
QMS[®] *magicolor*[®] 6100

Print System

Operation

1800567-001A

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1

About Your Printer








In This Chapter . . .




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 - “Message Window” on page 1-9
 - “Control Panel Indicators” on page 1-10
 - “Control Panel Keys” on page 1-11
-

Introduction

This chapter provides information about your product documentation, your printer and introduces the parts of the printer control panel.

Standard Product Documentation

 +  <i>magicolor 6100</i> Documentation CD-ROM	QMS magicolor 6100 Print System Installation Guide	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.
 +  <i>magicolor 6100</i> Documentation CD-ROM	QMS magicolor 6100 Print System Operation	You're looking at this document right now. It introduces the printer and documentation and explains the control panel. 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.
 <i>magicolor 6100</i> Documentation CD-ROM	Connecting Your QMS Print System	This manual guides you through connecting your printer to a computer or a network and configuring your printer for network printing.
 <i>magicolor 6100</i> Documentation CD-ROM	QMS magicolor 6100 Print System Options	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.
 <i>magicolor 6100</i> Documentation CD-ROM	QMS magicolor 6100 Print System Reference	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.

 QMS Software Utilities CD-ROM	QMS Document Options Commands	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 Reference manual. In most cases only advanced users or system administrators need this information.
 QMS Software Utilities CD-ROM	QMS Crown Network Notes	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.
 QMS Software Utilities CD-ROM	Colorific User's Manual	Contains instructions for using Colorific's monitor calibration software and helpful information about color management, ICC profiles and color matching.

Manuals on the CD-ROM

The manuals included on the QMS *magicolor* 6100 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:

- You can store the PDF manuals in a central location for access by anyone on the network.
- You can view and print the manuals on Windows, Macintosh, and UNIX platforms.
- 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.

Other Reference Sources

Don't forget that your application documentation, host operating system documentation, and network documentation all contain useful printing information. Further information on QMS printers is available through the Internet. See appendix A, "QMS Customer Support" for details.

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
lowercase bold	PostScript operators and DOS commands
<i>lowercase italic</i>	Variable information in text
UPPERCASE	File and utility names
↵	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.

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

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

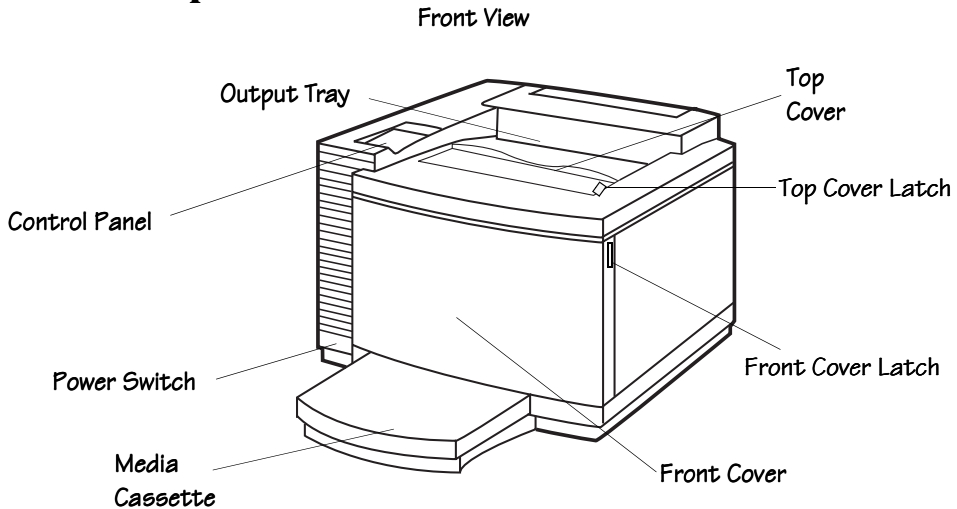
ACHTUNG! Bitte halten Sie sich exakt an die im Handbuch beschriebene Vorgehensweise, da sonst Verletzungsgefahr bestehen könnte.

Getting Acquainted with Your Printer

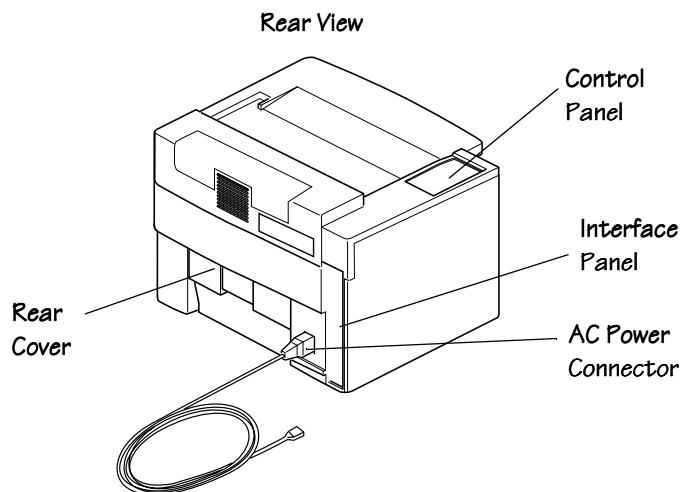
Before operating the printer, you should become familiar with certain physical items, as shown on the following pages.

- » **Note:** *If you're using the Acrobat PDF version of this manual, the parts of the printer identified on the next 2 pages 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.*

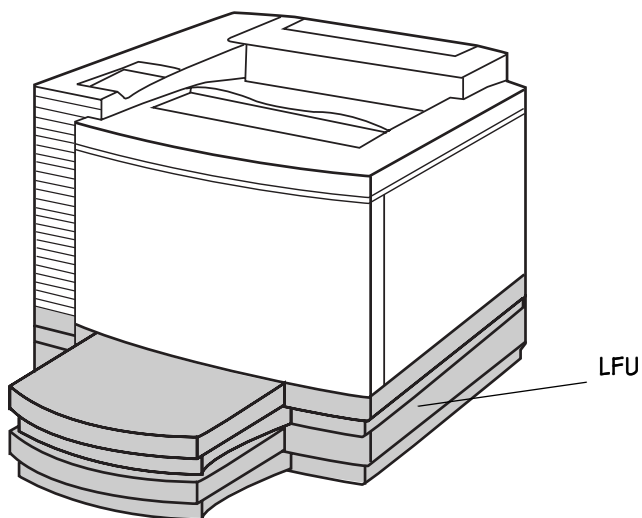
Printer Components



Getting Acquainted with Your Printer

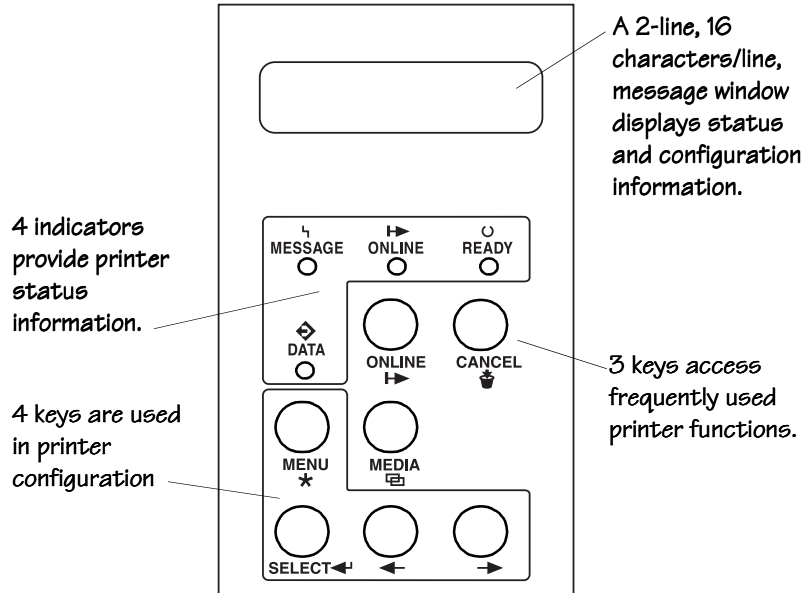


Front View with Lower Feeder Unit (LFU)



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 5, "Printer Jams and Troubleshooting." Printer configuration is explained in chapter 2, "Printer Configuration," in the *Reference* manual.


Setting the Message Window Language

Menu	Administration/Miscellaneous/Keypad Language
Purpose	Change the message window language.
Choices	English, French, Italian, German, Spanish, Portuguese
Default	English
Notes	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.



Indicator	Off	On
 READY	The printer is not ready to print. » Note: <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.
 ONLINE	The printer is off line and not ready to accept data.	The printer is on line and ready to accept data.
 MESSAGE	No problem.	The printer requires operator attention (usually accompanied by a status message in the message window).


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
ONLINE 	<p>The Online key switches the printer between on line and 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 remote console puts the printer back on line.</p> <p>» Note: <i>You must take the printer off line before using all other keys except the Cancel and Media keys.</i></p>
MEDIA 	<p>Use the Media key to set the media cassette to the correct media type when switching between plain paper or transparencies (Automatic mode) and other types such as envelopes, glossy stock, labels, transfer media, and thick stock (Thick Stock mode).</p> <hr/> <p>◆ Caution: <i>Failure to set the Media key when switching media types results in unsatisfactory printing results.</i></p> <hr/> <p>» Note: <i>The Media key on the Control Panel must be used in conjunction with setting Thick Stock in the driver (Paper tab, Paper Type option) to enable the proper toner adherence.</i></p>

Key	Function
CANCEL 	<p>The Cancel key allows you to cancel one or all print jobs. (See chapter 3, “Advanced Printer Features,” in this 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 2, “Printer Configuration,” of the *Reference* manual). Before using any of these keys, press the Online key to take the printer off line.

Key	Function
MENU 	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.
SELECT 	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 chapter 2, "Everyday Operations and Printer Care," for general use and care instructions.



2

Everyday Operations and Printer Care

In This Chapter . . .

- “Loading the Media Cassette” on page 2-3
 - “Using Media Other Than Paper” on page 2-6
 - “Using Toner Cartridges” on page 2-14
 - “Replacing the OPC Belt Cartridge” on page 2-18
 - “Replacing the Fuser Oil Bottle” on page 2-22
 - “Replacing the Cleaning Roller” on page 2-23
 - “Replacing the Waste Toner Bottle” on page 2-24
 - “Replacing the Ozone Filter” on page 2-26
-

- "Handling the Printer" on page 2-26
- "Handling the Printer" on page 2-26
- "Cleaning the Printer" on page 2-27
- "Maintenance Schedule" on page 2-36

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 2-6 for information.

Paper Specifications

Input	Cassette	Universal or optional Letter/A4
	Capacity	250 sheets of 20 lb bond (75 g/m ²) paper; capacity for other weights varies accordingly
Type	<div> <div>■</div> Any standard or recycled office paper suitable for plain-paper laser printers, such as <div>– Hammermill Laser Print</div> </div> <div>■ Letterhead/memo paper</div>	
Weight	■ Plain paper, 16–24 lb bond (60–90 g/m ²), thick stock 24-43 lb (90-160 g/m ²)	
Print Mode	■ Automatic (Plain Paper)	
Duplexing	■ Supported up to 28 lb bond (105 g/m ²). See "Duplex (2-Sided) Printing" in chapter 3, "Advanced Printer Features."	
Notes	We do not recommend using perforated or prepunched paper. You should test any stock thicker than 24 lb bond (90 g/m ²) to ensure that its performance is acceptable.	

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.**

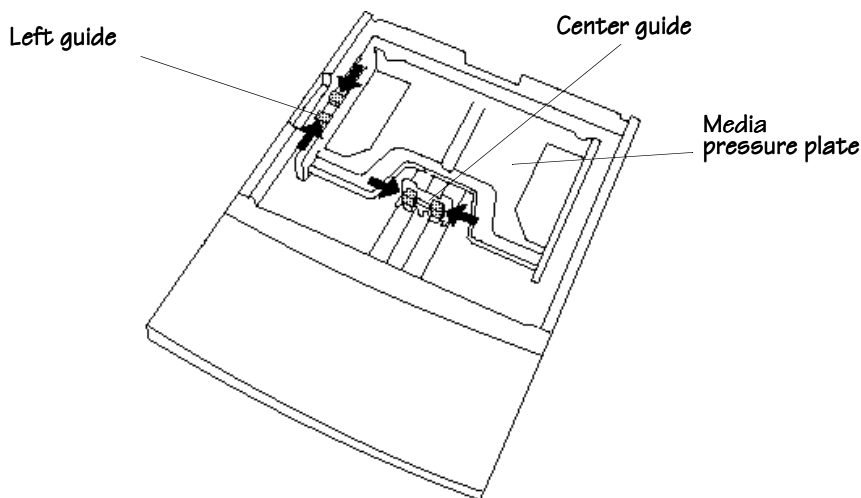
This gets air through the sheets and prevents static buildup.
- 3 **Take off the top and bottom sheets.**

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 guide and/or the center guide, move the guide to the appropriate location (media sizes are listed on the cassette), and release the retainers.

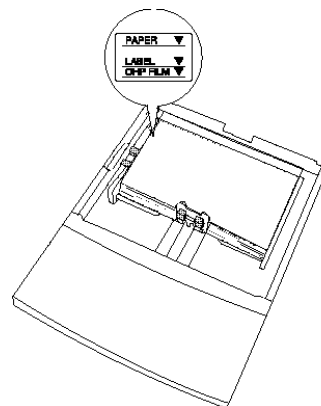


- 3 **Push the media pressure plate down to lock it in position.**

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/m²) 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.

Using Letterhead and Memo Media

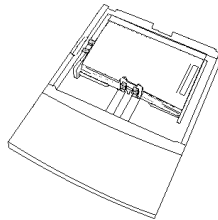
Formatting	Format letterhead or memo data within your application. Try printing your data on a plain sheet of paper first to check placement.	
Input	Cassette	Universal or Letter/A4
	Capacity	Up to 250 sheets, depending on the thickness of the media
Type	Refer to "Paper Specifications" on page 2-3.	
Weight	Refer to "Paper Specifications" on page 2-3.	
Print Mode	Automatic	
Notes	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, Paper Type option), select Automatic.
- 2 Remove the media cassette from the printer (and remove any media in the cassette).

3 Load the new media.

Standard universal cassette



- » **Note:** *If you are using the standard universal cassette and are printing simplex (one-side per sheet), load the media printing-side up with the top of the media (the letterhead or memo information) on the right side of the cassette. When printing duplex (both sides of sheet) from the standard universal cassette, load the media printing-side down with the top of the media on the right side of the cassette.*

*If you're using the optional Letter/A4 cassette and are printing simplex, 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 want to print duplex (both sides per sheet) from the Letter/A4 cassette, load the media printing-side down with the **top** of the media toward the back of the cassette.*

4 Slide the media cassette back into the printer.

Using Media Other Than Paper

-
- ◆ **Caution:** *Although the QMS magicolor 6100 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.*
-

- » **Note:** For media other than standard plain paper or transparencies, both the driver (Paper tab, Paper Type option) **and** the Media key on the Control Panel 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 media type in order to obtain optimum printing results and to enable the toner to adhere better.

Using Envelopes

Formatting	Your printer receives the instructions to print on envelopes from your application.	
	<ul style="list-style-type: none"> ■ 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. ■ See your application documentation for specific information on printing envelopes. 	
Input	Cassette	Universal or Letter/A4
	Location	Standard upper media cassette only
	Capacity	Up to 15, depending on the thickness of the envelopes
Type	<ul style="list-style-type: none"> ■ Use common office envelopes with diagonal joints, sharp folds and edges, and ordinary gummed flaps, such as <ul style="list-style-type: none"> – Commercial #10: Columbian Recycled COR02 – International DL: Auto Fil #01914 	
Print Mode	Thick Stock	
Notes	<ul style="list-style-type: none"> ■ You can print envelopes from the upper media cassette only. ■ Use envelopes approved for laser printing. ■ You can print <i>only</i> on the address side of the envelope. ■ Envelopes should be dry. Do not preseat envelopes. 	

Loading and Printing Envelopes

- 1 In the printer driver (Paper tab, Paper Type option), select Thick Stock.
- 2 On the control panel, press the Media key to select printing on thick stock.

Using Media Other Than Paper

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

The envelope adapter can be installed only in the upper media cassette.

- 7 Install the envelope adapter onto the cassette as shown.

- 8 Adjust the media guides to the length and width of the envelopes.

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

- 9 Place the envelope stack into the cassette with the printing-side up.

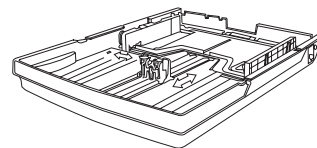
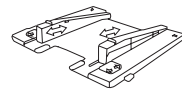
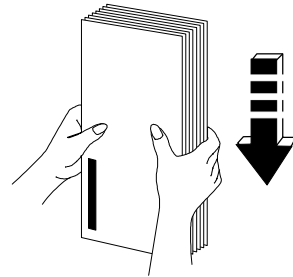
- » **Note:** Check your application documentation to determine if the flap should be placed on the left or on the right. You can also print a single envelope to check the orientation before printing multiple copies.

- 10 Slide the media cassette back into the printer.

The media cassette must be located in the upper position, not in the optional lower input feeder.

- 11 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

Formatting	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.	
Input	Cassette	Standard upper media cassette only
	Capacity	Up to 50 sheets, depending on the thickness of the media
Weight	24–42 lb (90–157 g/m ²)	
Print Mode	Thick Stock	

Loading and Printing Glossy Stock

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

Using Labels

Formatting	Format label data within your application. Try printing your data on a plain sheet of paper first to check placement.	
Input	Cassette	Standard upper cassette only
	Capacity	Up to 50 sheets, depending on the thickness of the labels
Type	<ul style="list-style-type: none"> ■ Use only labels recommended for laser printers, such as <ul style="list-style-type: none"> – Avery 5260. 	
Weight	24–42 lb (90–157 g/m ²)	
Print Mode	Thick Stock	

Notes	<ul style="list-style-type: none">■ Avoid using labels with exposed adhesive; it may stick to the transfer drum 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<ul style="list-style-type: none">— The face sheet must follow to the plain paper specification listed on “Paper Specifications” on page 2-3.— 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.
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Loading and Printing Labels

- 1 In the printer driver (Paper tab, Paper Type option), select **Thick Stock**.
 - 2 On the control panel, press the **Media** key to select printing on thick stock.
 - 3 Remove the upper 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 right side of the cassette.*
- 5 Slide the upper media cassette back into the printer.
 - 6 In the Operator Control/Media/For Upper Bin menu, select **Thick Stock**.

Using Thick Stock

Formatting	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.	
Input	Cassette	Standard upper media cassette only
	Capacity	Up to 50 sheets, depending on the thickness of the media
Type	For information about thick stock media recommended for your printer, see the <i>QMS magicolor 6100 Answer Base</i> through the Internet at http://www.qms.com/support/index6100.html , or contact the QMS Customer Response Center. See appendix A, "QMS Customer Support," for a complete listing of support telephone numbers.	
Weight	Simplex: 24lb (90 g/m ²) to 43 lb (163 g/m ²)	Duplex: 24lb (90 g/m ²) to 28 lb (105 g/m ²)
Print Mode	Thick Stock	
Notes	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.	

