict with 10 or 100 mb hub.

If packets transmitted is 0, then there may be an issue with the network card or printer.

- 2 If both values are greater than zero, proceed.

If either are zero, then you are not connected to the network, and won't be able to print. Call QMS Customer Response Center at 877-778-2687 (toll free) for technical support.

- 3 Verify that your protocol is enabled—for example, TCP/IP, Lan Man, etc.
- 4 Verify that your information is void of typographical errors—for example in the Print Server Context (in all caps).

For example, NETWORK411 MC2PLUS.PRINTERS.SUPPORT.CRC

» **Note:** *Leading zeros will not be displayed on your IP address on this page.*

- 5 If you are running TCP/IP, make sure you have 0.0.0.0 in your Subnet Mask and Default Router.

It sounds like it won't work, but CrownNet will take care of that.

- 6 If your IP address isn't what you entered, then you may be running BOOTP or RARP, and may have to disable them.

## Output Problems

### 1200x600, 2400x600 dpi Printing Unavailable/at Rated Speed

- The amount of RAM installed in your printer governs which resolutions can be used with each media size. Refer to “How Much Memory Do You Need?” on page 9-3.
- Check the startup page to make sure the printer has enough RAM installed. See chapter 2, “Memory and System Software,” in the *Options* manual for information on installing additional RAM.
- If you have enough RAM installed, and you have configured the printer from the control panel to print at 600x600, 1200x600, or 2400x600 dpi resolution (Administration/Engine/Def Resolution menu) but the printer continues printing at a lower resolution, you may need additional memory allocated to the frame buffer.

## Output Problems

To allocate the correct amount of memory, use the Memory/Quick Config menu to choose the correct resolution and paper size for your printing. See chapter 4, "Printer Configuration," in the *Reference* manual for more information.

### Blank Pages

If a blank startup page ejects or blank pages come out during a printing job, try the following:

- 1 Check the toner cartridges.**

The image does not print if the cartridges are empty.

- 2 If the toner cartridges are not empty and blank pages are ejecting, take each cartridge out, rock it from side to side, and reinstall it in the printer.**

- 3 If these solutions do not work, contact your QMS vendor to purchase another toner cartridge.**

### Not All Pages Print

If the printer stops printing in the middle of your file, try the following:

- 1 Check your cable.**

You could have the wrong kind of cable, or your printer may not be configured for the correct cable and port.

- 2 Make sure no one pressed the Cancel key while your job was printing.**

- 3 Check the message window to see if the cassette you are using is out of media.**

### Printer Pauses

After 200 1-sided (or 100 2-sided) pages of a **continuous** print run of plain paper, the *magicolor 2+* automatically pauses for 3 minutes to cool down the engine. This occurs for monochrome or color printing. Your control panel will display the message COOLDOWN.

After this initial cooldown pause, the printer automatically resumes its printing. From that point forward while doing continuous printing, the 3-minute cooldown pause occurs every 50 pages until the continuous printing stops.

After an extended idle period, this 50-page interval automatically resets to 200 pages. This process is provided to maintain the rated duty cycle of the printer and to ensure reliable printer operation with optimum output quality.

# Duplexer Problems

## General

Plain paper and limited thick stock up to 28 lb bond (105 g/m<sup>2</sup>) can be auto duplexed on the EXD model. For heavier weights, manual duplexing is recommended.

In general, if you're having output problems with your duplexer, try the following:

- 1 Ensure that you are using correct media.**  
Do not duplex envelopes, glossy stock, labels, transfer media, or transparencies.
- 2 Ensure that you have not mixed media types in your media cassette.**
- 3 Ensure that your document has more than one page.**
- 4 Go into the printer's control panel and ensure that duplex is an available option.**
- 5 In the printer driver (Paper tab, Duplex Options), choose Long Edge (flipped horizontally as in a loose-leaf notebook) or Short Edge (flipped vertically as on a clipboard).**
- 6 Remove media that is still jammed.**

---

◆ **Caution:** *Always open the duplexer's rear cover before opening the printer's or duplexer's top cover. Forced opening of the top cover first may damage the unit.*

---

Check for media stuck in the paper guides in the duplexer's top cover, rear cover, and lower rear assembly.

- 7 If you removed jammed media from near the OPC belt, reset the OPC belt's green locking levers.**
- 8 Ensure that all of the covers are closed.**

- 
- ◆ **Caution:** *Always open the duplexer's rear cover before opening the printer's or duplexer's top cover. Forced opening of the top cover first may damage the unit.*
- 

Open and then close the covers to confirm that they are securely closed.

- 9 **Ensure that the duplexer's lower rear assembly is firmly seated in the printer.**
- 10 **If you turned the printer off, ensure that you have turned the printer on again and waited for it to warm up.**

## **Print Quality Problems**

Print quality problems are those related to the appearance of the pages you print. Print quality problems include white lines on the page, uneven blacks, and other print distortions.

First, refer to the appendix B, "Technical Specifications," in the *Reference* manual for recommended media types. If you are using recommended media and continue to have problems with the quality of your printed pages, try this quick-check procedure:

- 1 **Check that you are using the correct type media.**

See appendix B, "Technical Specifications," in the *Reference* manual for media specifications.

- 2 **If you are printing on thick stock, ensure that you have set both the driver (Paper tab, Media Type option) and the Media key to Thick Stock.**
- 3 **If you are printing on transparencies, ensure that you have set the driver (Paper tab, Media Type option) to Transparency, and you have set the Media key to Automatic.**
- 4 **If you are switching back to printing on plain paper after printing envelopes, glossy stock, labels, transfer media, or thick stock, ensure that you have reset the driver (Paper tab, Media type option) to Plain Paper, and you have reset the Media key to Automatic.**
- 5 **Check that there is enough toner in the printer whether or not the *x* TONER LOW message is displayed.**

Toner can settle in the cartridges. To redistribute the toner, remove the toner cartridge and gently rock it from side to side. Then reinsert the cartridge and try printing again.

- 6 If, after rocking the toner cartridge, the print quality does not improve and/or the *x* TONER LOW message remains on, replace the toner cartridge.**
- 7 Before you place a service call, ensure all the required user cleaning has been conducted.**
- 8 Place a service call to your local vendor.**

# Image Defects

The following list includes several image defects with possible solutions. Try the solutions in the sequence given. If the solutions listed don't solve the problem, place a service call to your local vendor. See the next section in this chapter, "Placing a Service Call."

## General

Print quality problems are those related to the appearance of the pages you print. Print quality problems include white lines on the page, uneven colors, and other print distortions.

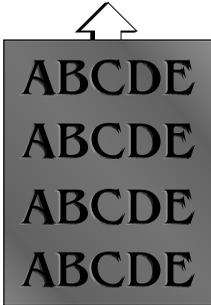
If you have problems with the quality of your printed pages, try the following:

- If the `TONER OUT` message is on and the printer continues to print, try distributing the toner to improve print quality. If the print quality does not improve, replace the toner cartridge.
- Remove the toner cartridge and rock it several times from side to side. The toner can settle, and this procedure redistributes the toner. Reinsert the cartridge and try printing again.
- Place a service call to your local vendor.

## Specific

Listed below are several print quality problems with possible solutions. Try the solutions in the sequence given. If the solutions listed do not solve the problem, place a service call to your local vendor.

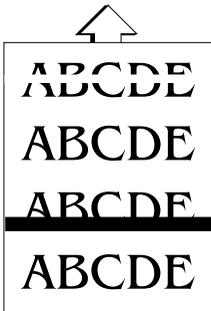
## Blurred or Lightly Stained Background



One or more toner cartridges may be defective.

- Check the toner cartridges, and install new ones, if necessary.
- Reinstall the OPC belt cartridge. If necessary, replace the OPC belt cartridge.

## Colored Bands, Horizontal Banding

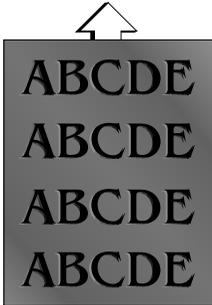


- Check that the printer is on a hard, level surface.
- Reinstall the OPC belt cartridge. If necessary, replace the OPC belt cartridge.

One or more toner cartridges may be defective.

- Check the toner cartridges, and install new ones, if necessary.
- If a wide horizontal white line appears,
- Ensure that the transfer unit was closed.
  - Replace the transfer roller.

### Insufficient Gloss or Fusing



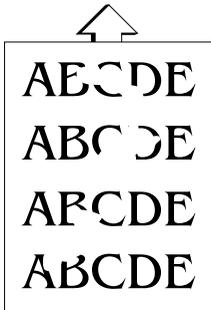
If there is insufficient gloss of the printed image,

- Check the fuser oil condition.

If there is insufficient fusing and the image comes off when the printed image is rubbed,

- Check your media type—envelopes, glossy stock, labels, transfer media, and thick stock have to be set in the Thick Stock mode.

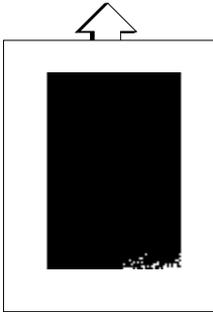
### Irregular Print, Mottled Image



The paper being used may have absorbed moisture (perhaps due to high humidity or having water spilled on the paper supply). Toner does not adhere well to paper where it has become wet.

- Replace the paper in the cassette with dry paper.
- Confirm the proper installation of the transfer roller. If necessary, replace the transfer roller.

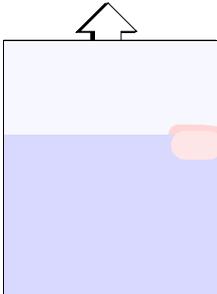
### Missing Image at Edge



If the edge of an image is missing or optical density declines

- Check the toner cartridge in question, and install new one, if necessary.
- Check the OPC belt cartridge, and install new one, if necessary.

