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# magicolor® 2210

# User's Guide

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**1800669-001B**

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## Registering the Printer

**Mail**—Fill out and send in the registration card enclosed in your shipment or downloaded from [www.onlineregister.com/minolta-qms/](http://www.onlineregister.com/minolta-qms/)

**Internet**—Follow the instructions on [www.onlineregister.com/minolta-qms/](http://www.onlineregister.com/minolta-qms/)

or

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



The image shows a screenshot of a web browser displaying the "MINOLTA-QMS PRODUCT REGISTRATION" form. The form is titled "MINOLTA-QMS" and includes a logo. Below the logo, there is a navigation bar with "Home" and "The Location of Your Printer" links. The main form area contains several input fields: "Company Name" (with a dropdown arrow), "First Name", "Last Name", "E-mail Address", "Company Name", "Address 1", "Address 2", "City", "State/Province" (with a dropdown arrow), "Province/County if outside USA/Canada", "ZIP/Postal Code", "Country" (with a dropdown arrow), "Phone", and "Fax". At the bottom, there are radio buttons for "Preferred method of contact" with options for "Mail", "Fax", "E-Mail", and "Phone". The form also includes "Next" and "Cancel" buttons and a page indicator "1 of 3".

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# *Replacing Consumables*

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# 1

# Consumable Life Expectancies

The stated 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 (@ normal 5% coverage of letter/A4-size media). The actual life expectancy will vary depending on these and other printing variables, including continuous or intermittent printing, ambient temperature, and humidity. For further information about the consumables statistics page and replacement menus, refer to the *CrownBook*.

## Replacing Consumables



### Attention

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

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

Item/Message Display	This item needs replacing by user after...	Page Reference
Fuser oil roller REPLACE OIL ROLLER	FUSER OIL LOW, FUSER OIL EMPTY, or REPLACE OIL ROLLER displays in the message window (after up to 21,000 single-sided continuous monochrome or 7,500 continuous color pages*, or 7,000 intermittent monochrome or 5,000 intermittent color pages). Heavy coverage, intermittent printing, and different media types can use up oil at an accelerated rate, reducing fuser oil roller life.	"Replacing the Fuser Oil Roller" on page 26
Fuser unit/transfer roller kit REPLACE FUSER UNIT	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 coverage and media dependent).	"Replacing the Fuser Unit and Transfer Roller Kit" on page 19



Item/Message Display	This item needs replacing by user after...	Page Reference
OPC drum kit** REPLACE OPC DRUM REPLACE WASTE TONER WASTE TONER NEAR FULL	Up to 30,000 continuous monochrome or 7,500 continuous four-color pages, or 10,000 intermittent [one-page jobs] monochrome or 5,000 intermittent [one-page jobs] color pages). Other factors also affect consumables life.	"Replacing the OPC Drum Kit" on page 13
Toner <COLOR> TONER EMPTY	Approximately 6,000 single-sided pages per cartridge—black, yellow, magenta, cyan at 5% coverage of each color.	"Replacing Toner Cartridges" on page 8
Transfer belt REPLACE TRANSFER BELT	107,000 single-sided images (1:1 color/monochrome printing)	"Replacing the Transfer Belt" on page 28
<p>*A <b>plane</b> (also called an <b>image</b>) is a single <b>pass</b> of the OPC drum (one toner color). For example, a black-only, single-sided (simplex) print job makes one pass per page. A single-sided color <b>page</b> (also called a <b>face</b>) consists of up to four passes of the OPC drum, since most color print jobs use all four toner colors. A two-sided color page may consist of up to eight passes of the OPC drum, since most color print jobs use all four toner colors. Stated consumable life is expressed at 5% in simplex letter/A4 pages. A duplex page is equivalent to two simplex pages.</p> <p>The number of sheets/faces printed shown on the startup page differs from the number of sheets/faces printed statistics in CrownView and on the consumables statistics page (Operator Control/Consumables/Print Statistics). The numbers on the startup page refer to number of sheets/faces printed during the lifetime of the printer. The numbers in CrownView and on the consumables statistics page refer to the number of sheets/faces printed to date during the current consumables tracking period (Administration/Consumables/Start Period menu).</p> <p>**Three items (OPC drum, laser lens cover, waste toner pack) are included in the OPC drum kit. If one needs replacing, replace all three items.</p>		

## Ordering Consumables

Choosing the right consumables for your magicolor 2210 printer not only increases its reliability and performance, but also minimizes the risk of damage. For example, only MINOLTA-QMS toner cartridges are designed to meet the exact specifications of your MINOLTA-QMS printer, giving maximum performance, efficiency, and long life.

Toner cartridges and other consumables for the magicolor 2210 are available from your local vendor or Q-SHOP ([www.q-shop.com](http://www.q-shop.com)). See the *Service & Support Guide* for the telephone number of the MINOLTA-QMS office nearest you for information on ordering.

## Replacing Toner Cartridges

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



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

### **WARNING!**

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

**ACHTUNG! Sollte Toner in Ihre Augen gelangen, die Augen unbedingt sofort mit kaltem Wasser ausspülen und einen Arzt aufsuchen. MSDS-Informationen (Material Safety Data Sheets; Datenblätter zur Materialicherheit) finden Sie im Internet unter [www.minolta-qms.com](http://www.minolta-qms.com) (klicken Sie auf "Answer Base").**

## Toner Cartridge Life

A toner cartridge contains enough toner (yellow, magenta, cyan, or black) to print a maximum of 6,000 (at normal 5% page coverage) simplex letter/A4-size pages. With heavier coverages, the approximate maximum

capacities will decrease. The approximate maximum simplex letter/A4 pages for heavier coverages are below:

	5%	10%	15%	20%	25%	30%	35%	40%
Pages	6,000	3,000	2,000	1,500	1,200	1,000	857	750



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

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

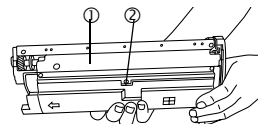
When toner is low, it's sometimes helpful to take the cartridge out of the printer and redistribute the toner by gently rocking the cartridge horizontally side to side (as you do for a new cartridge) five or six times. Then reinstall the cartridge.

The printer, approximately 100 pages after detecting that toner in a cartridge is low, displays *X* TONER EMPTY in the message window (*x* indicates the toner color). Printing continues even though the out-of-toner warning appears. However, the color gradually fades, so replace the toner cartridge as soon as possible.

## Toner Cartridge Handling

### Attention

**Do not hold a toner cartridge vertically. Do not touch the toner roller surface ① or the protective shutter ②. This could lower image quality.**



Keep toner cartridges:

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

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

*The maximum storage temperature is 95° F (35° C) and the maximum storage humidity is 80% without condensation.*

- Level during storage.

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

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

- Away from disk drives and floppy disks.

*The magnets in the cartridges can damage stored data.*

## Toner Cartridge Replacement

- 1 Check the message display to see what toner color is out.
- 2 Open the printer's front cover.

### Attention

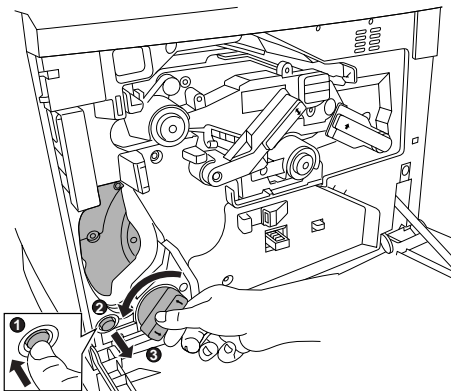
**Be careful not to spill toner on the inside of the printer's front cover. Toner will fall from there into the upper media tray. If toner does fall onto the open cover, immediately wipe it with a dry, lint-free soft cotton cloth or swabs.**

*If the toner cartridge you want to replace is the one showing, go to step 5. If not, go to step 3.*

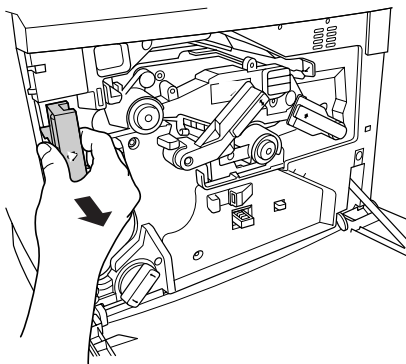
- 3 Press the toner cartridge carousel button ① and release the button ② before turning the carousel dial ③ counterclockwise until it stops.

*The carousel rotates 90° and stops.*

*The toner cartridge carousel may start to turn automatically from the weight of the inserted toner cartridge. Make sure you have fully turned to the next slot before trying to insert another toner cartridge.*



- 4 Repeat step 3 until the color to be replaced is visible.
- 5 Pull the release lever to eject and remove the toner cartridge you are going to replace.

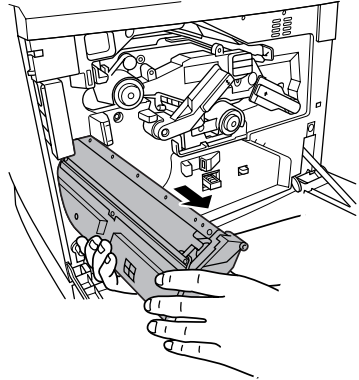


## WARNING!

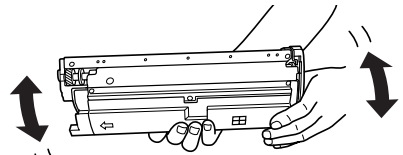
Dispose of the used toner cartridge according to your local regulations. Do not dispose of it by burning.

**ACHTUNG!** Entsorgen Sie alte Tonerkassetten keinesfalls durch Verbrennen, sondern ordnungsgemäß entsprechend den lokalen Bestimmungen.

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

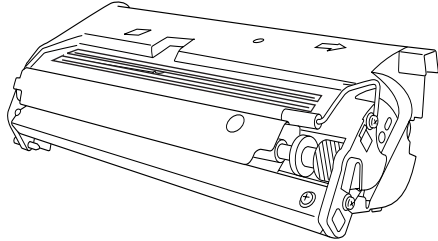
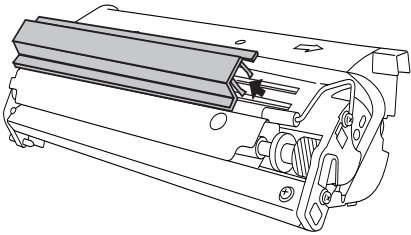


- 7 Distribute the toner inside the cartridge.  
*Holding a cartridge with both hands, gently shake it five or six times.*



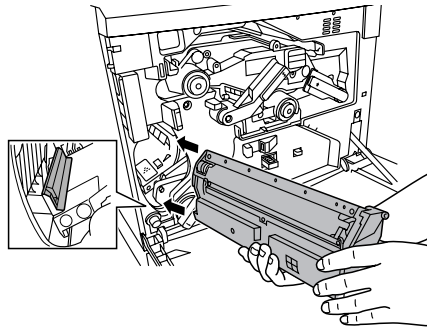
8 There are two types of toner cartridge available. Look at the following graphics to determine which type you have.

- If you have this type of toner cartridge, remove the protective yellow cover clearly marked "Remove." Then go to step 9.
- If you have this type of toner cartridge, go to step 9.



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

- 9 Place the front end of the toner cartridge installation guides into the cartridge installation rails on the cartridge carousel.
- 10 Gently push the new cartridge into the printer.
- 11 Close the printer's front cover.



## Refilled Toner Cartridges

### Attention

**Refilled toner cartridges may produce variations in toner quality and reliability and can reduce the print quality of your documents. Any damage to the printer or quality problems caused by a refilled toner cartridge use will void your warranty.**

# Replacing the OPC Drum Kit

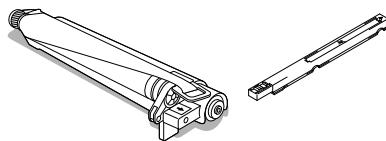
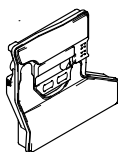
## Waste Toner Pack, OPC Drum Cartridge, and Laser Lens Cover

### Attention

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

The three items below are included in the OPC drum kit. If one needs replacing, replace all three items.

- Waste toner pack
- OPC drum cartridge
- Laser lens cover



The steps are

- Removing the used waste toner pack
- Removing the used OPC drum cartridge
- Replacing the laser lens cover
- Installing the new OPC drum cartridge
- Installing the new waste toner pack

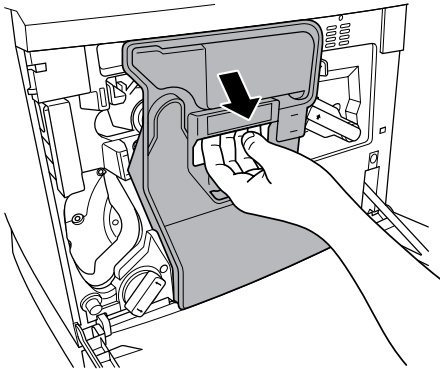
## Removing the Used Waste Toner Pack

*When you replace the OPC drum cartridge, the printer automatically recovers. However, the replaced waste toner pack consumables monitoring system must be manually reset through control panel (Operator Control/Consumables/Items Replaced) menu.*

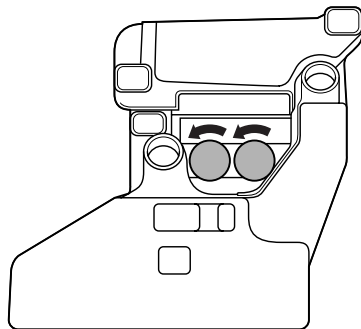
- 1 Open the printer's front cover.

- 2** Carefully remove the waste toner pack using the handle.

*Keep the waste toner pack upright so the toner does not spill.*

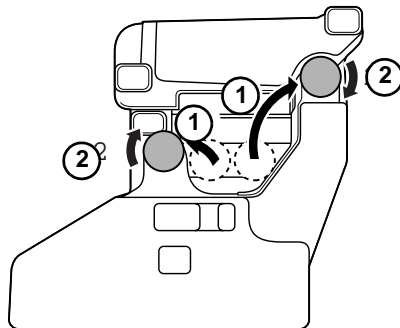


- 3** Turn the two caps labeled “A” counterclockwise and remove them.



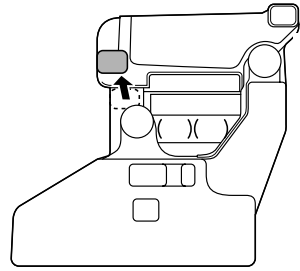
- 4** Twist the two “A” caps ① onto the two “A” holes ②.

*Turn the caps clockwise to secure them.*





- 5 Remove waste toner pack cap labeled "B" and insert it into hole "B."
- 6 Dispose of the used waste toner pack.



## WARNING!

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

**Achtung! Entsorgen Sie den Alttonerbehälter keinesfalls, indem Sie ihn verbrennen, sondern ordnungsgemäß entsprechend den lokalen Bestimmungen.**

- 7 Continue with replacing the OPC drum cartridge.  
*You will install the new waste toner pack after replacing the OPC drum.*

## Removing the Used OPC Drum Cartridge



When the OPC drum is worn out, the message `REPLACE DRUM` appears. The printer will not print until the drum kit is replaced.

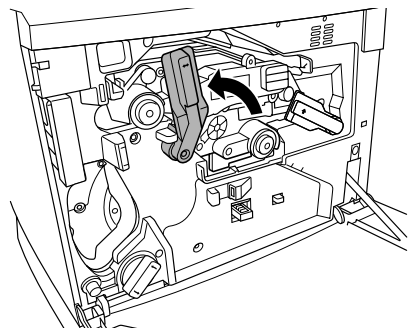
*When you replace the OPC drum cartridge after a `DRUM LOW` or `REPLACE DRUM` message displays in the message window, the printer automatically recovers.*



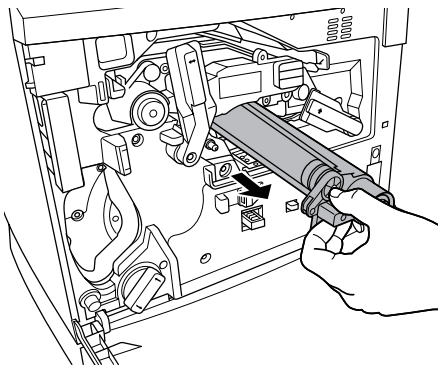
*The OPC drum life is directly related to the number of rotations of the drum. Longest drum life is achieved with continuous printing. Intermittent printing with small job sizes requires cleaning rotations before and after each job, and subsequently will impact OPC life.*

- 1 With the front cover open, rotate the transfer belt unit left release lever counterclockwise to the top (12 o'clock) position.

*This raises the transfer belt unit.*



- 2 Hold the OPC drum cartridge handle and carefully pull it out about 8 inches (20 cm).

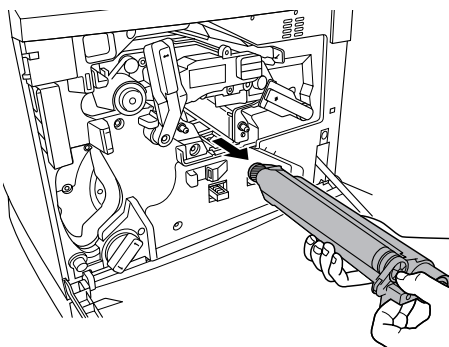


- 3 Support the bottom of the drum with your hand, then carefully pull the cartridge toward you and remove it.



*Dispose of it properly according to your local regulations.*

- 4 Continue with replacing the laser lens cover.



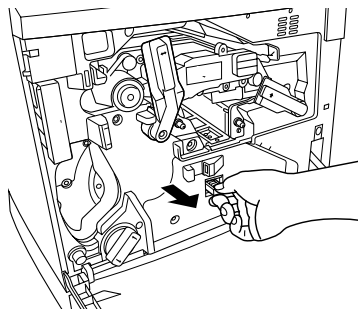
## Replacing the Laser Lens Cover

- 1 Press on the laser lens cover lock release lever and gently pull the laser lens cover toward you.



*Dispose of it properly according to your local regulations.*

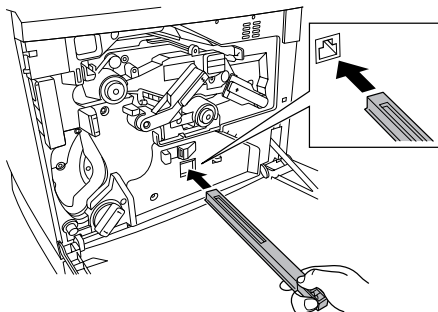
- 2 Remove the new laser lens cover from the OPC drum kit box.



### Attention

**Do not touch the glass surface of the laser lens.**

- 3 Place the front end of the laser lens cover into its installation rail.
- 4 Carefully insert the laser lens cover and check to make sure it is fully inserted.



---

**Attention**

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If the laser lens cover is not properly installed, serious damage to the printer could result.

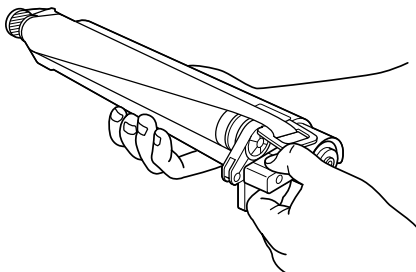
---

- 5 Continue with replacing the OPC drum cartridge.

## Installing the New OPC Drum Cartridge



- 1 Remove the new OPC drum cartridge from its shipping box.



---

**Attention**

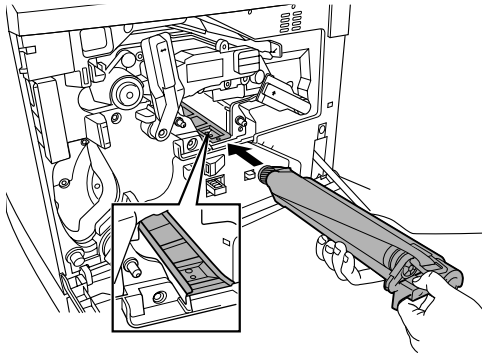
---

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

---

*Make sure the transfer belt left release lever is still set to its top position (12 o'clock).*

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



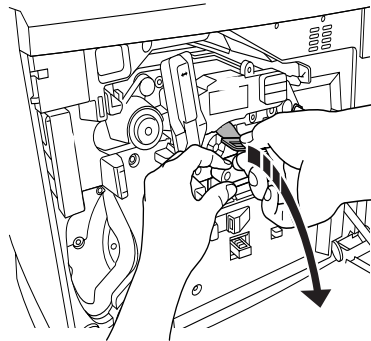
### Attention

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

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



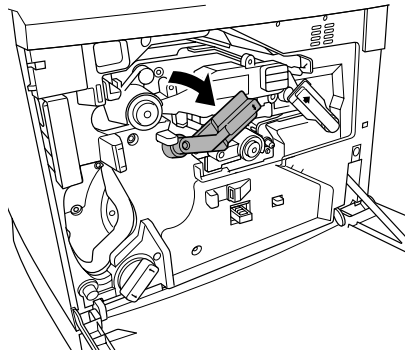
*Dispose of it properly according to your local regulations.*



- 6 Turn the left release lever of the transfer belt clockwise to its correct position (2 o'clock).

*This lowers the transfer belt.*

*Also make sure the transfer belt right release lever is set to its correct position (10 o'clock).*



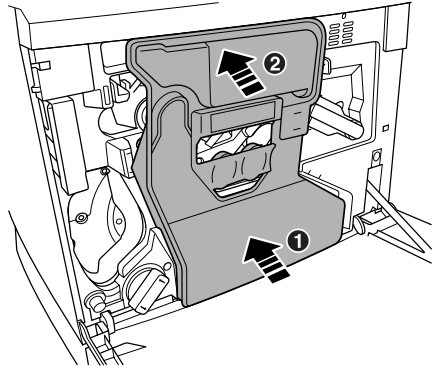
### Attention

**If the transfer belt left release lever is at its top position (12 o'clock), the waste toner pack cannot be installed.**

## Installing the New Waste Toner Pack



- 1 Remove the new waste toner pack from the drum kit box.
- 2 Insert the bottom of the waste toner pack ① into its installation position in the printer.
- 3 Insert the top of the waste toner pack ② into its installation position in the printer until it is firmly seated.
- 4 Close the printer's front cover.  
*If the waste toner pack is not correctly installed or the transfer belt right release lever is at its top position (12 o'clock), the front cover cannot be closed.*
- 5 In the Operator Control/Consumables/Items Replaced/Waste Toner menu, choose Yes to reset the consumables monitoring system.



## Replacing the Fuser Unit and Transfer Roller Kit



### WARNING!

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

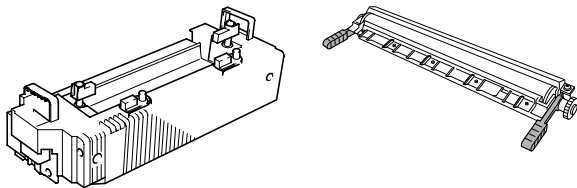


**ACHTUNG! Die Fixiereinheit kann sehr heiß werden, so daß Verbrennungsgefahr besteht. Bitte lassen Sie die Fixiereinheit einige Zeit abühlen, bevor Sie diese berühren.**

When the fuser is worn out, the message "REPLACE FUSER UNIT" appears and the printer does not print. Replace the fuser kit. After the new fuser kit is installed, printing automatically resumes.