Using Media Other Than Paper

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

Using Transfer Media

Formatting	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.	
Input	Cassette	Standard upper media cassette
	Capacity	Up to 50 sheets, depending on the thickness of the transfer media.
Type	For information about transfer media recommended for your printer, see the <i>QMS magicolor 6100 Answer Base</i> through the Internet at http://www.qms.com/support/index6100.html , or contact the QMS Customer Response Center.	
Weight	Do not exceed the limits for thick stock, up to 43 lb bond (163 g/m ²).	
Print Mode	Thick Stock	

Loading and Printing Transfer Media

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

Using Transparencies

Formatting	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.	
Input	Cassette	Standard upper media cassette only
	Capacity	Up to 50 sheets, depending on the thickness of the transparencies » Note: <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>
Type	<ul style="list-style-type: none"> ■ 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"> — Xerox 3R5765 — 3M CG3710 	
Weight	24–41.75 lb (90–157 g/m ²)	
Print Mode	Automatic	
Notes	<ul style="list-style-type: none"> ■ Xerox 3R5765 is placed in cassette as long-edge fed with non-striped edge first and striped side down. ■ 3M CG3710 is placed in cassette as short-edge fed with non-striped edge first and striped side down. ■ Transparencies fed short-edge generally provide better print quality than those fed long-edge. ■ Keep the media path clean. Transparencies are especially sensitive to a dirty media path. If there are shadows on either the top or the bottom of the sheets, see “Cleaning the Printer” on page 2-27 for instructions on how to clean the printer. ■ Check your application documentation for other information about printing on transparencies. 	

Loading and Printing Transparencies

- 1 In the printer driver (Paper tab, Paper Type option), select Automatic.
- 2 Remove the upper 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.*

- 3 Load the new media.
- 4 Slide the upper 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 photosensitive belt (which functions like photographic film).

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	14,000 pages
Yellow	8,500 pages
Magenta	8,500 pages
Cyan	8,500 pages

- » **Note:** *Starter toner cartridges (1 each black, yellow, magenta, and cyan) at normal 5% coverage will print 7,000 letter/A4-size pages, while the yellow, magenta, and cyan will each print 4,250 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 approximately 100 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. Any damage to the printer caused by refilled toner cartridge use will not be covered by warranty.

Ordering Toner Cartridges

Choosing the right consumables for your QMS *magicolor* 6100 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.

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.

Replacing a Toner Cartridge

- Keep toner cartridges away from disk drives and floppy disks. The magnets in the cartridge can damage stored data.

Replacing a Toner Cartridge

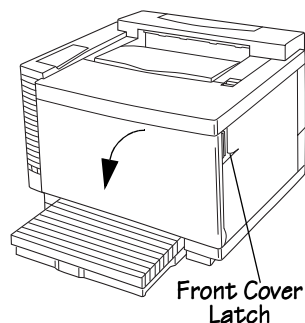
Your printer uses four toner cartridges: black, yellow, magenta, and cyan.

1 Open the printer's front cover.

Press the front cover latch on the upper right side of the printer.

2 Remove and discard the empty toner cartridge.

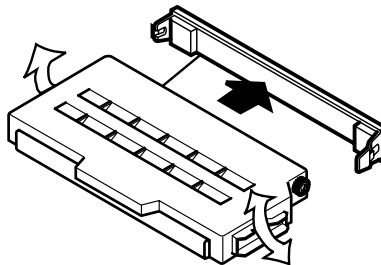
- ◆ **Caution:** *Dispose the used toner cartridge according to your local regulations. Do not dispose of it by burning.*



3 Remove the toner cartridge from its shipping carton.

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

4 Remove the protective cover..

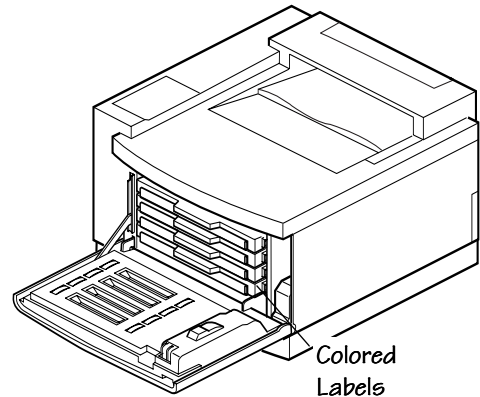


- ◆ **Caution:** *Each toner cartridge has a colored label that corresponds to a colored label to the right of the cartridge slots. Always install the toner cartridge in the slot with a label of the same color. If a toner cartridge doesn't slide in easily, don't force it.*

- 5 **Align the toner cartridge with the cartridge guides, and gently push the cartridge into the printer.**

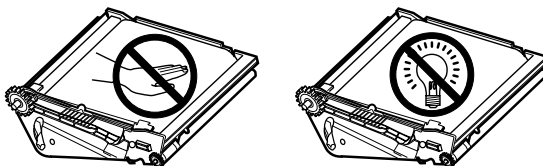
- » **Note:** *While the cartridges may appear not to be fully inserted, gently closing the front cover will guide them to their proper operating position.*

- 6 **Close the printer's front cover.**



Replacing the OPC Belt Cartridge

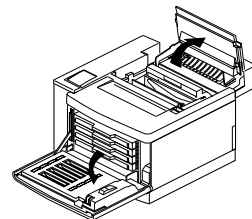
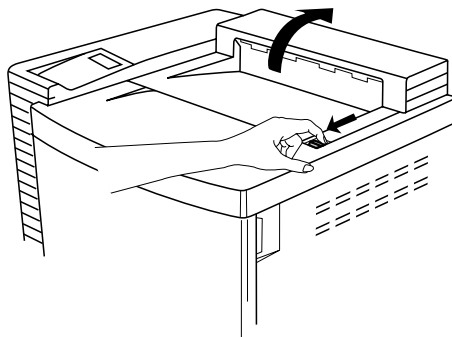
- ◆ **Caution:** *The OPC belt is extremely sensitive to bright light and direct sunlight. Always leave it in its protective bag until you're ready to install it. Any exposure to light should be limited to less than two minutes, or permanent damage could result. If you suspect a belt is damaged due to 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.

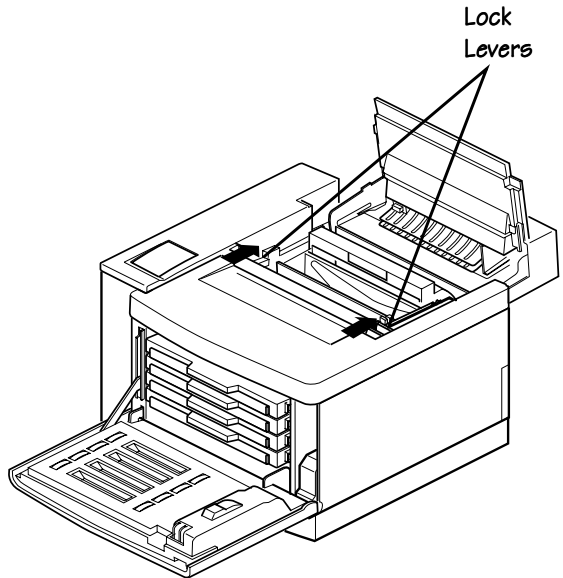
- 1 **Open the printer's top and front covers.**

- ◆ **Caution:** *Opening the front cover 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.*

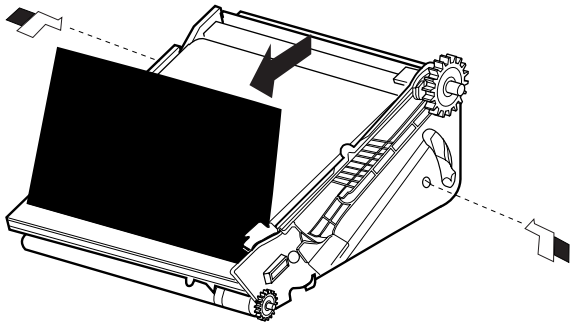


Replacing the OPC Belt Cartridge

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



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



Replacing the OPC Belt Cartridge

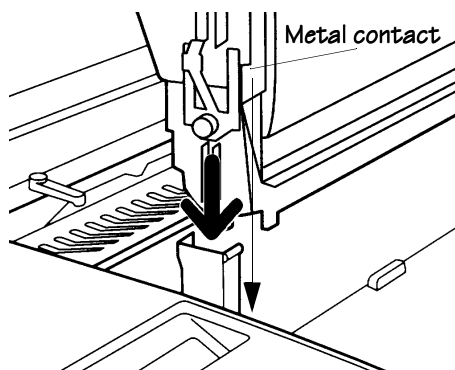
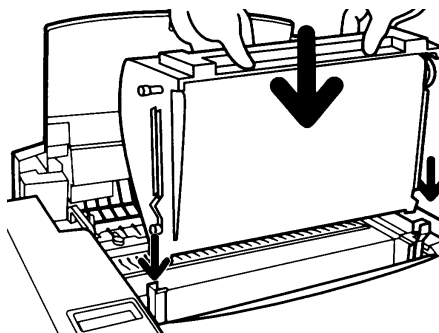
- 4 Holding the cartridge above the printer, align the guide pins on the cartridge with the guide slots in the lock levers.

The green surface of the cartridge faces you.

-
- ◆ **Caution:** When lowering the cartridge into the guide slots, the metal contact on the lower left side of the cartridge should be aligned outside of the left guide slot.
-

- 5 Gently guide the cartridge into the printer.

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

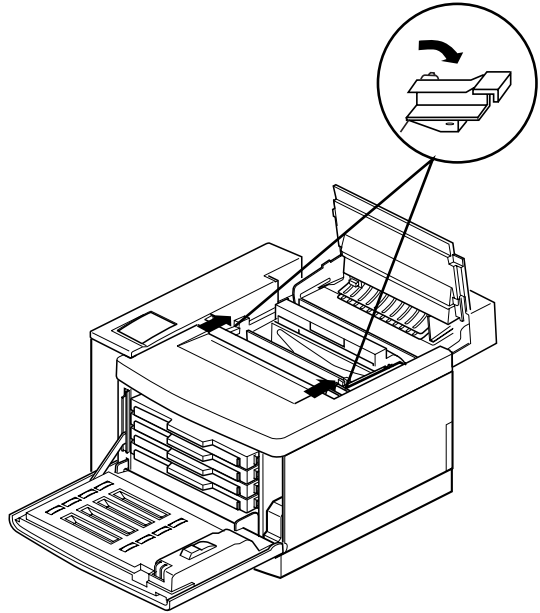


Replacing the OPC Belt Cartridge

- 6 Rotate the two lock levers to secure the OPC belt cartridge in the printer.
- 7 Close the printer's front and top covers.
- 8 In the Operator Control/Consumables/Item Replaced/**OPC Cartridge** menu choose **Yes** to reset the consumables usage monitoring system.

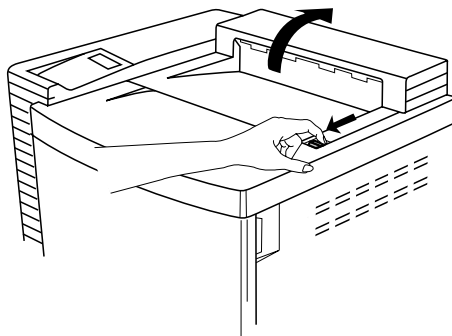
» **Note:** *You must manually reset the consumables usage monitoring system to ensure accurate consumables monitoring.*

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

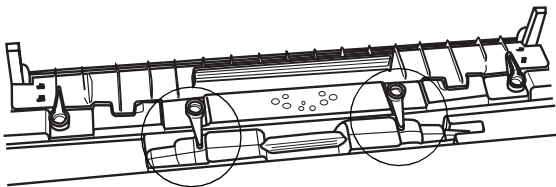


Replacing the Fuser Oil Bottle

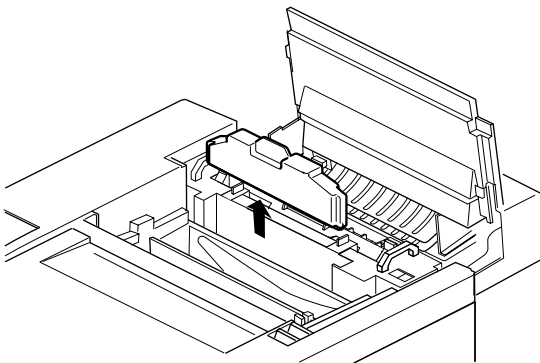
- 1 Turn off the printer.
- 2 Open the top cover of the printer.



- 3 Open the two bottle lock levers.



- 4 Remove the empty oil bottle.
- 5 Install the new oil bottle.
- 6 Close the two bottle lock levers.
- 7 Close the top cover and turn on the printer.
- 8 In the Operator Control/Consumables/Item Replaced/*Fuser Oil* menu choose Yes




to reset the consumables usage monitoring system.

- » **Note:** You must manually reset the consumables usage monitoring system to ensure accurate consumables monitoring.

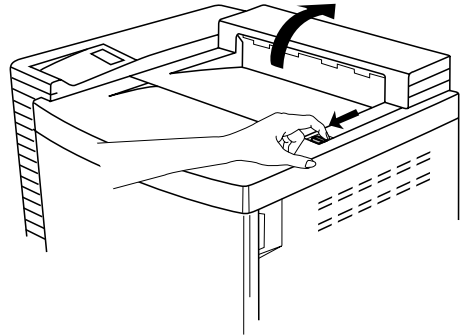
To access consumables usage information, use the Operator Control/Consumables/Print Statistics menu or the CrownView printer web page.

Replacing the Cleaning Roller

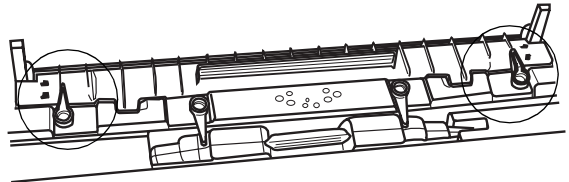
-  **WARNING!** The fuser unit can become extremely hot and cause severe burns. Make sure the unit is cool before handling it.

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

- 1 Turn off the printer.
- 2 Open the top cover of the printer.

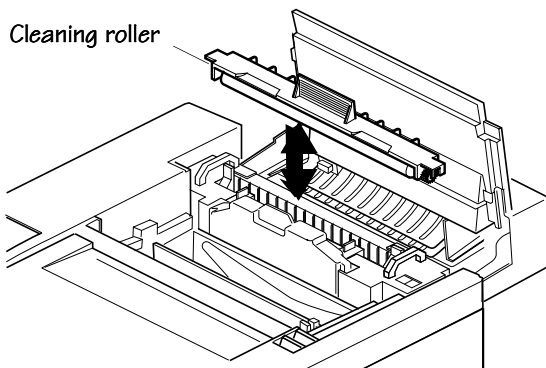


- 3 Open the two cleaning roller lock levers.



Replacing the Waste Toner Bottle

- 4 Grasp the handle of the cleaning roller and remove it.
- 5 Install the new cleaning roller.
- 6 Close the two cleaning roller lock levers.
- 7 Close the top cover and turn on the printer.
- 8 In the Operator Control/Consumables/Item Replaced/*Cleaning Roller* menu choose Yes to reset the consumables usage monitoring system.

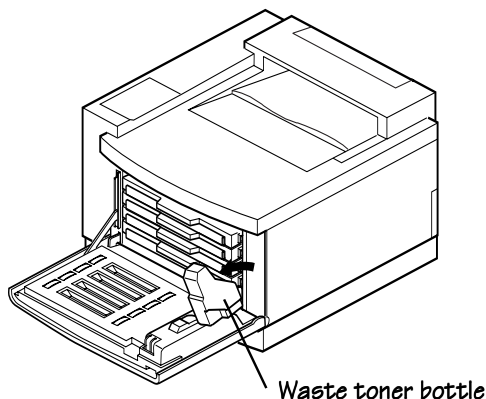


- » **Note:** *You must manually reset the consumables usage monitoring system to ensure accurate consumables monitoring.*

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

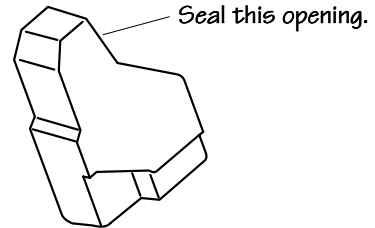
Replacing the Waste Toner Bottle

- 1 Open the front cover.
- 2 Take out the old waste toner bottle.



Replacing the Waste Toner Bottle

- 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 Prepare the new waste toner bottle.

- 5 Set the new waste toner bottle in the holder and close the cover.

- 6 In the Operator Control/Consumables/Item Replaced/Waste Toner Pack menu choose Yes to reset the consumables monitoring system.

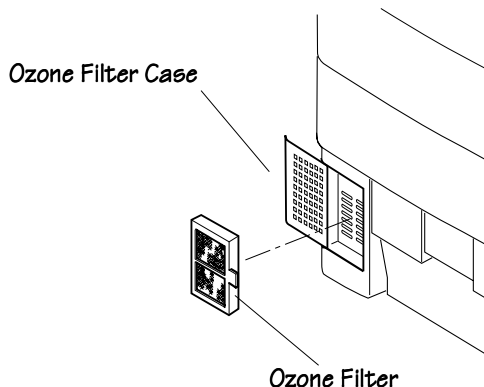
» **Note:** *When you replace the waste toner pack after a CHECK WASTE TONER message displays in the message window, the engine automatically recovers. However, you must manually reset the consumables usage monitoring system to ensure accurate consumables monitoring.*

- 7 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.**
- 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.**



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 optional duplexer installed, 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. When moving the printer, keep the printer level to avoid spillage of fuser oil. See chapter 6, “Repacking the Printer,” for printer shipping instructions.
- 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. See chapter 6, “Repacking the Printer,” for printer shipping instructions.

Cleaning the Printer

Paper dust may accumulate inside the printer. Blurred or splotchy prints and paper jams can result from dusty printer parts. Regular cleaning takes only a few minutes

Cleaning the Printer

and helps ensure print quality. You need to clean both the inside and outside of the printer.

⚠ **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.*

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.
- If the printer has a duplexer installed, always open the duplexer's top 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.

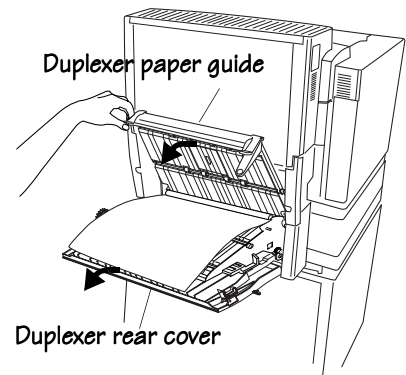
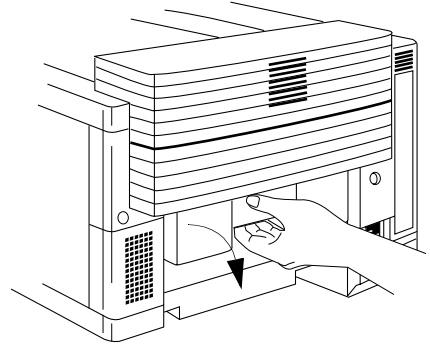
Cleaning the Transfer Unit

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 Open the printer's rear cover.