### Mixed Color Image, Color Misregistration



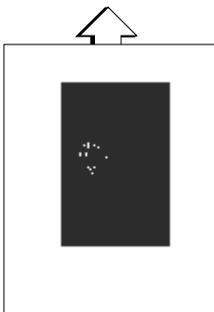
If mixing of colors occurs in the printed image:

- Ensure that the printer's front cover is closed.
- Remove the toner cartridges and gently rock them five or six times to redistribute the toner. Then, reinstall the cartridges.
- One or more toner cartridges may be defective. Check the toner cartridges, and install new ones, if necessary.

If misregistration of color occurs between overlapped colors:

- Ensure that the printer's front cover is closed.

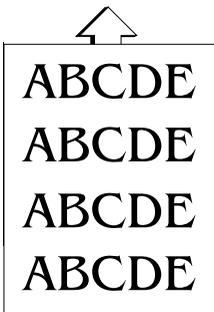
### Spotting



If spots appear on the printed image:

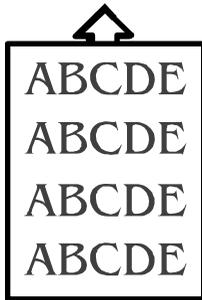
- Check the surface of the OPC belt, clean up the foreign particle, and replace the OPC belt if necessary.

### Too Dark



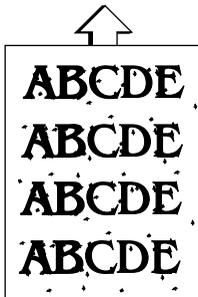
- Install new toner cartridges.

## Too Light



- Remove the toner cartridges and gently rock them horizontally five or six times to redistribute the toner. Then, reinstall the cartridges.
- One or more toner cartridges may be defective. Check the toner cartridges, and install new ones, if necessary.
- Check your media type—envelopes, glossy stock, labels, transfer media, and thick stock have to be set in the thick stock mode.

## Toner Smudges, Residual Images



If the toner smudges are on only the front of the page:

- Remove the toner cartridges and gently rock them five or six times to redistribute the toner. Then, reinstall the cartridges.
- One or more toner cartridges may be defective. Check the toner cartridges, and install new ones, if necessary.

If toner smudges are on the back of the page:

- Replace the cleaning roller.
- If that doesn't work, replace the transfer roller.
- If that doesn't work, replace the fusing unit.

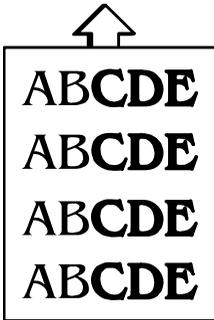
If toner smudges are on the front *and* back of the page:

- Open the printer once and close it again to clean the image transfer roller.

If the image of the previous page comes out lightly:

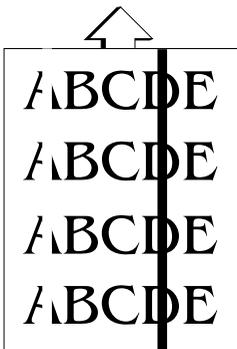
- Clean the cleaning roller and reinstall it.

## Uneven Print Density



- Remove the toner cartridges and gently rock them five or six times to redistribute the toner. Then, reinstall the cartridges.
- Install new toner cartridges.
- Reinstall the OPC belt cartridge. If necessary, replace the OPC belt cartridge.

## Vertical Streaking



- The laser lens may be dirty. Clean the lens as described in chapter 6, "Printer Care."
- The corona wire inside the OPC belt cartridge might be dirty. Clean the corona wire as described in chapter 6, "Printer Care."
- One or more toner cartridges may be defective. Check the toner cartridges, and install new ones, if necessary.
- Clean the developer roller.
- Reinstall the OPC belt cartridge. If necessary, replace the OPC belt cartridge.

If a wide vertical white band appears:

- Check the transfer drum surface. If necessary, clean the oil off the surface.
- Ensure that the transfer unit is closed.

# Placing a Service Call

- **If you have a problem you cannot resolve**, contact your local vendor. Your local vendor is best equipped to immediately handle any problem you may encounter.
- **If you have technical questions your vendor is unable to answer**, contact the QMS Customer Response Center (see appendix A, “QMS Customer Support.”)
- **If you’ve determined your printer needs to be examined by an authorized service technician**, contact an authorized service provider for work inside the US, or one of the QMS international offices for work outside of the US. (National and international contacts are listed in appendix A, “QMS Customer Support.”)

Before calling, be sure you have the answers to these questions handy to help our technicians serve you more quickly:

- 1 What is your printer model and serial number?**
- 2 What kind of host computer do you have?**
- 3 What operating system do you have and what version?**
- 4 What interface are you using? If serial, what protocol?**
- 5 What application(s) are you using?**
- 6 What is the emulation of the file you're trying to print? In what emulation mode is the port?**
- 7 What is the firmware revision number for your printer? (It is listed on both the status and startup pages.)**
- 8 If you can print, have a status page available.**

Your service representative needs to know these things prior to helping you.

## What's Next?

Appendix A “QMS Customer Support,” provides product sales and support information. Appendix B, “Configuration Menu,” provides a view of the printer’s configuration menu. Appendix C, “Repacking the Printer,” explains how to repack your printer to prevent damage to it and keep your warranty valid if you need to relocate or ship your printer.





# A

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## **QMS Customer Support**

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### **In This Appendix . . .**

- “Sources of Support” on page A-2
- “QMS World-wide Offices” on page A-4



# Sources of Support

Several sources of help and information are available, depending on the type of help you need.

## Your QMS Vendor

Your local vendor (the one from whom you bought the printer) may be best equipped to help you. Your vendor has specially trained service technicians available to answer questions, and the equipment to analyze your printer problems.

## Your Application Vendor

Often, “printing” problems have more to do with the application being used than with the printer. In this case, the application manufacturer is the best source of help.

## Internet

### Corporate Web Page

You can view the QMS home page at <http://www.qms.com>. The QMS server provides access to technical reports, new product announcements, a trade show schedule, and other general information about QMS. The QMS ftp resource is <ftp://www.qms.com>.

### *magicolor 2+* Answer Base

The QMS Answer Base is a free interactive online technical support system for the QMS *magicolor 2+*. It answers common questions and provides diagnostic advice. To access the Answer Base, go to <http://www.qms.com/support>, and then select Answer Base.

The Answer Base helps you locate the information you need by asking you questions. In fact, it can provide results even when you don't quite know what to ask for or how to find it. Use the Answer Base before contacting technical support—you will likely find the answer to your question. However, if the answer is not available, you will be provided with specific QMS contact information to help solve your problem.

### FAQs

You can access current FAQs (Frequently Asked Questions) about your print system at <http://www.qms.com/support>, and then select FAQs.

## QMS Customer Response Center (CRC)

You can contact the QMS Customer Response Center (CRC) in four different ways:

- **Telephone**—You can call the CRC toll-free at (877) 778-2687 (US) Monday–Friday, 7:00 am–6:00 pm, Central Time.
- » **Note:** *If you call for assistance, have the following information ready so our technicians can help you more quickly:*
  - ☑ Your phone number, fax number, email address, and shipping address
  - ☑ A description of the problem
  - ☑ The printer model and serial number
  - ☑ The type of host computer you're using
  - ☑ The type and version of operating system you're using
  - ☑ The interface you're using, and, if serial, the protocol (for example, XON/XOFF)
  - ☑ The application and version you're using
  - ☑ The emulation of the file you're trying to print (listed on both the status and startup pages)
  - ☑ Your printer firmware version (displayed on the control panel LCD while the printer initializes after being powered up and listed on the status/startup pages)
  - ☑ An advanced status page, if you can print one
- **Email**—You can email questions to the CRC through support@qms.com.
- **Fax**—You can fax questions to the CRC at (334) 633-3716 (US). Provide the same information as listed above, and indicate whether you would like a faxed or a phoned reply.
- **Internet**—If you have access to the World Wide Web, you can access the CRC through the QMS home page at <http://www.qms.com/support>. You can access FAQs (Frequently Asked Questions) at <http://www.qms.com/support>, and then select FAQs.