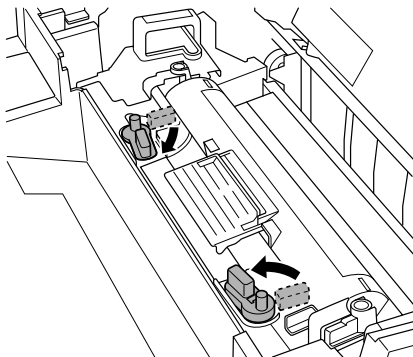
The fuser kit includes the two items below. When replacing the fuser unit, replace the transfer roller as well.

- Fuser unit
- Transfer roller unit



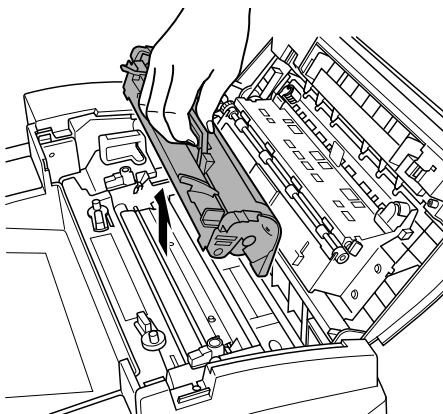
## Replacing the Fuser Unit

- 1 Open the printer's top cover.
- 2 Rotate the two fuser oil roller lock levers to release the fuser oil roller.



- 3 Remove the fuser oil roller.

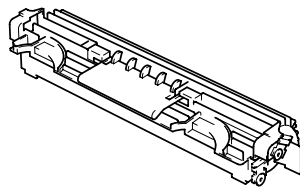
*Hold it by the green handle only.*



- 4 Place the fuser oil roller on a table or level surface.

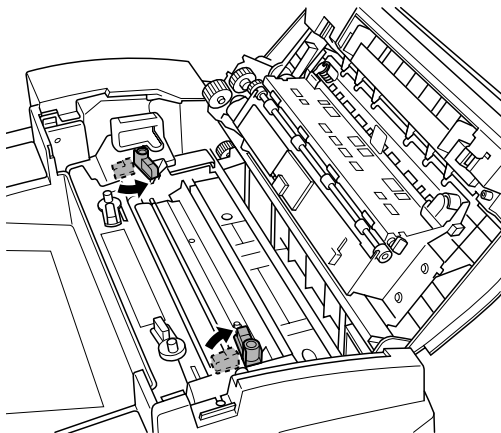
### Attention

Since the fuser oil roller removed here is to be installed in the new fuser unit, handle it with care.



If you set the fuser oil roller on the table do it as shown in the illustration. Do not allow the roller surface to contact the table or get dirty. This could lower image quality.

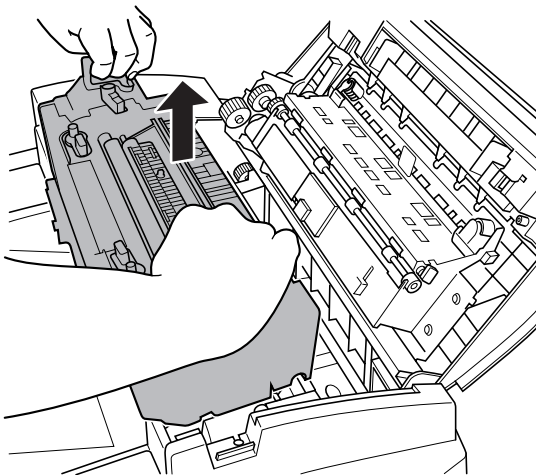
- 5 Turn the release levers (front, rear) to release the fuser unit.



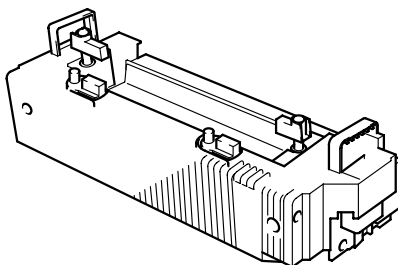
- 6** Holding the fuser unit handles, lift up the unit.



*Dispose of it properly according to your local regulations.*

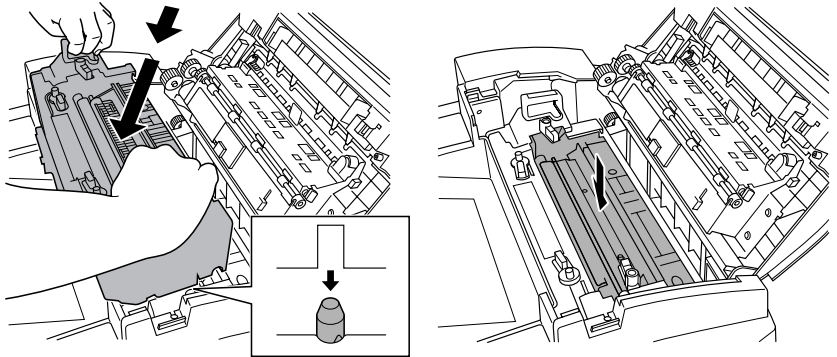


- 7** Remove the new fuser from its shipping box.

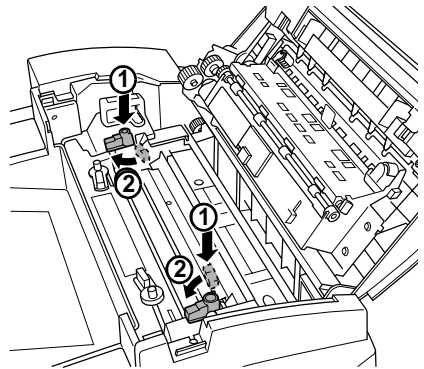




- 8 Carefully lower the new fuser unit so that the two pins in the fuser unit installation section go into the two installation holes in the fuser unit.



- 9 Press in on the fuser unit release levers ① and rotate them downward ②.  
*This secures the fuser unit.*



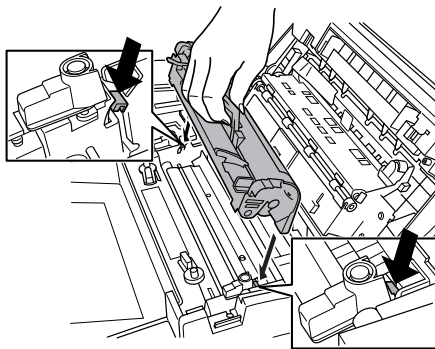
**Attention**

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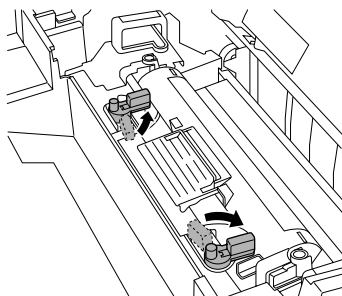
If the fuser unit release levers are not set correctly, the fuser oil roller cannot be installed. Set the fuser unit release levers to the fixed position.

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- 10** Reinstall the fuser oil roller (removed in step 4).



- 11** Rotate the two oil roller levers to lock the oil roller into place.

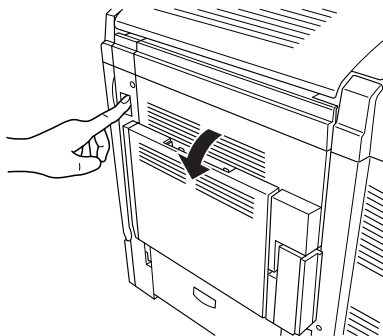


- 12** Close the printer's top cover.  
*Check the release button to make sure the top cover is properly closed.*

## Replacing the Transfer Roller Unit

 *If there is media in the multipurpose tray, remove it. Close the multipurpose tray.*

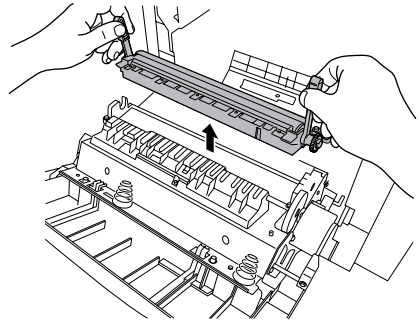
- 1** Press the right cover release button and carefully open the right cover.



- 2 Holding the two transfer roller unit handles, remove the transfer roller unit.



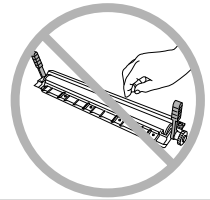
*Dispose of it properly according to your local regulations.*



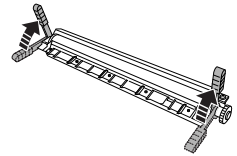
- 3 Remove the new transfer roller unit from the fuser kit box.

### **Attention**

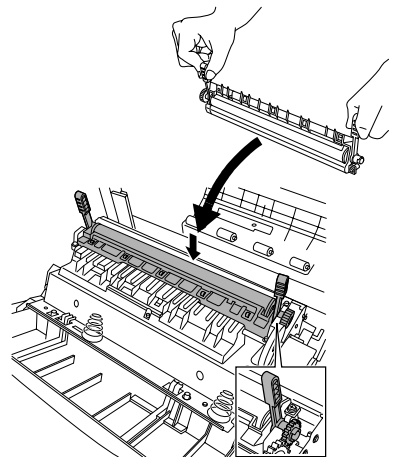
**Do not touch the surface of the transfer roller unit. This could lower image quality.**



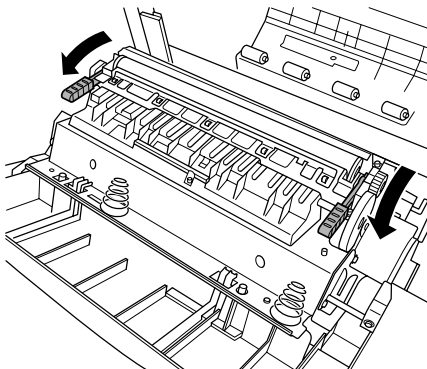
- 4 Place the new transfer roller unit on a level surface.
- 5 Lift up the two transfer roller unit handles.



- 6 Holding the two transfer roller unit handles, carefully lower it so the transfer roller unit shaft goes into the two transfer roller unit installation guides.



- 7 Lower the two transfer roller unit handles.
- 8 Carefully close the right cover.  
*Check the release button status to make sure the cover is properly closed.*
- 9 If necessary, reopen the multipurpose tray and put the media back in.



## Replacing the Fuser Oil Roller

The fuser oil roller provides a lubricant for the printer via an oil-impregnated roller. This oil is necessary for the proper functioning of the printer.

### WARNING!

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



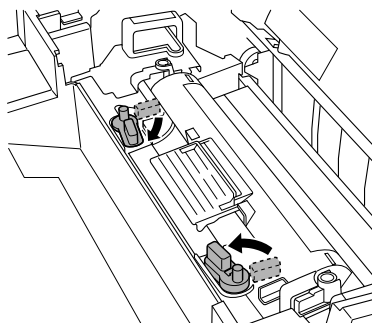
**ACHTUNG! Die Fixiereinheit kann sehr heiß werden, so daß Verbrennungsgefahr besteht. Bitte lassen Sie die Fixiereinheit einige Zeit abkühlen, bevor Sie diese berühren.**

When the fuser oil roller is worn out, the message “REPLACE OIL ROLLER” appears and the printer does not print. Replace the fuser oil roller. After the new roller is installed, printing automatically resumes (if you have not turned off the printer).

- 1 Open the printer's top cover.
- 2 Rotate the two fuser oil roller lock levers to release the fuser oil roller.



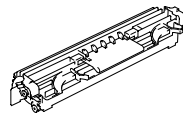
*Dispose of it properly according to your local regulations.*



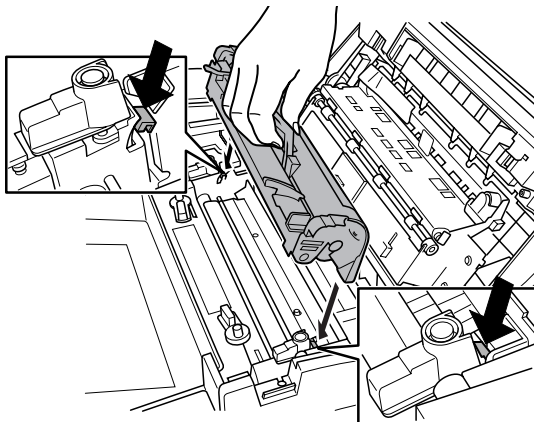
- 3 Remove the new fuser oil roller from its shipping box.

### Attention

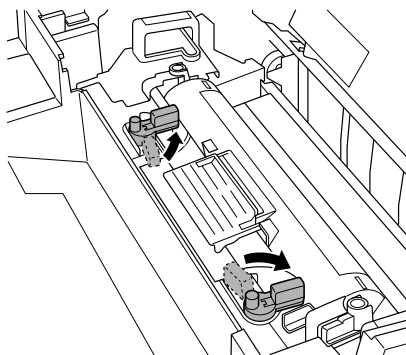
If you set the new fuser oil roller on a table, do it as shown in the illustration. Do not allow the roller surface to contact the table or get dirty. This could lower image quality.



- 4 Insert the new fuser oil roller installation guides (front, rear) into the fuser unit installation rail.
- 5 Carefully lower the roller.



- 6 Rotate the two oil roller levers to lock the oil roller into place.



### Attention

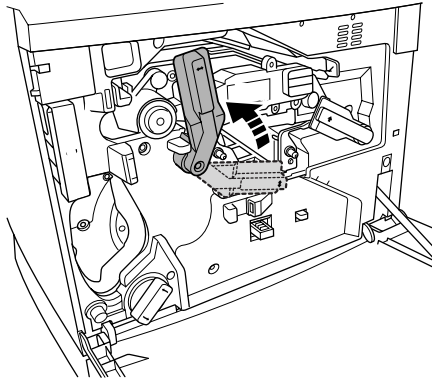
If the two fuser oil roller release levers are not correctly set, the top cover cannot be closed. Set the release levers to the roller fixed position.

- 7 Carefully close the top cover.  
*Check the release button to make sure the top cover is properly closed.*

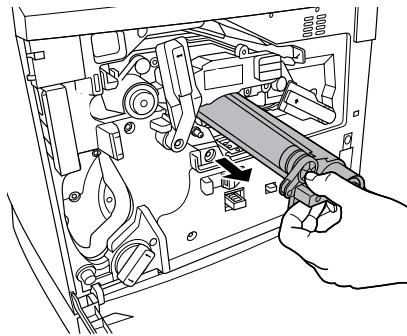
# Replacing the Transfer Belt

When the transfer belt is at the end of its life, the message “REPLACE TRANSFER BELT” appears, and the printer does not print. Replace the transfer belt. After the new transfer belt is installed, printing automatically resumes (if you have not turned off the printer).

- 1 Open the printer's front cover.
- 2 Remove the waste toner pack.
- 3 Rotate the left transfer belt lock lever.



- 4 Remove the OPC drum cartridge and set it aside.

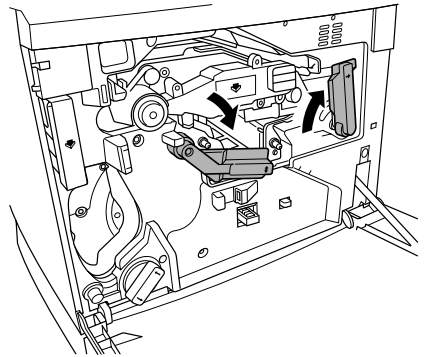


## Attention

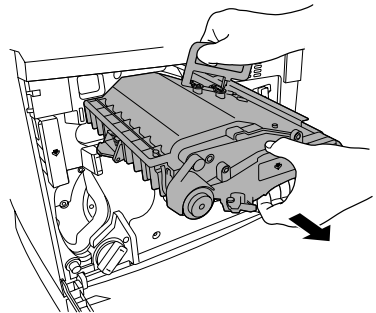
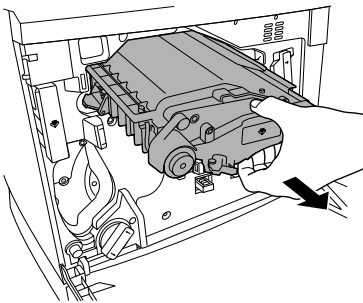
The OPC drum is extremely sensitive to bright light and direct sunlight. Always put it in its protective bag until you're ready to reinstall it. Any exposure to light should be avoided, or permanent damage could result.

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

- 5 Rotate the left lever to its 4 o'clock position.

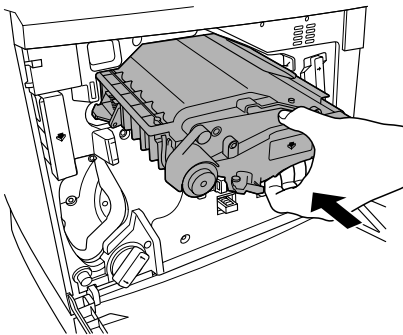


- 6 Grasp the handles of the transfer belt and remove it.



Dispose of it properly according to your local regulations.

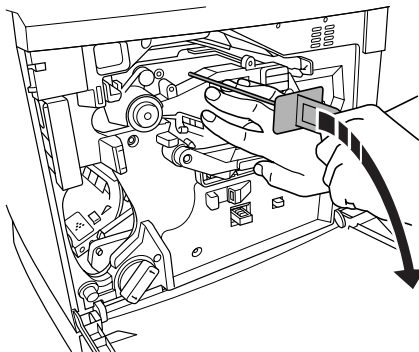
- 7 Remove the new transfer belt from its packaging and insert it into the printer.



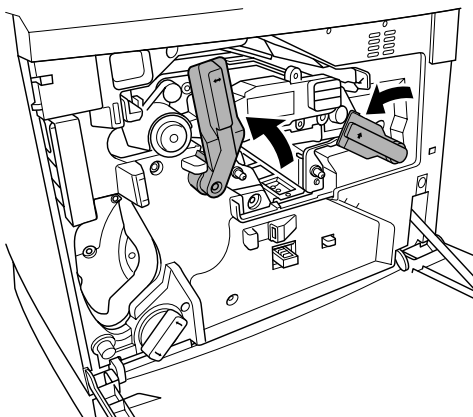
- 8 Press on the transfer belt front handle with one hand, take the handle of the transfer belt fixture with your other hand, and pull the fixture straight toward you.



*Dispose of it properly according to your local regulations.*

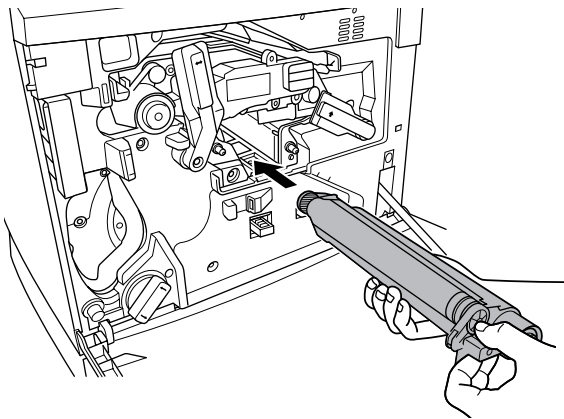


- 9 Rotate the transfer belt lock lever.

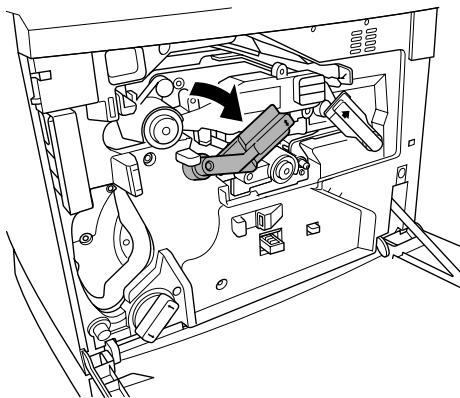




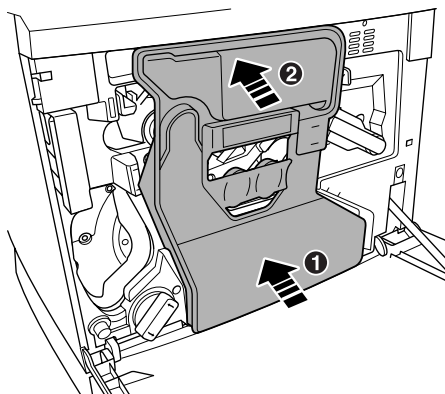
- 10** Reinstall the OPC drum cartridge.



- 11** Close the transfer belt lock lever.
- 12** Check to make sure the laser lens cover is firmly seated.



- 13** Reinstall the waste toner pack.
- 14** Close the front cover.





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*Using Media*

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**2**

# Introduction

This chapter provides information on handling, selecting, and storing media. Refer to the *Maintenance Guide* for media specifications.

## Media Handling

Before purchasing a large quantity of special media, do a trial printing with the same media and check print quality. Check our web site [www.minolta-qms.com](http://www.minolta-qms.com) for a list of current approved media.



### Attention

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

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Do not use media that is

- Not approved
- Meant for ink jet printers
- Folded, embossed, warped, or wrinkled
- Perforated or prepunched
- Too slick, too coarse
- Composed of foil or gilt
- Coated with a processed surface (such as carbon paper, heat-sensitive paper, heat-pressure paper)
- Irregularly shaped (not rectangular); not uniform in size
- Bound with glue, tape, or paper clips, or attached to ribbons, hooks, buttons, and so forth

Do not use envelopes that have

- Sticky flaps
- Metal clasps, fasteners, transparent windows, peel-off strips for sealing
- Material that will melt, vaporize, offset discolor, or emit dangerous fumes

Do not use labels that have

- Label(s) already peeled off
- Labels that peel off easily
- Glue or sealer that might come off
- Material that will melt, vaporize, offset discolor, or emit dangerous fumes

# Media Types

## Plain Paper

<b>Formatting</b>	Format data within your application.	
<b>Input</b>	<b>Upper and Optional Trays</b>	500 sheets of 20 lb bond (75 g/m <sup>2</sup> ) paper (letter/A4/legal) each; capacity for other weights varies accordingly.
	<b>Multipurpose Tray</b>	150 sheets of 20 lb bond (75 g/m <sup>2</sup> ) paper; capacity for other weights varies accordingly.
<b>Orientation</b>	<b>Upper and Optional Trays</b>	Simplex—Face up; Duplex—Face down
	<b>Multipurpose Tray</b>	Simplex—Face down; Duplex—Face up
<b>Type</b>	Any standard or recycled office paper suitable for plain-paper laser printers, such as <ul style="list-style-type: none"><li>■ Hammermill Laser Print</li><li>■ Georgia-Pacific Microprint Laser 1000</li><li>■ Neusiedler Color Copy 90</li><li>■ Xerox 4024</li></ul>	
<b>Weight</b>	16–24 lb bond (60–90 g/m <sup>2</sup> )	
<b>Duplexing</b>	Up to 24 lb bond (90 g/m <sup>2</sup> )	

## Letterhead and Memo Media

<b>Formatting</b>	Format letterhead or memo data within your application. Try printing your data on a plain sheet of paper first to check placement.	
<b>Input</b>	<b>Upper and Optional Trays</b>	Up to 500 sheets
	<b>Multipurpose Tray</b>	Up to 150 sheets
<b>Orientation</b>	<b>Upper and Optional Trays</b>	Face up—top of page toward the right
	<b>Multipurpose Tray</b>	Face down—top of page toward the printer side

<b>Type</b>	Any standard or recycled office paper suitable for plain-paper laser printers, such as <ul style="list-style-type: none"> <li>■ Hammermill Laser Print</li> <li>■ Georgia-Pacific Microprint Laser 1000</li> <li>■ Neusiedler Color Copy 90</li> <li>■ Xerox 4024</li> </ul>	
<b>Weight</b>	16–24 lb bond (60–90 g/m <sup>2</sup> )	
<b>Duplexing</b>	<b>Upper and Optional Trays</b>	Face down—top of page toward the right
	<b>Multipurpose Tray</b>	Face up—top of page toward the printer side
<b>Notes</b>	Check your application documentation for other information about printing on letterhead and memo media.	