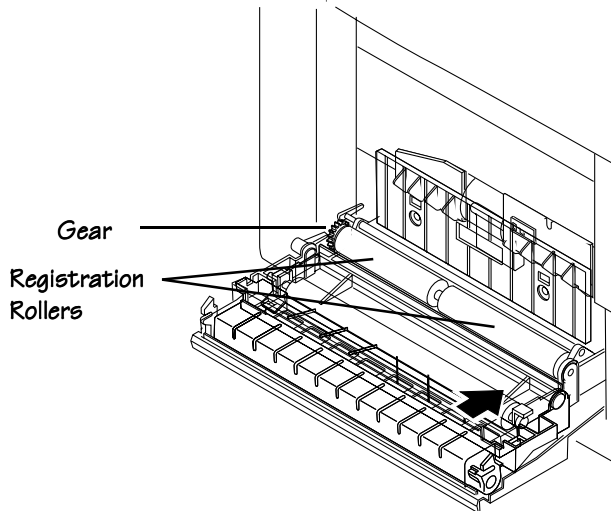
If your printer has a duplexer installed, you can access the printer's rear cover by opening the duplexer's rear cover and paper guide.



Cleaning the Printer

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

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

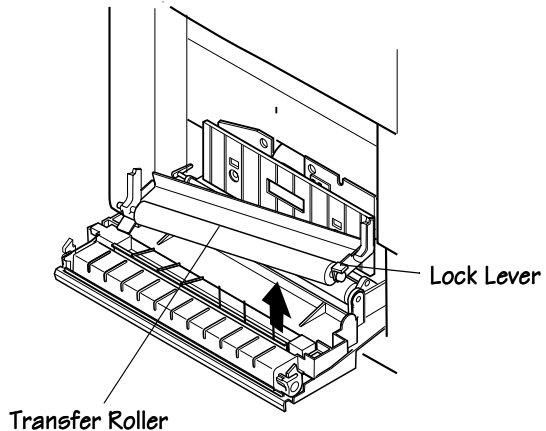


- 4 Clean the transfer roller.

- a Remove the transfer roller unit by lifting the 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 lock lever at the same time.

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

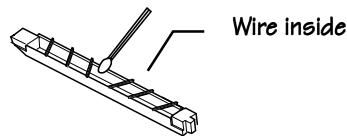
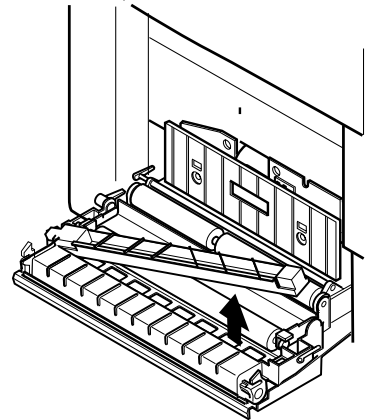


» **Note:** Manually rotate the roller while cleaning it.

- c Reinstall the transfer roller in the transfer unit.

5 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.

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

7 Close the printer's rear cover.

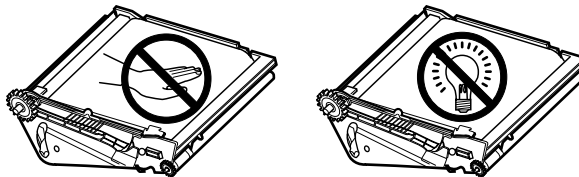
8 Plug in the printer, and turn it on.

- » **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.

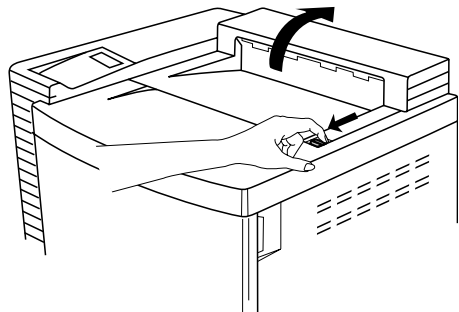
- » **Note:** *A dry cotton cloth is required for this procedure.*

1 Turn off and unplug the printer.

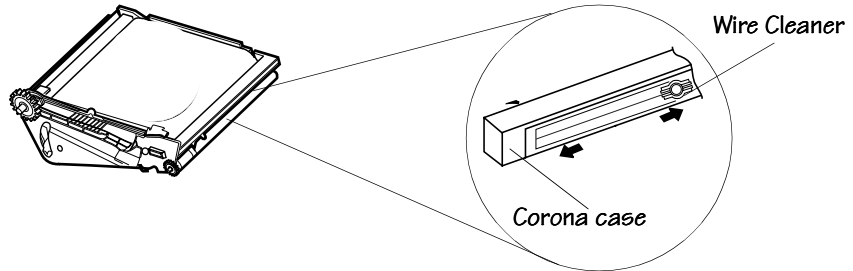
2 Open the top cover.

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

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



- 4 Clean the corona wire using the built-in wire cleaner attached to the corona case.



While pinching the two tabs of the wire cleaner together, slide the wire cleaner to both ends of the corona case.

-
- ◆ **Caution:** *Failure to return the wire cleaner to its home position (marked by an arrow on the corona case), may degrade print quality.*
-

- 5 Reinstall the OPC belt cartridge, and secure its lock levers.
- 6 Close the printer's front and top covers.

Cleaning the Laser Lens

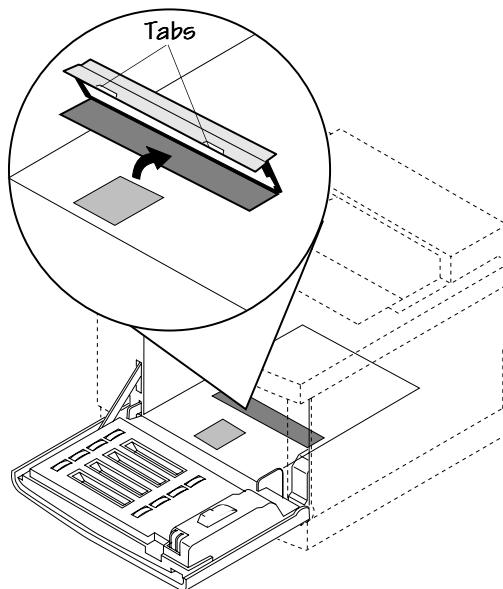
It's necessary to clean the laser lens only when you find vertical white or light-color streaking in all primary colors on your printouts.

- » **Note:** *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 Open the laser lens cover.

Release the two tabs on the front edge of the lens cover and rotate the hinged lens cover toward the rear of the printer. This will allow enough access room to clean the lens without the need of parts removal



4 Using a dry cotton cloth, wipe the lens.

5 Reinstall the laser lens cover.

The two tabs should snap back into place.

6 Reinstall the four toner cartridges.

7 Close the printer's front cover.

Cleaning the Exterior of The Printer

⚡ **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.*

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

You should perform a thorough cleaning every 30,000 single-sided pages or 12 months.

This item needs cleaning...	After...	By...
Corona wire (also known as the OPC charge wire)	Every 30,000 single-sided pages or 12 months, whichever comes earlier (or whenever dark vertical streaks appear on printed pages).	User See “Cleaning the OPC Belt Cartridge.”
If you have the duplex model, the duplex unit paper guides	Every 30,000 single-sided pages, or 12 months, whichever comes earlier.	User See information about cleaning the duplexer.
If you have the duplex model, the duplex unit roller	Every 30,000 single-sided pages, or 12 months, whichever comes earlier.	User See information about cleaning the duplexer.
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.”
OPC belt cartridge	Every 30,000 single-sided pages, or 12 months, whichever comes earlier.	User See “Cleaning the OPC Belt Cartridge.”
Paper discharger	Every 30,000 single-sided pages, or 12 months, whichever comes earlier.	User See “Cleaning the Transfer Unit.”
Paper exit rollers (also known as paper guides)	Every 30,000 single-sided pages, or 12 months, whichever comes earlier.	User

Maintenance Schedule

This item needs cleaning...	After...	By...
Printer exterior	As needed.	User See “Cleaning the Exterior of The Printer.”
Printer interior	Every 30,000 single-sided pages, or 12 months, whichever comes earlier.	User See “Guidelines for Cleaning Inside the Printer.”
Registration roller	Every 30,000 single-sided pages, or 12 months, whichever comes earlier.	User See “Cleaning the Transfer Unit.”
Transfer roller	Every 30,000 single-sided pages, or 12 months, whichever comes earlier.	User See “Cleaning the Transfer Unit.”

Preventive Maintenance Schedule

This item needs preventive maintenance...	After...	By...
Printer—30,000-page preventive maintenance	30,000 single-sided pages.	User See the standard “Cleaning Schedule”
Printer—240,000-page preventive maintenance	Replace 240K kit displays in the message window (after 240,000 single-sided pages).	QMS National Service or a QMS-authorized service provider

Replacement Schedule

This item needs replacing...	After...	By...
Cleaning roller	Check fuser cleaning roller or Replace cleaning Roller displays in the message window (after 20,000 single-sided pages at 5% coverage of each color).	User See “Replacing the Fuser Oil Bottle and Cleaning Roller.”
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.”
OPC belt cartridge	Replace OPC displays in the message window (maximum life—120,000 planes*, usually occurs with continuous use; minimum life — 60,000 planes, may occur with job sizes averaging one page although other factors also affect cartridge life).	User See “Replacing the OPC Belt Cartridge.”
Ozone filter	Every 12 months.	User See “Replacing the Ozone Filter.”

Maintenance Schedule

This item needs replacing...	After...	By...
Toner	14,000 single-sided pages—black; after 8,500 single-side pages—yellow, magenta, cyan @ 5% coverage of each color.	User See “Replacing a Toner Cartridge.”
Waste toner pack	Check waste Toner displays in the message window (after 18,000 single-sided pages.	User See “Replacing the Waste Toner Pack.”
Drum cleaner	240,000 single-sided pages.	QMS National Service or a QMS-authorized service provider.
Fuser unit	Replace fuser displays in the message window (after 100,000 single-sided pages maximum at an equal mix of black and 4-color pages, all with 5% coverage of each color; however, fuser unit life is media dependent).	QMS National Service or a QMS-authorized service provider.
Paper discharger	240,000 single-sided pages at 5% coverage of each toner color.	QMS National Service or a QMS-authorized service provider.
Paper pickup roller and Paper separation pad	120,000 single-sided pages.	QMS National Service or a QMS-authorized service provider.
Transfer drum	600,000 single-sided pages.	QMS National Service or a QMS-authorized service provider.
Transfer roller	240,000 single-sided pages at 5% coverage of each toner color.	QMS National Service or a QMS-authorized service provider.

*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 Letter/A4 pages (1 face). A duplex page (2 faces) is equivalent to two simplex pages.

What's Next?

Chapter 3, "Advanced Printer Features," describes many of the user-configurable printer settings that allow for customized setups to meet most printing needs.



3

Advanced Printer Features

In This Chapter . . .

- “High-Resolution Printing” on page 3-3
 - “PDF File Printing” on page 3-5
 - “Cassette Chaining” on page 3-6
 - “Collating Output” on page 3-7
 - “Duplex (2-Sided) Printing” on page 3-10
 - “Printing on Standard and Custom Media Sizes” on page 3-11
 - “Working with Status Pages” on page 3-12
 - “Cancelling/Ending Print Jobs” on page 3-13
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- “Proof-Then-Print” on page 3-15
- “CrownView” on page 3-17
- “Setting up the Printer Web Page” on page 3-18
- “Printer Home Page” on page 3-22

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 *magicolor* 6100 supports each of the following resolutions at up to rated engine speed:

300x300	This resolution has the fastest processing time for producing draft-quality output. 300x300 dpi resolution is also required by some printer emulations.
600x600 dpi	The standard resolution in the <i>magicolor</i> 6100 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.
1200x1200 dpi	For improved halftone quality in graphics and images, 1200x1200 dpi resolution is available for all media sizes on the <i>magicolor</i> 6100. Additional memory may be required to support 1200x1200 dpi for some models.

- » **Note:** *The magicolor 6100 will print all print jobs at the highest resolution that the installed memory will support.*

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 1200x1200 dpi resolution on legal media, but the printer has only 96 MB of RAM instead of the required 128 MB minimum, the file prints at 600x600 dpi.*

High-Resolution Printing

Minimum System Memory Requirements

Media Size	600x600			1200x1200		
	Mono	4-Color	Duplex Basic/Full Speed	Mono	4-Color	Duplex Basic/Full Speed
B5 (ISO) B5 (JIS) Executive	64 MB	64 MB	64/96 MB	64 MB	96 MB	160/288 MB
Letter, A4	64 MB	64 MB	64/96 MB	64 MB	96 MB	160/384 MB
Legal	64 MB	64 MB	64/64 MB	64 MB	128 MB	192/192 MB
B4	64 MB	64 MB	96/96 MB	64 MB	128 MB	192/192 MB
Ledger, A3	64 MB	64 MB	96/96 MB	64 MB	160 MB	288/288 MB
12"x18" 13"x18" 13"x19"	64 MB	64 MB	128/128 MB	64 MB	192 MB	384/384 MB

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

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

Setting the Default Resolution

Menu	Administration/Engine/Def Resolution
Choices	300 dpi—300x300 dpi resolution 600 dpi—600x600 dpi resolution 1200 dpi—1200x1200 dpi resolution

Default	300, 600 or 1200 dpi—your printer's default is the highest resolution available for the amount of RAM installed in the printer (see “Minimum System Memory Requirements” on page 3-4 for more information).
Notes	<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” on page 3-12 in chapter 2 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 1200 dpi, the frame buffer remains configured for 1200 dpi, which means that printer memory that could be better used somewhere else is being wasted.</p>

PDF File Printing

Your *magicolor* 6100 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 printer 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

Cassette Chaining

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* 6100 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 3 of the *Reference* manual on how to adjust the memory clients.

Printing Preformatted Files Using CrownView

Your *magicolor* 6100 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

If you have one or two optional lower feeder units, you may choose to have the printer automatically draw media from other cassettes (inputbin) when the current cassette empties. This is called cassette chaining, and it provides a total media input capacity of 1250 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.

Collating Output

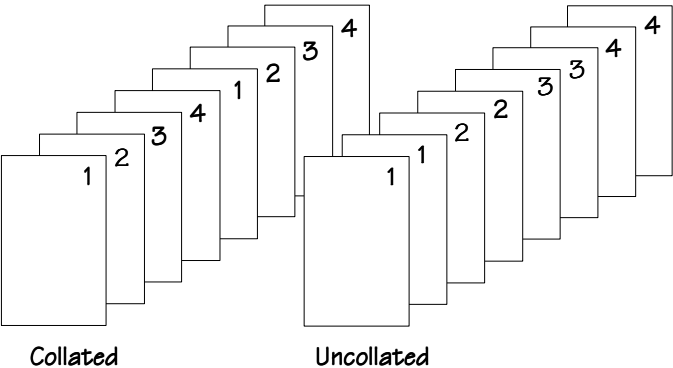
- On a network, use CrownAdmin to select the media cassettes and/or the media source.
- Using CrownView via the CrownView operator control screen.
- Configure the printer through the configuration menu.

Using the Configuration Menu

Menu	Operator Control/Chain Inputbins
Choices	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.
Default	On
Notes	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.



Collating Output

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.)
- 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

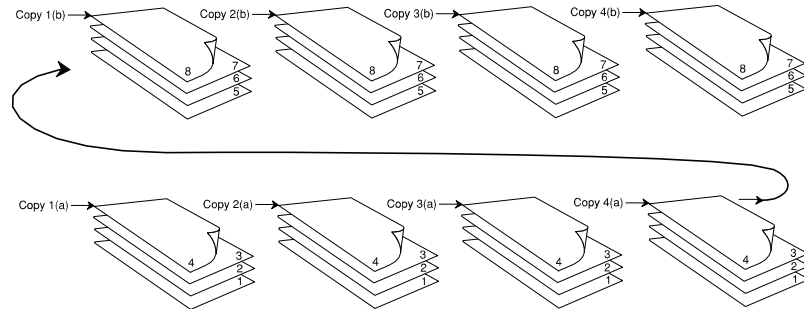
For a multiple copy document with collation On, there must be enough display list memory to hold the display list blocks for all pages in the collation range. (For more information on Display List blocks, see “Display List” on page 3-21 in chapter 3 of the *Reference* manual.) If there’s not enough memory, 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

Collating Output

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.
-
- ◆ **Caution:** Use this option only if you're familiar with adjusting memory clients' values. (Refer to chapter 2, "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.

Duplex (2-Sided) Printing

- 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

Manual Duplexing

If you 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 then print the second side.

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

Auto Duplexing

2-sided (duplex) printing can be done automatically with the optional duplexer installed. There is no need to manually reinsert the paper.

Plain paper and limited thick stock up to 28 lb bond (105 g/m²) can be auto duplexed. For heavier weights, manual duplexing is recommended.

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

- » **Note:** *Duplexed letterhead must be loaded face-down.*

Printing on Standard and Custom Media Sizes

The *magicolor* 6100 prints on a wide variety of media sizes. However, the input source/location varies.

Media	Media Size		Input Source/ Location*
	Inches	Millimeters	
A3	11.7x8.3	297.0x420.0	U or L
A4	8.2x11.7	210.0x297.0	U or L or A
A5	5.8x8.3	148.0x210.0	U
B4	10.1x14.3	257.0x364.0	U or L
B5 (ISO)	6.9x9.8	176.0x250.0	U
B5 (JIS)	7.2x10.1	182.0x257.0	U or A
Com 10	4.1x9.5	105.0x241.3	U or A
DL Envelope	4.3x8.7	110.0x220.0	U or A
Executive	7.3x10.5	184.0x267.0	U or A
Legal	8.5x14.0	215.9x355.6	U or L
Letter	8.5x11.0	215.9x279.4	U or L or A
Ledger	11x17	279.4x432.0	U or L
Oversize	13x19	330.2x482.6	U
Oversize	13x18	330.2x457.2	U
Oversize	12x18	304.8x457.2	U
A4 Transparency (OHP)	8.2x11.7	208.3x297.2	U or A
Letter-Size Transparency (OHP)	8.5x11	215.9x279.4	U or A

*

U = Upper (Standard) cassette (250 sheet)

L = Lower (optional) cassette (500 sheet)

A = Letter/A4 (250 sheet)

Working with Status Pages

Identifying a Status Page Type

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

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

Menu	Administration/Special Pages/Print Status
Choices	No, Yes
Default	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/Ending Print Jobs

Cancelling a Print Job

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

Cancelling all Print Jobs

Press this key...	to...	The message window reads...
Cancel	Access the Job Cancel menu.	JOB CANCEL CANCEL JOB
Next (twice)	Advances to the Cancel All Jobs mode.	JOB CANCEL CANCEL ALL JOBS
Cancel or Select	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

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 3, "Technical

Proof-Then-Print

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

Proof-Then-Print

- » **Note:** *This feature is available only on magicolor 6100 printers with an internal hard disk installed.*

Printing multiple, color copies can take a considerable bite out of your printing resources both in printing time and in consumables used. To help you avoid unnecessary losses, any *magicolor* 6100 with an optional hard disk installed provides a method that allows you to review a "proofing" copy of your print job prior to committing to the entire print job copy quantity. This feature gives you the ability to set up multi-copy print jobs that will print one copy for proofing and hold the remaining print job order until you approve or cancel the job at the printer's control panel.

Using Proof-Then-Print

The Proof-Then-Print option can be selected through the QMS Windows 95/98 PostScript printer driver or through Remote Console. See the QMS CrownAdmin online help for information on using Remote Console.