# QMS World-wide Offices

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## QMS United States and Latin America

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### General Contact

Telephone	1 (334) 633-4300
Answer Base	<a href="http://www.qms.com/support">http://www.qms.com/support</a> , then click on Answer Base
FAQs	<a href="http://www.qms.com/support">http://www.qms.com/support</a> , then click on FAQs
Fax	1 (334) 633-4866
Email	<a href="mailto:info@qms.com">info@qms.com</a>
Internet	<a href="http://www.qms.com/usa.html">http://www.qms.com/usa.html</a>
Product Registration	Internet: <a href="http://www.qms.com/support/prodreg/">http://www.qms.com/support/prodreg/</a> Telephone: 1 (887) 778-2687

Information on QMS products, supplies, and accessories, and on the authorized QMS remarketer or service provider nearest you  
1 (800) 523-2696

### Customer Response Center (CRC)

Technical Assistance	
Telephone	1 (877) 778-2687 (toll-free)      7:00 am–6:00 pm Central Time
Email	<a href="mailto:support@qms.com">support@qms.com</a>
Fax	1 (334) 633-3716
Internet	<a href="http://www.qms.com/support">http://www.qms.com/support</a> , then click on SupportMail

### National Service

Service Information, Installation, and Maintenance Pricing	1 (800) 858-1597 1 (800) 762-8894 (Custom Service Contracts Only)
On-Site Service and Depot Repair Information	1 (877) 778-2687      7:00 am–6:00 pm Central Time
Spare Parts Ordering and Information	1 (334) 633-4300 x2530      8:00 am–5:00 pm Central Time
Email	<a href="mailto:service@qms.com">service@qms.com</a>
Internet	<a href="http://www.qms.com/service">http://www.qms.com/service</a> , then click on Place A Call

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### Latin America

Fax	1 (334) 639-3347
Internet	<a href="http://www.qms.com/Spanish/Latin_America.htm">http://www.qms.com/Spanish/Latin_America.htm</a>

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## **QMS Canada**

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### **General Contact**

Telephone 1 (905) 206-0848  
Fax 1 (905) 206-0903  
Internet <http://www.qms.com/usa.html>  
Supplies and Accessories Parts 1 (903) 206-0848 extension 238  
Sales 1 (800) 268-0343 x223

### **National Service**

On-Site Service and Depot Repair Information  
1 (800) 268-4969 8:30 am–5:00 pm Eastern Time  
Spare Parts Ordering and Information  
1 (905) 206-9234 x238 8:30 am–5:00 pm Eastern Time

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## **QMS in Japan**

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Telephone (+81)-3 3779-9600  
Fax (+81)-3 3779-9650  
Technical Support (+81)-3 3444-9865 10:00 am–noon, 1:00 pm–5:00 pm  
Internet <http://www.qmsj.co.jp>

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## **QMS EMEA**

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### **QMS Australia**

Anitech  
Sydney Business & Tech. Centre  
52/2 Railway Parade  
2141 Lidcombe NSW  
Australia  
Telephone (+61) 2–9901 3235  
Fax (+61) 2–9901 3273  
**Helpdesk**  
Email [helpdesk@qms.nl](mailto:helpdesk@qms.nl)  
Internet <http://www.qmsaus.com.au>

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**QMS World-wide  
Offices**

<p><b>QMS Benelux</b> Belgium, Netherlands, and all unlisted countries</p>	<p>Planetenbaan 60 'Corner Plaza' 3606 AK Maarssen The Netherlands</p> <p>Telephone (+31) 346-551333 Fax, Benelux (+31) 346-550170 Fax, EMEA +31 30 241 2517</p> <p><b>Helpdesk</b> Email helpdesk@qms.nl Internet http://www.qms.nl/q_info Telephone, Belgium 00800 76 77 87 76 Telephone, The Netherlands 0800 022 65 50 Internet http://www.qms.nl</p>
<p><b>QMS France</b></p>	<p>Vélizy Plus 1 Bis, Rue du Petit Clamart 78142 Vélizy Cedex France</p> <p>Telephone (+33) 1-410 79 393 Email info@qms.fr Fax, EMEA +31 30 241 2517 Fax, France (+33) 1-408 30 110</p> <p><b>Helpdesk</b> Email helpdesk@qms.nl Internet http://www.qms.nl/q_info http://www.qms.fr, then click on F.A.Q. Telephone 800 76 77 87 76 Internet http://www.qms.fr</p>
<p><b>QMS GmbH</b> Germany and Austria</p>	<p>Gustav Heinemann Ring 212 D-81739 Munich Germany</p> <p>Telephone (+49) 89 63 02 67 0 Fax, EMEA +31 30 241 2517 Fax, GmbH (+49) 89 63 02 67 67</p> <p><b>Helpdesk</b> Email helpdesk@qms.nl Internet http://www.qms.nl/q_info Telephone, Austria 0800 292 289 Telephone, Germany 0800 182 94 13 Internet http://www.qms.nl</p>

<p><b>QMS Italy</b></p>	<p>Via della Repubblica 56 43100 Parma Italy</p> <p>Telephone (+39) 52–1231 998 Fax, EMEA +31 30 241 2517 Fax, Italy (+39) 52–1232 902</p> <p><b>Helpdesk</b> Email helpdesk@qms.nl Internet http://www.qms.nl/q_info Internet http://www.qms.nl</p>
<p><b>QMS Nordic</b> Sweden, Finland, Norway, and Denmark</p>	<p>Arenavägen 41, 6th floor 121 77 Johanneshov Sweden</p> <p>Telephone (+46) 8–600 01 30 Fax, EMEA +31 30 241 2517 Fax, Nordic (+46) 8–600 01 33</p> <p><b>Helpdesk</b> Email helpdesk@qms.nl Internet http://www.qms.nl/q_info Internet http://www.qms.nl</p>
<p><b>QMS South Africa</b></p>	<p>Saskay House Unit 24 Sunninghill Business Park Peltier Road, Sunninghill, Johannesburg Republic of South Africa</p> <p>Telephone (+27) 11–807 6957 Fax, EMEA +31 30 241 2517 Fax, South Africa (+27) 11–807 6960</p> <p><b>Helpdesk</b> Email helpdesk@qms.nl Internet http://www.qms.nl/q_info Internet http://www.qms.nl</p>

## **QMS World-wide Offices**

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<b>QMS UK</b> United Kingdom and Ireland	Old Bridge House, The Hythe Staines, Middlesex TW18 3JF United Kingdom	
	Telephone	(+44) 1784-442255
	Fax, EMEA	+31 30 241 2517
	Fax, UK	(+44) 1784-461641
	<b>Helpdesk</b>	
	Email	helpdesk@qms.nl
	Internet	<a href="http://www.qms.nl/q_info">http://www.qms.nl/q_info</a>
	Telephone, Ireland	1800 55 31 11
	Telephone, UK	0800 96 40 92
	Internet	<a href="http://www.qms.nl">http://www.qms.nl</a>

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# B

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## Configuration Menu

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### In This Chapter . . .

- “Introduction” on page B-2
  - “Menu Chart Conventions” on page B-2
  - “Operator Control Menu” on page B-3
  - “Administration Menu” on page B-4
  - “Installation Menu” on page B-10
-

# Introduction

Use this chapter as a quick reference for understanding and navigating the printer's configuration menu. The following menu charts are provided:

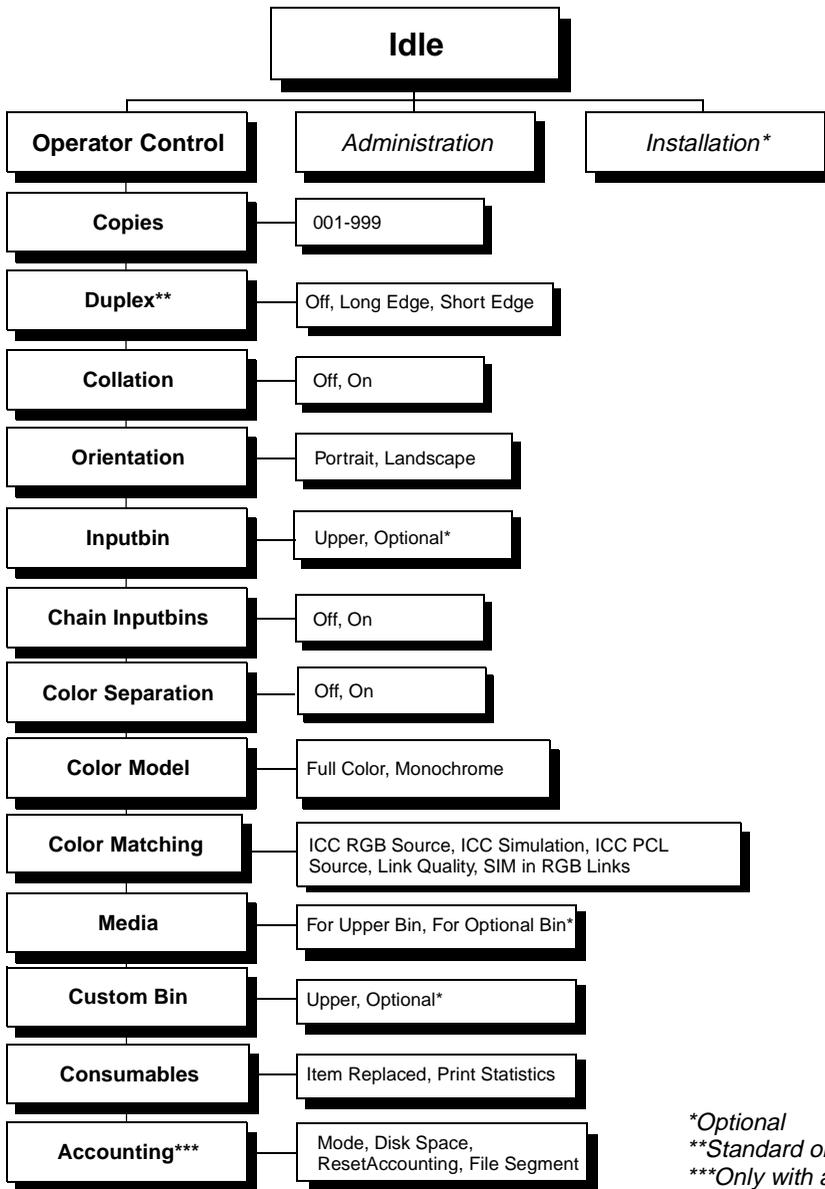
- **Operator Control menu** on page B-3
- **Administration menu** on page B-4
- **Installation menu** on page B-10

## Menu Chart Conventions

The following conventions are used in the menu charts:

- Some menu choices are marked as optional or with a *w/item*, indicating that the selection appears in the menu only when the option is installed.
- These charts show only the top-level menus. See chapter 4, "Printer Configuration," in the *Reference* manual for detailed information on menu options.