## Thick Stock

<b>Formatting</b>	Format the information to be printed on the thick stock within your application. Try printing your data on a plain sheet of paper first to check placement.	
<b>Input</b>	<b>Multipurpose Tray Only</b>	Up to 50 sheets, depending on the thickness of the media
<b>Orientation</b>	Face down	
<b>Type</b>	For information about thick stock media recommended for your printer, go to <a href="http://www.minolta-qms.com/support">www.minolta-qms.com/support</a> , then click on Answer Base, or contact Technical Support. See the <i>Service &amp; Support Guide</i> for a complete listing of support telephone numbers.	
<b>Weight</b>	Simplex: 24–43 lb bond (90–163 g/m <sup>2</sup> )	
	Autoduplex: Up to 28 lb bond (105 g/m <sup>2</sup> )	
	Manual Duplex: 24 lb (90 g/m <sup>2</sup> ) to 43 lb (163 g/m <sup>2</sup> ) bond	
<b>Duplexing</b>	Autoduplexing thick stock over 28 lbs (105 g/m <sup>2</sup> ) is not supported. Thicker stock may be manually duplexed.	
<b>Notes</b>	You should test the number of sheets of thick stock the multipurpose tray can hold to ensure that its performance is acceptable. 43 lb (163 g/m <sup>2</sup> ) bond is also referred to as 90 lb index stock.	

## Envelopes


<b>Formatting</b>	Your printer receives the instructions to print on envelopes from your application. <ul style="list-style-type: none"> <li>■ Print on the front side only. Some parts of the envelope consist of three layers of paper—the front, back, and flap. Anything printed in these layered regions may be lost or faded.</li> <li>■ See your application documentation for specific information on printing envelopes.</li> </ul>	
<b>Input</b>	<b>Multipurpose Tray Only</b>	Up to 50, depending on the thickness of the envelopes
<b>Orientation</b>	Face down	
<b>Type</b>	Use common office envelopes approved for laser printing with diagonal joints, sharp folds and edges, and ordinary gummed flaps, such as <ul style="list-style-type: none"> <li>■ Commercial #10: Columbian Recycled COR02</li> <li>■ International DL: Auto Fil #01914</li> </ul>	
<b>Duplexing</b>	Not supported	
<b>Notes</b>	<ul style="list-style-type: none"> <li>■ You can print <i>only</i> on the address side of the envelope.</li> <li>■ Envelopes should be dry.</li> <li>■ Do not preload or preseat envelopes.</li> </ul>	

## Labels

<b>Formatting</b>	Format label data within your application. Try printing your data on a plain sheet of paper first to check placement.	
<b>Input</b>	<b>Multipurpose Tray Only</b>	Up to 50 sheets, depending on the thickness of the labels
<b>Orientation</b>	Face down	
<b>Type</b>	Use only labels recommended for laser printers, such as Avery 5260	
<b>Weight</b>	16–90 lb (60–163 g/m <sup>2</sup> )	
<b>Duplexing</b>	Not supported	

<b>Notes</b>	<ul style="list-style-type: none"> <li>■ Avoid using labels with exposed adhesive; it may stick to the transfer belt or the fuser roller, causing labels to peel off and media jams to occur.</li> <li>■ Adhesive label stock is supported only in letter or A4 sheets.</li> <li>■ A label consists of a face sheet (the printing surface), adhesive, and a carrier sheet <ul style="list-style-type: none"> <li>— The face sheet must follow the plain paper specification.</li> <li>— The face sheet surface must cover the entire carrier sheet, and no adhesive should come through on the surface.</li> </ul> </li> <li>■ You can print continuously with label paper. However, this could affect the media feed, depending on the media quality and printing environment. If problems occur, stop the continuous print and print one sheet at a time.</li> <li>■ Check your application documentation for other information on printing labels.</li> </ul>
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## Postcards

<b>Formatting</b>	Format postcard data within your application. Try printing your data on a plain sheet of paper first to check placement.	
<b>Input</b>	<b>Multipurpose Tray Only</b>	Up to 50 sheets, depending on the thickness of the postcards
<b>Orientation</b>	Face down	
<b>Type</b>	Use only postcards recommended for laser printers	
<b>Weight</b>	16–90 lb (60–163 g/m <sup>2</sup> )	
<b>Duplexing</b>	Not supported	
<b>Notes</b>	If the postcard is warped, press on the warped area before putting in multipurpose tray.	

## Transparencies

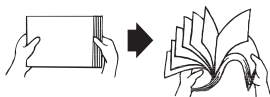
<b>Formatting</b>	Format the information to be printed on the transparencies within your application. Try printing your data on a plain sheet of paper first to check placement.
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<b>Input</b>	<b>Location</b>	Upper and Optional Trays Multipurpose tray
	<b>Capacity</b>	Up to 50 sheets, depending on the thickness of the transparencies  <i>If you have problems feeding 50 sheets, try loading only 5–10 sheets at a time. Loading a large number of transparencies at a time may cause static buildup, thus causing feeding problems.</i>
<b>Orientation</b>	<b>Upper and Optional Trays</b>	Face up
	<b>Multipurpose Tray</b>	Face down
<b>Type</b>	Use any full-color transparencies (also known as OHP film) that meet normal photocopier standards. We recommend <ul style="list-style-type: none"> <li>■ Q-Media Transparency Media for the magicolor 2200 Series for color printing</li> <li>■ Q-Media Transparency Media for the magicolor 2200 Series for monochrome printing</li> <li>■ 3M PP2500 for monochrome printing</li> </ul>	
<b>Duplexing</b>	Not supported	
<b>Notes</b>	<ul style="list-style-type: none"> <li>■ If you touch the face of transparencies with your bare hands, print quality may be affected.</li> <li>■ Do not handle transparency media too much. Do not fan transparency media before loading it. Resulting static electricity may cause printing errors.</li> <li>■ Keep the media path clean. Transparencies are especially sensitive to a dirty media path. If there are shadows on either the top or the bottom of the sheets, see “Cleaning the Printer Interior” in the <i>Maintenance Guide</i>.</li> <li>■ You can print continuously with transparencies. However, this could affect the media feed, depending on the media quality and printing environment. If problems occur, stop the continuous print and print one sheet at a time.</li> <li>■ Check your application documentation for other information about printing on transparencies.</li> </ul>	

## Loading Media

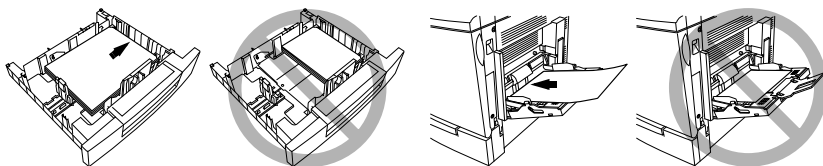
Take off the top and bottom sheets of a ream of paper. Holding a stack of approximately 250 sheets at a time, fan the stack to prevent static buildup for the paper before inserting it in a tray.



*Do not fan transparency media.*

### Attention

**Always load the media short edge first.**



### Attention

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

- When refilling media, first remove any media remaining in the tray. Stack it with the new media, even the edges, then reload it. Although the magi-color 2210 was designed for printing on a wide range of media types, it is not intended to print exclusively on a single media type except plain paper. Continuous printing on media other than plain paper (such as envelopes, labels, thick stock, or transparencies) may adversely affect print quality or reduce engine life.
- For media other than standard plain paper or transparencies, both the driver (Paper tab, Paper Type option) and the MP Size key on the control panel need to be selected.

*It is important to use the MP Size key to set the multipurpose tray to the appropriate media size in order to obtain optimum printing results.*

## Autoduplexing

Duplex (2-sided) printing can be done automatically with the optional duplex unit installed.



*Only up to 24 lb (90g/m<sup>2</sup>) plain paper can be duplexed.*

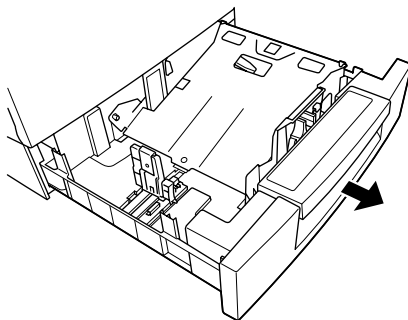
If you are printing duplex from the upper or optional tray, load the media printing-side down with the top of the media (or letterhead or memo information) toward the right side of the tray. If you are printing duplex from the multipurpose tray, load the media printing-side up with the top of the media toward the printer.



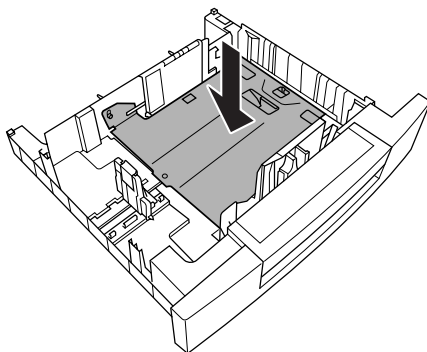
*The options in the driver are Simplex (1-sided pages), or Long Edge (flipped horizontally as in a loose-leaf notebook), or Short Edge (flipped vertically as on a clipboard).*

## Upper and Optional Media Trays

- 1 Slide the media tray open.

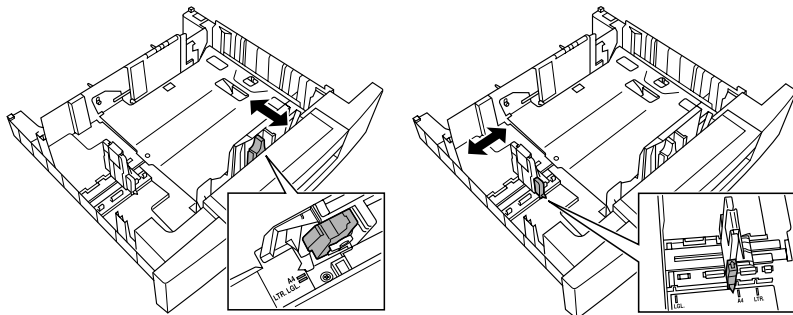


- 2 Push the media pressure plate down to lock it in position.



### 3 Adjust the media guides to fit the size paper you're loading.

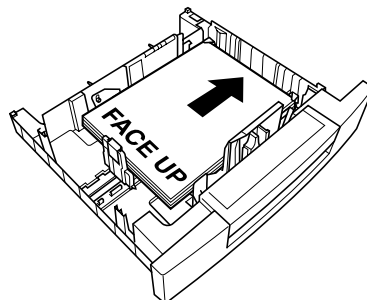
*Squeeze the retainers, move the guides to the appropriate location (media sizes are listed on the tray), and release the retainers. The media should fit easily between the guides.*



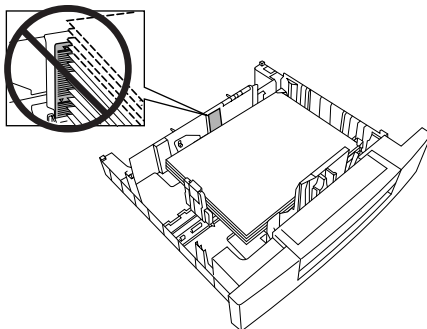
### 4 Load the paper face-up, short edge toward the right of the tray.

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

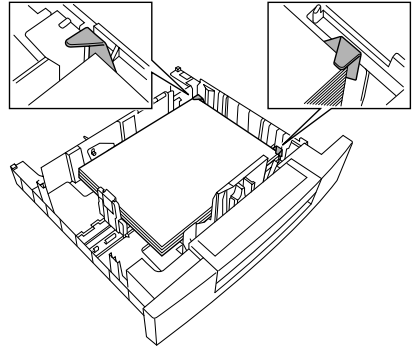
*Do not overfill the tray.*



*A fill limit mark is provided on the inside of the tray. The media tray holds 500 sheets of 20 lb bond (75 g/m<sup>2</sup>) paper.*



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



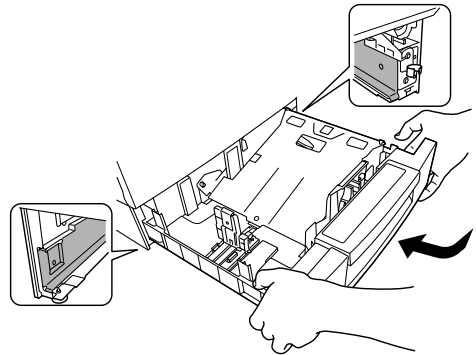
### Attention

Always readjust the media guides after inserting the media. Improperly adjusted guides may cause poor print quality, media jams, or printer damage.

- 5 Slide the tray back into the printer.



*If you have removed the tray from the printer, slightly tilt up the tray to insert it into the installation rails to slide it back in.*

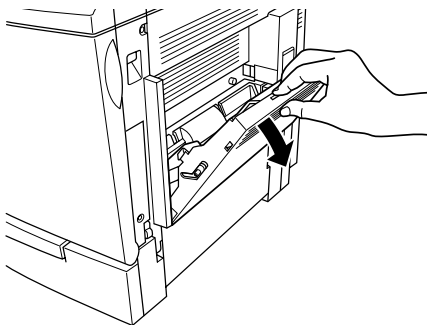


## Multipurpose Tray

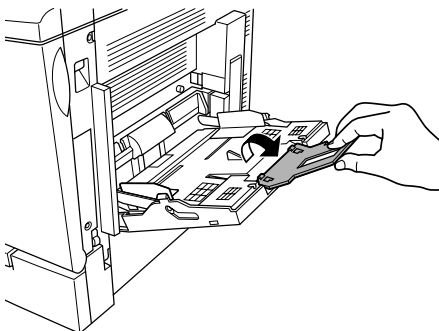
Page sizes other than letter, A4, and legal can be printed only from the multipurpose tray (also known as tray 1). Use the **MP** (Multipurpose) **Size** key on the control panel to set the page size.

Other special types of media (such as thick stock, transparencies, and envelopes) are also fed from the multipurpose tray. See “Media Specifications” in the *Maintenance Guide* for more information about media.

- 1 Open the multipurpose tray on the right side of the printer.



- 2 Open the media support.



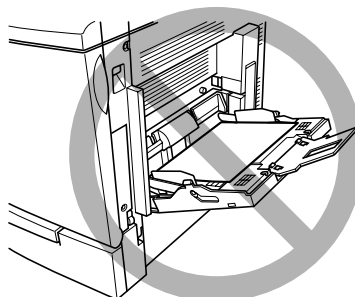
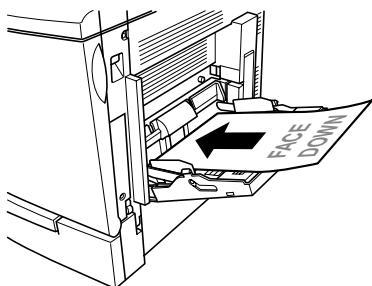
**Attention**

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**Load only one type/size of media per tray at a time.**

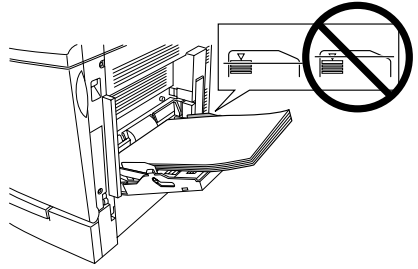
---

- 3 Load the media face down, short edge toward the printer.

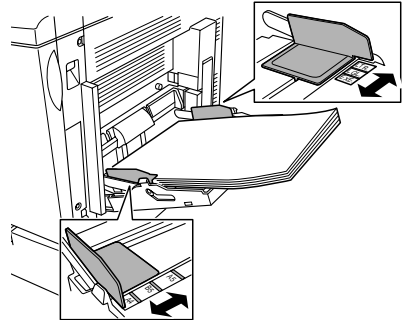


Often, an arrow on the paper package label indicates the face-up (printing) side of the paper.

A fill limit mark is provided on the inside of the media guides on the multipurpose tray. The multipurpose tray holds 150 sheets of 20 lb bond (75 g/m<sup>2</sup>) paper.



- 4 Adjust the media guides to fit the size media you're loading.



### Attention

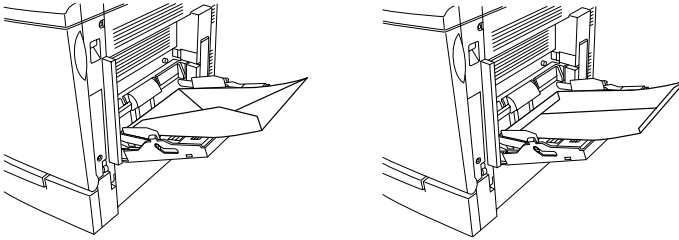
**Always adjust the media guides after inserting the media. A guide that is not properly adjusted can cause poor print quality, media jams, or printer damage.**

- 5 Specify the media size in the multipurpose tray by using the MP Size key on the control panel.

## Printing Envelopes from the Multipurpose Tray

- 1 Flex the envelope stack (including the edges) to remove any stiffness.
- 2 Place the envelopes on a flat surface, and flatten them by pressing down the corners.
- 3 Correct any bent corners, and then tap the envelopes on a flat surface to align them.

- 4** Place the envelope stack into the multipurpose tray with the flap-side up. *Check your application documentation to determine if the flap should be placed on the left or on the right. Print a single envelope to check the orientation before printing multiple copies.*



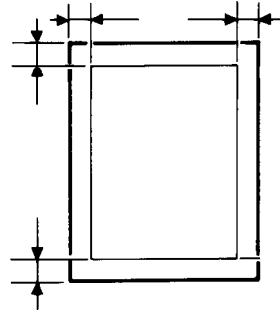
- 5** Adjust the media guides to the width of the envelopes. *Make sure the guides are snug enough to keep the envelopes straight, but not so tight that they buckle the envelopes.*
- 6** Open the flap of each envelope immediately (before it cools) after the envelope is delivered to the output tray.



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

## Printing Area

The printing area on all media sizes is up to about 0.157 inch (4 mm) from the edges of the media.



## Media Storage

When storing media, avoid:

- Direct sunlight
- Excess heat and humidity
- Dust

If media has been removed from its wrapper, place it in its original packaging and store in a cool, dark place on a level surface.



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***Maintaining the  
Printer***

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**3**

# Maintaining the Printer

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

## WARNING!

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

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

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*If you have an optional 5-bin mailbox installed, turn the printer off first, then turn off the mailbox.*

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



## Attention

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**The fuser unit is hot. When the top cover is opened, the fuser unit temperature drops gradually (one hour wait time).**



- Be careful when cleaning the inside or removing paper jams, as the fuser unit and other internal parts may become very hot.
- Do not place anything on the top of the printer.
- Use a soft cloth to clean the printer.
- Never spray cleaning solution directly on the printer's surface; the spray could penetrate through the air vents of the printer and damage the internal circuits. Avoid using abrasive or corrosive solutions or solutions that contain solvents, (such as alcohol and benzene) to clean the printer.
- Always test any cleaning solution (such as mild detergent) on a small area of your printer to check the solution's performance.
- Never use sharp or rough implements, such as wire or plastic cleaning pads.
- Always close the printer covers gently. Never expose the printer to vibrations.

- Do not put a cover on the printer immediately after using it. Turn it off and wait until it cools down.
- Do not leave the printer's covers open for any length of time, especially in well-lit places; light may damage the OPC drum cartridge.
- Do not open the printer during printing.
- Do not tap paper stacks on the printer.
- Do not tilt, lubricate, or disassemble the printer.
- Do not touch the electrical contacts, gears, or laser beam devices. Doing so may damage the printer and cause the print quality to deteriorate.
- Keep media in the output tray at minimum level. If the media stacks too high, your printer may experience media jams and excessive media curl.
- Lift the printer from the bottom only, using the carrying grips and the carrying bars. Make sure two people are available to lift the printer when moving it.  
*When moving the printer, keep the printer level to avoid toner spillage.*
- If you get toner on your skin, wash it off with cool water and neutral detergent.

## **WARNING!**

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

**ACHTUNG! Sollte Toner in Ihre Augen gelangen, die Augen unbedingt sofort mit kaltem Wasser ausspülen und einen Arzt aufsuchen. MSDS-Informationen (Material Safety Data Sheets; Datenblätter zur Material Sicherheit) finden Sie im Internet unter [www.minolta-qms.com](http://www.minolta-qms.com) (klicken Sie auf "Answer Base"). 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.**

- Make sure any parts removed during cleaning are replaced before you plug in the printer.

See *"Repacking the Printer"* on page 143 for printer storing and shipping instructions.

# Cleaning

You should perform a thorough cleaning every 30,000 single-sided pages, every 12 months, or as needed, whichever comes earlier.

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

## Outside the Printer

Use	Avoid
A soft <b>dry</b> cloth to clean the control panel	Sharp or rough implements (such as wire or plastic cleaning pads). Any liquid
A soft <b>damp</b> cloth to clean the printer exterior	Sharp or rough implements (such as wire or plastic cleaning pads)
Mild detergent to clean the printer exterior	Abrasive or corrosive solutions that contain solvents (such as alcohol or benzene)

## Inside the Printer

This item needs cleaning...	After...	By...
Laser lens cover	Removing the waste toner pack to clean around it or to replace it. Every 30,000 single-sided pages, every 12 months, or as needed, whichever comes earlier.	User See the <i>Maintenance Guide</i> .
Duplex unit paper guides or rollers		
OPC drum cartridge		
Paper exit rollers		
Printer interior		
Registration roller		
Transfer roller		

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# *Troubleshooting*

# 4

## 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.

## Printing a Status Page

Print a status page to verify the printer is printing correctly.