QMS Windows 95/98 PostScript Printer Driver

- 1 From your application's print dialog windows select printer **Setup** and printer **Properties** to access the QMS Windows 95/98 printer driver utility.

Proof-Then-Print

2 Select the Proof-Then-Print indicator located on the Job tab.

The Job Name text box will be activated and contain the default identification of the current print job. You can leave the job name as it appears or change the job name (maximum 16 characters).

- » **Note:** *If the Proof-Then-Print indicator is disabled (grayed-out) and your printer has a hard disk installed, open the Settings tab and select Fixed Disk Drive Installed, then return to the Job tab and select Proof-Then-Print.*
- » **Note:** *The Uncollate setting is unavailable for Proof-Then-Print print jobs.*

3 Choose the number of copies that are to be produced by the print job.

4 Click OK.

The QMS Windows 95/98 PostScript printer driver window closes.

5 Click OK.

The printer setup window will close.

6 Select Print from your application's print dialog window.

The printer will produce one copy of the print job for your review. After reviewing the proof continue by making the following selections from your printer's control panel:

Press this key...	to...	The message window reads...
Online	take the printer offline to access the menu.	IDLE
Menu	advance to the Operator Control menu selection	CONFIGURATION OPERATOR CONTROL
Select	select the Operator Control menu.	OPERATOR CONTROL COPIES
Arrow (left or right)	advance to Proof-Then-Print menu item.	OPERATOR CONTROL PROOF THEN PRINT
Select	select the Proof-Then-Print menu.	[Job Name]
Arrow	scroll through all Proof-Then-Print print jobs currently stored in printer. » Note: <i>Your printer can hold up to 50 Proof-Then-Print jobs.</i>	[Job Name]

CrownView

Press this key...	to...	The message window reads...
Select	select the job	[Job Name] IS SELECTED
Arrow	toggle between PRINT and DELETE choices.	PRINT or DELETE
Select	(if PRINT selected) allow the remaining copies to be printed. (if DELETE selected) delete the job	1 ACTIVE JOB [Job Name]

CrownView

QMS CrownView is a printer-based application using your printer's IP connection to your network and the World Wide Web portion of the Internet as a framework for the *magicolor* 6100 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.*

The following sections provide 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* 6100 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.

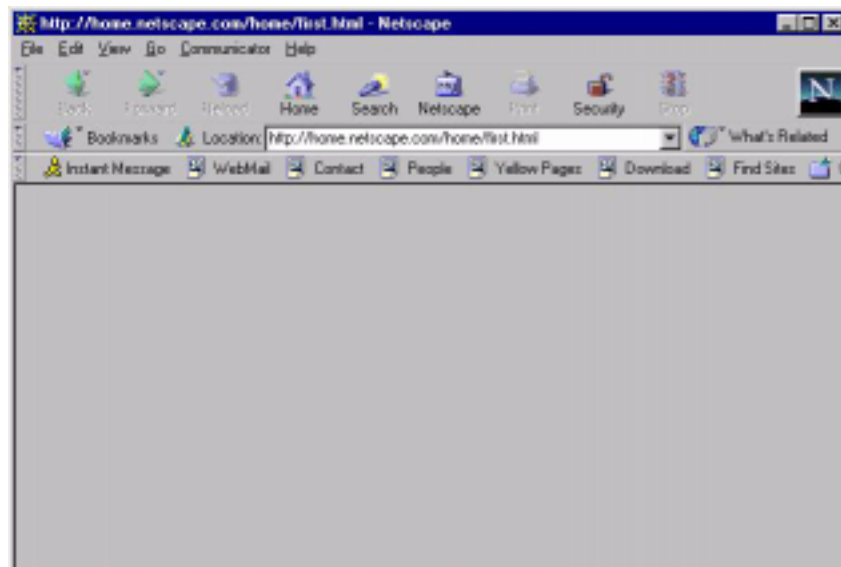
» **Note:** *You need to do this procedure only once.*

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

Setting up the Printer Web Page

For Netscape

- 1 Start your web browser.



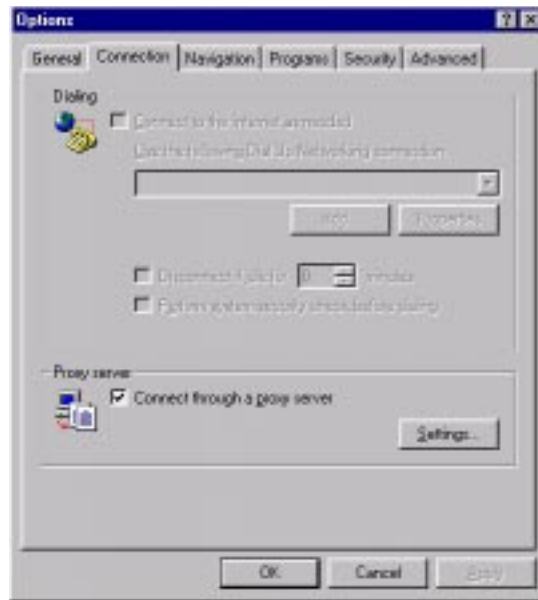
- 2 Access the Options menu and choose Network Preferences.
- 3 Select the Proxies tab in the dialog box.
- 4 Select the Manual Proxy Configuration radio button and press the View... button.
- 5 In the No Proxy For: text box, type a comma after the last entry, and then type the printer name or the IP address of your QMS magicolor 6100.
- 6 Choose OK.
- 7 Enter the printer name or IP address in the Go to: 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.

Setting up the Printer Web Page

- 3 Select the Connection tab on the dialog box.



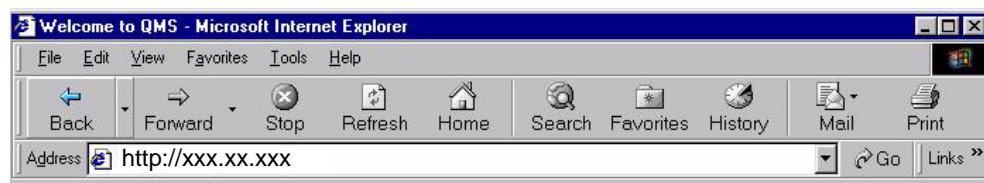
- 4 Click the Settings button to display the Proxy Settings dialog box.

Setting up the Printer Web Page

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



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

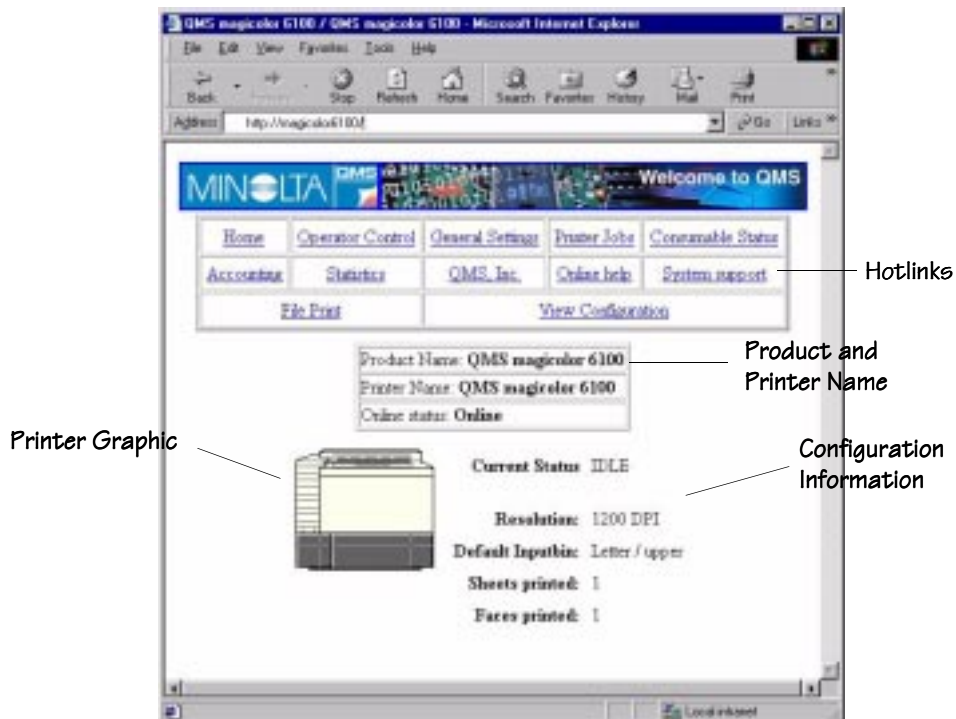


Printer Home Page

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.

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

Printer Home Page

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

Home

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

Printer Home Page

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.

Configuration Form

Product Name: QMS magicolor 6100
Printer Name: QMS magicolor 6100
Online status: Online

Copies: 1
Color Separation: ☒ Off ☐ On
Color Model: Full Color
ICC RGB Source: sRGB
ICC Simulation: None
ICC PCL Source: sRGB
Link Quality: ☐ Low ☐ Med ☐ High
Sim. in RGB Links: ☒ No ☐ Yes

Collation: ☐ Off ☒ On
Orientation: Portrait
Default Inputbin: upper
Chain Inputbins: ☐ Off ☒ On
Upper Bin Media: Automatic
Upper Custom Tray: None

Submit

The Operator Control page contains the following options. For complete information on any options see chapter 2, "Printer Configuration," of the *Reference* manual.

Copies	Allows you to enter the number of copies to print.
	Configuration Menu: Operator Control/Copies
Color Separation	Allows you to turn color separations Off or On.
	Configuration Menu: Operator Control/Color Separation
Color Model	Allows you to select between full-color or monochrome mode.
	Configuration Menu: Operator Control/Color Model

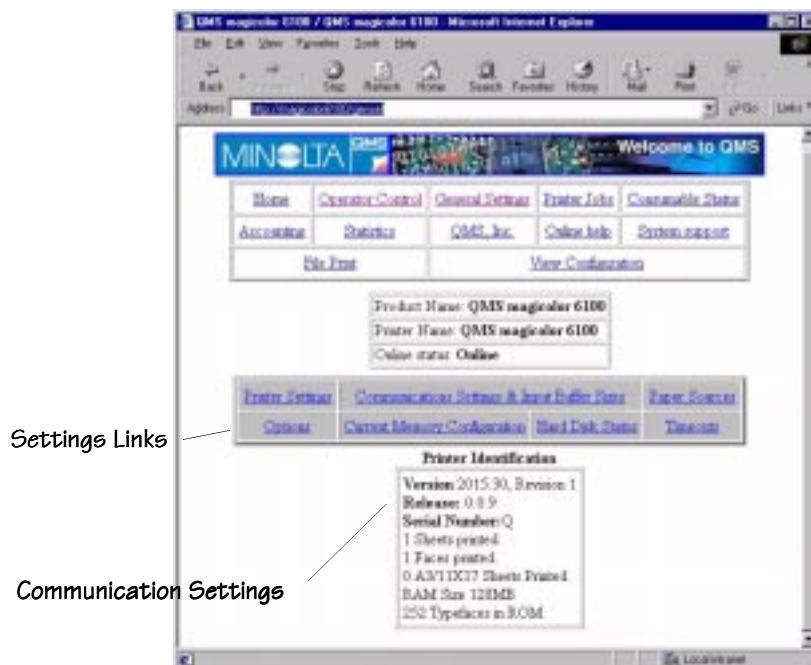
Color Matching	Allows you to turn color matching Off or On.
	Configuration Menu: Operator Control/Color Matching
ICC RGB Source	Allows you to select Apple RGB, Fujitsu ScanPar, Max Gamut, PrePress, sRGB, Trin G1.8 D50, Disable Auto DL, or Disabled.
	Configuration Menu: Operator Control/Color Matching/ICC RGB Source
ICC Simulation	Allows you to select Commercial, CMYK Display, Eurocolor, Inkjet Proofer, SWOP, None, Disable Auto DL, or Disabled.
	Configuration Menu: Operator Control/Color Matching/ICC Simulation
ICC PCL Source	Allows you to select Disabled, Disable Auto DL, or sRGB.
	Configuration Menu: Operator Control/Color Matching/ICC PCL Source
Link Quality	Allows you to select Low, Med. or High link quality.
	Configuration Menu: Operator Control/Color Matching/Link Quality
Sim. in RGB Links	Allows you to select No or Yes to Sim in RGB Lnks.
	Configuration Menu: Operator Control/Color Matching/Sim. in RGB Links
Duplex	Allows you to turn duplexing Off, Short Edge, or Long Edge if you have an duplexer installed.
	Configuration Menu: Operator Control/Duplex
Collation	Allows you to turn collation Off or On.
	Configuration Menu: Operator Control/Collation
Orientation	Allows you to select Portrait or Landscape orientation.
	Configuration Menu: Operator Control/Orientation
Default Inputbin	Allows you to choose Upper or Optional as the input source.
	Configuration Menu: Operator Control/Inputbin
Chain Inputbins	Allows you to set input bin chaining Off or On.
	Configuration Menu: Operator Control/Chain Inputbins

Printer Home Page

Upper Bin Media	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.
	Configuration Menu: Operator Control/Media/For Upper Bin
Upper Custom Tray	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).
	Configuration Menu: Operator Control/Custom Bin/Upper

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 3-27
- “Communication Settings and Input Buffer Sizes” on page 3-28

Printer Home Page

- “Media Sources” on page 3-29
- “Options” on page 3-29
- “Current Memory Configuration” on page 3-30
- “Hard Disk Status” on page 3-31
- “Timeouts” on page 3-32

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.

Compatibility Level	Identifies the PostScript emulation level.
	Configuration Menu: No equivalent
Do Startup Page	Identifies whether the printer startup page is turned on or off.
	Configuration Menu: Administration/Startup Options/Do Start Page
Do Error Handler	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.
	Configuration Menu: Administration/Startup Options/Do Error Handler
Do Sys/Start	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.
	Configuration Menu: Administration/Startup Options/Do Sys/Start
Is Password 0?	Identifies whether the Administration menu password is set. 0=On
	Configuration Menu: Installation/Use Admin Pwd
Duplex	Identifies whether the duplex option is Off or On.
	Configuration Menu: Operator Control/Duplex/Off

Printer Home Page

Default Chaining	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.
	Configuration Menu: Operator Control/Chain Inputbins
Default Paper Tray	Tells you which input source is the default.
	Configuration Menu: Operator Control/Inputbin
Number of Paper Trays	Tells you the number of input sources available on your printer.
	Configuration Menu: No equivalent.
Page Stack Order	Tells you what order (e.g., face down) the page stack will be in.
	Configuration Menu: No equivalent.
Left Margin	Identifies the amount (in .01" increments) the image is adjusted horizontally on the page.
	Configuration Menu: Administration/Engine/Image Alignment/Horiz Offset
Top Margin	Identifies the amount (in .01" increments) the image is adjusted vertically on the page.
	Configuration Menu: Administration/Engine/Image Alignment/Vertical Offset
Resolution	Identifies the printer resolution.
	Configuration Menu: Administration/Engine/Def. Resolution

Communication Settings and Input Buffer Sizes

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

Serial IF	Identifies the settings for the serial interface.
	Configuration Menu: Administration/Communications/Serial
Parallel IF	Identifies the settings for the parallel interface.
	Configuration Menu: Administration/Communications/Parallel
Optional NIC (IF 1)	Identifies the settings for the optional Optional NIC interface, if installed. » Note: <i>You won't see this in the front panel until this option is installed.</i>
	Configuration Menu: Administration/Communications/Optional NIC

Resident NIC (IF 2)	Identifies the settings for the Resident NIC (CrownNet for Ethernet) interface.
	Configuration Menu: Administration/Communications/Resident NIC
Shared Spooling Size	Identifies the total amount of spooling space shared by the interfaces
	Configuration Menu: No equivalent.

Media Sources

This hotlink provides media source information.

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

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

Printer Home Page

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.

Host Input Spool	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.
	Configuration Menu: Administration/Memory/Manual Config/K Mem for Spool
Display List	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.
	Configuration Menu: Administration/Memory/Manual/Config/K Mem Display
PostScript Font Cache	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.
	Configuration Menu: Administration/Memory/Manual Config/K Mem for PS Fonts
PostScript Heap	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.
	Configuration Menu: Administration/Memory/Manual Config/K Mem for PSHeap
Framebuffer	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.
	Configuration Menu: Administration/Memory/Manual Config/Framebuffer
Color Matching	Shows the size (in KB) of the Color Matching client. This client is used for color matching. The choices are ICC Colormatch, ICC RGB Source, ICC Simulation, ICC PCL Source, Link Quality, and Sim. in RGB Links.
	Configuration Menu: Administration/Memory/Manual Config/Color Matching

Printer Home Page

Emulation	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.
	Configuration Menu: Administration/Memory/Manual Config/K Mem Emulation
Emulation Temporary	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.
	Configuration Menu: Administration/Memory/Manual Config/K Mem Emul. Temp
HP Storage Pool	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.
	Configuration Menu: Administration/Memory/Manual Config/HP Storage Pool
Disk Cache	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.
	Configuration Menu: Administration/Memory/Manual Config/K Mem Disk Cache
System Use	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.
	Configuration Menu: No equivalent
Printer Memory	Shows the size (in KB) of the total amount of RAM that your printer has.
	Configuration Menu: Administration/Memory/Manual Config/MB Printer Mem

Hard Disk Status

This hotlink provides the status of the hard disk.

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

Printer Home Page

Timeouts

This hotlink provides the status on established timeouts.

Wait	Shows the maximum number of seconds the PostScript emulation waits for incoming data before ending the job.
	Configuration Menu: Administration/Communications/Timeouts/PS Wait Timeout
Job	This shows the maximum number of seconds the printer processes a PostScript job before it ends the job.
	Configuration Menu: Administration/Communications/Timeouts/Job Timeout
Emulation	Shows the maximum number of seconds emulations other than PostScript wait for incoming data.
	Configuration Menu: Administration/Communications/Timeouts/Emulation Timeout
ESP	Shows the maximum amount of time ESP will wait to get a minimum amount of data before selecting an emulation.
	Configuration Menu: Administration/Communications/Timeouts/ESP Timeout

Printer Home Page

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

Previous Job Status

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

Printer Home Page

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

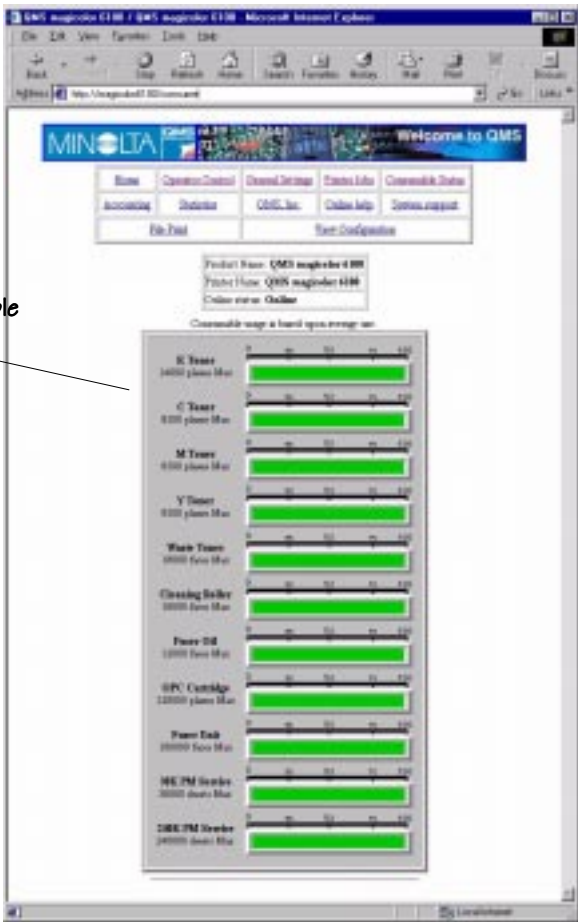
Consumable Status

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.