# Operator Control Menu

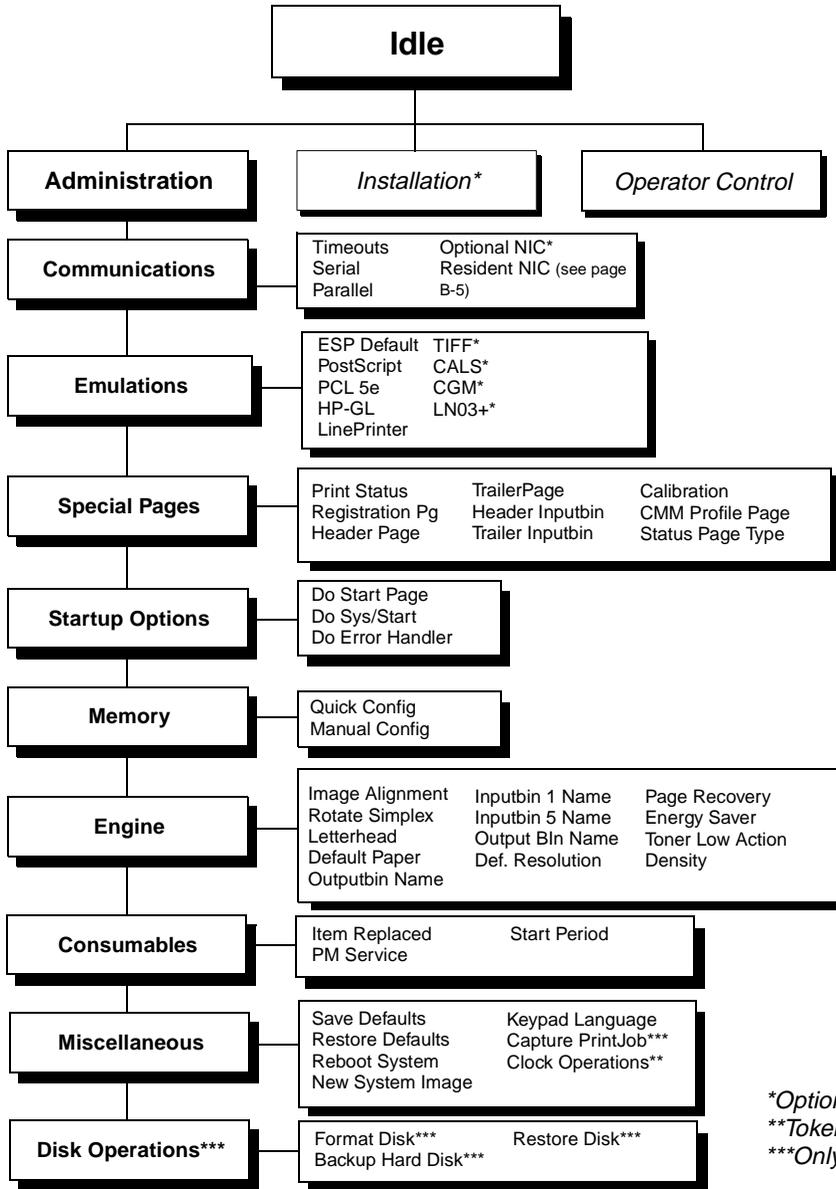


*\*Optional*

*\*\*Standard on EXD models*

*\*\*\*Only with a disk installed*

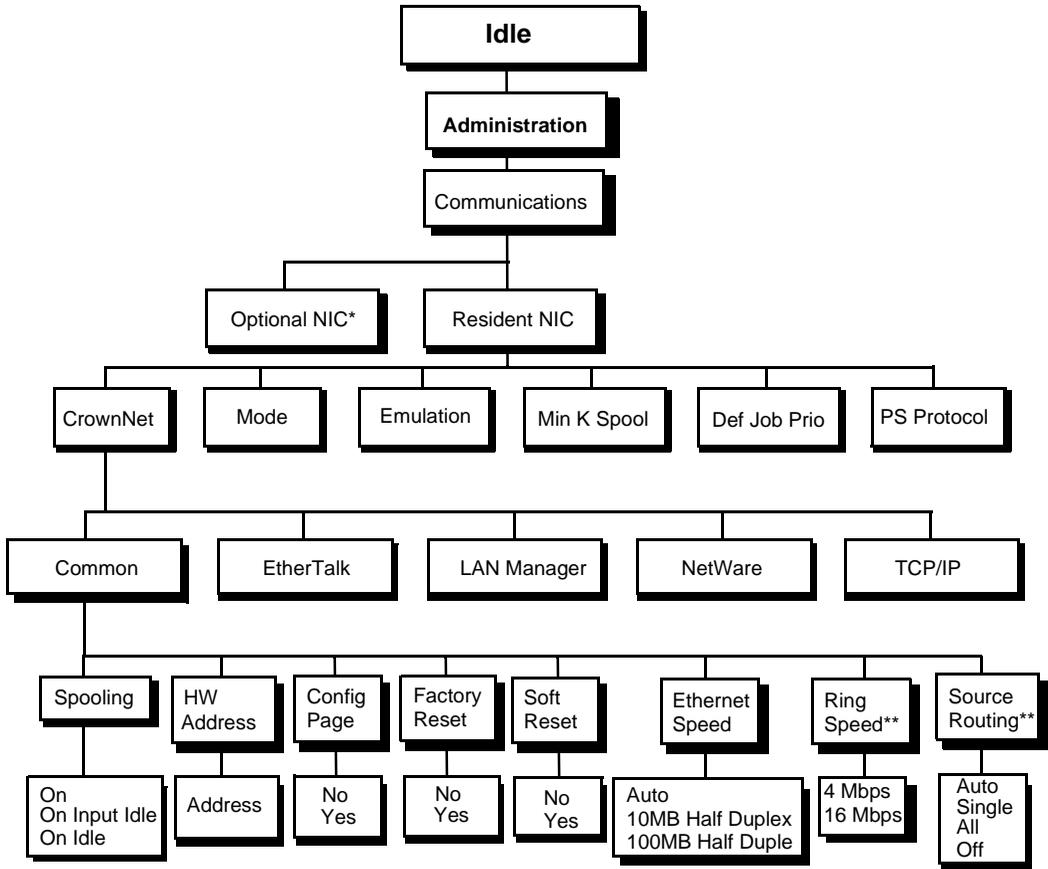
# Administration Menu



*\*Optional*  
*\*\*Token-Ring only*  
*\*\*\*Only with a disk installed*

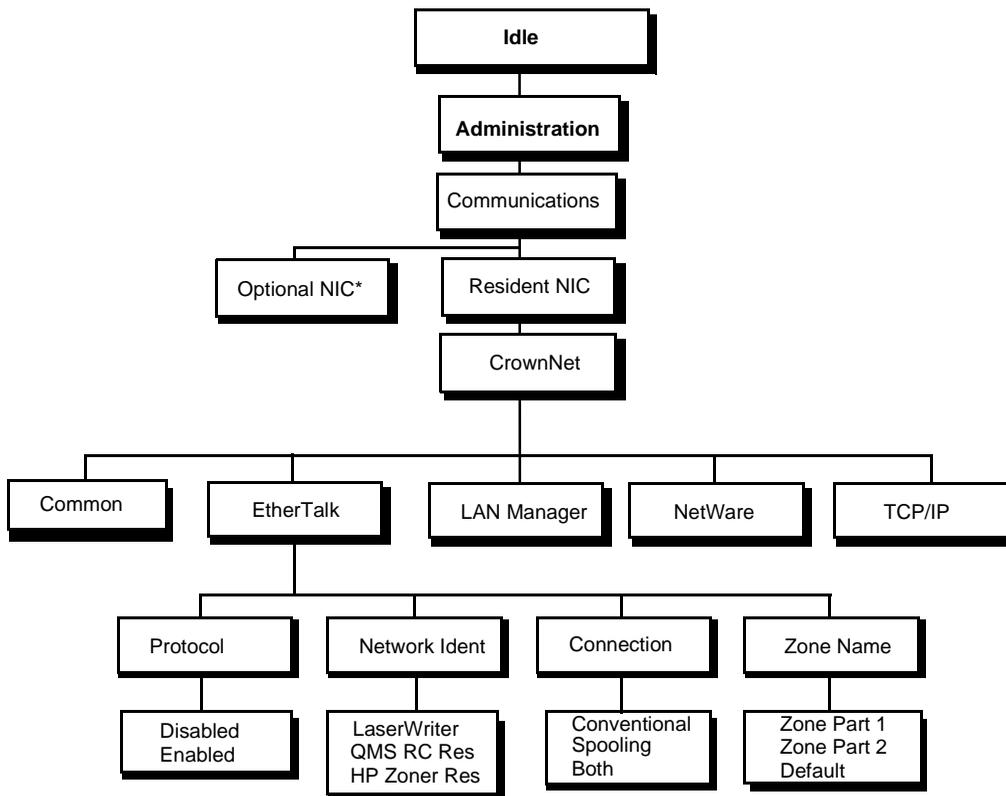
# Administration/Communications/Resident NIC/CrownNet Menu