Press Key	(Until) Display Reads
Online	IDLE (and online LED is off)
Menu	OPERATOR CONTROL
Next ( ▶ )	ADMINISTRATION
Select	ADMINISTRATION-SPECIAL PAGES
Select	PRINT STATUS
Select	YES
Online	IDLE (and online LED is on)

## Preventing Media Jams

Make sure that...	Avoid...
Media matches the printer specifications	Media that is folded, wrinkled, or excessively curled
Media is flat, especially on the leading edge	Double feeding ( <i>remove the media and fan the sheets—they may be sticking together</i> )
The printer is on a hard, flat, level surface	Fanning transparencies since this causes static
You have the correct media type selected if you're printing on envelopes, labels, thick stock, or transparencies.	Loading more than one type/size/weight of media in a tray at the same time
You store media in a dry location away from moisture and humidity	Overfilling the media <b>input</b> trays

<b>Make sure that...</b>
You always adjust the media width regulation guides in the multipurpose tray <i>after</i> inserting the media (a guide that is not properly adjusted can cause poor print quality, paper jams, or printer damage)
You remove transparencies from the output tray immediately to avoid static buildup.
You load the media (for single-sided pages) printing-side up in the upper or optional trays or printing-side down in the multipurpose tray (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 tray, rotate the stack a half-turn, turn the stack over, and then place it back in the tray)

<b>Avoid...</b>
Allowing the <b>output</b> tray to overflow (the face-down output tray has a 500-sheet capacity—jamming may occur if you allow media to accumulate more than 500 sheets at a time)

## Automatic Jam Recovery

The magicolor 2210 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.



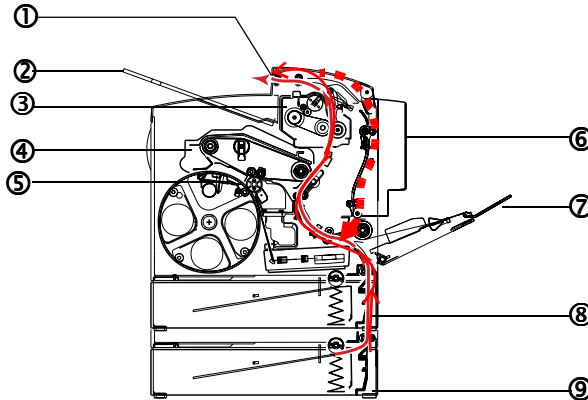
*For automatic jam recovery to work, it is necessary to leave the printer turned on when you remove the jammed media.*

# Understanding the Media Path

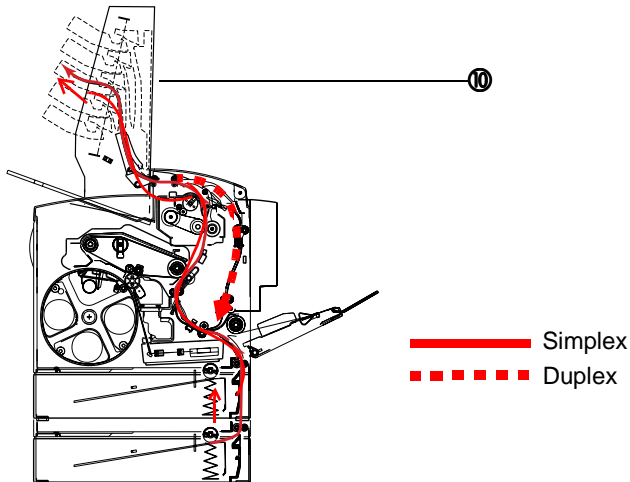
Understanding the printer's media path will help you locate media jams.

- ① Media exit unit
- ② Output tray
- ③ Fuser
- ④ Transfer belt
- ⑤ OPC drum cartridge
- ⑥ Duplex unit (optional)
- ⑦ Multipurpose tray
- ⑧ Upper media tray
- ⑨ Lower feeder unit (LFU) and optional tray (optional)
- ⑩ 5-bin mailbox (optional)

## Model with LFU



## Model with LFU and Mailbox





## Media Tray (Standard Upper Tray and Optional Tray)

The media tray(s) is (are) located at the bottom front of the printer. The media is picked from the tray, passed under the OPC drum cartridge and the transfer belt, passed through the fuser, and delivered via the paper exit unit to the output tray on top of the printer.

## Lower Feed Unit (LFU) Tray(s)

The LFU media tray(s) is (are) located at the bottom front of the printer in the lower feeder unit(s). The media fed through the LFU is picked and delivered to the output tray the same way as media from the standard upper tray.

## Multipurpose Tray

The multipurpose tray is located at the right of the printer. The media is picked from the multipurpose tray, passed under the OPC drum cartridge and the transfer belt, passed through the fuser, and delivered via the paper exit unit to the output tray on top of the printer.

## Duplex Unit (Optional)

The media is picked from a media tray, passed under the transfer belt, passed through the fuser, fed into the duplex unit where the media undergoes a change in direction, cycles through the transfer belt and fuser again, and is delivered via the paper exit unit to the output tray, which is the top of the printer. Since several sheets cycle through the printer/duplex unit at the same time, recovering from a media jam may require the removal of more than one sheet.

To manually duplex, remove the media, flip it over, and reload it.

## 5-bin Mailbox (Optional)

The 5-bin mailbox is located on the top of the printer. The media is picked from the tray, passed under the transfer belt, passed through the fuser, and delivered via the paper exit unit to the 5-bin mailbox, which is on top of the printer.

## Clearing Media Jams

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

## Attention

The image is not fixed on the media before the fusing process. If you touch the printed surface, the toner may stick to your hands, so be careful not to touch the print face when removing the jammed media. Make sure not to spill any toner inside the printer. Unfused toner can dirty your hands, clothes, or anything else it gets on. If you accidentally get toner on your 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. If toner gets on your skin, wash it off with water or a neutral detergent.

## WARNING!

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

**ACHTUNG! Sollte Toner in Ihre Augen gelangen, die Augen unbedingt sofort mit kaltem Wasser ausspülen und einen Arzt aufsuchen. MSDS-Informationen (Material Safety Data Sheets; Datenblätter zur Material Sicherheit) finden Sie im Internet unter [www.minolta-qms.com](http://www.minolta-qms.com) (klicken Sie auf "Answer Base").**

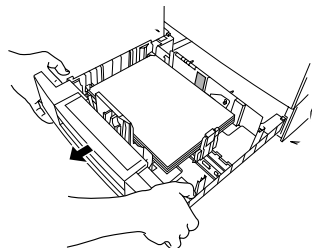
If, after clearing the media jam, the jam message in the control panel window persists, open and close the printer's covers. This should clear the jam message.

## Handling Media Jams by Location

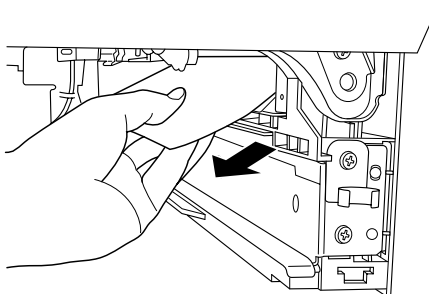
Location of Jam	Page Reference
Tray 1—multipurpose tray	Page 58
Tray 2—upper tray Tray 5—optional tray (lower feeder unit)	Page 57
Near the OPC drum	Page 59
Near the duplex unit	Page 62
In the mailbox	Page 65
In the output tray	Page 66

## Clearing Misfeed (Upper or Optional Tray) Jams

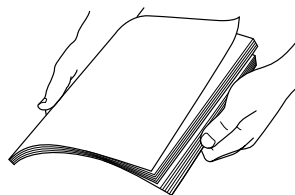
- 1 Remove the media tray(s).



- 2 Carefully remove the jammed media.



- 3 Shuffle the media currently in the tray and even up the front edges.



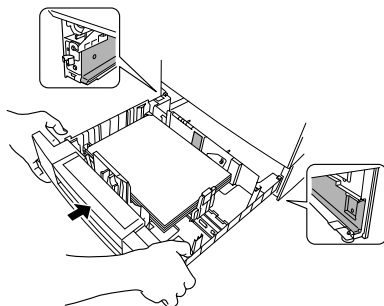
- 4 Reinsert the media printing face up.

*Make sure the media is lying flat, is under the media separating tabs, and doesn't exceed the media limit mark. Check to see if the media width guides are correct.*

- 5 Slide the tray(s) back into the printer.

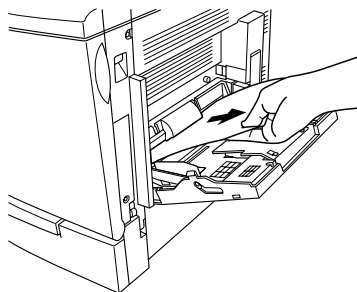
- 6 Open the front cover, then close it.

*The media jam message is no longer displayed in the printer message window.*



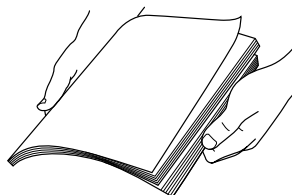
## Clearing Misfeed (Multipurpose Tray) Jams

- 1 Remove the media from in the multipurpose tray.
- 2 Carefully remove the jammed media.



- 3 Shuffle the media that was removed in step 1 and even up the front edges.
- 4 Reinsert the media printing face down.

*Make sure the media is lying flat and doesn't exceed the media limit mark. Check to see if the media width guides are correct.*



- 5 Open the front cover, then close it.

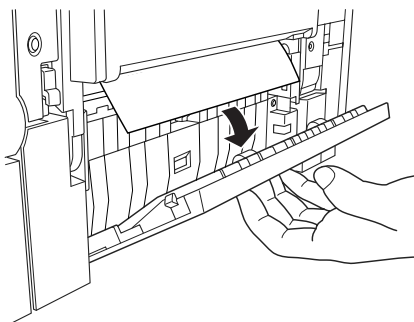
*The media jam message is no longer displayed in the printer message window.*

## Clearing Inner Jams, Outer Jams, and Drum Jams

### Media Jams inside the Lower Right Door (Vertical Transport Area)

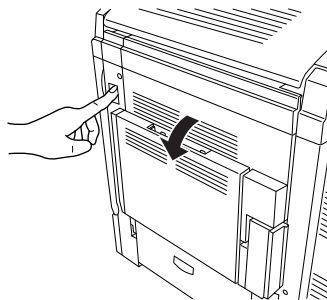
- 1 Open the lower right door(s).
- 2 Carefully remove the jammed media.
- 3 Close the lower right door(s).

*The media jam message is no longer displayed in the printer message window.*

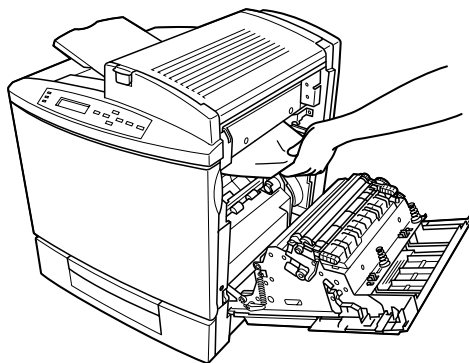


## Media Jams near the OPC Drum

- 1 If there is any media in the multipurpose tray, remove it and close the multipurpose tray.
- 2 Press the right-side cover release button and carefully open the cover all the way.



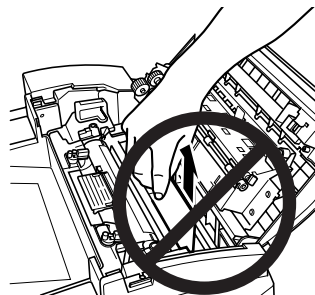
- 3 Remove the jammed media by pulling it slowly from the bottom of the fuser.



### Attention

Do not pull jammed media from the top of the printer through the fusing rollers.

This prevents any unfused toner from dirtying the fuser rollers.



4 Close the right-side cover.  
*The media jam message is no longer displayed in the printer message window.*

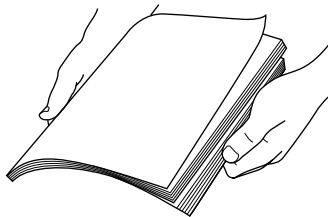
5 Check the release button to make sure the cover is securely closed.

6 If media was removed in step 1, open the multipurpose tray.

7 Shuffle the media that was removed in step 1 and even up the front edges.

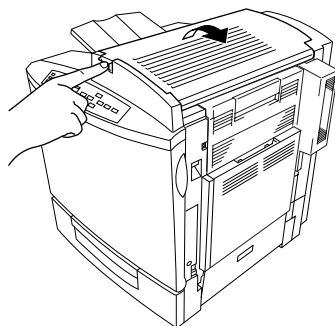
8 Reinsert the media printing face down.

*Make sure the media is lying flat and doesn't exceed the media limit mark. Check to see if the media width guides are correct.*



## Media Jams near the Duplex Unit (Optional)

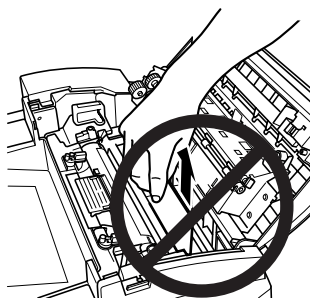
1 Open the top cover.



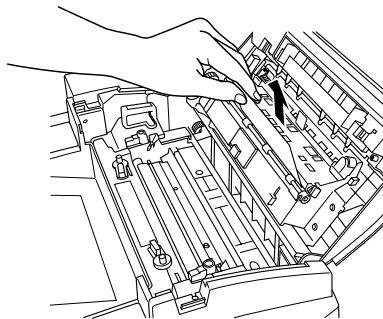
### Attention

**Do not pull jammed media from the top of the printer through the fusing rollers.**

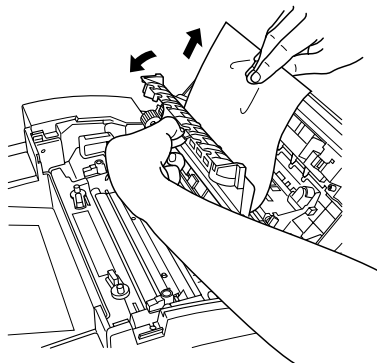
**This prevents any unfused toner from dirtying the fuser rollers.**



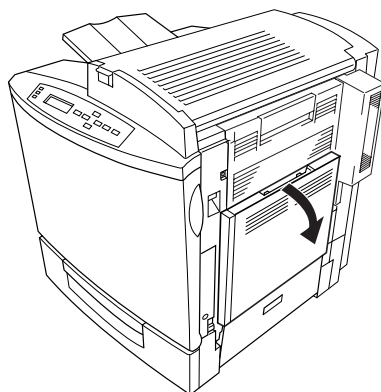
- Carefully remove the jammed media in the top cover media reverse area.



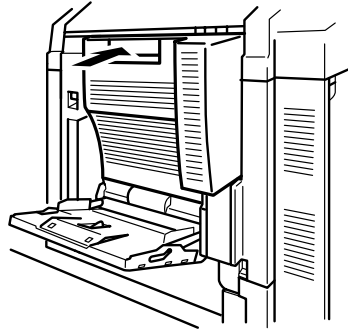
- Open the media jam removal cover with your left hand and carefully remove the jammed media in the duplex media feed area with your right hand.
- Close the media jam removal cover with your left hand and close the top cover.
- Check the release button to make sure the door is securely closed.



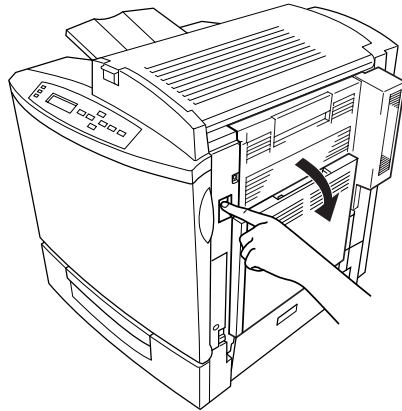
- If the multipurpose tray is closed, open it.



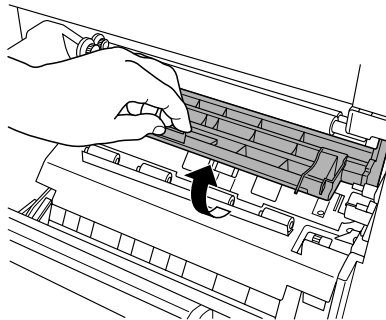
- 7 Pressing the duplex unit cover release, carefully open the cover.
- 8 Remove the jammed media.
- 9 Close the duplex unit's cover.
- 10 Close the multipurpose tray.



- 11 If there still is a jam message, press the right-side cover release button and carefully open the cover all the way.



- 12 Lift the inner paper guide.



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

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

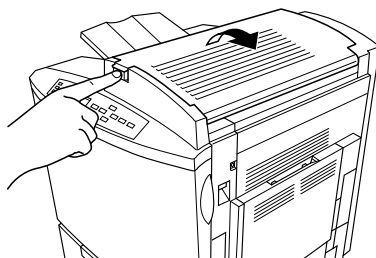
*If the media did not come out easily or if you cannot reach the media from this area, keep the duplex unit's lower cover open.*



- 14 Open the duplex unit cover.
- 15 Remove the jammed media by pulling it slowly from the bottom of the fuser rollers.  
*Be careful not to touch the transfer belt while removing jammed media.*
- 16 Close the printer's top cover.
- 17 Close the duplex unit's paper guide, lower cover, and top cover.  
*The media jam message is no longer displayed in the printer message window.*

## Media Jams near the Fuser Unit

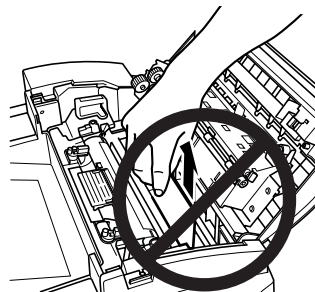
- 1 Open the top cover.



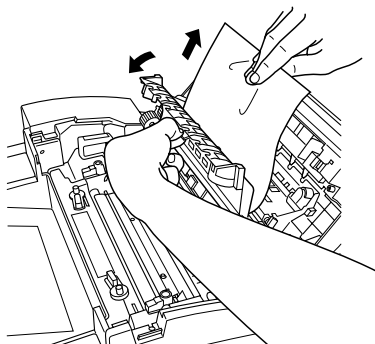
### Attention

**Do not pull jammed media from the top of the printer through the fusing rollers.**

**This prevents any unfused toner from dirtying the fuser rollers.**



- 2 Carefully remove the jammed media through the *media jam removal cover*.
- 3 Open the media jam removal cover and carefully remove the media that is jammed there.
- 4 Close the media jam removal cover.



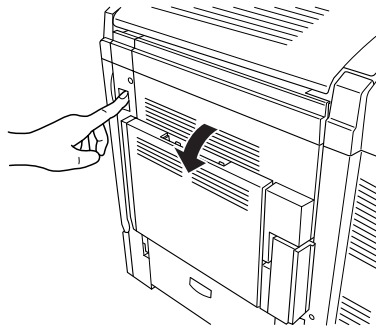
**5** Close the top cover.

*Check the release button to make sure the top cover is securely closed..*

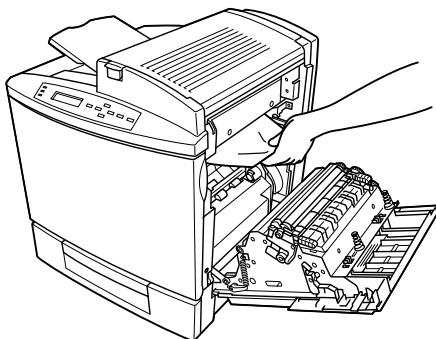
**6** Open the right-side cover.

**7** Remove the jammed media by pulling it slowly from the bottom of the fuser.

*Be careful not to touch the transfer belt while removing jammed media.*

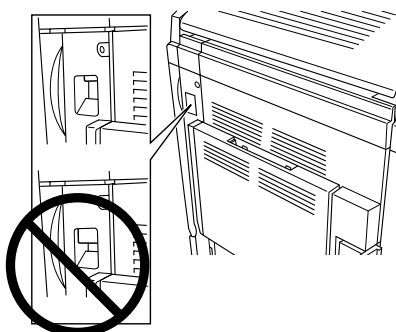


**8** Close the right-side cover.



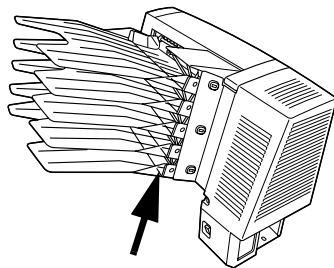
*Check the release button to make sure the duplex unit cover is securely closed.*

*The media jam message is no longer displayed in the printer message window.*

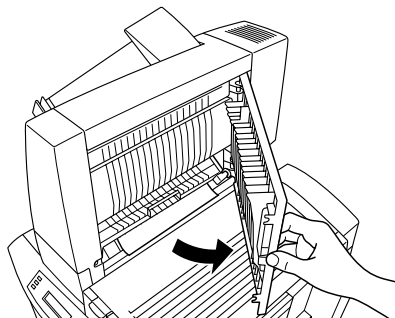


## Media Jams in the Optional 5-bin Mailbox

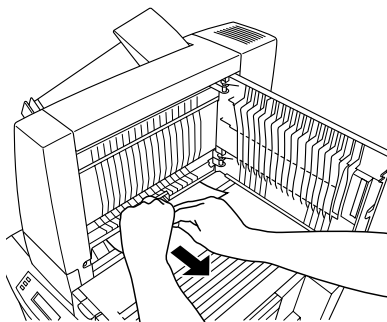
- 1 Carefully remove the jammed media from the paper eject area of the mailbox.



- 2 Open the mailbox door.

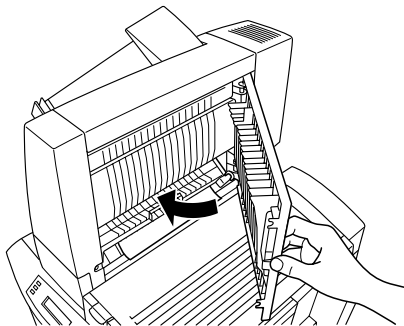


- 3 Lift up the paper jam removal guide in the mailbox with your left hand, and use your right hand to carefully remove the jammed paper.



#### 4 Close the mailbox door.

*The media jam message is no longer displayed in the printer message window.*



### Media Jams in the Output Tray

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

## Solving Problems with Media Jams



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

Symptom	Cause	Solution
Several sheets go through the printer together.	The front edges of the media are not even.	Remove the media and even up the front edges, then reload it.
	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
Paper jam message stays on.	Front cover needs to be opened and closed again to reset the printer.	Open and close the front cover of the printer again.
	Some media remains jammed in the printer.	Recheck the paper path and make sure you have removed all of the media jams.
5-bin mailbox jams.	The wrong media is being used.	Make sure that you are using only plain paper (or recycled plain paper).
		Make sure that you are using only letter/A4 plain paper.