Printer Home Page

- » **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.

Consumable
Status
Gauges



Printer Home Page

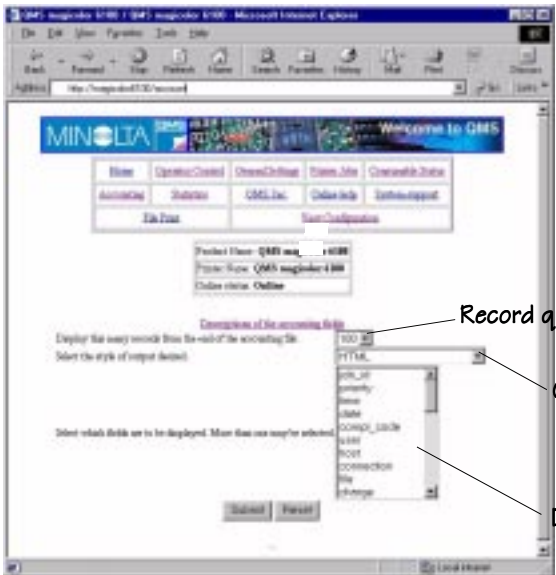
Consumable Name	Identifies the consumable (for example, Black Toner or 30K PM Service).
	Configuration Menus: Operator Control/Consumables and Administration/Consumables
Consumable Max Number	Shows the maximum capacity of the consumable (for example, 14,000 planes or 120,000 sheets).
	Configuration Menus: Operator Control/Consumables and Administration/Consumables
Consumable Usage Gauges	Shows the remaining amount of the consumable (in percentages, not planes, faces, or sheets).
	Configuration Menus: Operator Control/Consumables and Administration/Consumables

Accounting

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

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

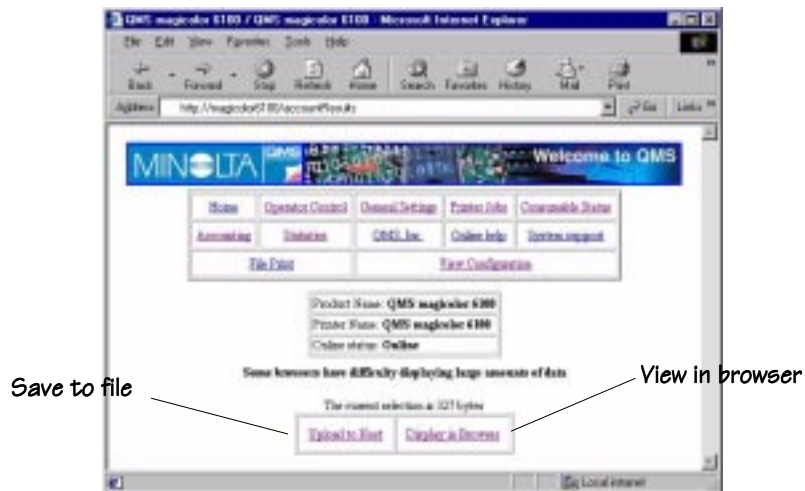
Printer Home Page



Record Quantity	Sets the number of records to be included in the accounting report. Choices are: 10, 50, 100, 250, 500 and All.
	Configuration Menu: No equivalent
Output Style	List box containing the accounting report format choices. Users can select HTML or Comma Separated Values as the format choice.
	Configuration Menu: No equivalent
Display Fields	List box containing all available fields selectable for the accounting report. Users can select one or more fields from the list.
	Configuration Menu: No equivalent

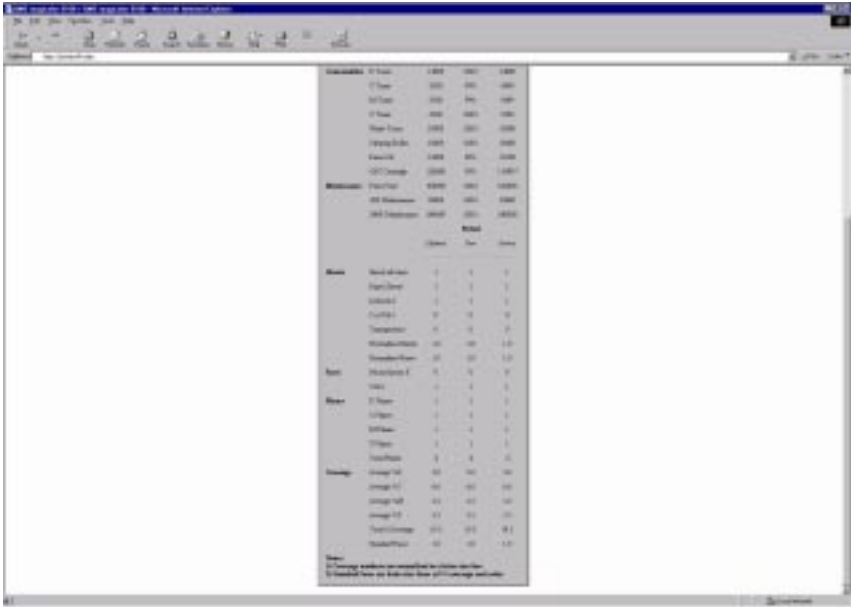
Printer Home Page

After running the accounting report you'll be given the choice to display the report in the browser or to save the report to a file.



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.



Consumables	Shows Max. Life, % Remaining, and Count Remaining of consumables
	Configuration Menu: No equivalent
Maintenance	Shows Max. Life, % Remaining, and Count Remaining for maintenance
	Configuration Menu: No equivalent
Sheets	Shows Lifetime, User, and service statistics measured in sheets
	Configuration Menu: No equivalent
Faces	Shows Lifetime, User, and service statistics measured in faces
	Configuration Menu: No equivalent

Printer Home Page

Planes	Shows Lifetime, User, and service statistics measured in planes
	Configuration Menu: No equivalent
Coverage	Shows Lifetime, User, and service statistics measured coverage
	Configuration Menu: 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

The screenshot shows the 'System support' section of the QMS magcolor 6100 printer's web interface. It includes a 'Support Form Data' section with the following fields and options:

- Select the desired page refresh rate:** Radio buttons for Off, 15 Sec, 30 Sec, 60 Sec, 5 Min.
- If you need assistance, contact:**
 - Contact Number:** Text field containing 'QMS Customer Support'.
 - Printer help URL:** Text field containing 'http://www.qms.com/www/pdhp/index.html?pfid=qms-qms_m'.
 - QMS Corporate URL:** Text field containing 'http://www.qms.com'.
 - Toll Product or Dealer Information:** Text field containing '1-800-523-2838 (USA)'.
 - SMTP Mail Server Address:** Text field containing '0.0.0.0'.
 - SMTP Server's Domain:** Text field.
 - Sender's address:** Text field.
 - To:** Text field.
 - CC (Separated by comma):** Text field.
 - Subject:** Text field.
- When to send email on printer error:** Radio buttons for Off, 1 Min, 30 Min, 1 Hr, Test.
- Email sent via:** Text field containing 'Printed H/C'.
- * Indicates Required SMTP Parameter**

A 'Submit' button is located at the bottom of the form.

Printer Home Page

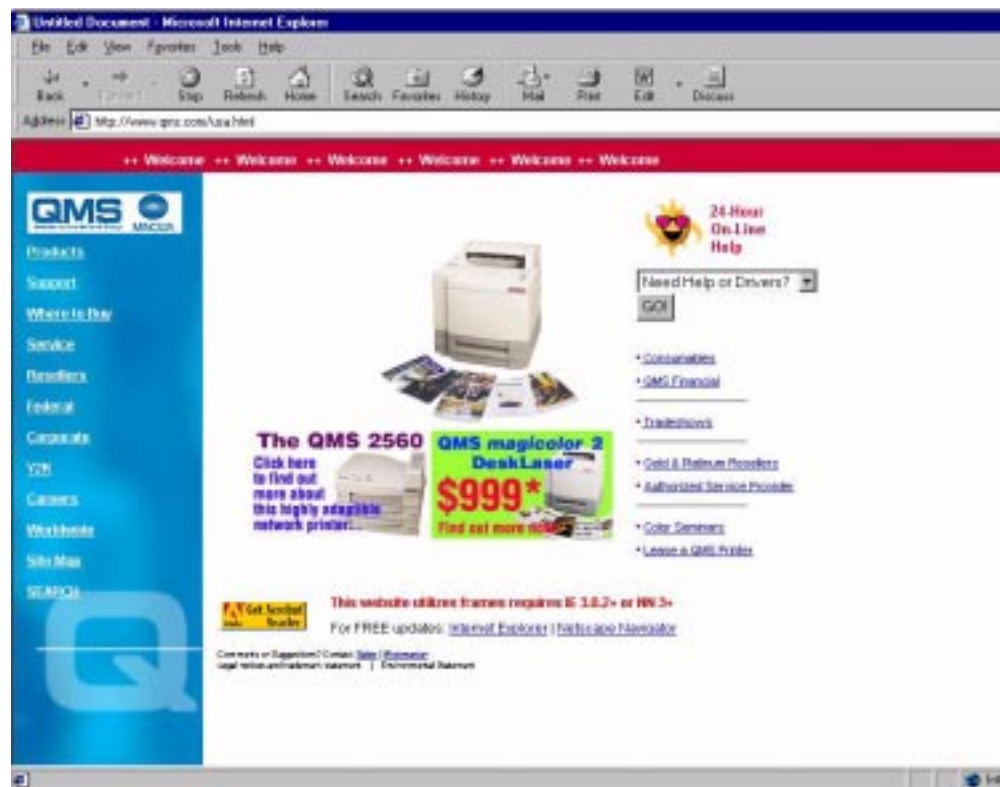
Page refresh rate	The rate at which information in the form is reset to the current printer settings.
If you need assistance, contact	A text box for entering the name of a local expert
	Configuration Menu: No equivalent
Contact Number	A text box for entering a local or QMS contact number
	Configuration Menu: No equivalent
Printer Help URL	A text box for entering a local or QMS printer help URL (web address)
	Configuration Menu: No equivalent
QMS Corporate URL	The QMS corporate URL (web address)
	Configuration Menu: No equivalent
For Product or Dealer Information	A text box for entering a local or QMS contact number
	Configuration Menu: No equivalent
Email	Text boxes for entering SMTP mail server address, sender's domain, sender's address, To: and CC information, and a subject line
	Configuration Menu: No equivalent
When to send email on printer error	Test, disable or set the time interval (1-minute, 30-minutes or 1-hour) for the printer to report errors via email.
	Configuration Menu: No equivalent
Email sent via	The path email is sent (e.g., via Resident NIC)
	Configuration Menu: No equivalent

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

- » **Note:** *If the time interval for page refresh rate is set to too small, 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

Printer Home Page

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 (<http://www.qms.com/support/index6100.html>).

The QMS web site contains links to information, documentation, software drivers, help and support tools. The QMS Answer Base can quickly guide you to the topic that applies to your specific problem or question. You can also access current FAQs (Frequently Asked Questions) about your print system and register your printer on-line.



Printer Home Page

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



Printer Home Page

File Print

- » **Note:** *File Print requires system code 5.40 or higher for Ethernet compatibility or a message is displayed indicating that file printing support is not available. Check the startup page; if the system code is not 5.40 or higher, contact the Customer Response Center to update the printer's software. See appendix A, "QMS Customer Support," for more information.*

This page allows you 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. Enter the host path and file name of the file to be printed, up to 32 characters, and press the Send the File button. If the path and file name information are longer than 32 characters, a Browse button is provided which opens a file locator window, from which you 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 Print will not operate.*

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



What's Next?

Chapter 4, "Color Printing," provides guidelines and background information you can use to optimize your printer's ability to produce accurate color reproductions.



4

Color Printing

In This Chapter . . .

- “QMS QCOLOR Technology” on page 4-2
- “Printer Drivers” on page 4-10
- “Downloading Custom Profiles” on page 4-21

Introduction

Your *magicolor* 6100 Print System features advanced color laser technology that produces inexpensive and durable color prints at 300x300, 600x600, and 1200x1200 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* 6100 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 matching tables

* Pantone, Inc.'s check-standard trademark for color reproduction and color reproduction materials.

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.

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 matching 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 *magicolor* 6100 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 2.1 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* 6100. 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.

* Pantone, Inc.'s check-standard trademark for color reproduction and color reproduction materials.

The QMS *magicolor* 6100 ships with built-in profiles for matching common RGB types, such as sRGB, Trinitron, Prepress, and Apple. Press profiles such as SWOP, Euro-color, 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.

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.

- sRGB (a common standard color space based on the average performance of PC monitors)
- 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
- Max Gamut

Simulation Choices

You will need to set a simulation choice if you intend to utilize the built-in color management system on the *magicolor* 6100. These choices allow the *magicolor* 6100 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)
- InkJet Proofer
- Eurocolor
- CMYK Display
- Commercial
- None (no simulation but limits the total area coverage)

Depending on your color matching needs, custom ICC profiles can be downloaded to the *magicolor* 6100. 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* 6100 has three built-in Color Rendering Dictionaries (CRDs)—Business, Colorimetric, and Photographic to product 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

- An Apple ColorSync/ICC device profile
- A Windows ICM device profile

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 2.5.x (Macintosh)
- ICM 2.0 (Windows)

Application-level CMSs include

- Kodak CMS
- ColorSolution ColorBlind Parachute

* Pantone, Inc.'s check-standard trademark for color reproduction and color reproduction materials.

- Pantone POCE[®]

PANTONE* Color Matching Tables

Another method of color matching supported by the QMS *magicolor* 6100 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 appropriate combination of process (CMYK) 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 matching) tables for supporting popular design and publishing applications:

Supported Design and Publishing Applications		
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* 6100 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 matching system is it is very easy to use, is widely supported, and is great for spot color. However, it is not as accurate as other methods of color matching, can't be used for photographs, and is limited to specific application software.

* Pantone, Inc.'s check-standard trademark for color reproduction and color reproduction materials.

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* 6100: optional instrument-based calibration software—Color Encore. Owners of the QMS *magicolor* 6100 can purchase this optional host-based software, Southwest Software's ColorEncore for *magicolor* printers, that requires the use of a densitometer (not included) to perform calibration.

Once Color Encore is 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* 6100's primary toner densities to factory levels.

Colorific

Colorific is monitor calibration software that ships with the *magicolor* 6100. 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* 6100. 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.

The technology behind the QMS QCOLOR halftone screening used as the "standard" setting in your *magicolor* 6100 is 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.

Agfa Balanced Screening (ABS)

The magicolor 6100 offers Agfa's Balanced Screening (ABS) as an alternative choice for halftone settings. Agfa's balanced screening technology is based on the same principles as traditional graphic arts screening using rotated angles and dots to produce open-centered rosettes. The use of pre-compensated gradations optimizes contrast and color while eliminating contouring and banding that typically affect high quality images found in business graphics. Operating at both 600- and 1200-dpi at 133-lpi (lines per inch), Agfa screening minimizes color balance shifts due to registration error, optimizes color gamut, diffuses jaggedness and moiré patterns and eliminates "rainbow" effects. At 1200 dpi, ABS provides approximately 256 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* 6100 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* 6100 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 3.x, 95/98 and Windows 2000
- Microsoft Windows NT 3.51/4.0

- OS/2
- Macintosh System 7.5.x, and 8.x (LaserWriter 8.x)

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* 6100 is selected, then choose the Options or Properties button.
- 5 On the Job tab (Windows 95) or Paper tab (Windows 98) you will be presented with the following choices for Quick Color Setup:
 - Automatic Color Control
 - Disable Printer Color Matching
 - Internal ICC Color Matching (RGB, CMYK)
 - SWOP Simulation (CMYK)
 - Eurocolor Simulation (CMYK)
 - Commercial Press Simulation
 - 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 can select one of the choices or open the Color tab to set your own color configuration. These next sections explain some of the settings in the driver.

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 docu-

ment type, then use one of the quick color setups or 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, both printer-resident ICC color matching and CRD color matching will be enabled. Select Automatic Color Control for color matching with Colorific software.*

Custom Settings

Under the Color tab, you can enable different color matching options and save different settings for images, graphics, and text.

The Color tab also lets the user select and modify custom color configurations for the *magicolor* 6100. Listed below are the user-adjustable settings for the Color tab.

- Quick/Custom Configuration
- Color Separations
- Use Internal ICC Color Matching: Configure
- Use CRD Color Matching: Configure
- Use custom halftone settings

Quick/Custom Configuration

This listbox will allow you to add predefined color configurations for custom modification. After selecting one of the predefined color settings from the list you'll be able to view the current configuration and make changes to the optional settings. Notice when you choose different options (Graphics, Grayscale, Photographic, etc.), the CRDs for Images, Graphics, and Text reflect the new settings.

After you've changed the selected options, 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 the color setting you modified so that your settings will take affect.

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

If you want to utilize the *magicolor* 6100's built-in ICC SWOP color matching, be sure that this is turned on. By default this setting is already on. Listed below are the user-selectable settings when you click on the Configure button next to Use Internal ICC Color Matching.

RGB Source

The choices for RGB Source are sRGB, Trinitron G1.8D50, Apple RGB, Prepress, Printer Default, Colorific: PnP VESA DDC-Plug and Play Monitor and None.

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* 6100. See the Colorific read me 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* 6100 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 6100.*

Use CRD Color Matching

Another selectable option for the *magicolor* 6100's built-in color matching is CRD Color Matching. By default this setting is already on. 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, Default or the Photographic CRD for Images, Graphics, or Text. The default CRD for Images is Photographic, and for Graphics and Text the default CRD is Business.

CRD Color Space

You are able to select a CRD Color Space within the Color tab. You will be able to select sRGB, Trinitron G1.8D50, Apple RGB, or Prepress as a CRD Color Space. The default setting for CRD Color Space is sRGB.

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

Use Custom Halftone Settings

The halftone setting choices for Images, Graphics, and Text are Standard (QMS QCOLOR) and Agfa Balanced Screening. You can select one of these two choices or Printer Default to accept the current printer configuration setting.

Accessing Color Matching for Microsoft Windows NT 4.0

- 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. Listed below are the color features available for the *magicolor 6100*.
 - 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 6100* 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.

- Images
- Line Art
- Text

The halftone setting for Images, Line Art and Text 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 selected 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 Max Gamut, sRGB, Trinitron G1.8D50, Apple RGB, Prepress, custom1, custom2, and custom3.

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* 6100. Please see the Colorific read me 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 SWOP, Eurocolor, Commercial, CMYK Display, Inkjet Proofer, None, Printer Default, custom1, custom2, and custom3.

When Internal ICC Color Matching is selected, the Simulation can be set from the above list to allow the *magicolor* 6100 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.

Accessing Color Matching for Microsoft Windows 3.1

- 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.

Some applications may call this option something else, such as Page Setup.

- 4 In the Print Setup dialog box, make sure the QMS *magicolor* 6100 is selected, then choose the Options or Properties button.