## Common Menu



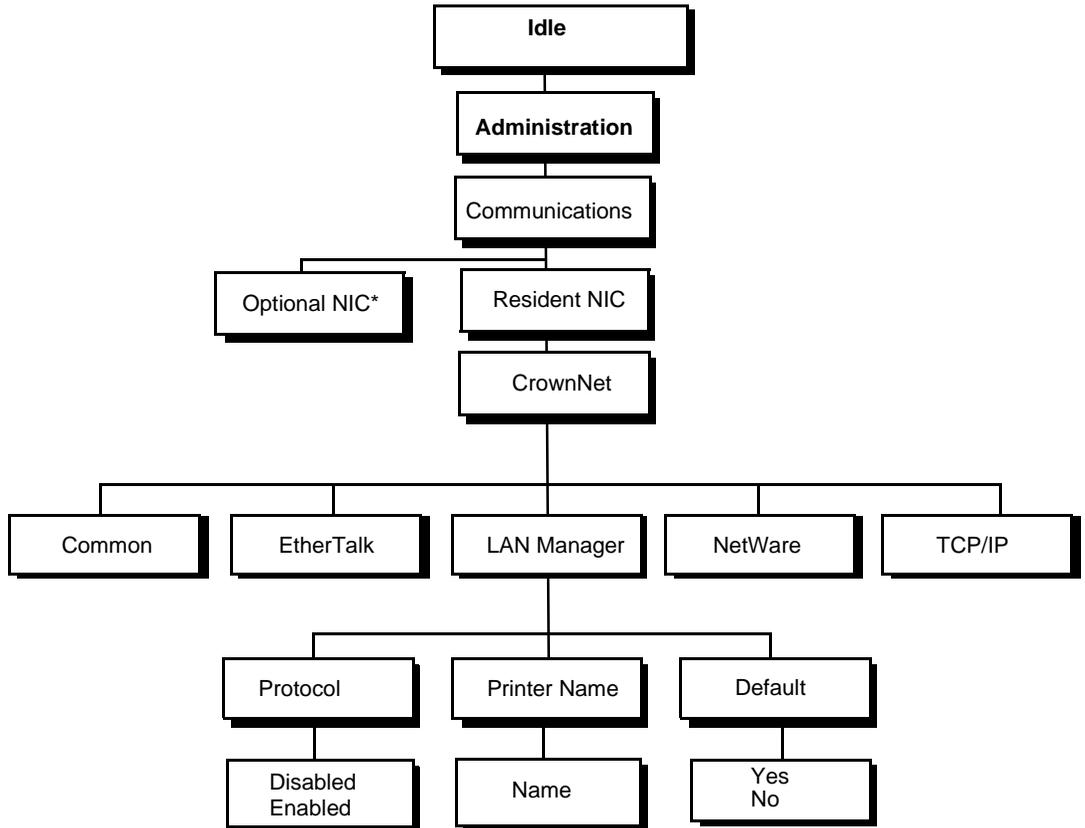
*\*Optional*  
*\*\*Token-Ring only*

**EtherTalk Menu**



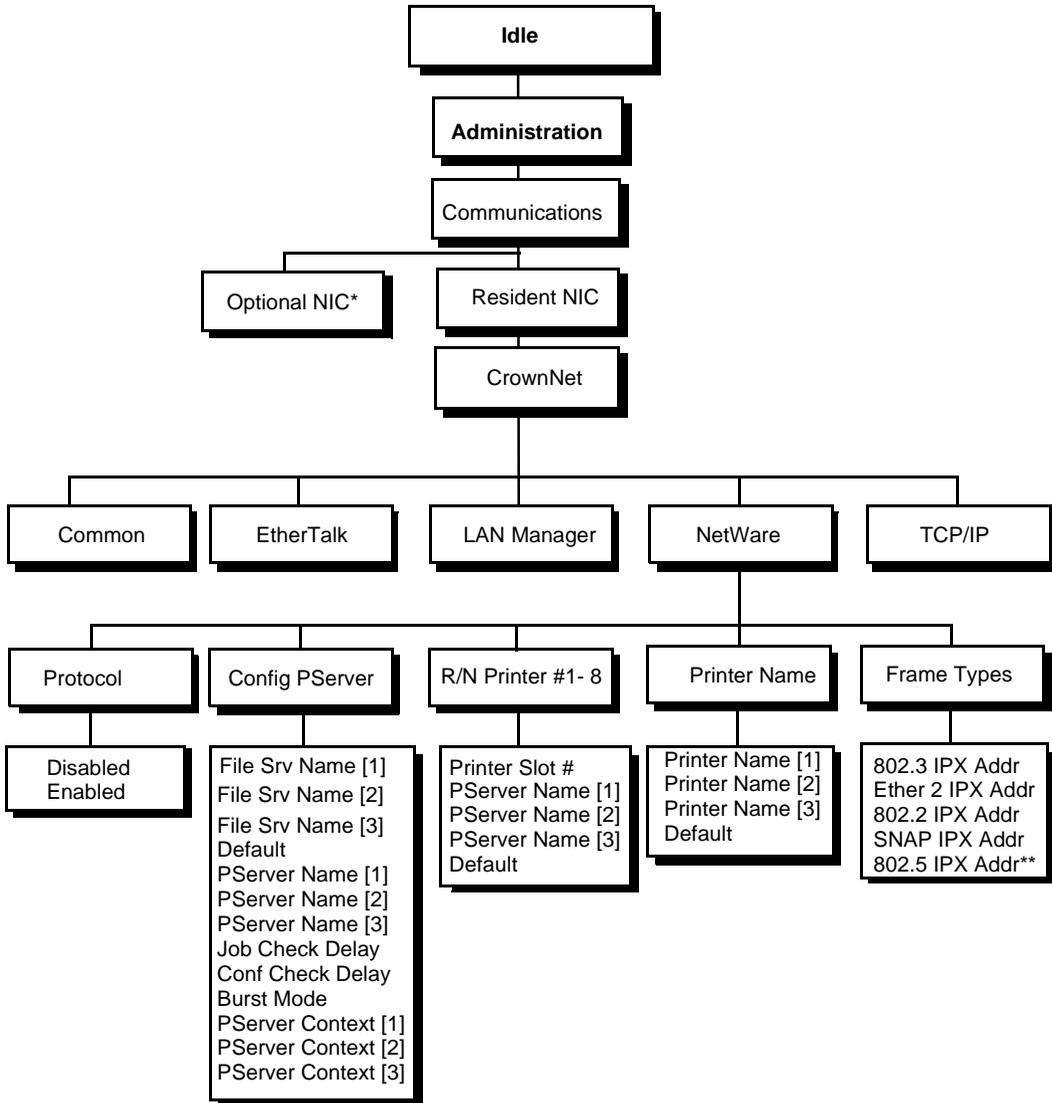
*\*Optional*

LAN Manager Menu



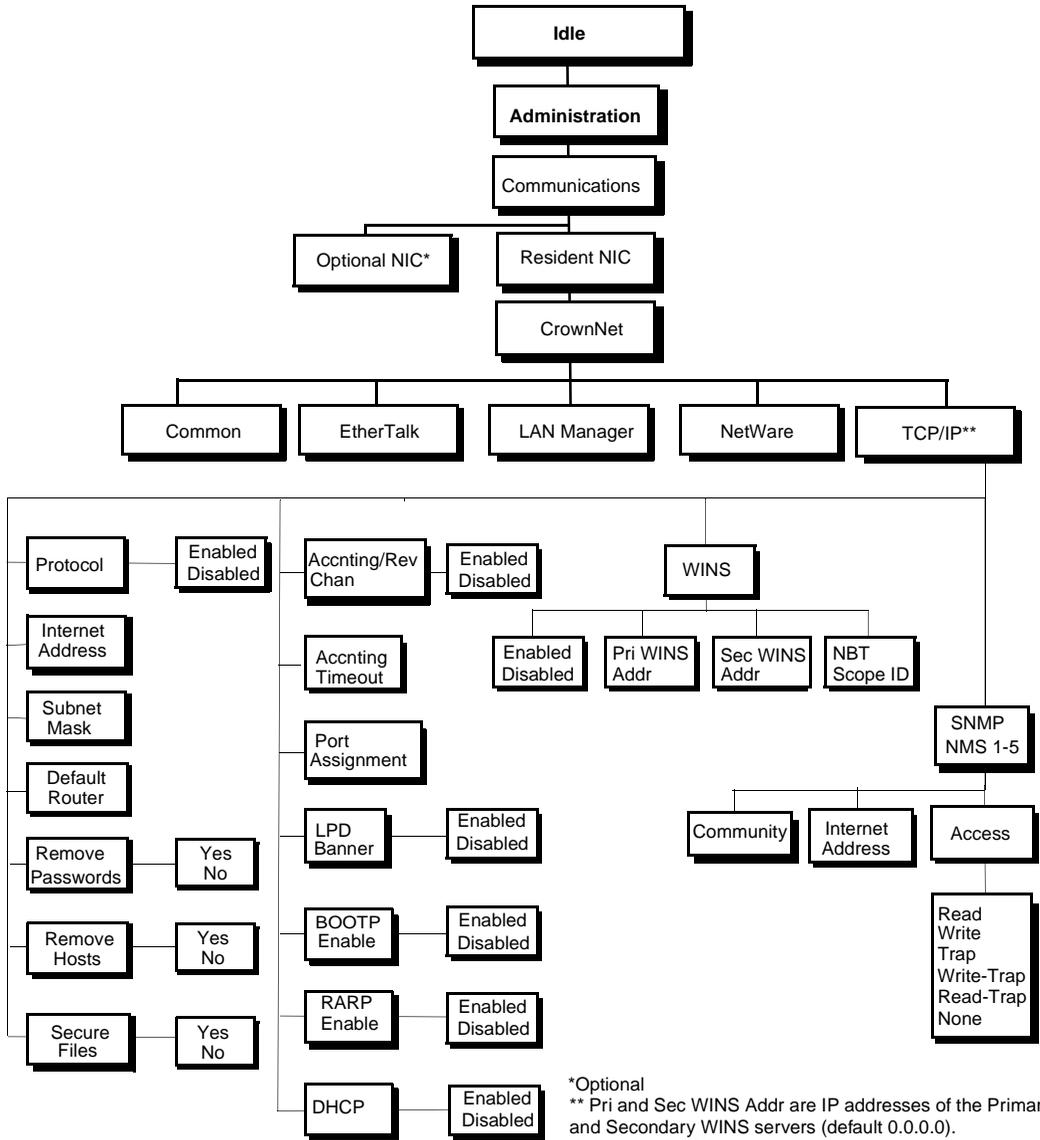
*\*Optional*

**NetWare Menu**



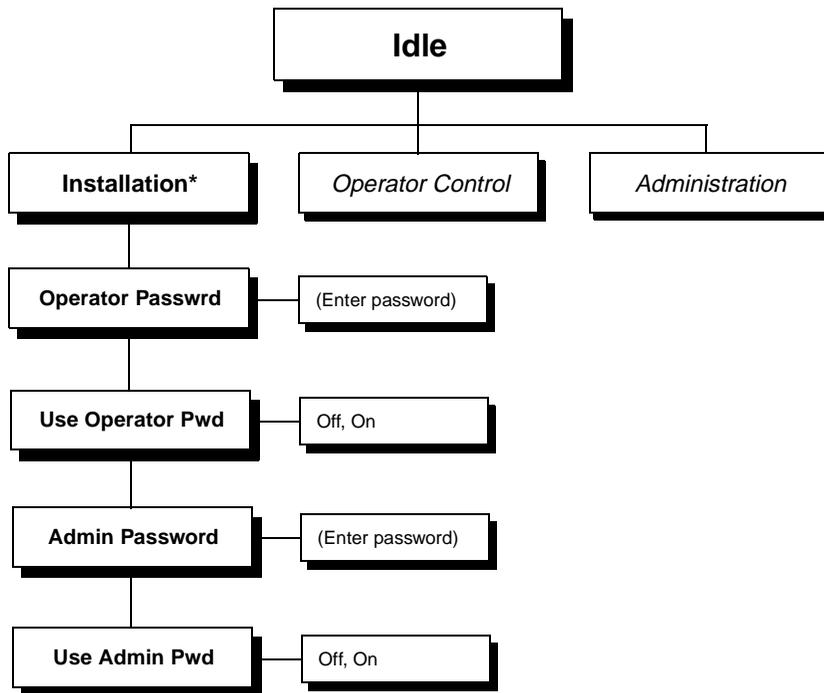
*\*Optional  
\*\*Token-Ring only*

TCP/IP Menu



\*Optional  
 \*\* Pri and Sec WINS Addr are IP addresses of the Primary and Secondary WINS servers (default 0.0.0.0).  
 Default for DHCP and WINS is disabled.  
 NBT Scope ID is any valid DNS domain name consisting of 2 dot-separated parts, or a "" (default blank).  
 An empty string (blank value) is ignored.

# Installation Menu



*\*Optional, requires security key*



# C

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## Repacking the Printer

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### In This Appendix . . .

- “Introduction” on page C-2
  - “Remove Cables and Cassette(s)” on page C-3
  - “Remove the Toner Cartridges” on page C-3
  - “Remove the OPC Belt Cartridge” on page C-3
  - “Prepare the Fuser Unit” on page C-5
  - “Change the Waste Toner Pack” on page C-9
  - “Remove the Lower Input Feeder” on page C-11
  - “Repack the Printer” on page C-14
-

# Introduction

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

- 
- ◆ **Caution:** *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 need replacement packaging for the CXE or GXE models, in the US call QMS National Service at 1 (334) 633-4300 x 2530 and request catalog number 2600439-200. If you need replacement packaging for the EXD (duplex) model, in the US call QMS National Service at 1 (334) 633-4300 x2530 and request catalog number 2600629-100.*

*If you need to return the printer for service, in the US call QMS Customer Service at 1 (334) 633-1072 for an RMA (Return Merchandise Authorization) number **before** shipping the printer. In other countries, refer to appendix A, "QMS Customer Support."*

---

## What's Involved?

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

- 1 **Remove the cables and media cassette.**
- 2 **Remove the toner cartridges.**
- 3 **Remove the OPC belt cartridge.**
- 4 **Prepare the fuser unit for shipment:**
- 5 **Change the waste toner pack.**
- 6 **Remove the lower input feeder (if attached).**
- 7 **Pack the printer for shipment.**

## Remove Cables and Cassette(s)

- » **Note:** *If you're returning the printer for service, you don't need to return the power cable, interface cables, or media cassette(s).*
- 1 Turn off the printer.
- 2 Remove the power cable and all interface cables.
- 3 Remove the media cassette(s) from the printer.

## Remove the Toner Cartridges

- 1 Open the printer's front cover.
- 2 Remove the four toner cartridges, attach the protective shields over their magnetic rollers, and repackage them in their original packaging.

## Remove the OPC Belt Cartridge

- 