Symptom	Cause	Solution
Duplex unit jams.	The wrong media is being used.	Use only supported media. Refer to the "Media Types" on page 35.
		Plain paper and thick stock up to 28 lb bond (105 g/m <sup>2</sup> ) can be autoduplexed if the optional duplex unit is installed. For heavier weights, manual duplexing is required. To manually duplex, remove the media, flip it over, and reload it.
		Make sure that you have not mixed media types in your multipurpose tray.
		Do not duplex envelopes, glossy stock, labels, transfer media, or transparencies.
Media may still be jammed.	Media may still be jammed.	Check for media stuck in the paper guides in the duplex unit's top cover, and the media supply area on the lower left of the printer.
		If you removed jammed media from near the OPC drum, reset the OPC drum's locking levers.
Media is jamming.	The media is not correctly positioned in the tray.	Remove the jammed media and reposition the media properly in the tray.
	The number of sheets in the tray exceeds the maximum allowed.	Remove the excess media and reload the correct number of sheets in the tray.
	The width regulation guides are not correctly adjusted to the media size.	Adjust the regulation guides in the tray to match the size of the media.
	The media in upper or optional tray is not under the media separating tabs.	Remove the media and reload it so the front corners are under the media separating tabs.
	Warped or wrinkled media is loaded in the tray.	Remove the media, smooth it out, and reload it. If it still jams, do not use that media.

<b>Symptom</b>	<b>Cause</b>	<b>Solution</b>
Media is jamming.	Labels, letterhead, envelopes, post-cards, thick stock, or transfer material are loaded in the upper or optional tray.	Special media must be loaded in the multipurpose tray only.
	The recommended transparency (OHP) or label paper is facing the wrong way in the multipurpose tray.	Load the transparencies or labels according to the manufacturer's instructions.
	Envelopes are facing the wrong way in the multipurpose tray.	Load the envelopes in the multipurpose tray so the the flaps are facing up.
		If the flaps are on the short edge, set the envelopes in the multipurpose tray so that the flaps are on the printer side.
	Multiple sheets of transparency (OHP) media are collecting static electricity in the tray.	Remove the OHP media and load them in the tray one sheet at a time. Do not fan transparencies before loading them.
	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Unsupported media (wrong size, thickness, type, etc.) is being used.	Use media that is covered by the printer warranty.
	Media supply roller is dirty.	Clean the media supply roller.

## Solving Other Problems

Symptom	Cause	Solution
Printer power is not on.	The power cord is not correctly plugged into the outlet.	Turn the power switch off (O position), then remove the power cord from the outlet and plug it back in.
	The mailbox power cord is not correctly connected.	Turn the power switch and the mailbox power switch off (O position), then reconnect the mailbox power cord using the procedure below: —Connect the mailbox power cord plug end to the mailbox power socket (lower connection). —Connect the mailbox power cord socket end to the printer power plug. —Connect the printer power cord socket end to the mailbox power plug (upper connection). —Plug the printer power cord into the outlet.
	Something is wrong with the outlet you are using for the printer.	Plug another electrical appliance into the outlet and see whether it operates properly.
	The power switch is not correctly set to the On (I) position.	Set the power switch to the Off (O) position, then set it back to the On (I) position.
		Turn the printer power switch and the mailbox power switch to the Off (O) position, then turn on the power again using the procedure below: —Turn the mailbox power switch on. —Turn the printer power switch on.
Something is wrong with the outlet you are using for the printer.	Plug another electrical appliance into the outlet and see whether it operates properly.	

Symptom	Cause	Solution
Printer power is not on.	The printer is connected to an outlet with a voltage or frequency that does not match the printer specifications.	Use a power source with the following specifications: <b>—Power</b> Japan: 100 VAC 50–60 Hz 12 amps North America: 120 VAC 50–60 Hz 8 amps Europe: 220-240 VAC 50–60 Hz 6 amps Latin America: 120 VAC 50–60 Hz 8 amps 220-240 VAC 50–60 Hz 6 amps <b>—Voltage fluctuation</b> Japan: 100 VAC $\pm 10\%$ North America: 120 VAC $\pm 10\%$ Europe: 220-240 VAC $\pm 10\%$ Latin America: 120 VAC $\pm 10\%$ 220-240 VAC $\pm 10\%$ <b>—Frequency fluctuation rate</b> within 50/60 $\pm 3$ Hz
<b>Note:</b> If you experience problems, the first thing you want to do is print a status page.		
You can't print a status page.	Is the printer off line before you try to enter the Administration/Special Pages/ Print Status menu?	Turn the printer off line before printing a status page.
	The tray does not have media.	Check that the media trays are loaded with media, in place and secure.
	The printer's covers aren't closed securely.	Make sure the front and top covers are closed securely. <i>Close all covers gently to avoid jarring the printer.</i> Make sure the waste toner pack is installed correctly.
	There is a media jam.	Check for a media jam.

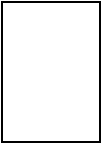






<b>Symptom</b>	<b>Cause</b>	<b>Solution</b>
Data was sent to the printer, but it doesn't print.	An error message is displayed in the message window.	Handle according to the message displayed.
	The transfer belt installation guide is not set correctly in the installation rail.	Remove the transfer belt. Place the front end of the intermediate transfer unit installation guide (2 locations) correctly in the installation rail. Next, lightly push in the unit. Carefully insert the transfer belt about 6 inches (152.4 mm). Let go with your right hand that was holding the top handle of the transfer belt, hold the front handle with both hands, and carefully push in.
Data indicator stays on.	Too many type-faces are being downloaded at the same time.	Make sure you have enough printer memory.
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) or a hard drive, which can be used for font storage, is available and easily installed.




<b>Symptom</b>	<b>Cause</b>	<b>Solution</b>
Printing takes too much time.	The printer is set to a slow printing mode (for example, for OHP, thick stock, or some other special kind of media).	It takes more time to print with special media. When using regular paper, make sure that the media type is set properly in the driver.
	The printer is set to power saving mode.	It takes a little time for printing to start in power saving mode. If you do not want to use this mode, disable it.
	The printer memory is insufficient.	Add more memory.
A blank startup page ejects or blank pages come out during a printing job.	One or more of the toner cartridges is defective, empty, or missing.	Check the toner cartridges. The image does not print if the cartridges are empty.
		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.
	The wrong media is being used.	Check that the media type set in the driver matches the media loaded in the printer.
Not all pages print.	The printer could have the wrong kind of cable, or your printer may not be configured for the correct cable and port.	Check your cable.
	The Cancel key was pressed.	Make sure no one pressed the Cancel key while your job was printing.
	The media tray is empty.	Check the message window to see if the tray you are using is out of media.


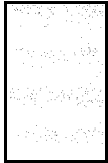

<b>Symptom</b>	<b>Cause</b>	<b>Solution</b>
You are experiencing problems duplexing.	Media or settings are not correct.	Make sure that you are using only plain paper. Do not duplex envelopes, glossy stock, labels, postcards, transfer media, or transparencies. Make sure that you have not mixed media types in your multipurpose tray.
		Make sure that your document has more than one page.
		Go into the printer's control panel and make sure that duplex is an available option.
		In the printer driver, choose Short Edge (flipped as on a clipboard) or Long Edge (flipped as in a loose-leaf notebook). Make sure that you are using correct media.
		Make sure that all of the covers are closed. Open and then close the covers to confirm that they are securely closed.
		If you turned the printer off, make sure that you have turned the printer on again and waited for it to warm up
Transfer belt cannot be removed.	The OPC drum unit is installed.	Remove the OPC drum unit first, then remove the transfer belt.
	The transfer belt left release lever is not set in the transfer belt removal position.	Turn the transfer belt left release lever clockwise to the 4 o'clock position, then remove the transfer belt.
The printer pauses.	The printer pauses for the Auto-Image Density Control (AIDC) cycle.	After 100 1-sided pages of a continuous print run, the magicolor 2210 automatically pauses to do an AIDC cycle. This process is provided to make sure reliable printer operation with optimum output quality.




# Solving Problems with Printing Quality

Symptom	Cause	Solution
Nothing is printed. 	One or more of the toner cartridges is damaged.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The driver is not set correctly.	Select the proper setting in the driver to switch from transparency (OHP) film to plain paper.
	The OPC drum cartridge is damaged.	Remove the OPC drum cartridge and check for damage. If necessary, replace the entire drum kit.
	The transfer roller unit is misinstalled.	Reset the transfer roller unit.
	The media is moist from humidity.	Adjust the humidity for paper storage. Remove the moist media and replace it with new, dry media.
	The media set in the driver mismatches the media loaded in the printer.	Load the correct media in the printer.
Image is too light; there is low image density. 	Image darkness sensor is dirty.	Open the front cover. Lift up the transfer belt release lever to the 12 o'clock position. Next, return the lever to the 3 o'clock position. Repeat this operation several times. (This cleans the surface of the image darkness sensor.)
	The media is moist from humidity.	Remove the moist media and replace with new, dry media.
	There is not much toner left in the cartridge.	Remove the toner cartridge and gently rock it horizontally five or six times to redistribute the toner.
		Replace the toner cartridge.
	One or more of the toner cartridges is defective.	Remove the toner cartridges and check for damage. If necessary, replace it.
	Media type may be set incorrectly.	Envelopes, glossy stock, labels, transfer media, and thick stock have to be set in the thick stock mode.
	The image transfer unit may be misinstalled or defective.	Reinstall the image transfer unit. If necessary, replace it.



Symptom	Cause	Solution
Image is too light; there is low image density (continued).	Image darkness (Auto-Image Density Control [AIDC]) sensor is dirty.	Open the front cover. Lift up the transfer belt release lever to the 12 o'clock position. Next, return the lever to the 3 o'clock position. Repeat this operation several times. (This cleans the surface of the image darkness sensor.)
<p>The print contains light or whited out areas.</p> 	Media may be moist.	Remove the moist media and replace it with new, dry media.
	Humidity may be too high.	Adjust the humidity in the paper storage area.
	The fuser unit may be defective.	Check the fuser unit for damage. If necessary, replace it.
	The OPC drum cartridge is damaged.	Remove the OPC drum cartridge and check for damage. If necessary, replace the entire drum kit.
	The transfer roller unit is misinstalled.	Reset the transfer roller unit.
<p>Horizontal white lines appear in image.</p> 	One or more of the toner cartridges is damaged.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC drum cartridge is damaged.	Remove the OPC drum cartridge and check for damage. If necessary, replace the entire drum kit.
	The transfer unit is misinstalled.	Make sure that the transfer unit was correctly installed.
	The transfer roller is damaged.	Replace the transfer roller.
<p>Printouts seem faded on one side.</p> 	The printer is not on a level enough surface.	Level the printer (not exceeding 1.5° slant at any point around the machine).

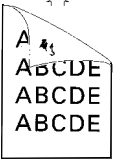
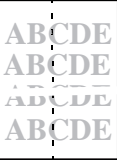
Symptom	Cause	Solution
Irregular print or mottled image appears.  	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
There is insufficient fusing or the image comes off when rubbed.  	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Media with specifications not covered by the printer warranty is being used.	Use media that is covered by the printer warranty.
	Your media type may be incorrectly set.	Envelopes, glossy stock, labels, transfer media, and thick stock have to be set in the Thick Stock mode.
The print or color density may be uneven.  	One or more of the toner cartridges may be near empty or damaged.	Remove the toner cartridges and gently rock them five or six times to redistribute the toner. Then, reinstall the cartridges.  Install new toner cartridges.
	The OPC drum may have misinstalled or defective.	Reinstall the OPC drum cartridge. If necessary, replace the entire drum kit.



Symptom	Cause	Solution
<p>Image is blurred; background is lightly stained; there is insufficient gloss of the printed image.</p> 	<p>One or more of the toner cartridges is defective.</p> <p>The OPC drum may be misinstalled or defective.</p>	<p>Check the toner cartridges. If necessary, replace them.</p> <p>Reinstall the OPC drum cartridge. If necessary, replace the entire drum kit.</p>
<p>Background is foggy.</p> 	<p>One or more of the toner cartridges is defective.</p> <p>The OPC drum cartridge is damaged.</p>	<p>Remove the toner cartridge and check for damage. If necessary, replace it.</p> <p>Remove the OPC drum cartridge and check for damage. If necessary, replace the entire drum kit.</p>
<p>Entire sheet is printed in black or color.</p> 	<p>One or more of the toner cartridges is defective.</p> <p>The OPC drum cartridge is damaged.</p>	<p>Remove the toner cartridge and check for damage. If necessary, replace it.</p> <p>Remove the OPC drum cartridge and check for damage. If necessary, replace the entire drum kit.</p>

Symptom	Cause	Solution
Part of image is missing. 	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	Media with specifications not covered by the printer warranty is being used.	Use media that is covered by the printer warranty.
	One or more of the toner cartridges is defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC drum cartridge is damaged.	Remove the OPC drum cartridge and check for damage. If necessary, replace the entire drum kit.
Image is too dark. 	One or more of the toner cartridges is defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC drum cartridge is damaged.	Remove the OPC drum cartridge and check for damage. If necessary, replace the entire drum kit.
Dark tones are uneven. 	The toner in one or more of the toner cartridges is uneven.	Remove the toner cartridges and gently rock them five or six times to redistribute the toner. Then, reinstall the cartridges.
	The OPC drum cartridge is damaged.	Remove the OPC drum cartridge and check for damage. If necessary, replace the entire drum kit.

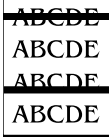
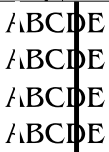




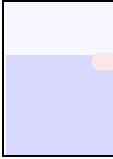

Symptom	Cause	Solution
<p data-bbox="165 121 281 264">There are toner smudges or residual images.</p> 	<p data-bbox="300 121 586 201">One or more of the toner cartridges is misinstalled or defective .</p>	<p data-bbox="605 121 997 169">If the toner smudges are on only the front of the page:</p> <ul style="list-style-type: none"> <li data-bbox="613 209 1025 320">■ Remove the toner cartridges and gently rock them five or six times to redistribute the toner. Then, reinstall the cartridges.</li> <li data-bbox="613 336 1025 448">■ One or more toner cartridges may be defective. Check the toner cartridges. Install new ones, if necessary.</li> </ul>
	<p data-bbox="300 660 586 708">The image transfer roller need cleaning.</p>	<p data-bbox="605 660 1009 708">If toner smudges are on the front <i>and</i> back of the page:</p> <ul style="list-style-type: none"> <li data-bbox="613 724 1025 772">■ Open the printer front cover once and close it again to clean the image transfer roller.</li> </ul>
<p data-bbox="165 759 281 807">There are dark spots on the image.</p> 	<p data-bbox="300 759 586 807">The fuser oil roller is dirty or worn.</p>	<p data-bbox="605 759 1009 807">Remove the fuser oil roller and check the roller surface. If it is very dirty, replace it.</p>
	<p data-bbox="300 979 586 1027">The transfer belt is defective.</p>	<p data-bbox="605 979 1025 1027">Remove the transfer belt and check for damage. If necessary, replace it.</p>

Symptom	Cause	Solution
<p>There are toner smudges on the back side of the page (whether or not it has been duplexed).</p> 	The paper transport rollers may be dirty.	<p>Clean the paper transport, pressure, and fuser oil rollers.</p> <p>Check the transport roller. If necessary, replace it.</p>
	The media path is dirty with toner.	Print several blank sheets and the excess toner should disappear.
	The fuser oil roller is dirty or worn.	Remove the fuser oil roller and check the roller surface for dirt or worn places. If necessary, replace the fuser oil roller.
	One or more of the toner cartridges is defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC drum cartridge is defective.	Remove the OPC drum cartridge and check for damage. If necessary, replace the entire drum kit.
	The fuser unit is defective.	Replace the fuser unit.
<p>Image defects in same place on every page.</p> 	The transfer belt is defective.	Remove the transfer belt and check for damage. If necessary, replace it.

Symptom	Cause	Solution	
Abnormal areas (white or black) appear in a regular pattern.	Width of abnormal area: 1.25" (31.75 mm) The toner cartridge is damaged.	Remove the toner cartridge with the color causing the abnormal image. Replace it with a new toner cartridge.	
	Width of abnormal area: 3" (76.2 mm) The transfer belt is damaged.	Replace the transfer belt.	
		Width of abnormal area: 3.25" (82.55 mm) The OPC drum cartridge is damaged.	Replace the entire drum kit.
		Width of abnormal area: 8" (203.2 mm) The transfer belt is damaged.	Replace the transfer belt.
Image defects cyclical (evenly spaced).	Lateral image defects have 1–2 mm spacing. The laser lens cover is dirty.	Clean the laser lens cover.	
		Lateral image defects have 35 mm spacing. The toner cartridge is damaged	Remove the toner cartridge with the color causing the abnormal image. Replace it with a new toner cartridge.
		Lateral image defects have 75 mm spacing. The image transfer roller is damaged.	Replace the image transfer roller.
	Lateral image defects have 95 mm spacing. The OPC drum cartridge is damaged.	Replace the entire OPC drum kit.	
	Lateral image defects have 204 mm spacing. The fusing unit is damaged	Replace the fusing unit.	
	Lateral image defects have other spacing. The OPC drum cartridge is damaged	Replace the entire OPC drum kit.	

Symptom	Cause	Solution
Abnormal areas (white or black belt or spots) appear.	One or more of the toner cartridges is defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The OPC drum cartridge may be defective or scratched.	Remove the OPC drum cartridge and check the photosensitive surface (the green surface) for scratches. If necessary, replace the entire drum kit.
	The fuser oil roller is dirty or worn.	Remove the fuser oil roller and check the roller surface for dirt or scratches. If necessary, replace the fuser oil roller.
	The fuser belt may be dirty.	Clean the fuser belt.
	The fusing unit may be defective.	Replace the fusing unit.
Lateral lines or bands appear on image.	The printer is not on a level enough surface.	Level the printer (not exceeding 1.5° slant).
	The media path is dirty with toner.	Print several sheets and the excess toner should disappear.
	One or more of the toner cartridges is defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The fuser oil roller is dirty or worn.	Remove the fuser oil roller and check the roller surface for dirt or worn places. If necessary, replace the fuser oil roller.
	The OPC drum surface is scratched or damaged.	Remove the OPC drum cartridge and check the green photosensitive surface for scratches. If necessary, replace the entire drum kit.
	The transfer belt is mis-installed or defective.	Remove the transfer belt and reinstall it. If necessary, replace it.

Symptom	Cause	Solution
Lateral lines appear cyclically (evenly spaced) on image.  	Lateral lines have 1–2 mm spacing.	Replace the laser lens cover.
	Lateral lines have 35 mm spacing.	Replace the color toner cartridge.
	Lateral lines have 75 mm spacing.	Replace the image transfer roller.
	Lateral lines have 95 mm spacing.	Replace the entire OPC drum kit.
	Lateral lines have 204 mm spacing.	Replace the fusing unit
	Trailing edge 35 mm, other spacing	Replace the entire OPC drum kit.
Vertical streaking appears.  	The laser lens cover may be dirty.	Check to see if the laser lens cover is dirty. If necessary, clean it with a clean soft cloth.
	One or more toner cartridges may be defective.	The item may be defective or misinstalled. Remove the designate item, check it for damage and reinstall it. If necessary, replace the entire drum kit.
	The OPC drum may be defective or misinstalled.	
	The fuser unit may be defective or misinstalled.	
	The transfer unit may be defective or misinstalled.	
	If a wide vertical white band appears, check the transfer belt surface.	Clean the transfer belt surface. If necessary, replace it.
Make sure that the transfer unit is closed.		
The image is offset.  	The OPC drum cartridge is defective.	Check the OPC drum cartridge. If necessary, replace the entire drum kit.
	The fuser oil roller is defective.	Check the fuser oil roller. If necessary, replace it.
	The fuser unit is defective.	Check the fuser unit. If necessary, replace it.

Symptom	Cause	Solution
Colors look drastically wrong.	One or more of the toner cartridges are incorrectly installed.	Remove the toner cartridges and reinstall them.
<p>Colors are not registering properly; colors are mixed or have page-to-page variation.</p>  	The front cover may not be properly closed.	Make sure that the printer's front cover is closed.
	The OPC drum cartridge is not correctly seated.	Remove the OPC drum cartridge and reinstall it.
	The toner in the cartridges may need to be redistributed.	Remove the toner cartridges and gently rock them five or six times to redistribute the toner. Then, reinstall the cartridges.
	One or more of the toner cartridges is defective.	Remove the toner cartridge and check for damage. If necessary, replace it.
	The media is moist from humidity.	Remove the moist media and replace it with new, dry media.
	The transfer roller is misinstalled.	Confirm the proper installation of the transfer roller.
	Agfa Screening is not enabled.	Make sure you have Agfa Screening enabled either in the control panel or in the driver (Administration/Emulations/PostScript/Halftone Type).
<p>The color has a poor reproduction or has poor color density.</p> 	The paper image transfer is defective.	Check the OPC drum cartridge. If necessary, replace the entire drum kit.
	The Auto-Image Density Control (AIDC) detection sensor is dirty.	Open the front cover. Lift up the transfer belt release lever to the 12 o'clock position. Next, return the lever to the 3 o'clock position. Repeat this operation several times. (This cleans the surface of the AIDC detection [image darkness] sensor.)

# Status, Error, and Service Messages

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

## Status and Error Messages



*Status messages are not displayed while the printer is off line.*

<b>This message...</b>	<b>means...</b>	<b>Do this...</b>
<X> ACTIVE JOBS	The printer is on line and actively processing jobs. (<X> identifies the number of jobs in process.)	No action needed.
<X> COVER OPEN	The <X> (specified cover) is open and must be closed.	Close the cover.
<X> LIFE LOW	The <X> (specified item) is near end of life, such as the fuser oil roller. If you have a new fuser oil roller 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.	Replace the specified item.
<x> MISSING	The <X> (specified item) is missing, such as the OPC drum or toner.	Install a new item.
<X> TONER EMPTY	The <X> (color) toner cartridge is empty.	Replace the toner cartridge.

<b>This message...</b>	<b>means...</b>	<b>Do this...</b>
<X> TONER LOW	The <X> (color) toner cartridge is low. There is still enough for approximately 100 letter/A4 pages (at 5% coverage) before the printer stops.	Redistribute the toner in the cartridge, or replace the cartridge.
ACC ALREADY DISABLED	The accounting option selected is now in effect.	No action needed.
ACC ALREADY ENABLED		
ACC DISABLED		
ACC ENABLED		
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.	If you want accounting enabled, copy the job accounting and paper accounting files to floppy disk(s), or transfer them to your host computer using ftp (if available). Then reset the accounting files so that new jobs can be accepted. If you don't want to use accounting, you can disable it.
ACC 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.