The QMS Advanced Level 2 Windows driver dialog box appears.

- 5 On the Paper tab, select a Quick Color Setup setting:

- **Automatic Color Control** (if you're printing a combination of document types)

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 select a more specific QCOLOR setting (for example, Photographic for scanned photographic images).

- **Graphics** (if you're printing color graphics)
- **Grayscale** (if you're printing images with gray shades)
- **Photographic** (if you're printing photographic images)
- **Text and Spot Color** (if you're printing text or spot colors)
- **Third-Party Color Management** (if you want to allow your application to control color settings)

- » **Note:** Select this option to use the printer-resident ICC color matching instead of CRD color matching. Use the printer front panel to configure ICC color matching options.
 - **Customize** (if you want to customize the color settings by using the options on the Color tab)
 - » **Note:** *Because QCOLOR automatically adjusts the settings on the Color Setup tab (Windows 3.1), you don't have to adjust them manually. However, if you want to customize them, you can get information about them and other options in the driver by choosing the Help button. Also, some applications (like PageMaker and Ventura Publisher) specify color outside the Windows driver, in which case the color settings in the QMS Advanced Level 2 Windows driver are ignored.*
- 6 **Choose the media type you're using.**

Use the printer driver's Paper tab and the printer's Operator Control/Media/For MPT Bin or Operator Control/Media/For Upper Bin menu.
 - 7 **Choose any other printing options you want.**

Choose the Help button in the printer driver for detailed descriptions of the options.
 - 8 **Choose OK until you return to the application.**
 - 9 **From the File menu, choose Print.**
 - 10 **In the Print dialog box, select any other options you want and then choose OK.**

Procedure for Creating and Saving a Custom Color Configuration for Microsoft 3.1

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.

Accessing Color Matching for Macintosh

You will find that the *magicolor* 6100 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* 6100 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 activate and deactivate each one 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* 6100 PPD and you have the *magicolor* 6100 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 are 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 need to change the Print Color: pop-up menu from Color/Grayscale to ColorSync Color Matching. If this selection is not made, you cannot 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* 6100 from the list of printers. If you do not see the *magicolor* 6100 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 You must be sure to deactivate the *magicolor* 6100's built-in color matching if you intend to use ColorSync. 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 Color Matching: to Disable.

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* 6100 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* 6100 PPD and you have the *magicolor* 6100 ICC profiles installed correctly on your Macintosh. If you have not, locate the *QMS Software Utilities* CD-ROM that shipped with you 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* 6100 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* 6100 PPD and you have the *magicolor* 6100 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* 6100 for this type of color matching.**
 - 5 **In the Printer Profile: pop-up menu, you will need to select *magicolor* 6100 from the list of printers. If you do not see the *magicolor* 6100 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 Color Matching to Disabled. 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

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

The *magicolor* 6100 also provides 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* 6100 provides a variety of color matching options that allows you to custom tailor a specific color matching setup for your particular needs.

Downloading Custom Profiles

The *magicolor* 6100 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-

Downloading Custom Profiles

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* 6100, 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* 6100 printer. Your *magicolor* 6100 must be an EX model or a *magicolor* 6100 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</i> 6100 Naming for PPDs
CORLMTL.ICC	custrgb1.icc
MYPROF.ICC	custrgb2.icc
UMAXD50.ICC	custrgb3.icc

» **Note:** *If you do not rename your files correctly, the magicolor 6100 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* 6100.

3 Locate your *QMS Software Utilities* CD-ROM and install CrownAdmin if necessary.

4 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.

5 Verify the destination as SYS:/USR/*.*

You might need to type this information in, if it is not present.

6 Select Download to send the custom ICC RGB Source or Simulation profile to the *magicolor* 6100's internal hard drive.

7 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.

8 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.
- Select Remote Path... and go to PostScript.
- Click Select.

To view the current profiles on the *magicolor* 6100 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* 6100. 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* 6100.*

Profiling Your Printer

The *magicolor* 6100 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* 6100 to recharacterize the printer's entire color matching system. Details for downloading a recharacterization are not included in this manual. These instructions may be found in the *QMS magicolor 6100 Answer Base* through the Internet at <http://www.qms.com/support/index6100.html>, or by contacting the QMS Customer Response Center. See appendix A, "QMS Customer Support," for a complete listing of support telephone numbers.

What's Next?

The next chapter describes the proper way to remove media jams from the *magicolor* 6100 print system. In addition, details that will assist you to identify and avoid printer problems are included to help you keep printing production running smoothly.



5

Printer Jams and Troubleshooting

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- “Testing PC-Printer Communication” on page 5-29
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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. This chapter explains automatic jam recovery, discusses how to locate, remove and prevent media jams, presents tables of common status messages, a problem checklist, and actions you should take when a specific problem occurs. You'll also find a problem checklist and the information you'll need to have before placing a service call if one becomes necessary.

Automatic Jam Recovery

The QMS *magicolor* 6100 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.

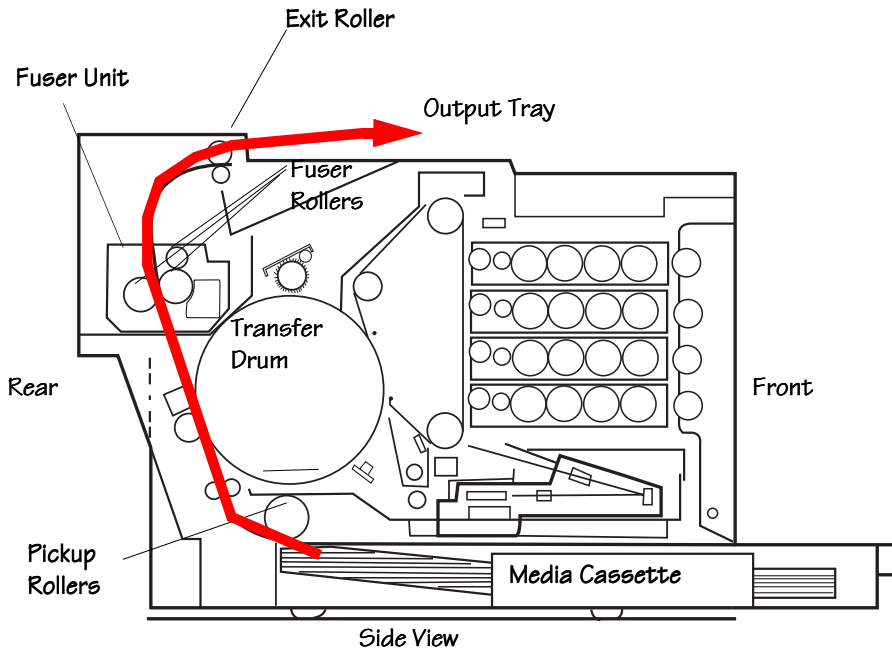
- Use media that matches the printer specifications.
 - Make sure the media is not folded, wrinkled, or excessively curled.
 - Do not overfill the media cassette. The cassette has a fill-limit mark on the inside left side.
- » **Note:** *Ensure that the media in the cassette is flat, especially on the leading edge.*

Preventing Media Jams

- 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 if you're printing on envelopes, glossy stock, labels, thick stock, transfer media, or transparencies.
- 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

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.

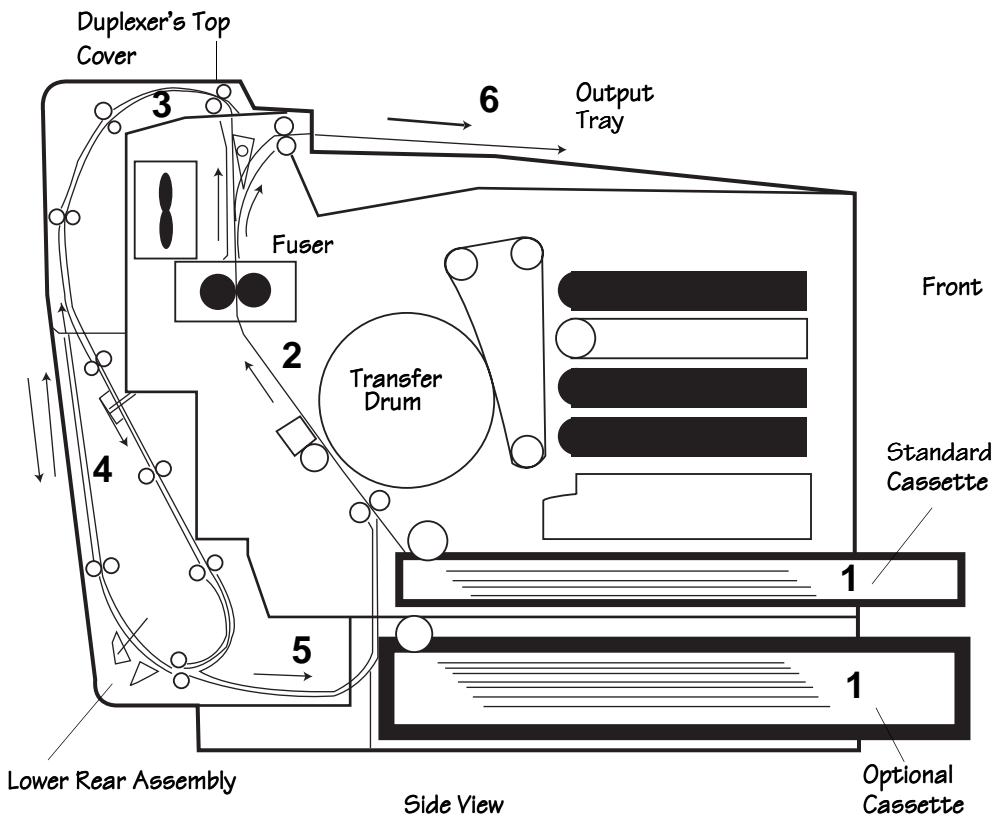


With Optional Duplexer

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 (2), passed through the fuser, fed into the duplexer (3) where the media undergoes a change in direction (4), cycles through the transfer drum and fuser again (5), and is delivered via the paper exit unit to the output tray, which is the top of the printer (6).

Understanding the Media Path

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, recovering from a media jam may require the removal of more than one sheet.

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 models with duplexers installed. 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.


Removing Media 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.

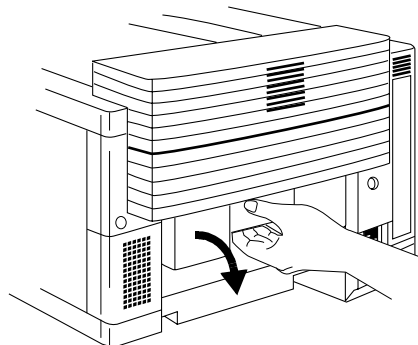
Inner Jams, Outer and Drum Jams

 **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.*

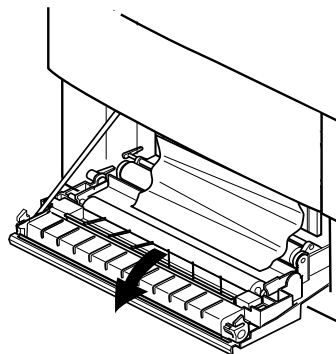
◆ **Caution:** *Media that hasn't fully passed through the fuser contains unfused toner that can dirty your hands, clothes, or any thing else it gets on. If you accidentally get toner on your hands, wash them in cool water. If you accidentally get toner on your clothes, lightly dust them off as much 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 Open the rear cover of the printer.



Removing Media Jams

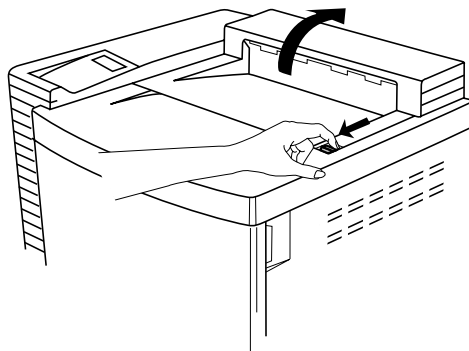
- 2 Remove the jammed media by pulling it toward you.



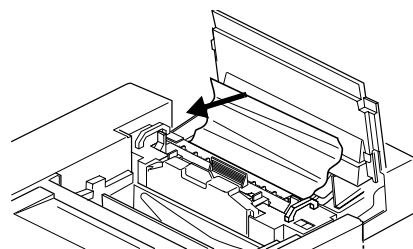
- 3 Close the printer's rear cover.

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

Pull the top latch to release the top cover.

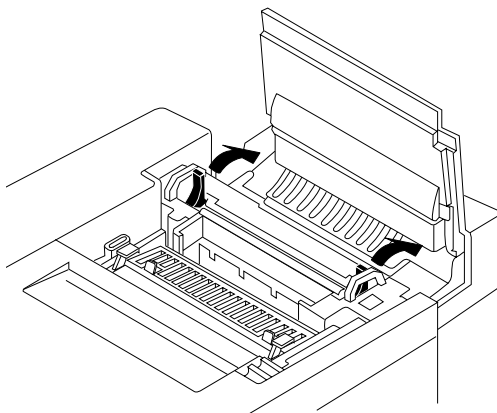


- 5 Remove the jammed media by pulling it toward you.



Removing Media Jams

- 6 If you cannot reach the media from the top of the fuser or the media will not come out easily, open the fuser roller pressure release levers (one at each end of the fuser).



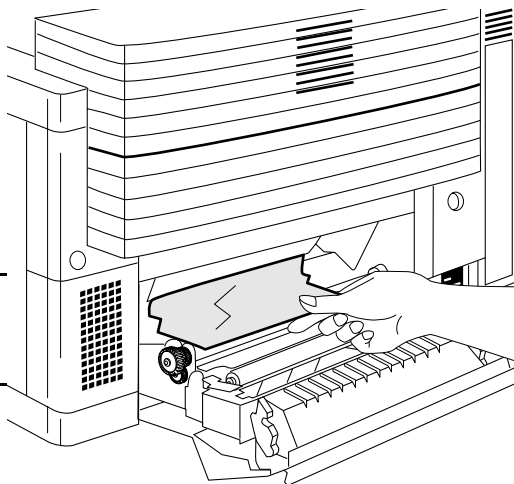
- 7 Remove the jammed media by pulling it from the bottom of the fuser (through the printer's rear cover), not from the top of the fuser.

This prevents any unfused toner from dirtying the fuser rollers.



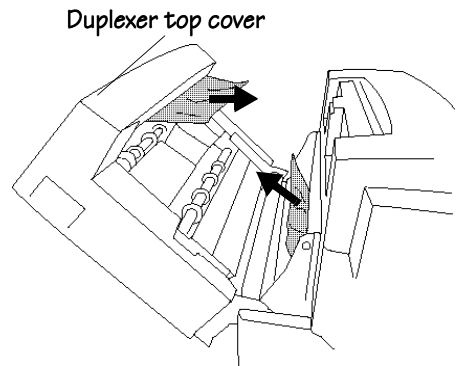
Caution: *Be careful not to touch the transfer drum while removing jammed media.*

- 8 Close the fuser roller pressure release levers (one at each end of the fuser).
- 9 Close the top cover of the printer.
- 10 Close the rear cover of the printer.

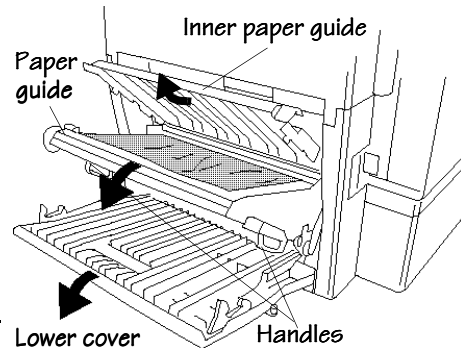


Duplexer Jams

- 1 Open the duplexer's top cover.
- 2 Remove the jammed media.
- 3 Close the duplexer's top cover.



- 4 If there still is a jam message, open the duplexer's lower cover.
- 5 Remove the jammed media by pulling it toward you.
- 6 Close the duplexer's lower cover.
- 7 If there still is a jam message, open the duplexer's lower cover and paper guide. Lift the inner paper guide.



◆ **Caution:** Hold the paper guide by its handles to avoid catching your fingers between it and the cover.

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

If the media came out easily, skip ahead to step 15.

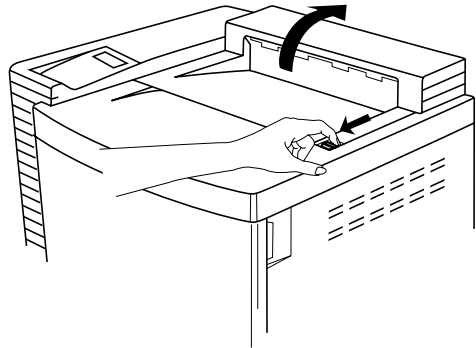
If the media did not come out easily or if you cannot reach the media from this area, keep the duplexer's lower cover open.

- 9 Open the duplexer top cover.

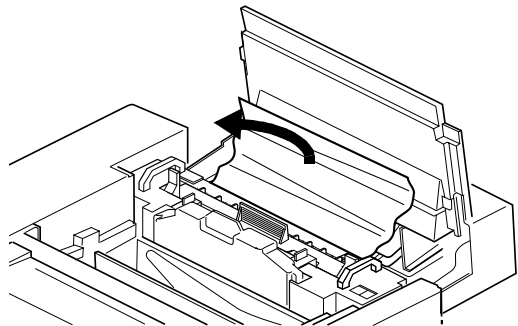
Removing Media Jams

10 Open the printer's top cover.

Pull the top latch to release the top cover.

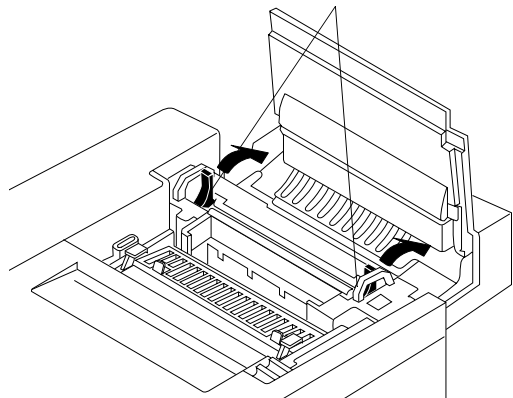


11 Remove the jammed media by pulling it toward you.



12 If the media doesn't come out easily, open the fuser roller pressure release levers (one at each end of the fuser).

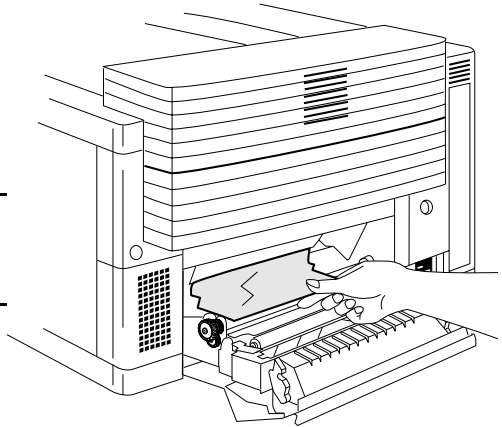
Fuser roller
pressure release levers



- 13 Open the printer's rear cover (accessible with the duplexer's lower cover and paper guide open) and remove the jammed media by pulling it from the bottom of the fuser, 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.