- ◆ **Caution:** *The OPC belt is extremely sensitive to bright light and direct sunlight. Any exposure to light should be limited to less than 2 minutes or permanent damage could result. While the printer is being moved, store the cartridge in its original shipping bag. If you don't have this bag, carefully wrap it in a piece of dark, heavy cloth, and place it where it will not get scratched or damaged. If exposure exceeds 2 minutes, put the cartridge in a dark place to recover before using it again. Depending on exposure, recovery may take up to 2 hours. Recovery time is dependent on the amount of exposure sustained, and recovery is not guaranteed.*

*Also, handle the OPC belt cartridge carefully. The belt's extremely sensitive to body oils, moisture, solvents, corrosives, dust, and scratches, all of which will reduce print quality.*

---

- 1 Open the printer's front cover.

## Remove the OPC Belt Cartridge

- 2 If you have a duplexer, open the duplexer's rear cover.

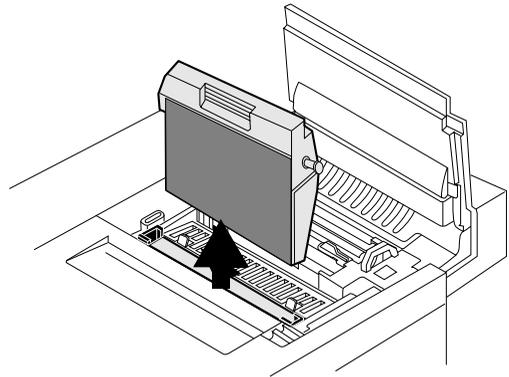
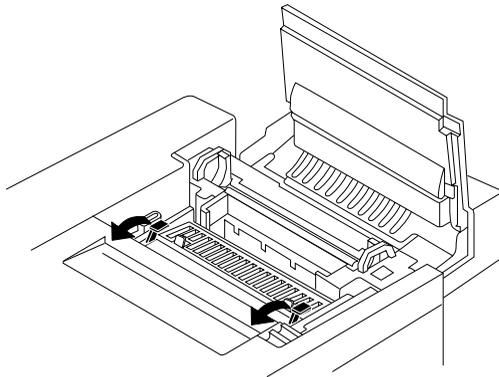
If not, skip to step 3.

- 3 Open the printer's top cover.

Leave all the covers open during the entire repacking procedure.

- 4 With the printer's front and top covers open, rotate up the green lock levers at each end of the OPC belt cartridge slot, and lift the cartridge out of the printer.

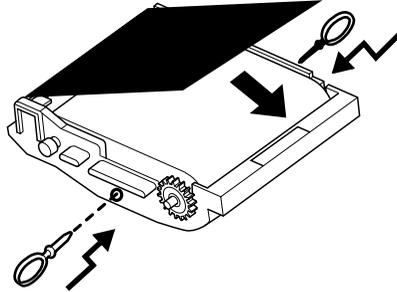
» **Note:** *The illustrations below show the printer without the duplexer.*



## Prepare the Fuser Unit

- 5 **Replace the protective sheet around the OPC belt cartridge and the tension release pin on each side.**

Insert the pin until you feel some resistance, move it forward (toward the silver corona unit), and then slide it in the rest of the way. The tension-release pins protect the belt and its cleaning blade by relieving tension during movement.



- 6 **Repack the OPC belt cartridge in its original shipping bag.**

If you don't have this bag, carefully wrap the cartridge in a piece of dark, heavy cloth. Store the cartridge where it will not get scratched or damaged.
- 7 **Rotate down the green lock levers at each end of the OPC belt cartridge slot.**

Keep all the covers open to prepare the fuser unit.

## Prepare the Fuser Unit

---

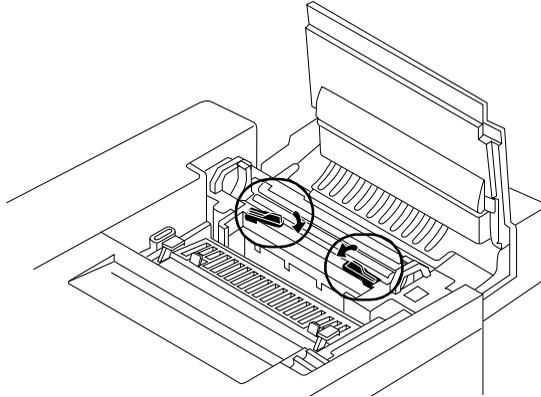
**WARNING!** *The fuser unit can become extremely hot and cause severe burns. Make sure the unit is cool before handling it.*

**ACHTUNG!** *Die Fixiereinheit kann sehr heiß werden, so daß Verbrennungsgefahr besteht. Bitte lassen Sie die Fixiereinheit einige Zeit abkühlen, bevor Sie diese berühren.*

---

## Prepare the Fuser Unit

- 1 If it's not already open, open the duplexer's rear cover.  
If you do not have a duplexer, skip to step 2.
- 2 If it's not already open, open the printer's top cover.
- 3 At the top of the fuser, rotate the two green lock levers to release the oil bottle.