<b>This message...</b>	<b>means...</b>	<b>Do this...</b>
ACC FILES NOT EMPTY SHRUNK TO %D	An attempt to reduce the size of the accounting files has been made unsuccessfully because the size of files is bigger than the space required.	Reset the accounting files.
ACC_GETSTATUS REC;CODE-%D, RESETTING ACC TO INITIAL STATE	The accounting files have been reset.	No action needed.
ADJUST <INPUT> BIN	The<INPUT> (specified tray) is not inserted correctly.	Adjust the tray.
CALIBRATING PRINT QUALITY	After 100 1-sided pages of a continuous print run, the magicolor 2210 automatically pauses to do an Auto-Image Density Control (AIDC) cycle. This process is provided to make sure reliable printer operation with optimum output quality.	Wait. No action needed.
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 the print job in the print queue is being canceled.	Press Select and the job in the print queue will be canceled.
CHECK WASTE TONER	Either the waste toner is full and needs to be replaced, or it is incorrectly installed.	Make sure that the waste toner is not full and is correctly installed.

<b>This message...</b>	<b>means...</b>	<b>Do this...</b>
CREATED FILE	The accounting file has been created.	No action needed.
CREATING XXXXXXXXXXXXX FILE, 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 (XXXXXXXXXXXXX represents the Job Accounting or Paper Accounting file).	Wait. No other action needed.
DSK TOO SMALL ACC NOT ENABLED	There is not enough space in the hard disk to create the accounting file.	Remove unnecessary files stored in the hard disk.
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.
ENERGY SAVER	The printer is in energy saver mode to reduce power consumption during periods of inactivity. When a print job is received, the printer returns to normal power within 90 seconds. While in "deep sleep," the printer's message window will not display operator status such as door- and tray-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.	No action needed.
EXTENDED ACC FILE SIZE BY <X> KB	The <X> (size of the non-empty accounting file) has been increased successfully.	No action needed.

<b>This message...</b>	<b>means...</b>	<b>Do this...</b>
FUSER OIL EMPTY	The fuser oil roller for the fuser is depleted. The printer will not print any more copies until a new fuser oil roller is installed.	Install a new fuser oil roller.
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.
INPUT BIN JAM	Input bin jams occur in the input bin.	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.
MAILBIN POWER OFF	The mailbox unit power is off.	Turn off the printer, turn on the mailbox unit, then the turn on the printer.

<b>This message...</b>	<b>means...</b>	<b>Do this...</b>
MAIN UNIT COVER OPEN	The front, top, or duplex covers are open and must be closed.	Close the specified cover(s).
MEDIA JAM DUPLEX	Media has jammed in the duplex area or duplex refeed area on the models with duplex units installed.	Locate and remove the jam.
MEDIA JAM EXIT	Media has jammed between the print engine and the output tray.  A media jam has been detected between the fuser and output tray rollers located near the top cover.  Exit jams occur in the media eject area.	
MEDIA JAM FUSER	Media has jammed leaving the fuser area.	
MEDIA JAM MAIL BIN	Mail bin jams occur if the media is jammed in the 5-bin mailbox on the models with the 5-bin mailbox installed, between the printer and the 5-bin mailbox, in the mailbox eject area, or in the mailbox transport area.	
MEDIA JAM MPT	Media has jammed while being pulled from the specified multi-purpose tray.	

<b>This message...</b>	<b>means...</b>	<b>Do this...</b>
MEDIA JAM OPTIONAL TRAY	Tray jams occur between the standard upper or optional tray and the print engine. 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.	Locate and remove the jam.
	The lower feeder unit (optional) door is open.	Close the door.
MEDIA JAM TRANSFER	Transfer jams occur in the transfer roller area. This type of jam means that the media did not make it to the paper exit area.	Locate and remove the jam.
MEDIA JAM UPPER TRAY	Media has jammed while being pulled from the specified tray.	
MEDIA SIZE MISMATCH	The media detected in the tray doesn't match the media size setting.	Change the media in the tray or change the media size setting.
NEW FILE SIZE IN EFFECT	The size of the accounting files has been increased or decreased.	Press Select to accept changes.
NO PRNTREQ ERROR	A printer hardware error has occurred.	Reboot printer. If message continues to appear, contact your service provider or Support. See the <i>Service &amp; Support Guide</i> for support telephone numbers.
ONLINE	The printer is online and ready to print.	No action needed.

<b>This message...</b>	<b>means...</b>	<b>Do this...</b>
OUTPUT BIN FULL	The media has exceeded the limit in the specified output bin.	Remove the media from the specified output bin.
PAPER MISMATCH	The media detected in the tray doesn't match the media size setting.	Change the media in the tray or change the media size setting.
PRINTING STATUS	A status page is printing	Wait until after the status page prints, and the message clears.
PUT <X> IN INPUT <Y>	The <X> specified media is not in the input tray <Y>.	Refill the tray with the specified type media.
PUT <SIZE> PAPER IN <BIN>	The Operator Control/Chain Inputbins is set to Off and the displayed tray is empty. Refill it with the specified size media. <SIZE> is the media size detected by the engine, and <BIN> is the empty tray.	Refill the tray with the specified size media.
PUT <TYPE MEDIA> IN INPUT BIN	Operator Control/Chain Inputbins is set to On and a chained tray is empty.	Refill the tray with the specified type media.
REPLACE <X>	The specified item <X> needs to be replaced, such as the OPC drum.	Replace the specified item.
RESETTING ACCOUNTING	The reset accounting operation is in process.	No action needed.
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.

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

## Service Messages

<b>This service message...</b>	<b>Means...</b>
SERVICE CALL 04 MAIN UNIT	<p>An error has been detected with the item indicated in the service message. Correction of these errors is performed by a MINOLTA-QMS authorized service provider only. Contact your local vendor.</p> <p><i>A service message sometimes occurs as a result of an unusual combination of events, not because of an actual problem. When the printer stops and a service message displays in the message window, turn the printer off and then back on. This often clears the service message indicator, and printer operation resumes. Always try this before making a service call.</i></p> <p>Service calls should be placed to the vendor from whom you purchased the printer. If you cannot get service from your vendor, see the <i>Service &amp; Support Guide</i> for additional contact information.</p>



<b>This service message...</b>	<b>Means...</b>
SERVICE CALL 05 FLASH ROM	<p>An error has been detected with the item indicated in the service message. Correction of these errors is performed by a MINOLTA-QMS authorized service provider only. Contact your local vendor.</p> <p><i>A service message sometimes occurs as a result of an unusual combination of events, not because of an actual problem. When the printer stops and a service message displays in the message window, turn the printer off and then back on. This often clears the service message indicator, and printer operation resumes. Always try this before making a service call.</i></p> <p>Service calls should be placed to the vendor from whom you purchased the printer. If you cannot get service from your vendor, see the <i>Service &amp; Support Guide</i> for additional contact information.</p>
SERVICE CALL 08 MAIN MOTOR	
SERVICE CALL 09 FUSING MOTOR	
SERVICE CALL 0B XFER FAN BELT	
SERVICE CALL 0C PWR SUPPLY FAN	
SERVICE CALL 0D ENGINE FAN	
SERVICE CALL 0E SUCTION FAN	
SERVICE CALL 0F FUSING UNIT FAN	
SERVICE CALL 10 POLYGON MOTOR	
SERVICE CALL 12 LASER ERROR	
SERVICE CALL 14 XFER ROLLER	
SERVICE CALL 15 XFER BELT CLN	
SERVICE CALL 16 XFER BELT ROT	
SERVICE CALL 17 TONER RACK	
SERVICE CALL 1A FUS UPP HIGHTMP	
SERVICE CALL 1B FUS UPP THERM	

<b>This service message...</b>	<b>Means...</b>
SERVICE CALL 1C FUS LOW WARMUP	An error has been detected with the item indicated in the service message. Correction of these errors is performed by a MINOLTA-QMS authorized service provider only. Contact your local vendor.
SERVICE CALL 1D FUS LOW LOWTMP	
SERVICE CALL 1E FUS LOW HIGTMP	
SERVICE CALL 18 FUS UPP WARMUP	<i>A service message sometimes occurs as a result of an unusual combination of events, not because of an actual problem. When the printer stops and a service message displays in the message window, turn the printer off and then back on. This often clears the service message indicator, and printer operation resumes. Always try this before making a service call.</i>
SERVICE CALL 19 FUS UPP LOWTMP	
SERVICE CALL 1F FUS LOW THERM	
SERVICE CALL 20 FUS RETRACT	Service calls should be placed to the vendor from whom you purchased the printer. If you cannot get service from your vendor, see the <i>Service &amp; Support Guide</i> for additional contact information.
SERVICE CALL 21 TRANS DET SENS	
SERVICE CALL 22 MAN TRAY LIFT	
SERVICE CALL 29 MEM MALF COUNTER	
SERVICE CALL 2A MEM MALF DATA	
SERVICE CALL 2B MEM MALF ACCESS	
SERVICE CALL 2C MEM MALF INSTALL	
SERVICE CALL 30 5BIN MAIL	
SERVICE CALL 31 5BIN INST MAIL	

## HP-GL, HPXL, and PCL Error Codes

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

HPXL	
Error Code	Description
0	Not enough memory for job.
1	Math error.
2–7	Internal error 1–6

## PostScript Errors

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

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

## Additional Assistance

If you've followed all of the instructions in this guide and still have problems you can't solve, refer to the *Service & Support Guide* or visit our web site at [www.minolta-qms.com](http://www.minolta-qms.com) for current information on getting help.

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***Installing Other  
Accessories***

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**5**

# Introduction

This chapter provides information about the following accessories. Contact your local vendor for purchase information.

<b>5-bin Mailbox</b>	Three models: For 100-, 120-, or 220-volt printers
<b>Automatic Document Feeder (ADF) for SC-210/110</b>	ADF for convenience copier
<b>BuzzBox</b>	Via parallel connection for 100, 120, and 220 volts
<b>Dual In-Line Memory Modules (DIMMs)</b>	32, 64, or 128 MB, PC-100 Compliant SDRAM DIMMs, up to a printer maximum of 384 MB
<b>Duplex Unit</b>	Automatic duplexing
<b>Emulations, Fonts, Utilities, and Other Software</b>	<ul style="list-style-type: none"><li>■ ImageServer<ul style="list-style-type: none"><li>■ TIFF</li><li>■ CALS</li></ul></li><li>■ LNO3</li><li>■ CGM</li><li>■ Kanji Font Internal IDE Hard Disk</li><li>■ QFORM</li><li>■ PlanetPress (forms-creation utility)</li><li>■ Fonts</li></ul>
<b>Interfaces and Daughterboards</b>	<ul style="list-style-type: none"><li>■ Crown for DECnet-TCP/IP (equipped with 10BaseT)</li><li>■ CrownNet for Ethernet 10BaseT/100BaseTX (equipped with RJ45 connector)</li><li>■ CrownNet for Token-Ring (equipped with STP and UTP connectors)</li><li>■ SCSI Interface</li></ul>
<b>Internal IDE Hard Disk Drive</b>	Used for storage of fonts, forms, and overlays; virtual memory; and job spooling
<b>Lower Feeder Unit (LFU)</b>	Media tray included
<b>Media Tray, 500 Sheet</b>	Purchasing extra trays may be convenient when changing media formats and/or media qualities vary.
<b>Printer Stand and/or Cabinet</b>	Various models available

<b>SC-210</b>	Convenience copier with optional automatic documnet feeder
<b>Time-of-Day Clock</b>	Time stamps jobs in accounting files, and header and trailer pages

## Accessories

### Attention

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

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## Antistatic Protection

### Attention

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

If an antistatic wrist strap is provided in your printer option kit, attach one end of it to your wrist and the other end to any convenient electrical ground (for example, the bare metal chassis of equipment, as on the back of a computer, that is plugged in but turned off). Never attach the wrist strap to any piece of equipment with an electrical current present. Turn off all power switches first. Plastic, rubber, wood, painted metal surfaces, and telephones are not acceptable grounding points. The printer isn't an acceptable grounding point either because it must be unplugged before you perform this task. If you don't have an antistatic wrist strap, discharge your body's static electric charge by touching a grounded surface before you handle any printer boards or components and before removing the controller board. Also avoid walking around after grounding yourself.

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## BuzzBox

BuzzBox is a printer accessory that warns you with a buzzer and/or a blinking light any time the printer goes off line. This means you're alerted to print job interruptions, such as empty media trays or other consumable issues.

## What's in the Kit?

The BuzzBox kit contains the following items:

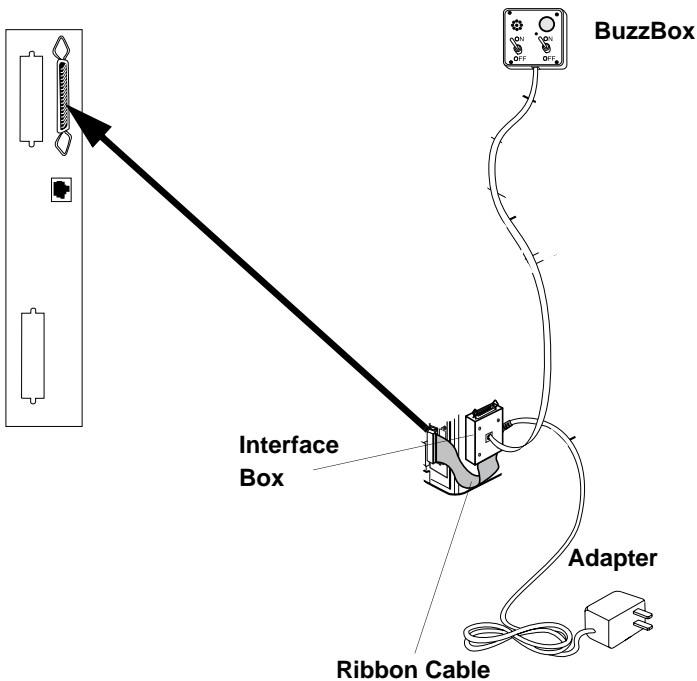
- BuzzBox
- Interface box
- RJ-11 cable
- Power adapter
- Adhesive-backed clips

## Installing BuzzBox

- 1 If you have a cable attached to the printer's parallel port, unplug it from the printer.
- 2 Attach one end of the parallel cable on the interface box to the printer's parallel port.



*The BuzzBox's ribbon cable is designed to be directly attached to the printer's parallel port, not to an adapter or an additional cable.*



- 3 Use the included RJ-11 cable to connect BuzzBox to the interface box.



- 4 Choose a good location on the printer to mount the interface box. Make sure that the unit does not
  - interfere with paper exiting the printer.
  - cover any vents, doors, connectors, or labels.
  - cause the BuzzBox ribbon cable to stretch or twist.
- 5 Use the adhesive-backed clips provided to mount the BuzzBox where the printer operator can see and/or hear it.

*A 14-foot (4.2 m) cable is provided, but you can use up to a 500-foot cable (RJ-11 4-pin or 6-pin).*
- 6 Connect the interface box to an electrical outlet.

*A 110/220-volt adaptor is provided in the US, and a universal power supply is provided outside the US.*
- 7 If you unplugged a parallel cable from the printer in step 1, attach the cable to the parallel port on the interface box.
- 8 To test the BuzzBox, make sure its switches are on, then press the printer's Online key to take the printer off line.



*You can use the BuzzBox switches to enable or disable the buzzer, the light, or both.*

*When the printer goes off line, the light flashes and the buzzer sounds until the printer is placed back on line or until the light and buzzer switches are turned off.*

## Using BuzzBox

- When the BuzzBox lights or buzzes, check the printer message window to find out what has interrupted printing. See "Status, Error, and Service Messages" on page 85 for a list of printer messages and how to respond to them.

Remember that pressing the Online key to enter the printer configuration menu triggers the BuzzBox alarm.

## Dual In-Line Memory Modules

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

Your magicolor 2210 printer comes with 128 MB SDRAM of printer memory.

However, you can upgrade to a maximum of 384 MB of RAM through the installation of additional DIMMs. Additional memory must be 32, 64, or 128 MB, PC-100 Compliant SDRAM DIMMs.

Additional memory allows you to download more fonts and increase the printer's buffer (area where data sent from the computer is stored while waiting to be printed).



*You will also need additional memory to duplex print at 1200 x 1200 dpi on letter and legal media sizes.*

## How Much Memory Do You Need?

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

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 duplex image at 1200x1200 dpi resolution on legal media, but the printer has only 128 MB of RAM instead of the required 256 MB minimum, the file prints at 600x600 dpi.

The magicolor 2210 will print all print jobs at the highest resolution that the installed memory will support.

## Minimum System Memory Requirements (in MB)

Media Size	600x600				1200x1200			
	Mono	Mono Duplex	4-Color	4-Color Duplex	Mono	Mono Duplex	4-Color	4-Color Duplex
<b>Letter, A4</b>								
Basic*	128	128	128	128	128	128	128	192
Maximum Performance*	128	128	128	128	128	128	192	256
<b>Legal</b>								
Basic*	128	128	128	128	128	128	128	256
Maximum Performance*	128	128	128	128	128	128	256	384

\* **“Basic”** memory requirement is the minimum memory required to print at the indicated resolution.

**“Maximum Performance”** memory requirement is the minimum memory required to achieve the maximum performance possible for any given job. The page rate, with maximum listed memory, will be determined solely by the complexity of the job.

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

*The magicolor 2210 has 3 DIMM slots available. The maximum memory that can be installed is 384 MB (3 x 128 MB DIMMs).*

Standard Memory	Supports up to...
128 MB SDRAM DIMM	4-color 1200x1200 dpi simplex printing, at basic performance, on all paper sizes up to and including 8.5" x 14" (215 mm x 356 mm)

- Check the startup page to make sure the printer has enough RAM installed.
- 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. (See the *CrownBook* for instructions.)

*To allocate the default amount of memory to the memory clients, use the Administration/Memory/Quick Config menu to choose the correct resolution and paper size for your printing.*

If you experience a problem with your magicolor 2210, first go through the installation procedure in this guide once more. Verify each item thoroughly. You may also refer to the *User's Guide* for troubleshooting tips. If you still experience a problem, contact your local vendor or contact Customer Service.

## Installation

### Attention

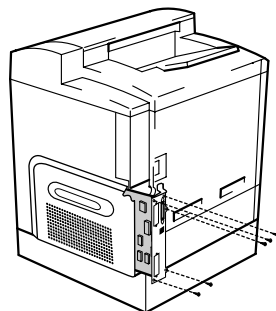
**It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 105. In addition, always handle circuit boards by the edges only.**

- 1 If you are not to the point when you are able to print an advanced status page yet, skip to step 2.

*If you have previously installed your printer and have confirmed that it is printing, print an advanced status page in case you need to restore any memory settings after the DIMM installation.*

*Installing DIMMs automatically restores memory defaults. If your memory settings are specific to your environment, print an advanced status page before installing DIMMs, so you can recover the current memory settings.*

- 2 Ensure that the printer is turned off and the power cord and all interface cables are disconnected.
- 3 Remove the printer's controller board.

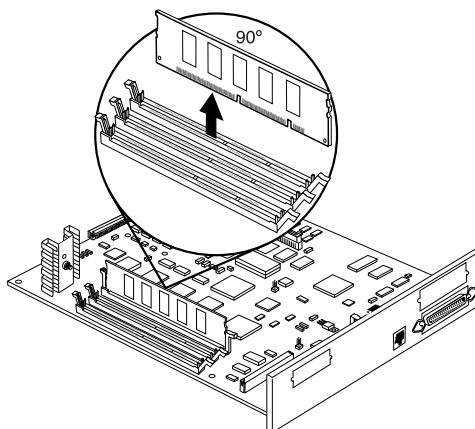


*Loosen five screws and, using the tab on the lower side of the connector panel, pull the controller board from the printer.*

- 4 Position the controller board on a flat surface so the controller board lies flat and the I/O connector panel is facing you.
- 5 If you need to remove a DIMM before installing one, remove it as follows; otherwise skip to step 6.

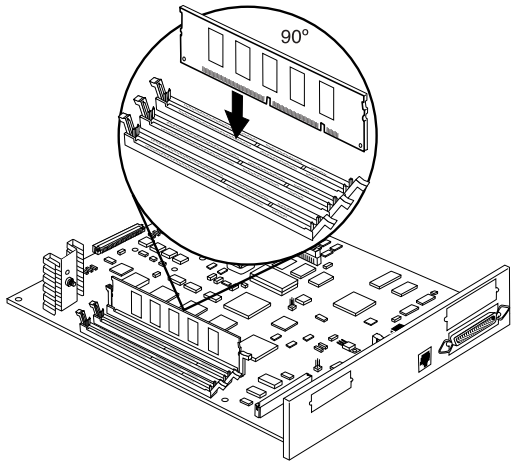


*If all the DIMM connectors are filled and you want to install more memory, you have to exchange one or more DIMMs for DIMMs with a greater memory capacity.*



- a Using both thumbs, pull the latches (one on each side of the DIMM connector) outward.
  - b Lift the DIMM straight out of the DIMM connector.
- 3 Insert the new DIMM straight down into the DIMM connector until the latches snap into the locked position.

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



- 4 Repeat steps 5–6 for each additional DIMM that you install.

- 5 Reinstall the controller board into the printer.

*Gently slide the controller board into the printer until it is fully seated, and then tighten the five screws.*

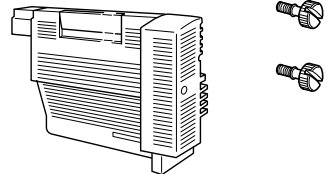
*When you print a startup page, verify that the total size of the RAM installed in your printer is listed.*

## Installing a Duplex Unit

Read this section if you purchased a duplex unit for your magicolor 2210.

### Kit Contents

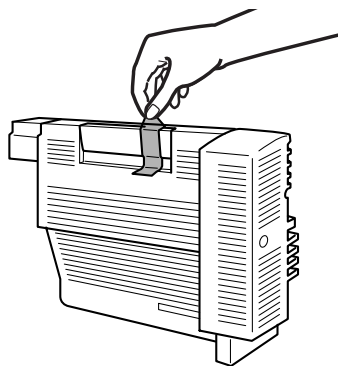
- Duplex unit
- 2 thumbscrews



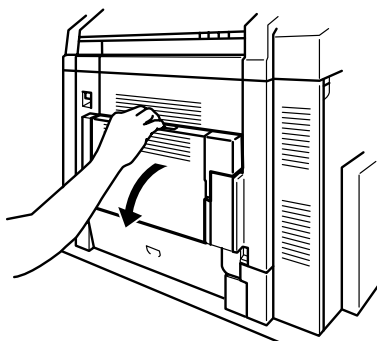
### Installation

- 1 Remove the duplex unit from its shipping box.

- 2 Remove the tape from the unit.



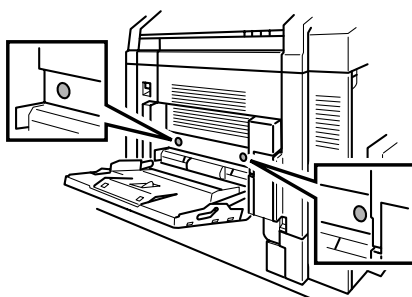
- 3 Open the multipurpose tray.