- 14 Close the fuser roller pressure release levers (one at each end of the fuser).
- 15 Close the printer's top and rear covers.
- 16 Close the duplexer's paper guide, lower cover and top cover.

Other Jams

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

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" of 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).
The colors look drastically wrong.	The toner cartridges are not correctly installed.	Check the toner cartridge installation. Refer to "C. Installing the Toner Cartridges" of 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" of 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...
30K PM SERVICE	The consumable usage information indicates that 30,000 pages have been printed since the last time the 30K PM Service counter was reset.	Perform all cleaning procedures. See "Cleaning Schedule" in chapter 2, "Everyday Operations and Printer Care." After performing preventive maintenance, reset the 30K PM Service counter using the Operator Control/ Consumables/Print Statistics menu or the printer web page.
240K PM SERVICE	The consumable usage information indicates that 240,000 pages have been printed since the last time the 240K PM Service counter was reset.	Contact QMS National Service or a QMS-authorized service provider for preventive maintenance. See "Replacement Schedule" in chapter 2, "Everyday Operations and Printer Care." Your service provider will reset the 240K PM Service counter.
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.

Status and Service Messages

This status message...	means...	Do this...
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.
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 x FILE FULL message for action needed.
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 x FILE FULL	The job or paper file is full. (x identifies the file.)	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.
ADJUST INPUTBIN BIN	The specified cassette is not inserted correctly.	Adjust the cassette.

Status and Service Messages

This status message...	means...	Do this...
BELT CARTRIDGE MIS-INSTALLED	The OPC belt cartridge is either missing or incorrectly installed.	Ensure that an OPC belt cartridge is correctly installed.
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.
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.
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.
CLEANING ROLLER MISINSTALLED	The fuser cleaning roller isn't installed correctly.	Remove and reinstall cleaning roller.
CREATED FILE	The accounting file has been created.	No action needed.

Status and Service Messages

This status message...	means...	Do this...
CREATING XXXXXXXXXXXX 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 PANEL 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

Status and Service Messages

This status message...	means...	Do this...
ENERGY SAVER	The printer is in energy saver mode to reduce power consumption during periods of inactivity.	<p>No action needed. When a print job is received, the printer returns to normal power within 90 seconds.</p> <p>While in “deep sleep,” the printer’s message window will not display operator status such as door- and cassette-open messages. The printer remains in “deep sleep,” until a print job is received, or until the printer is manually switched from offline to online.</p>
EXTENDED ACCOUNTING FILE SIZE	The size of the non-empty accounting file has been increased successfully.	No action needed.
FRONT DOOR OPEN	The front covers is open and must be closed.	Close the front cover.
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 FUSER OIL EMPTY 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.
INPUTBIN BIN JAM	Media has jammed while being pulled from the specified cassette.	Clear the jam from the specified cassette.
MEDIA MISMATCH	The media detected in the cassette doesn't match the media size setting.	Change the media in the cassette or change the media size setting.

Status and Service Messages

This status message...	means...	Do this...
MISFEED JAM	Media has jammed between the print engine and the input cassette.	Locate and remove the jam.
NO PRNTREQ ERROR	A printer hardware error has occurred.	Reboot printer. If message continues to appear, contact your service provider or QMS Customer Response Center. See appendix A, "QMS Customer Support," for support telephone numbers.

Status and Service Messages

This status message...	means...	Do this...
OPTIMIZING PRINT QUALITY	<p>After 200 1-sided pages (or 100 2-sided pages) of a continuous print run of plain paper, the magicolor 6100 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 printing. From that point forward while doing continuous printing, the 3-minute cooldown pause occurs every 50 pages until the continuous printing stops.</p> <p>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.</p>	Wait. No action needed.
OPTIONAL BIN REAR DOOR OPEN	The lower feed unit (optional on all models except the DP) rear door is open.	Close door.
OUTER JAM	Media has jammed between the print engine and the output tray.	Locate and remove the jam.

This status message...	means...	Do this...
OUTPUT BIN FULL	The media has exceeded the limit (such as over 250 sheets of 20 lb [75 g/m ²] bond) in the output bin.	Remove the media from the output bin.
OUTPUT BIN JAM	A media jam has been detected between the fuser and output tray rollers located near the top cover.	Locate and remove the jam.
PRINTING STATUS	A status page is printing	Wait until after the status page prints, and the message clears.
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.
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>THICK STOCK</i> IN UPPER BIN	Thick stock has been specified in the Operator Control/Media/For Upper Bin control panel setting.	Refill the cassette with thick stock or change the control panel setting from Thick Stock to Automatic.
REAR DOOR OPEN	The rear cover over the transfer unit is not closed.	Close the rear cover.
REPLACE BELT	The OPC belt cartridge need replacing.	Install a new belt cartridge.

Status and Service Messages

This status message...	means...	Do this...
REPLACE FUSER	The fuser needs replacing.	Have printer serviced. Contact your local vendor or see appendix A, "QMS Customer Support," for a listing of support sources.
REPLACE FUSER CLEANER	The fuser cleaning roller needs replacing.	Replace fuser cleaning roller.
RESETTING ACCOUNTING	The reset accounting operation is in process.	No action needed.
TEST PRINT	A test print page is printing.	No action needed.
TOP DOOR 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.
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.

Status and Service Messages

This status message...	means...	Do this...
WARMING UP	The printer is warming up.	Wait. No other action needed.
x ACTIVE JOBS	The printer is on line. (x identifies the number of jobs in process.)	No action needed.
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 approximately 100 pages before the printer stops.	Redistribute the toner in the cartridge, or replace the cartridge.
x TONER MISINSTALLED	The x (color) toner cartridge is not installed properly.	Remove the toner cartridge and reinstall.

Service Messages

This service message...	Means...
CALL FOR SERVICE C3 NVRAM ERROR	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.
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	» Note: 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.
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	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.
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	

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 P3 DUP SOLND**	
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 models with the duplexer installed.

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 and connected to your network by pinging the printer.

1 If you have a PC:

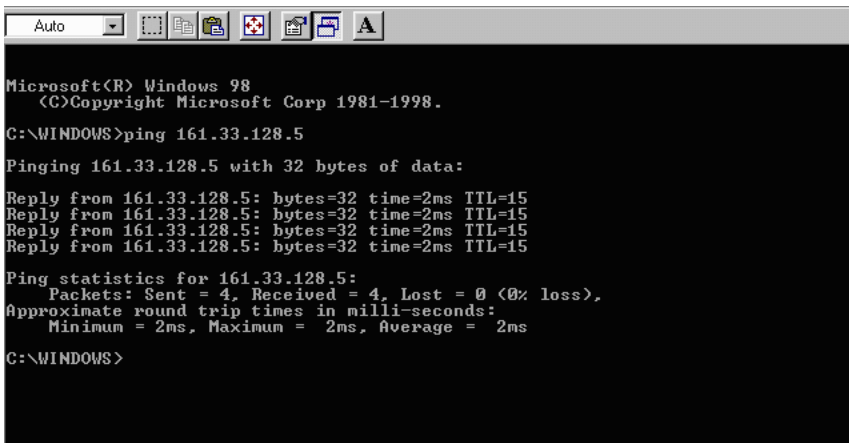
- a Go to Start/Programs/MS-DOS Prompt (Start/Programs/Command Prompt for NT).
- b In the DOS window, type:

```
ping ipaddress↵
```

 (for example, ping 161.33.128.5↵)

Testing PC-Printer Communication

If your printer's network connection is working correctly, your screen will display information similar to the following:



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

C:\WINDOWS>ping 161.33.128.5

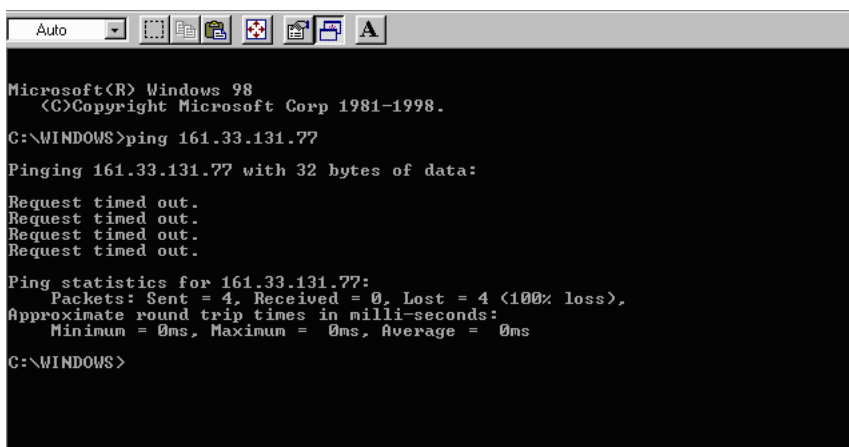
Pinging 161.33.128.5 with 32 bytes of data:

Reply from 161.33.128.5: bytes=32 time=2ms TTL=15
Reply from 161.33.128.5: bytes=32 time=2ms TTL=15
Reply from 161.33.128.5: bytes=32 time=2ms TTL=15
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 your printer isn't detected on the network, which is usually caused by bad cabling or connectors, your screen will display information similar to the following:



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

C:\WINDOWS>ping 161.33.131.77

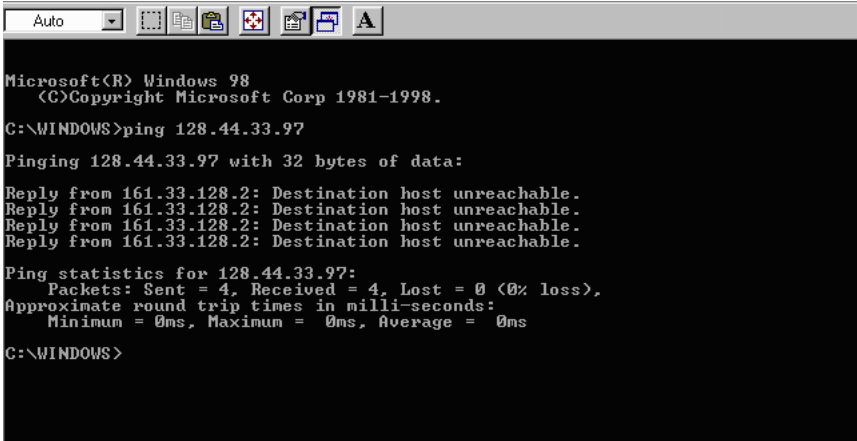
Pinging 161.33.131.77 with 32 bytes of data:

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>
```

If you have the printer's IP address set incorrectly, then your screen will display information similar to the following:

A screenshot of a Windows 98 command prompt window. The title bar shows 'Auto' and several icons. The text inside the window is as follows:

```
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.
Reply from 161.33.128.2: Destination host unreachable.
Reply from 161.33.128.2: Destination host unreachable.
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>
```

2 If you are running a UNIX workstation:

- a Open a window on your UNIX workstation.
- b In the window, type

`ping ipaddress` (for example, `ping 161.33.131.62`)

3 Next, you need to ftp and “put” a job to make sure that the jobs are going through to the printer.

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`)

4 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.

5 At the ftp> prompt, change to binary mode by typing

`bin`

6 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

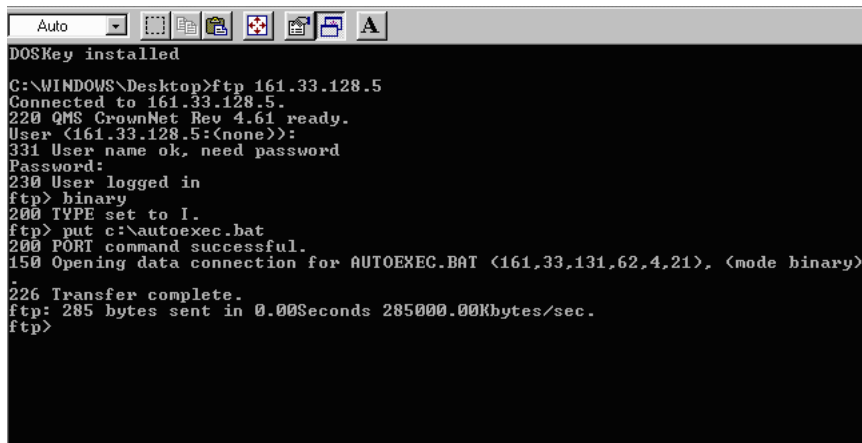
```
put c:\winnt\system.ini.␣
```

c For UNIX, type