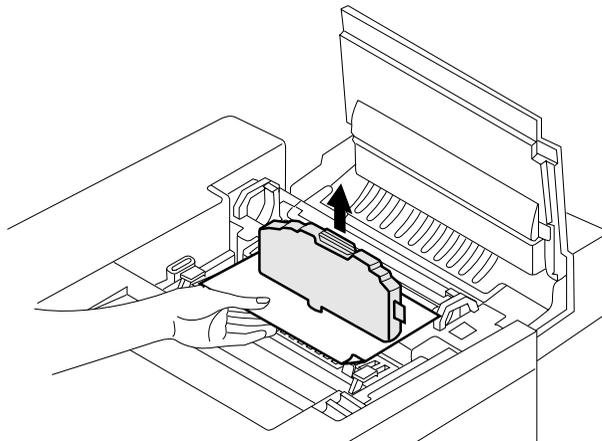
- 4 Remove the oil bottle.



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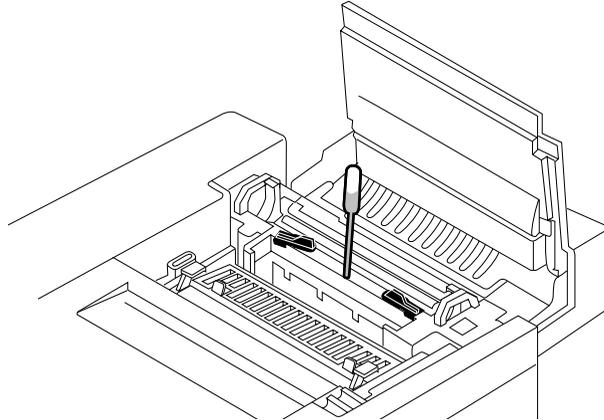
**Caution:** *Hold a sheet of paper under the oil bottle as you remove it, so no oil drips into the printer.*

---



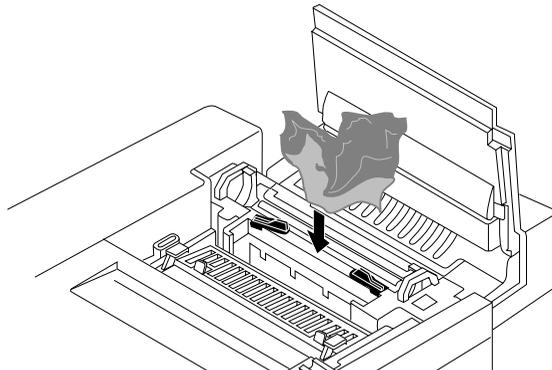
## Prepare the Fuser Unit

- 5 Place the oil bottle in an oil-proof container, such as a plastic bag, until you're ready to reinstall it.
- 6 Use an eye-dropper to remove any excess oil from the fuser.  
Dispose of the oil following local safety laws and regulations.



- 7 Stuff several clean, wadded paper towels into the space normally occupied by the oil bottle to absorb any residual oil during shipment.

» **Note:** *Don't force the paper towels in, but make sure there are enough to fill the space.*

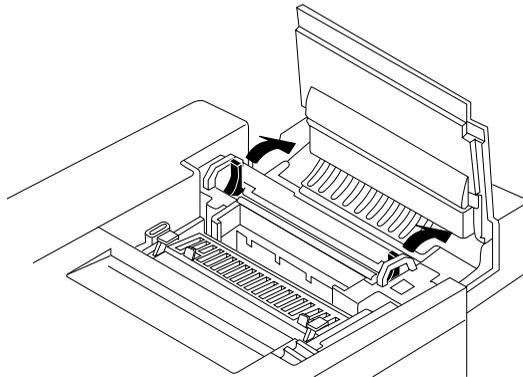


## Prepare the Fuser Unit

- 8 Close the green lock levers to secure the cleaning roller.
- 9 Install the fuser roller shipping restraints.

These restraints protect the fuser rollers from damage during a move by removing the pressure between the two rollers. They must be removed again before printing.

- a Open the green pressure-release levers (one at each end of the fuser) to separate the two rollers in the fuser.



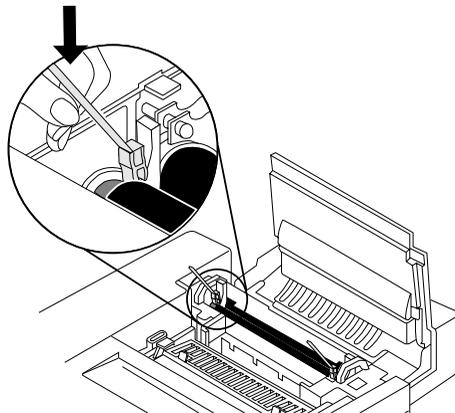
- b Insert the two fuser roller shipping restraints between the fuser rollers.



---

**Caution:** Be sure to insert the shipping restraints at the **ends** of the rollers, not in the middle. Inserting them in the middle will damage the rollers.

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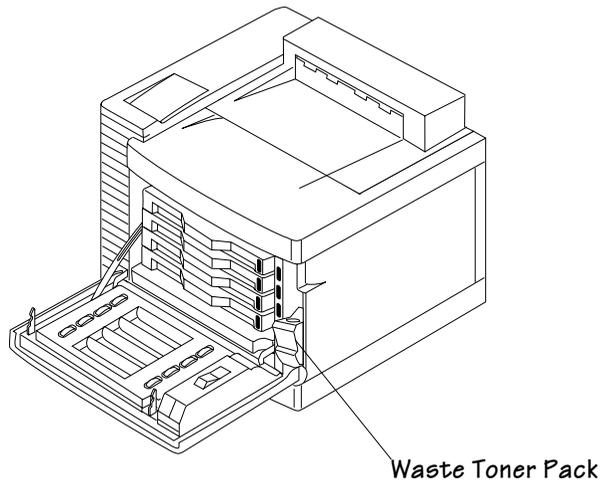


- c Close the green pressure-release levers (one at each end of the fuser).  
When correctly positioned, the fuser roller shipping restraints fit snugly between the rollers.

Keep all the covers open to change the waste toner pack.

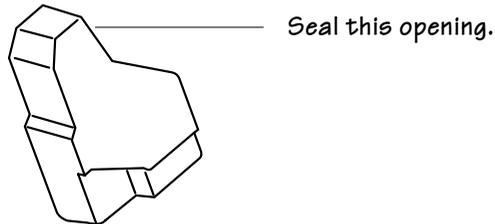
## Change the Waste Toner Pack

- 1 With the printer's front cover open, remove the waste toner pack from the printer.
  - » **Note:** *The illustration below shows the printer without the duplexer.*



## Change the Waste Toner Pack

- 2 Use the label on the side of the old waste toner pack to seal the opening, and then dispose of the old pack in accordance with safety laws and regulations in your area.



- 3 **Install a new waste toner pack.**  
This ensures that no waste toner is shaken into the printer during shipment.
- 4 **Close the printer's front and top covers.**
- 5 **If you have a duplexer, close the duplexer's rear cover.**

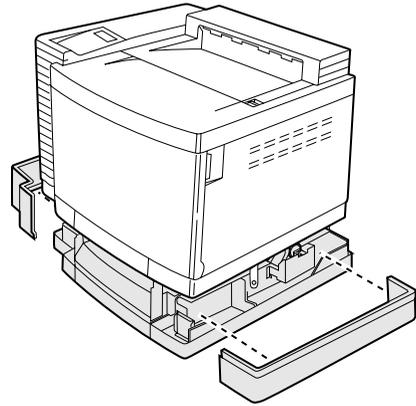
# Remove the Lower Input Feeder

- 
- ◆ **Caution:** *If you have an EXD (duplex) model, the lower input feeder must not be removed, even for shipping.*
- 

If you don't have a lower input feeder installed on the CXE or DXE models, skip to "Repack the Printer" on page C-14.

- 1 Remove the plastic side covers from the sides of the input feeder.**

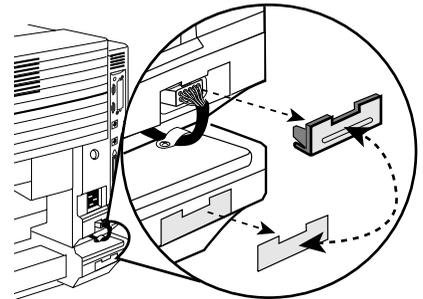
» **Note:** *The illustrations for steps 1 through 5 show the printer without the duplexer.*



- 2 Remove the printer cover plate.**

You will switch this printer cover plate with the one from the lower input feeder after the cables have been disconnected.

- 3 Locate the cable at the left rear of the input feeder, and disconnect it.**

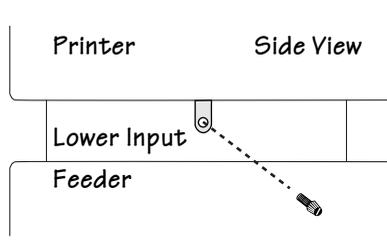


- 4 Reinsert the two cover plates.**

Put the one originally on the input feeder on the printer, and put the one originally on the printer on the input feeder.

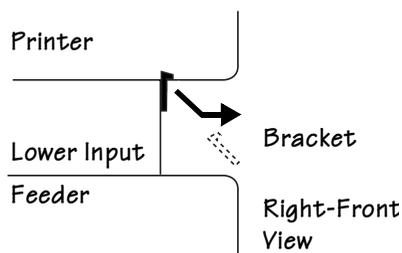
## Remove the Lower Input Feeder

- 5 Unscrew the thumbscrews that attach the two brackets (one on each side of the printer) to the lower input feeder.