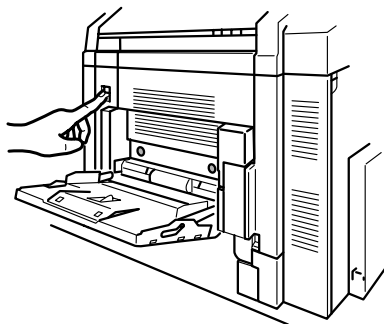
- 4 Remove the two thumbscrews from the right side cover.



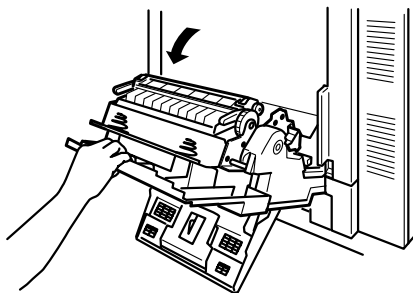
*Retain these screws in case you need to remove the duplex unit in the future.*



- 5 Press the right-side cover release button.

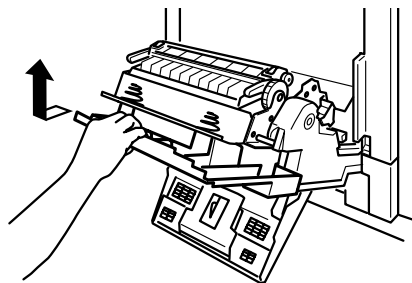


- 6 Open the right-side cover.



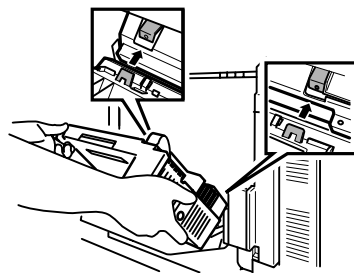
- 7 Pull the right-side cover toward you, lift it, and unhook it from its frame.

- 8 With the multipurpose tray still open, close the right-side cover.

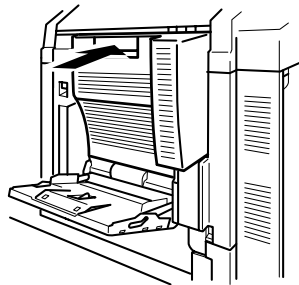


- 9 Insert the bottom of the duplex unit at a shallow angle into the right-side cover.

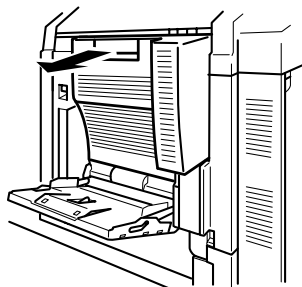
*To do this, place the two tabs at the bottom into the holes on the right-side cover.*



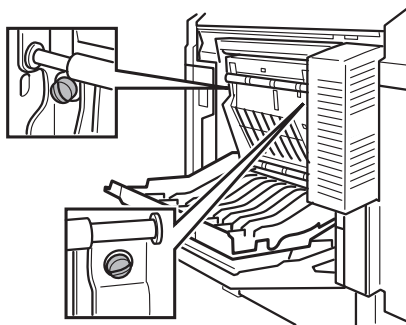
10 Press the top of the duplex unit in.



11 Open the duplex unit paper path cover.

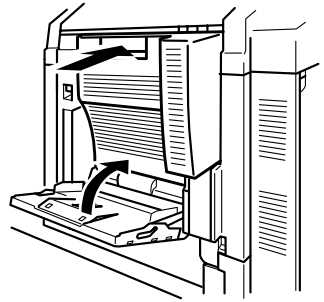


12 Secure the duplex unit tightly with the two thumbscrews supplied in the kit.

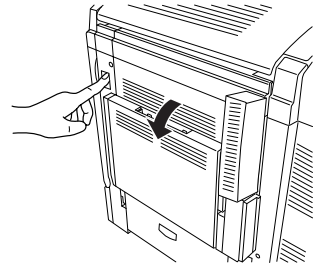




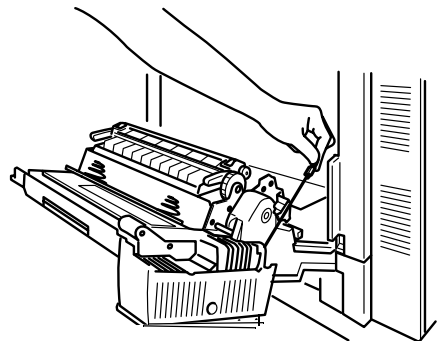
- 13** Close the duplex paper path cover and multipurpose tray.



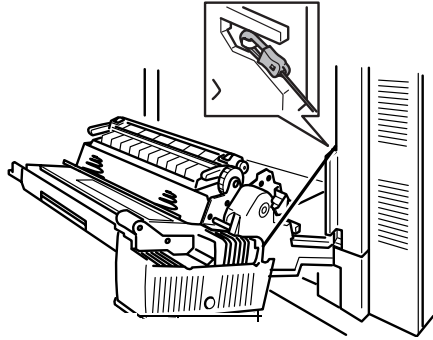
- 14** Open the right-side cover.



- 15** Extend the spring wire for the duplex unit about 1 foot (30.5 cm).



- 16 Attach the end of the spring wire to the hook on the printer unit.
- 17 Close the right-side cover.



## Emulations, Fonts, and Other Software

### Emulations

Optional emulations, such as ImageServer, LN03, and CGM are available as PostScript files. This section describes how to download an emulation to the printer's hard disk.



*You must have at least one hard disk, internal or external, attached to the printer in order to use an optional emulation. If more than one hard disk is available, the emulation automatically installs itself on the disk with the most free storage space. MINOLTA-QMS recommends that you have at least 4 MB of memory above the base configuration and that you add at least 1 MB memory to each emulation installed. This ensures that the printer can run the emulation without slowing down performance.*

### Downloading an Emulation via a Parallel Interface

- 1 Turn on the printer, and wait for IDLE to display in the message window.
- 2 Insert the emulation CD-ROM or disk in your PC, and change to that drive (for example, if you're using the D drive, type `d:↵`).
- 3 Send the emulation to the printer's hard disk. Type

```
copy filename lpt#↵
```

*where filename is the name of the installation file and where # is 1 to 3.*

- 4 When downloading is complete, reboot the printer.

*The emulation should be listed in the Options section of the printer's startup page, in the Administration/Emulation printer's configuration menu, and on the advanced status page.*

## Downloading an Emulation via an Ethernet Interface



Before you begin this procedure, your printer and PC (or UNIX workstation) must be connected to an Ethernet network running TCP/IP and have valid IP addresses.

- 1 Turn on the printer, and wait for `IDLE` to display in the message window.
- 2 If your PC is running Windows, change to DOS.
- 3 Insert the emulation CD-ROM or disk in your PC, and change to that drive (for example, if you're using the D drive, type `d: ↵`).  
*If you want to download the emulation from a UNIX workstation, copy the installation file from the emulation CD-ROM or disk to a temporary directory on your UNIX workstation, then change to that directory.*
- 4 Open an ftp session at your PC or workstation by typing one of the following commands:  

```
ftp printername↵ (for example, ftp pctdev6↵)  
ftp ipaddress↵ (for example, ftp 161.33.130.45↵)
```
- 5 When prompted for a user name and password, press Enter for both.  
*An ftp> prompt displays.*
- 6 At the ftp> prompt, change to binary mode by typing  

```
bin↵
```
- 7 At the ftp> prompt, send the emulation file to the printer's hard disk by typing  

```
put filename↵
```

  
*where filename is the name of the installation file.*  
*The printer's message window reads 1 ACTIVE JOB to indicate that the emulation is being downloaded to the hard disk. The ftp> prompt returns when the emulation has finished loading.*
- 8 At the ftp> prompt, end the ftp session by typing  

```
quit↵
```
- 9 When the Disk light stops flashing and the printer's message window reads `IDLE` for at least 30 seconds, turn the printer off and then on again.
- 10 When downloading is complete, reboot the printer.  
*The emulation should be listed in the Options section of the printer's startup page, in the Administration/Emulation printer's configuration menu, and on the advanced status page.*



You may want to erase any installation files left on your computer (and/or workstation), and then remove any temporary directories.

## Using an Optional Emulation

Refer to the documentation that came with your emulation for configuration and usage instructions.

## Fonts

Optional fonts are available as files on floppy disks or CD-ROMs. This section describes how to download optional fonts from a floppy disk or CD-ROM to the printer's hard disk.



*At least one hard disk (internal or external) must be present on your printer before you can download a font. If more than one hard disk is available, the font automatically installs itself on the disk with the most free storage space.*

### Downloading Disk Fonts via a Parallel Interface

- 1 Turn on the printer, and wait for `IDLE` to display in the message window.
- 2 Insert the font disk or CD-ROM in your PC, and change to that drive (for example, if you're using the A drive, type `a :↵`).
- 3 Send the fonts to the printer's hard disk. Type

```
copy filenamelp+1↵
```

*where filename is the name of the installation file*

- 4 When the downloading is complete, reboot the printer.

### Downloading Fonts via an Ethernet Interface



*Before you begin this procedure, your printer and PC (or UNIX workstation) must be connected to an Ethernet network running TCP/IP and have valid IP addresses.*

- 1 If your PC is running Windows, change to DOS.
- 2 Insert the fonts disk or CD-ROM in your PC, and change to that drive (for example, if you're using the A drive, type `a :↵`).
- 3 If you want to download the fonts from a UNIX workstation, copy the installation file from the fonts disk to a temporary directory on your UNIX workstation.
- 4 Turn on the printer, and wait for `IDLE` to appear in the message window.

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

```
ftp printername␣
```

 (for example, ftp pctdev6␣)  

```
ftp ipaddress␣
```

 (for example, ftp 161.33.130.45␣)
- 6 When prompted for a user name and password, press Enter for both.  
*An ftp> prompt displays.*
- 7 At the ftp> prompt, change to binary mode by typing  

```
bin␣
```
- 8 At the ftp> prompt, send the fonts file to the printer's hard disk by typing  

```
put filename␣
```

  
*where filename is the name of the installation file.*  
*The printer's message window reads 1 Active Job to indicate that the fonts are being downloaded to the hard disk. The ftp> prompt returns when the fonts have finished loading.*
- 9 At the ftp> prompt, end the ftp session by typing  

```
quit␣
```
- 10 When the Disk light stops flashing and the printer's message window reads IDLE for at least 30 seconds, turn the printer off and then on again.
- 11 When the printer's message window reads IDLE again, the fonts are ready to use.  
*The fonts should be listed in the Fonts section of the printer's Advanced Status page.*



*You may want to erase any installation files left on your computer (and/or workstation), and then remove any temporary directories.*

## Kanji Font Internal IDE Hard Disk

The preformatted Kanji font internal IDE hard disk contains Kanji fonts and other files. These fonts can be printed at a variety of point sizes and in different styles and resolutions.

After the Kanji hard disk is installed in your magicolor 2210, the Kanji fonts are available for use just as if they were resident in the printer.

## What's in the Kit?

- Internal hard disk preformatted with the following Kanji fonts:
  - FutoGoB101-Bold
  - FutoMinA101-Bold
  - GothicBBB-Medium
  - Jun101-Light
  - MidashiGo-MB31
  - MidashiMin-MA 31
  - Ryumin-Light-KL
- IDE hard disk with ribbon cable attached
- IDE hard disk bracket
- 4 screws

## Hardware Requirements

- A Macintosh, IBM PC, or compatible computer

## Software Requirements

- An application (such as a word processing or desktop publishing package) that supports the PostScript printing. If you're using a Macintosh, the following Macintosh system software:
  - KanjiTalk, version J1-6.0.7 or later
  - System File, version J1-6.0.7 or later
  - Laser Prep, version J1-6.0.1 or later
  - LaserWriter, version J1-6.0.2 or later
  - Print Monitor, version J1-1.3 or later
  - MultiFinder, version J1-6.1.7 or later
  - Macintosh OS 8.xJ
- If you're using a PC, the following system software:
  - If you're using Windows, version 3.1J or later
  - If you're using DOS, version 5.0J or later

## Installing a Kanji Font Internal IDE Hard Disk

### Attention

The Kanji fonts are factory installed on a formatted hard disk drive. **DO NOT reformat or initialize the Kanji internal hard disk. Reformatting erases all data, fonts, and files on the disk. Your warranty does not cover this error.**

The Kanji font internal IDE hard disk is installed on the controller board in the same way any internal hard disk is installed. See “Internal IDE Hard Disk Drive” on page 127 for detailed steps on installing an internal hard disk.

### Attention

**If you already have an internal hard disk installed, you must remove it before you can install the Kanji disk.**

## Configuring the Printer for Kanji

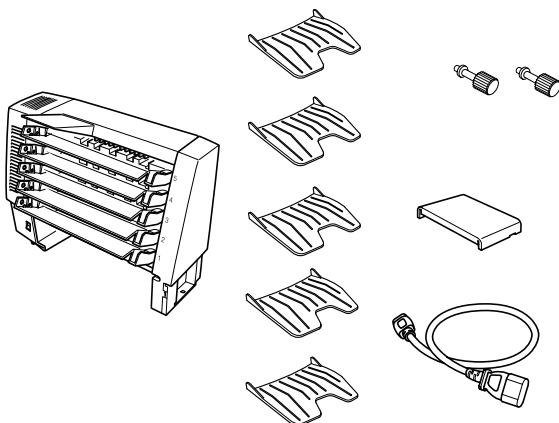
See “Storage Devices” in the *CrownBook* for information on how to configure your printer’s memory when using an internal hard disk.

## 5-bin Mailbox

Read this section if you purchased a 5-bin mailbox for your magicolor 2210.

### Kit Contents

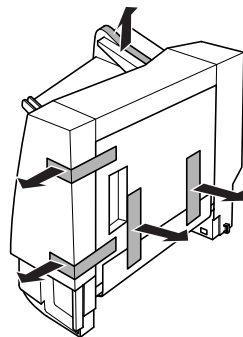
- Mailbox unit
- 5 bins
- 2 thumbscrews
- Accessory screen cover
- Power cord



### Installation

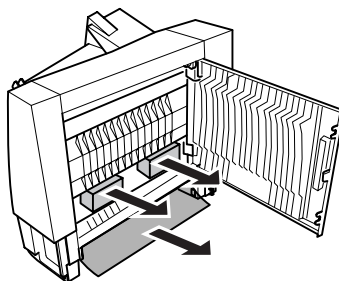
- 1 Remove the mailbox unit from its shipping box.

- 2 Remove any tape and packing material.

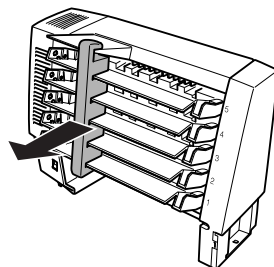


- 3 Open the mailbox unit cover and remove any packing material from the rear of the mailbox unit.

- 4 Close the mailbox unit cover.



- 5 Remove any packing material from the front of the mailbox unit.

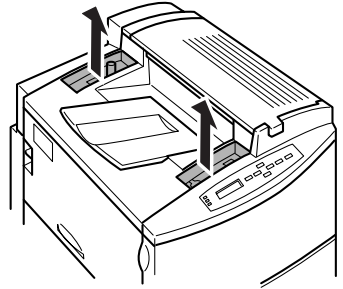




- 6 Remove the two screen covers from the top of the printer.

*Pry the covers off with your fingers.  
Retain these covers in case you ever  
want to remove the 5-bin mailbox.*

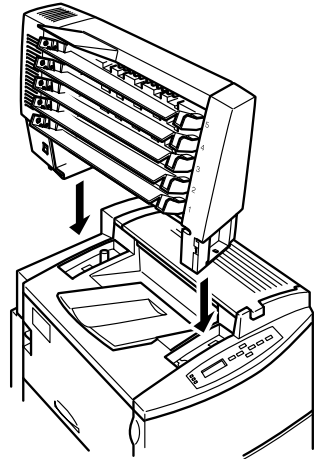
- 7 Locate the two holes, the pin, and the positioning guide for the mailbox.



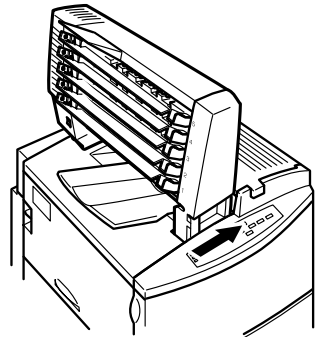
- 8 Slowly lower the mailbox unit so that the two pins at the bottom fit into the two holes in the printer and the pin on the printer fits into the hole at the bottom of the mailbox.



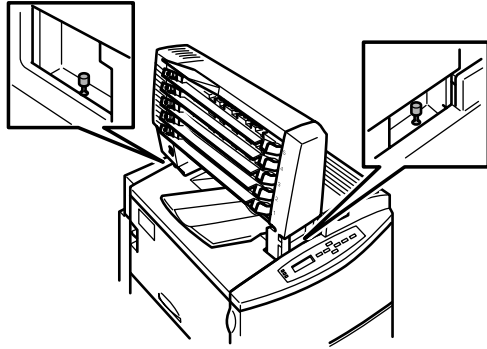
*The mailbox bins will face the left  
side of the printer.*



- 9 Push the mailbox toward the right-hand side of the printer until it stops.

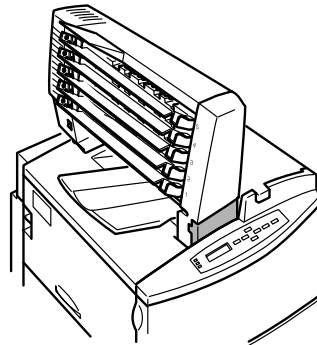


- 10** Secure the mailbox tightly with the two thumbscrews supplied in the kit.



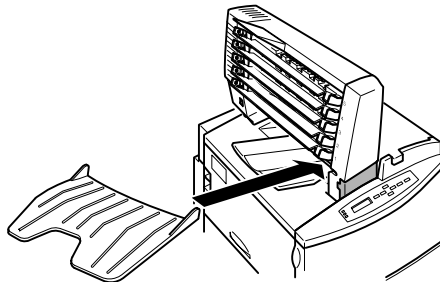
- 11** Place the slot on the right side of the accessory screen cover from the kit onto the tab on the mailbox then press on the left side of the accessory screen cover so the tab on that side fits into the slot on the mailbox.

- 12** Remove the five plastic bins from their packaging.

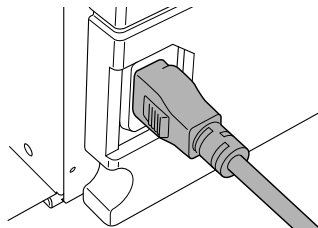
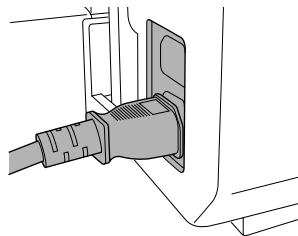


- 13** Hold a bin and insert the right side into the bottom level of the mailbox unit, then insert the left side.

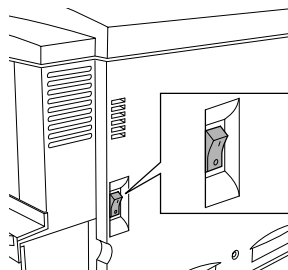
- 14** Install the other four bins.



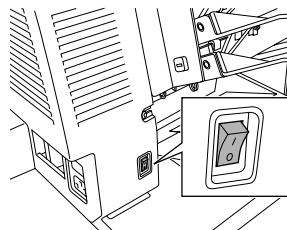
- 15 Plug the mailbox power cord from the kit into the mailbox unit (lower connection).
- 16 Plug the other end of the power cord into the printer.



- 17 Make sure the printer is turned off.



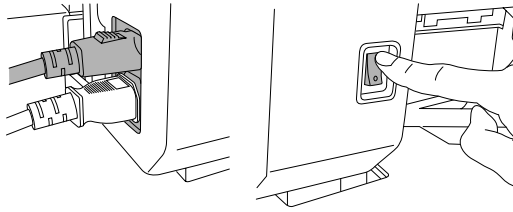
- 18 Make sure the 5-bin mailbox is turned off.



### **Attention**

**Always turn off the printer *before* turning off the mailbox.**

- 19 Plug the printer power cord into the mailbox unit (upper connection) and into the dedicated, grounded, surge-protected electrical outlet.



- 20 Turn the mailbox unit on.
- 21 Turn the printer on.

## QFORM

QFORM allows you to use existing lineprinter and forms-printing applications on your magicolor 2210. This printer-resident application gives you the ability to store PostScript forms on the printer's hard disk and fill those forms with your application's ASCII print stream. Features include

- Definition of page formatting and fonts
- Duplexing with binding-margin offsets
- Two-sided forms with text fill-in on front and/or back
- "Gray bar" listing formats
- Automatic page numbering
- ANSI carriage-control recognition
- Single- and multipart forms
- Labels
- Logos and watermarks



*QFORM doesn't support color features.*

Refer to the documentation that comes in the QFORM kit for installation and usage instructions.

## PlanetPress

PlanetPress is an electronic forms package that allows the creation and modification of business forms, MICR checks, bar codes, and other preprinted forms.

Refer to the documentation that comes in the PlanetPress kit for installation and usage instructions.

## Interfaces

Your printer supports the following interface cards:

- CrownNet for Ethernet 10BaseT/100BaseTX (TCP/IP, NetWare, EtherTalk, LAN Manager/LAN Server) for an additional CrownNet for Ethernet connection
- CrownNet for Token-Ring (TCP/IP, NetWare, LAN Manager/LAN Server)
- Crown for DECnet-TCP/IP

You can install one of these interface cards in addition to the two standard interfaces—parallel and CrownNet for Ethernet (TCP/IP, NetWare, EtherTalk, LAN Manager/LAN Server). The printer's Simultaneous Interface Operation (SIO) allows all of these interfaces to be active at the same time. In other words, your printer can simultaneously communicate through all three ports with three hosts, either computers or networks.

If installing a Token-Ring optional interface card, see the "Notices" section in the *Installation Guide* for FCC compliance classification information.

## What's in the Kit?

An optional interface kit includes the following:

- An interface card
- Interface documentation (in hardcopy and/or on CD-ROM)

The kit may also include additional parts not required for network interface installation on this printer.