```
put /etc/hosts.␣
```

The `ftp>` prompt returns when the file has finished.

The information displayed will look similar to 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 (see appendix A, "QMS Customer Support," for support service information).

7 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 printtest.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 PRINTTEST.PS file you just created to the printer, type

`copy /b printtest.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.
- 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 "Special PC Concerns" 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 Port 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.

Press this key...	to...	The message window reads...
Online/Offline	Turn off the Ready indicator and enable printer configuration.	IDLE
Menu	Access the configuration menu.	CONFIGURATION OPERATOR CONTROL
Next	Advance to the Administration menu.	CONFIGURATION ADMINISTRATION
Select	Access the Administration menu.	ADMINISTRATION COMMUNICATIONS
Select	Access the Communications menu.	COMMUNICATIONS TIMEOUTS
Next	Advance to the Serial menu.	COMMUNICATIONS SERIAL
Select	Access the Serial menu.	SERIAL MODE
Next (one or more times)	Advance to the Baud Rate menu.	SERIAL BAUD RATE
Select	Access the Baud Rate menu.	BAUD RATE *9600
Next (one or more times)	Advance to the correct baud rate.	BAUD RATE #
Select	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.

Testing PC-Printer Communication

Press this key...	to...	The message window reads...
Online/Offline	Access the Save Changes option.	SAVE CHANGES? *NO
Next	Advance to the Yes option.	SAVE CHANGES? YES
Select	Save changes.	IDLE
Online/Offline	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 6100 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.

Printer Problem Checklist

- 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 - Go to question 4.

NO - Check the following:

If the Data indicator blinks after a file is sent, the printer is receiving the data. If not, 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 2, "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 com-

puter, and your software application the same? See chapter 2, “Printer Configuration,” in the *Reference* manual.

- 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 2, “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 2, “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.”

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 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.

Control Panel Problems

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 3, "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 simple application on your computer (for example, WordPad or Notepad)? From your start menu on your computer, select Start/Programs/Accessories/Wordpad.**
- 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 or browse our support website at: <http://www.qms.com/support/index6100.html>.

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.

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, software applications interfere with each other. Some applications send a printer prep file to the printer at the beginning of each document. When this occurs, 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.

Menu	Administration/Startup Options/Do Error Handler
Choices	Yes—Load the Error Handler on reboot. No—Don't load the Error Handler on reboot.
Default	No
Notes	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

If you experience problems either when installing or using printer description files on a PC, see “Notes on Installing Printer Description Files” in the *Connecting to Your QMS Print System* manual.

CrownNet Problems

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

- If the printer requires a network interface card, is it correctly installed in the printer?

- Is the printer connected to the network?
- 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, `NETWARE411 6100.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

600x600, 1200x1200 dpi Printing Unavailable at Rated Speed

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

Media Size	600x600			1200x1200		
	Mono	4-Color	Duplex Basic/Full Speed	Mono	4-Color	Duplex Basic/Full Speed
B5 (ISO) B5 (JIS) Executive	64 MB	64 MB	64/96 MB	64 MB	96 MB	160/288 MB
Letter, A4	64 MB	64 MB	64/96 MB	64 MB	96 MB	160/384 MB
Legal	64 MB	64 MB	64/64 MB	64 MB	128 MB	192/192 MB
B4	64 MB	64 MB	96/96 MB	64 MB	128 MB	192/192 MB
Ledger, A3	64 MB	64 MB	96/96 MB	64 MB	160 MB	288/288 MB
12"x18" 13"x18" 13"x19"	64 MB	64 MB	128/128 MB	64 MB	192 MB	384/384 MB

- Check the startup page to make sure the printer has enough RAM installed. See chapter 3, “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 or 1200x1200 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.

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 2, “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 pages or 100 2-sided pages of a **continuous** print run of plain paper, the QMS *magicolor* 6100 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 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/m²) can be auto duplexed if the optional duplexer is installed. 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 option), choose On (flipped as in a loose-leaf notebook) or Tumble (flipped 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 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, Paper Type option) and the Media key to Thick Stock.**

- 3 **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.

- 4 **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.**
- 5 **Before you place a service call, ensure all the required user cleaning has been conducted.**
- 6 **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 next 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.

- » **Note:** *The following examples are based on 11x17" media orientation.*

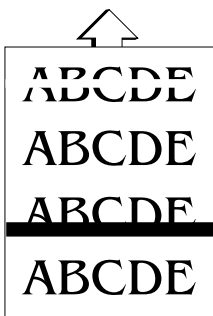
Blurred or Lightly Stained Background



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.

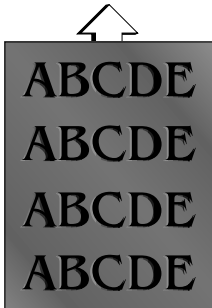
One or more toner cartridges may be defective.

- 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



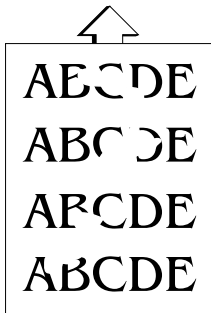
If there is insufficient gloss of the printed image,

- 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.

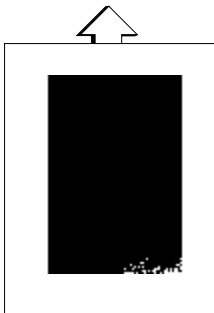
Irregular Print, Mottled Image



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.

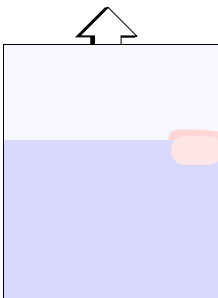
Missing Image at Edge



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.

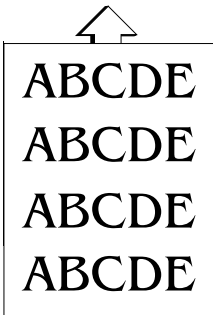
Spotting



If spots appear on the printed image:

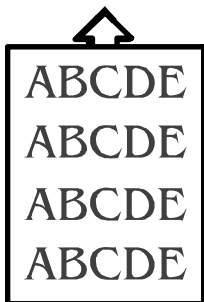
- Check the surface of the OPC belt, gently clean up the foreign particle using a soft, dry cloth, and replace the OPC belt if necessary.

Too Dark



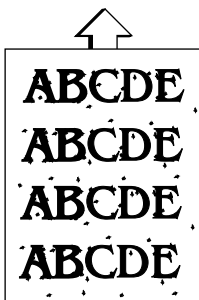
- Install new toner cartridges.

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.

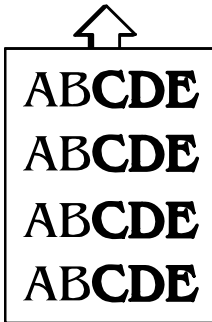
If toner smudges are on the front *and* back of the page:

- Open the printer once and close it again to clean the image transfer roller.

If the image of the previous page comes out lightly:

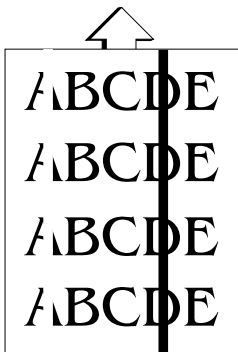
- Clean the cleaning roller and reinstall it.

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 2, “Every Day Operations and Printer Care.”
- The corona wire inside the OPC belt cartridge might be dirty. Clean the corona wire as described in chapter 2, “Every Day Operations and 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?

Chapter 6, “Repacking the Printer,” contains instructions you need to follow to safely move or ship your printer to a new location.



6

Repacking the Printer

In This Chapter . . .

- “Remove Cables and Cassette(s)” on page 6-3
 - “Remove the Toner Cartridges” on page 6-3
 - “Remove the OPC Belt Cartridge” on page 6-3
 - “Prepare the Fuser Unit” on page 6-5
 - “Change the Waste Toner Pack” on page 6-8
 - “Remove the Lower Feeder Unit” on page 6-11
 - “Repack the Printer” on page 6-13
-

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.

- » **Note:** *If you're returning the printer for service, you don't need to return the power cable, toner cartridges, cleaning roller, OPC cartridge, interface cables, or media cassette(s).*
- ◆ **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. Original shipping cartons are secured using disposable banding and buckling supplies. These supplies must be replaced prior to re-shipping the printer.*

*If you need replacement packaging, in the US call QMS National Service at 1 (334) 633-4300 x 2530 and request catalog number 2600439-500. If you need to return the printer for service, contact your local vendor for an RMA (Return Merchandise Authorization) number **before** shipping the printer. For a listing of QMS support telephone numbers, 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 paper 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 duplexer (if attached).**
- 7 **Remove the lower input feeder (if attached).**
- 8 **Pack the printer for shipment.**

Remove Cables and 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 and top covers.
Leave them open during the entire repacking procedure.
- 2 Remove the four toner cartridges, attach the protective shields over their magnetic rollers, and store them in their original packaging.

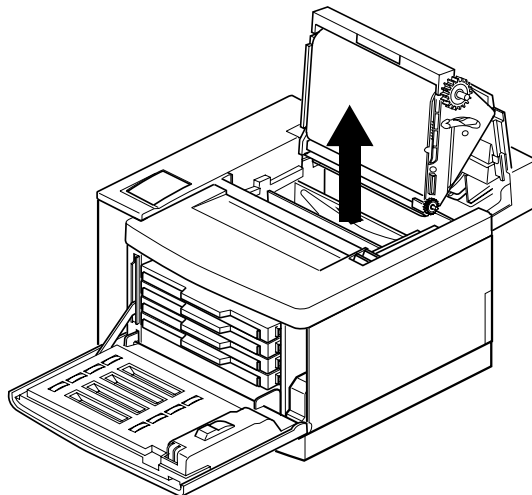
Remove the OPC Belt Cartridge

- ◆ **Caution:** *The OPC belt is extremely sensitive to bright light and direct sunlight. Limit exposure to 2 minutes. While the printer is being moved, store the cartridge in its original shipping box. If you don't have this box, 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.*

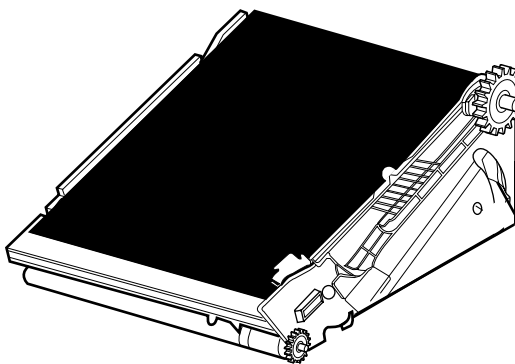
Also, handle the OPC belt cartridge carefully. The belt's extremely sensitive to body oils, moisture, solvents, corrosives, dust, and scratches, all of which will reduce print quality.

Remove the OPC Belt Cartridge

- 1 With the printer's front and top covers open, rotate up the lock levers at each end of the OPC belt cartridge slot, and lift the cartridge out of the printer.



- 2 Replace the protective sheet around the OPC belt cartridge.



- 3 Repack the OPC belt cartridge in its original shipping box.

If you don't have this box, carefully wrap the cartridge in a piece of dark, heavy cloth. Store the cartridge where it will not get scratched or damaged.

- 4 Rotate down the lock levers at each end of the OPC belt cartridge slot.

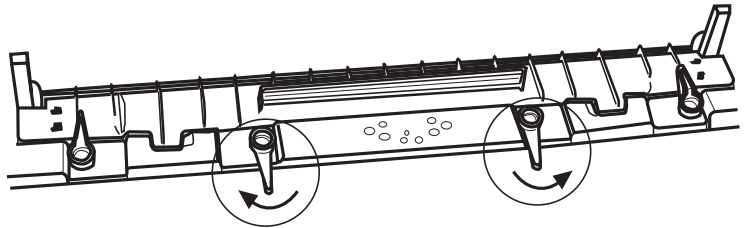
» **Note:** If you're returning the printer for service, you don't need to return the OPC belt cartridge.

Prepare the Fuser Unit

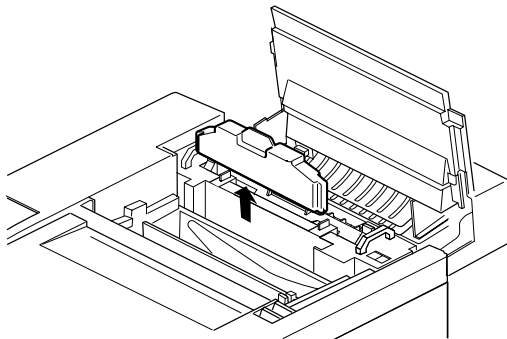
⚠ **WARNING!** The fuser unit can become extremely hot and cause severe burns. Make sure the unit is cool before handling it.

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

- 1 Open the printer's top cover.
- 2 At the top of the fuser, rotate the two lock levers to release the oil bottle.



- 3 Remove the oil bottle.



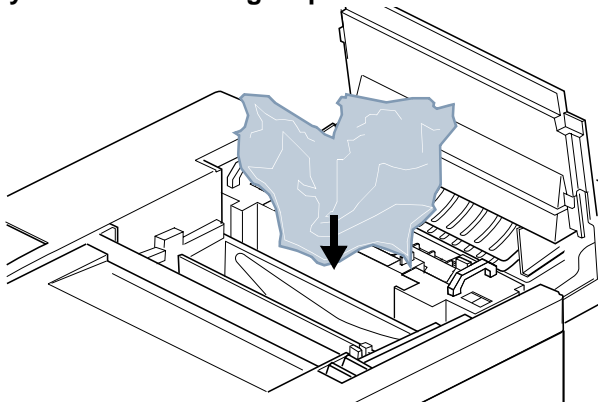
◆ **Caution:** Hold a sheet of paper under the oil bottle as you remove it, so no oil drips into the printer.

Prepare the Fuser Unit

- 4 Place the oil bottle in an oil-proof container, such as a plastic bag, until you're ready to reinstall it.
- 5 Use the fuser oil remover syringe that came with your printer or an eye-dropper to remove any excess oil from the fuser.

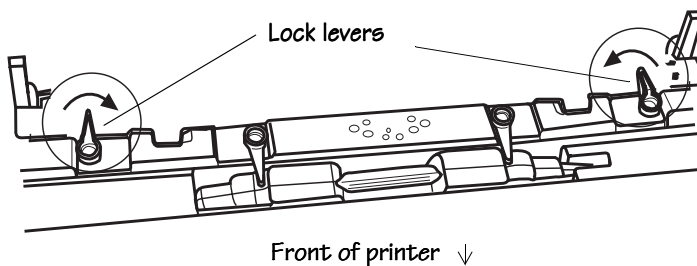
Dispose of the oil following local safety laws and regulations.

- 6 Stuff several clean, wadded paper towels into the space normally occupied by the oil bottle to absorb any residual oil during shipment.

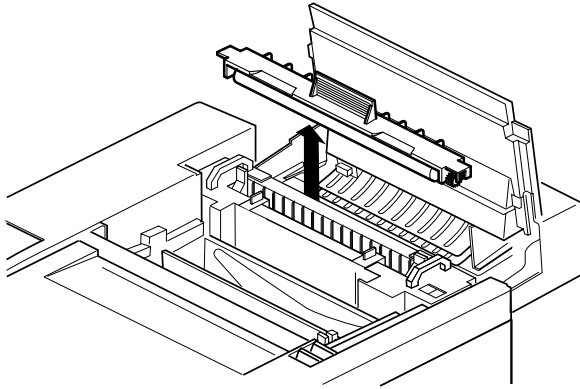


» **Note:** Don't force the paper towels in, but make sure there are enough to fill the space.

- 7 At the top of the fuser, rotate the two lock levers to release the cleaning roller.



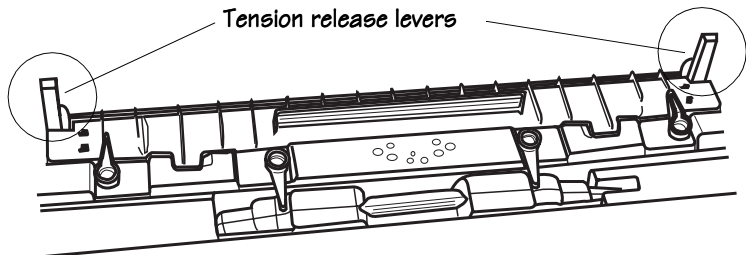
8 Remove the cleaning roller.



9 Store the cleaning roller in its original shipping bag.

» **Note:** *If you're returning the printer for service, you don't need to return the cleaning roller.*

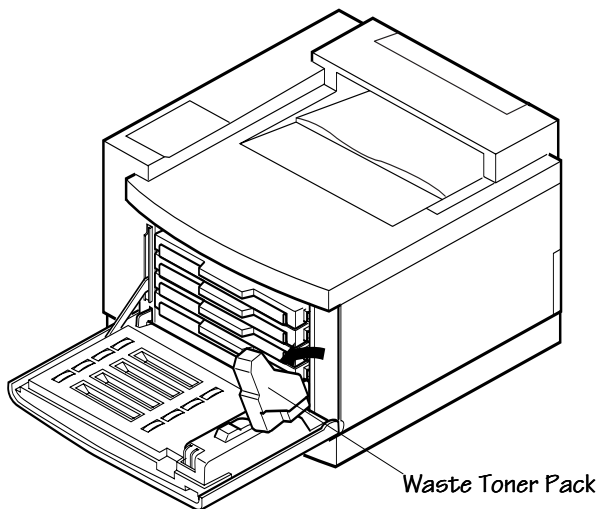
10 Pull the two tension release levers toward the front of the printer until they lock into place.



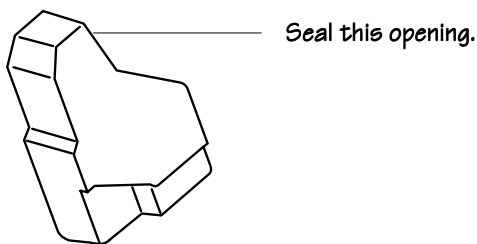
The tension release levers in their frontmost position protect the fuser rollers from damage during a move by removing the pressure between the two fuser rollers. They must be repositioned toward the rear of the printer before the cleaning roller can be reinstalled.

Change the Waste Toner Pack

- 1 With the printer's front cover open, remove the waste toner pack from the printer.



- 2 Use the label on the side of the waste toner pack to seal the opening, and then dispose of the 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.

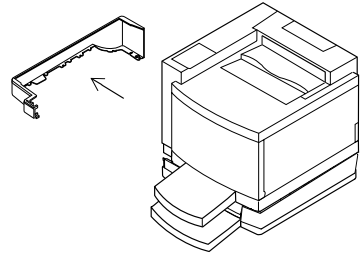
- 4 Close the printer's top and front covers.

Remove the Duplexer Unit

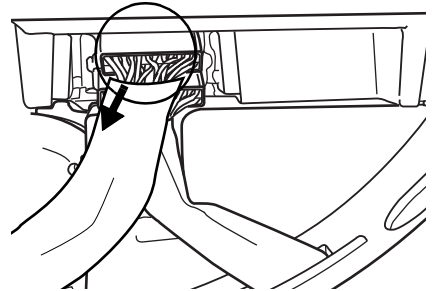
» **Note:** If you don't have a duplexer unit installed, skip to the next section.

- 1 Remove the left plastic side cover from the lower feeder unit.

» **Note:** If you have two lower feeder units installed, remove the left plastic side cover from the top lower feeder unit only.

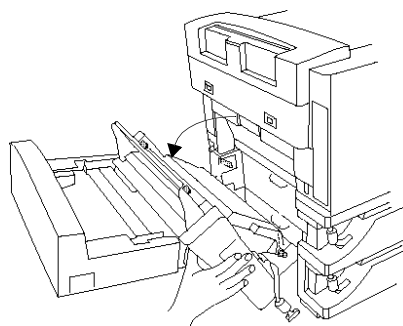
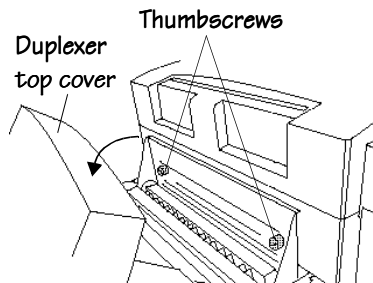


- 2 Locate the cable at the left rear of the optional feeder that connects the duplexer to the printer, and then unplug it.

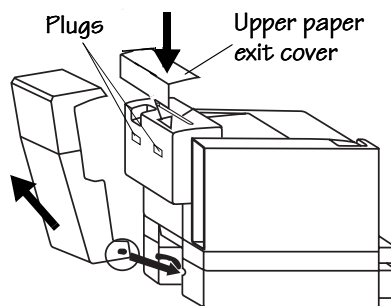


Remove the Duplexer Unit

- 3 Open the duplexer top cover and loosen the two thumbscrews until the duplexer moves freely away from the rear of the printer.



- 4 Lift duplexer up and away from rear of printer.
- 5 Repack the duplexer unit in its original shipping carton for storage or shipment.
- 6 Insert the two plugs and upper paper exit cover removed during installation.



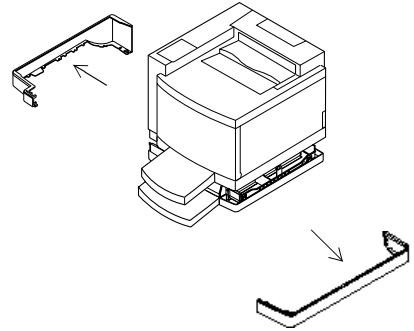
» **Note:** If you're returning the printer for service, you don't need to return the duplexer unit.

Remove the Lower Feeder Unit

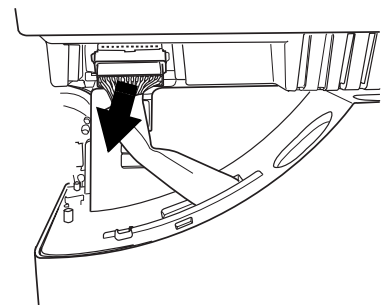
» **Note:** If you don't have a lower feeder unit installed, skip to the next section.

- 1 **Remove the plastic side covers from the sides of the lower feeder unit.**

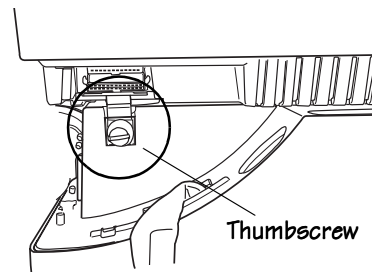
» **Note:** If you have two lower feeder units installed, remove the plastic side covers from the top lower feeder unit only.



- 2 **Locate the cable at the left rear of the lower feeder unit that connects it to the printer, and then unplug it.**

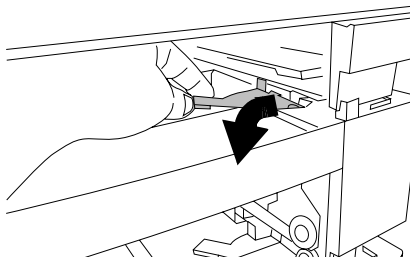


- 3 **Loosen the thumbscrew that attaches the bracket to the lower feeder unit until the bracket moves freely away from the lower feeder unit.**



Remove the Lower Feeder Unit

- 4 Remove the media cassette from the printer, and then rotate the metal coupler arm toward the front of the printer.

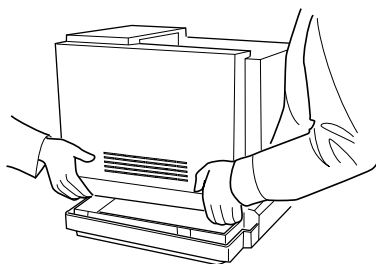


- 5 With the help of another person, lift the printer by its carrying grips from the lower feeder unit, and place the printer on a table.



WARNING! Your printer weighs approximately 119 lbs (54 kg) without consumables. Be sure to have help when lifting and moving it.

ACHTUNG! Das Gewicht dieses Druckers beträgt ohne Verbrauchsmaterial ca. 54 kg. Bitte versuchen Sie niemals, den Drucker alleine anzuheben oder zu transportieren.



- 6 Repack the lower feeder unit 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 lower feeder unit.

Repack the Printer

1 With another person's help, put the printer into the plastic bag, and place the printer into the base tray of the shipping carton.

2 Pack the printer for shipment as shown in the illustration.

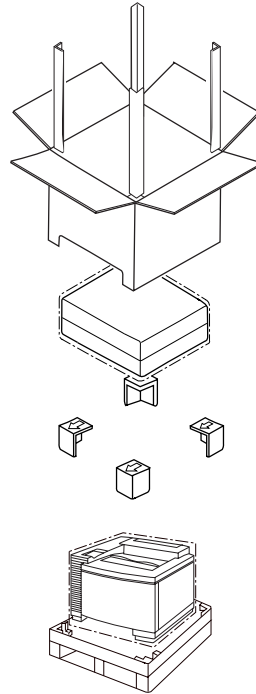
3 If you're also shipping the power cord and any manuals with the printer, place them in the package.

» **Note:** *Don't ship these items if you're returning the printer for service.*

4 Ensure that the top of the carton is securely taped.

5 Secure the shipping carton using proper banding and buckling supplies. Contact your QMS dealer for banding and buckling supplies.

» **Note:** *If you need replacement packaging, in the US call QMS National Service at 1 (334) 633-4300 x 2530 and request catalog number 2600439-500.*



A

QMS Customer Support

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.qms.com>.

***magicolor* 6100 Answer Base**

The QMS Answer Base is a free interactive online technical support system for the QMS *magicolor* 6100. 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–7:00 pm, Central Time.
- » **Note:** *If you call for assistance, have the following information ready so our technicians can help you more quickly:*
 - ☑ The printer model and serial number
 - ☑ Your phone number, fax number, email address, and shipping address
 - ☑ A description of the problem
 - ☑ 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)
 - ☑ An advanced status page or startup 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

QMS United States and Latin America

General Contact

Telephone	1 (334) 633-4300
Answer Base	http://www.qms.com/support , then click on Answer Base
FAQs	http://www.qms.com/support , then click on FAQs
Fax	1 (334) 633-4866
Email	info@qms.com
Internet	http://www.qms.com/us_main.html
Product Registration	Internet: http://www.qms.com/support/prodreg/ 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	support@qms.com	
Fax	1 (334) 633-3716	
Internet	http://www.qms.com/support , 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 service@qms.com

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