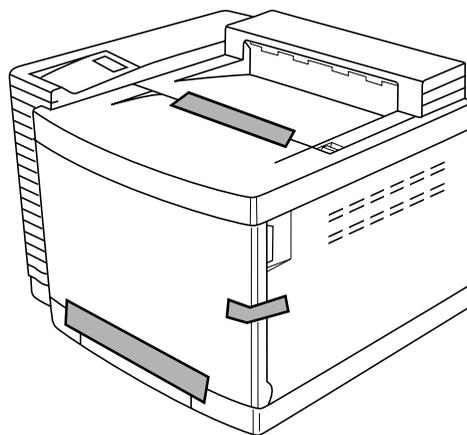


- 6 Remove the two metal brackets from underneath the sides of the printer.

Angle the bracket out, and then, slide it out of the hole underneath the printer.



- 7 Place tape on the printer as shown in the illustration.



## Remove the Lower Input Feeder



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**WARNING!** *Your printer weighs approximately 66 lbs (30 kg) without consumables. Be sure to have help when lifting and moving it.*

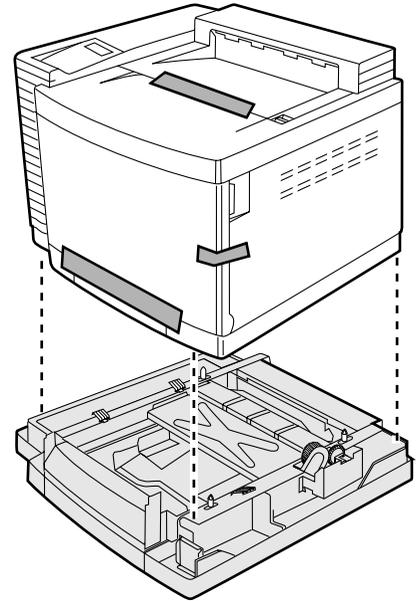
**ACHTUNG!** *Das Gewicht dieses Druckers beträgt ohne Verbrauchsmaterial ca. 30 kg. Bitte versuchen Sie niemals, den Drucker alleine anzuheben oder zu transportieren.*

---

- 8 **With the help of another person, pick up the printer by its four corners, lift it from the lower input feeder, and place the printer on a table.**

- 9 **Repack the input feeder in its original shipping carton for storage or shipment.**

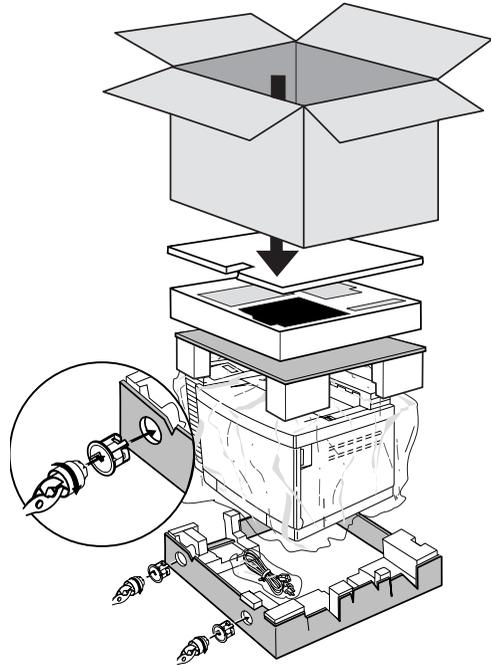
» **Note:** *If you're returning the printer for service, you don't need to return the input feeder.*



# Repack the Printer

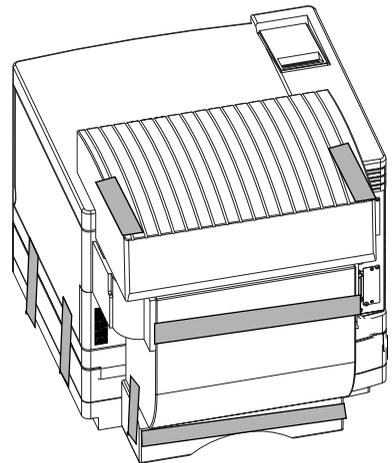
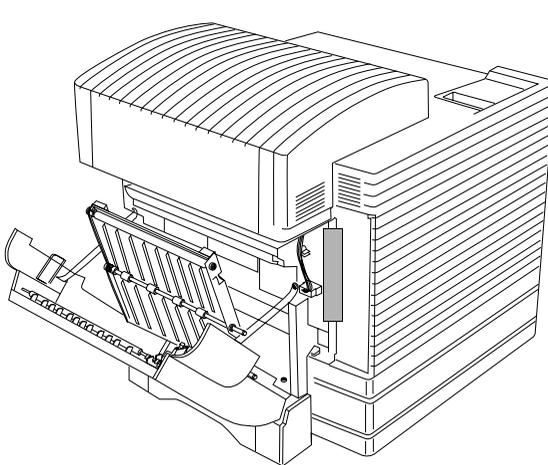
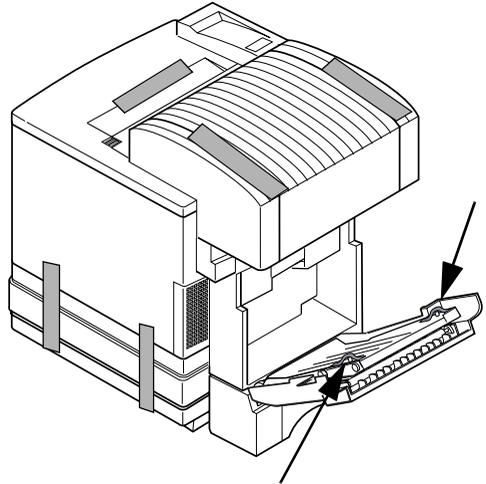
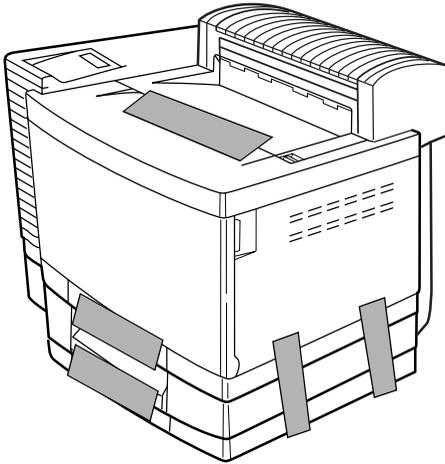
## CXE and GXE Models

- 1 Ensure that the fuser and fuser cleaner roller are in the printer.
  - 2 With another person's help, put the printer into the plastic bag, and place the printer into the base tray of the shipping carton.
  - 3 Pack the printer for shipment as shown in the illustration.
  - 4 If you're also shipping the power cord and any manuals with the printer, place them in the package.
- » **Note:** *Don't ship these items if you're returning the printer for service.*
- 5 Attach the shipping carton to its base tray with the four joints provided.
  - 6 Ensure that the top of the carton is securely taped.
  - 7 Put the shipping straps around the carton.



## EXD Model

- 1 Ensure that the fuser and fuser cleaner roller are in the printer.
- 2 Place tape on the printer as shown in the illustrations.



## Repack the Printer

3 With another person's help, put the printer into the plastic bag, and place the printer into the base tray of the shipping carton.



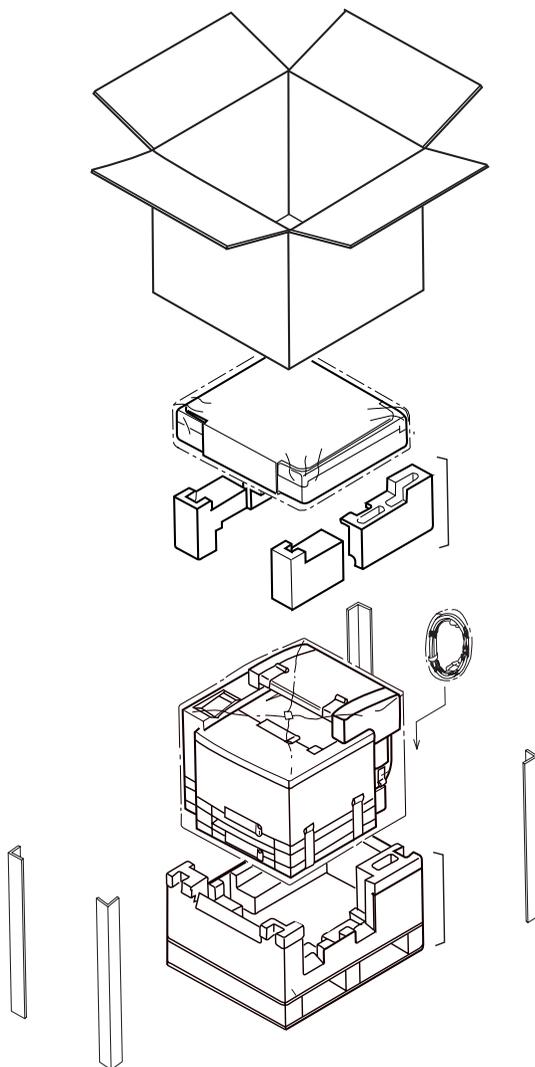
4 Pack the printer for shipment as shown in the illustration.

5 If you're also shipping the power cord and any manuals with the printer, place them in the package.

» **Note:** *Don't ship these items if you're returning the printer for service.*

6 Ensure that the top of the carton is securely taped.

7 Put the shipping straps around the carton.



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