## Installation

### Attention

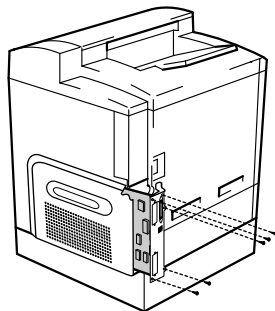
---

**It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 105. In addition, always handle circuit boards by the edges only.**

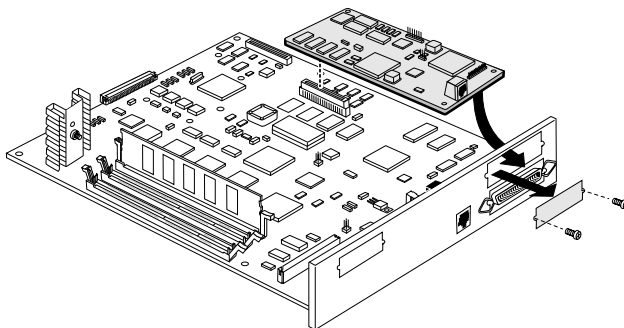
---

- 1 Turn off the printer, and then disconnect the power cord and all interface cables from the printer.
- 2 Loosen five screws and, using the tab on the lower side of the panel, pull the controller board from the printer.
- 3 Remove the two screws holding the metal plate over the optional interface opening.

*The optional interface opening is labelled "Option." It's located next to the "Parallel" port. Save the two screws. (You'll use them when you install the optional interface card.) You can dispose of the plate according to local regulations.*



- a Attach the interface card to the controller board.



- b Position the interface card so that its I/O connector slides into its opening in the interface panel and that its 80-pin connector aligns with the 80-pin connector on the controller board.
- c Gently press the interface card down until its connector is fully seated and the card is secured by the plastic support post(s).

### Attention

**Make sure that the connectors on the interface card and controller board are properly aligned. Damage to the interface card and/or controller board could result if the pins are misaligned.**

- 4 Secure the interface card to the interface panel with the two screws you removed earlier.
- 5 Reinstall the controller board.

*Gently slide the controller board into the printer until it is fully seated, and then tighten the five screws.*

**6** Reconnect all interface cables.

**7** Reconnect the power cord, and turn on the printer.



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

**8** Print a startup page.

*Check that the startup page lists the interface (Optional NIC) just installed under "Options."*

## Using a Network Interface

Once a network interface is installed, refer to the *Installation Guide* and the *CrownBook* for information on connecting to the network, installing the software, and configuring the interface and the network. You can also use the documentation that came with the interface.

## SCSI Interface

The optional SCSI interface allows you to connect up to three optional SCSI devices, including a hard disk, and Jaz and Zip drives. These devices provide storage for fonts, emulations, and other files; increase the number of pages that can be collated; and provide a secondary storage area for spooled data, while providing virtual memory capabilities.

### What's in a Kit?

An optional SCSI interface kit includes the following:

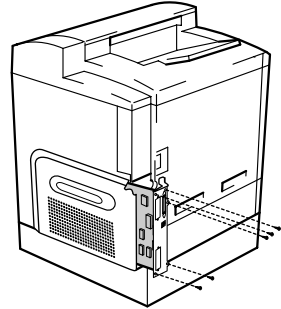
- SCSI interface card
- SCSI interface card ribbon cable
- Connector face plate
- Two larger screws
- Two smaller screws

## Installation

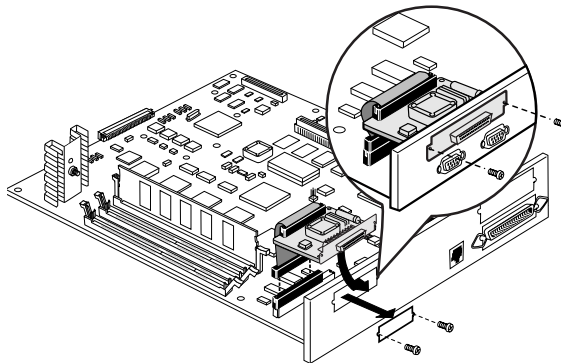
### Attention

It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 105. In addition, always handle circuit boards by the edges only.

- 1 Turn off the printer, and then disconnect the power cord and all interface cables from the printer.
- 2 Loosen five screws and, using the tab on the lower side of the panel, pull the controller board from the printer.
- 3 Remove the two screws holding the metal plate over the SCSI interface opening.
- 4 You can dispose of the metal plate and screws according to local regulations.
- 5 Attach the SCSI interface card to the controller board.



- a Position the SCSI interface card so that its ribbon cable connector aligns with the SCSI connector on the controller board.
- b Gently press the ribbon cable connector down until it's fully seated.




### Attention


Make sure that the connectors on the ribbon cable and the controller board are properly aligned. Damage to the controller board could result if the pins are misaligned.

- c Insert the SCSI interface card connector into its opening in the interface panel.



- d Secure the SCSI interface card to the interface panel with the two larger screws in the kit.
- 5 Reinstall the controller board.  
*Gently slide the controller board into the printer until it's fully seated, and then tighten the five screws.*
- 6 Reconnect all interface cables.
- 7 Reconnect the power cord and turn on the printer.  
 *In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."*
- 8 Print a startup page.  
*Check that the startup page lists the interface (SCSI) just installed under "Options."*

## Using a SCSI Interface

-  *Installing a SCSI interface allows the attachment of external SCSI storage devices, such as hard drives, JAZ, and ZIP drives. Installing the SCSI interface kit will not allow you to print via SCSI.*

## Internal IDE Hard Disk Drive

### Attention

---

**Make sure that the printer and all accessories are turned off before installing accessories involving the controller board.**

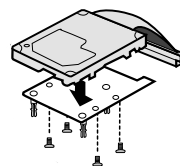
---

One optional internal IDE hard disk is supported on the GN model.

### What's in the Kit?

The IDE hard disk kit includes the following:

- IDE hard disk with ribbon cable attached
- IDE hard disk bracket
- 4 screws



## Installation



### Attention

---

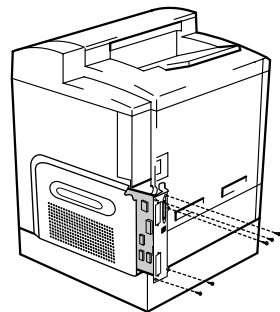
It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 105. In addition, always handle circuit boards by the edges only.

When installing or removing a hard disk, make sure that the metal support posts (on the hard disk) don't hit any of the electrical leads on the chips mounted on the controller board. The controller board will not function if any of the leads are broken or shorted together.

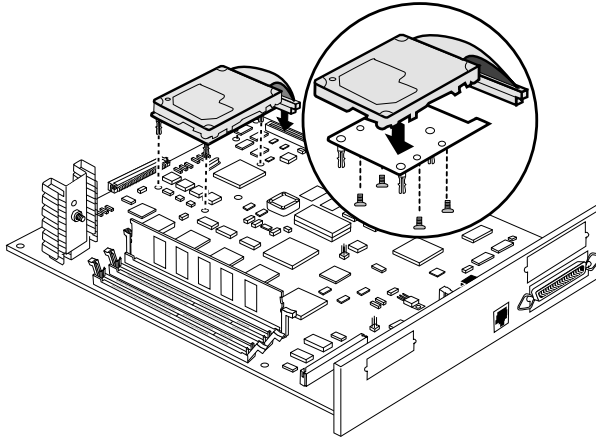
---

- 1 Ensure that the printer is turned off and the power cord and all interface cables are disconnected.
- 2 Loosen five screws from the controller board and, using the tab on the lower side of the panel, pull the controller board from the printer.
- 3 Position the controller board on a flat surface so the controller board lies flat and the interface panel is facing you.
- 4 Attach the IDE hard disk to the hard disk bracket.

*Attach the IDE hard disk to the bracket with the grooved-end of the bracket facing the ribbon cable. The screw holes in the bottom of the hard disk should match up with the*



holes on the hard disk bracket. Fasten the hard disk to the bracket with the screws provided.



- 5 Position the hard disk so that the four support posts face the controller board, the colored stripe on the ribbon cable faces away from you, and the connector is down.
- 6 Insert ribbon cable connector pin 1 (the colored stripe side of the cable) in hard disk connector pin 1.

### **Attention**

---

**Make sure that the ribbon cable connector and the controller board connector pins are properly aligned. Damage to the controller board could result if the pins are misaligned.**

---

- 7 Press down gently but firmly on the cable connector until it is fully seated.

### **Attention**

---

**Do not push or pull with the ribbon cable. Use the cable connector.**

---

- 8 Align the support posts with the holes on the controller board, and then press down to secure the hard disk to the controller board.

*So that you don't stress the board, press one corner at a time to secure the hard disk to the controller board.*

*If you're installing DIMMs, go to the next section.*

*Otherwise, reinstall the controller board into the printer. Gently slide the controller board into the printer until it is fully seated, and then tighten the five screws.*

*When you print a startup page (page 42), verify that the hard disk is listed.*

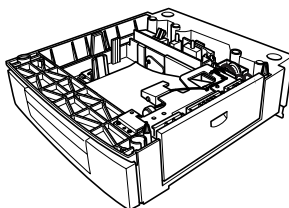
# Lower Feeder Unit

## Installing a Lower Feeder Unit (LFU)

Read this section if you purchased a lower feeder unit.

### Kit Contents

- Lower feeder unit with a letter/A4/legal media tray (500 sheets)
- 3 metal brackets
  - Bracket L (1)
  - Bracket R (1)
  - Bracket B (1)
- 2 securing thumbscrews



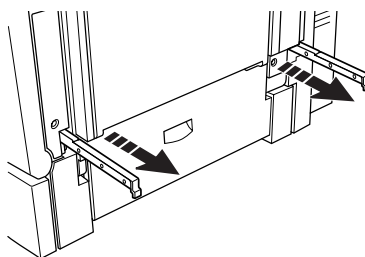
### Installation

#### Attention

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

If your printer is located in its permanent location, follow this procedure. Otherwise, skip to step 3.

- 1 Pull out the two carrying bars on the right side of the printer.

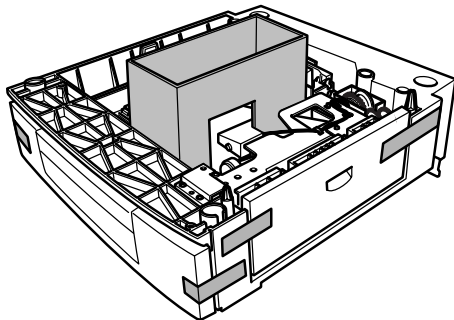


#### **WARNING!**

**Your printer weighs approximately 103.4 lbs (47.4 kg) with consumables. Be sure to have help when lifting and moving it.**

**ACHTUNG! Das Gewicht dieses Druckers beträgt mit Verbrauchsmaterial ca. 47.4 kg. Bitte versuchen Sie niemals, den Drucker alleine anzuheben oder zu transportieren.**

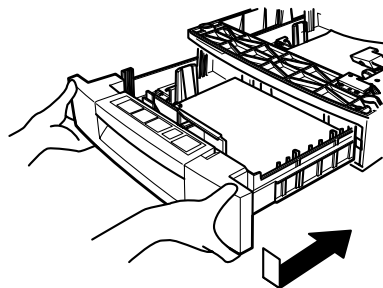
- 2 With one person holding the carrying bars and another holding the two grips on the left side of the printer, lift the printer and temporarily move it to a flat, level surface.
- 3 Remove the lower feeder unit from the shipping carton, and place it where the printer will be located.
- 4 Slide out the optional media tray from lower feeder unit.
- 5 Remove any tape and packing material.
- 6 Put media in the optional tray.



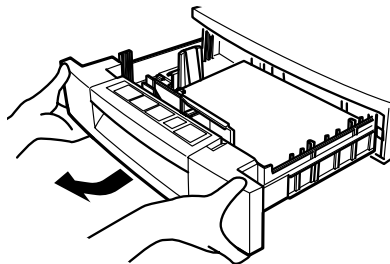
- 7 Slide the optional media tray all the way into the lower feeder unit.



*If you have removed the tray from the lower feeder unit, slightly tilt up the front of the tray to insert it into the guide rails to slide it back in.*

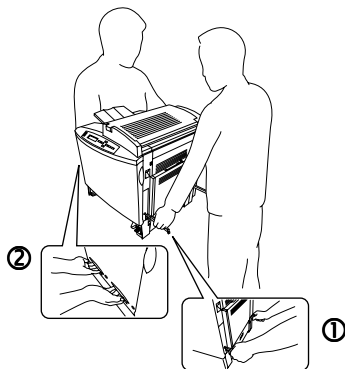


- 8 Slightly tilt up the **printer's** upper media tray to remove it.

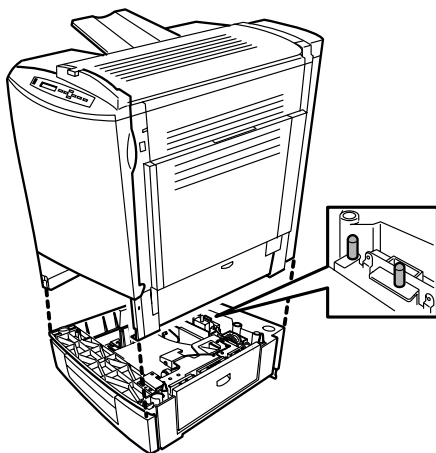


- 9 With another person's help, lift the printer.

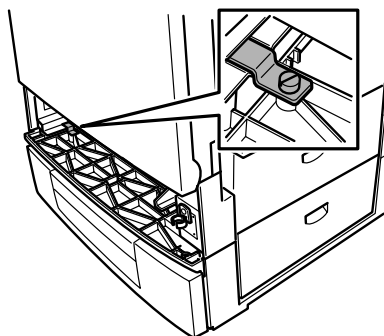
*When lifting and carrying the printer, use the pull-out carrying bars ① and the hand grips ②.*



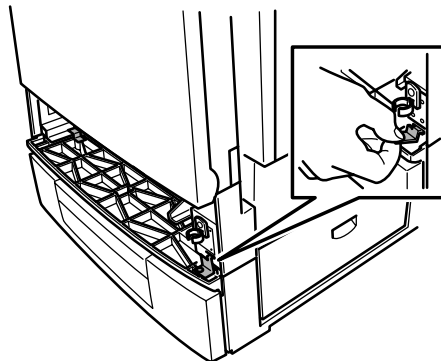
- 10 Slowly lower the printer onto the lower feeder unit, lining up the four holes in the bottom of the printer with the corresponding pins in the lower feeder unit.



- 11 Place bracket L on the left side of the printer frame and secure it tightly with the thumbscrew.



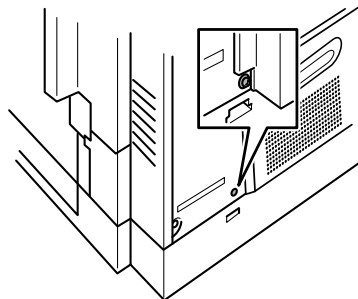
- 12** Hold bracket R on a slant to insert it from the front end into the bracket R slot on the right side of the printer frame, then hold bracket R level and secure it tightly with the thumbscrew.



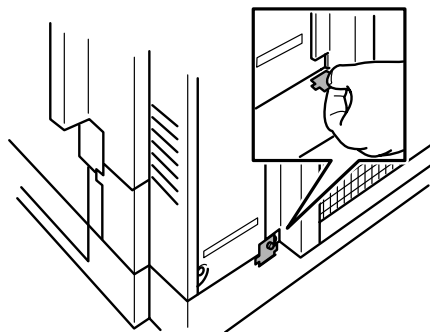
- 13** Unscrew the thumbscrew from the rear of the printer.



*Retain this screw for use in step 15.*



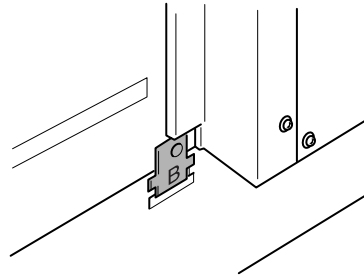
- 14** Hold bracket B on a slant and insert the front end into the bracket B slot.



- 15 Lift up bracket B and secure it tightly with the thumbscrew.

*Make sure the bracket matches the position shown in the illustration.*

- 16 Slide the upper media tray back into the printer.



## Media Trays

The printer comes with a 150-sheet multipurpose tray (tray 1), and a 500-sheet media tray (the upper tray—tray 2). The optional lower feeder unit has another 500-sheet optional media tray that provides two main benefits:

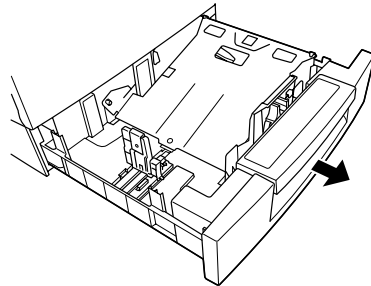
- Expanded flexibility to switch media size, color, and type without having to unload and load media.
- Increased media-feed capacity

Keep 500-sheet replacement trays close by, so you can easily change media by slipping one tray out and another in.

Media trays accommodate only letter/A4/legal media.

### Installation

- 1 Slide the existing media tray open.



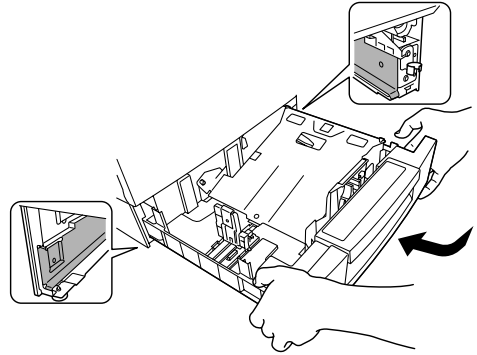


- 2 Slide the new tray into the printer.



*Slightly tilt up the tray to insert it into the installation rails to slide it back in.*

For information about loading media, see "Using Media," on page 33.



## Printer Stand/Cabinet

A tabletop- or floor-model printer stand or a cabinet is available. Follow the assembly instructions included with it.

## SC-210 Convenience Copier

You can expand your magicolor 2210's functionality by connecting an SC-210 digital color convenience copier option to the standard parallel port on the printer (interface set to "non-interactive"). The SC-210 supports up to legal-size paper. An optional 25-sheet Automatic Document Feeder (ADF) is available.

Check the documentation included with your SC-210 for instructions on setup, configuration, and operation.

Included with the SC-210:

- Software CD-ROM
- Parallel cable (2)
- Power adapter
- User warranty and registration card

## Time-of-Day Clock

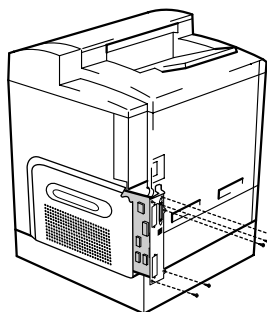
The time-of-day clock provides time and date information on the startup page and in the accounting data.

## Installation

### Attention

It's very important to protect the printer controller board and any associated circuit boards from electrostatic damage. Before performing this procedure, review the antistatic caution on page 101. In addition, always handle circuit boards by the edges only.

- 1 Turn off the printer, and then disconnect the power cord and all interface cables from the printer.
- 2 Loosen five screws and, using the tab on the lower side of the panel, pull the controller board from the printer.



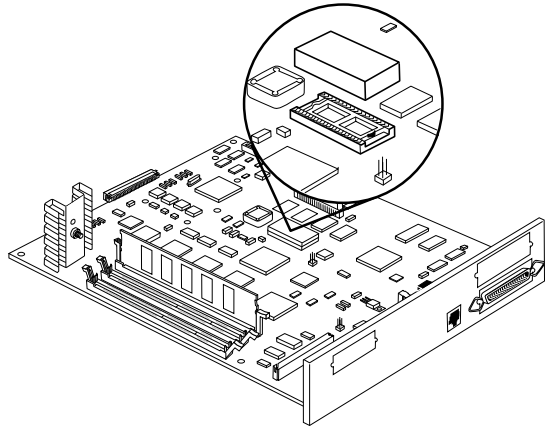
### WARNING!

Because the time-of-day clock includes an internal battery, there is a danger of explosion if the clock is incorrectly installed or replaced. Replace it only with a supported MINOLTA-QMS time-of-day clock. Dispose of any used time-of-day clock in accordance with local laws and regulations.

**ACTUNG!** Da der Uhrenbaustein eine interne Batterie enthält, besteht Explosionsgefahr, falls dieser falsch eingesetzt oder ersetzt wird. Er darf nur durch einen unterstützten Baustein ersetzt werden. Bitte entsorgen Sie den Baustein gemäß den geltenden Entsorgungsbestimmungen.


**AVERTISSEMENT!** Dû au fait que l'horloge interne de l'imprimante est munie d'une batterie interne, il y a un risque d'explosion si celle-ci est mal installée ou remplacée. La remplacer seulement avec une horloge supportée par MINOLTA-QMS. Se départir de toute horloge interne défectueuse en respectant les lois et réglementations en vigueur.

- 3 Attach the time-of-day clock to the controller board.



### Attention

**Make sure that the pins on the time-of-day clock are properly aligned with those in the receiving socket on the controller board. Damage to the time-of-day clock and/or controller board could result if the pins are misaligned.**

- a Locate the time-of-day clock socket on the controller board and the pin 1 notch or printed label.
  - b Locate the pin 1 indicator mark on the top of the time-of-day clock.  
*This mark may be a notch or a slight depression on one end of the clock.*
  - c Align this indicator mark with the pin 1 notch or printed label on the controller board.
  - d Gently press down on the time-of-day clock until it's firmly seated.
- 5 Reinstall the controller board.  
*Gently slide the controller board into the printer until it is fully seated, and then tighten the two screws.*
  - 6 Reconnect all interface cables.
  - 7 Reconnect the power cord and turn on the printer.  
 *In compliance with UL guidelines, "The appliance inlet is considered to be the main disconnect device."*
  - 8 Print a startup page.  
*The time-of-day clock is not listed under "Installed Options" on the startup page, but the time will appear as System Date in the Printer Information column.*



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***Color Printing***

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**6**

# Introduction

Your magicolor 2210 features advanced color laser technology that produces inexpensive and durable color prints at 600x600, and 1200x1200 dpi on plain paper, envelopes, labels, thick stock, and transparencies.

## Color Management and Control

The magicolor 2210 offers a host of color screening, matching, and calibration tools for both the beginner and professional color user.

## MINOLTA-QMS QCOLOR Technology

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

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

MINOLTA-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.

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

- **Ease of use across applications:** With MINOLTA-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. MINOLTA-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, MINOLTA-QMS QCOLOR's single-button controls enable automatic correction of uncalibrated RGB or CMYK color files.
- **Printer-resident CMS:** Because MINOLTA-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.

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

- **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 MINOLTA-QMS QCOLOR automatic color correction when using host-based ColorSync or ICM color matching.
- **Profiles for common monitors and output devices:** MINOLTA-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:** MINOLTA-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.

## Further Information

For further information about the MINOLTA-QMS color management, refer to the *CrownBook*.





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***Repacking the  
Printer***

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**7**

## Storing the Printer

Keep the following in mind when storing the printer for an extended period:

- 1 Unplug the printer.
- 2 Remove the OPC drum, the fuser oil roller, and toner cartridges from the printer and return them to their original packaging. If the original packaging is not available, protect the toner cartridges from spilling toner, and protect the OPC drum cartridge from damage and light.

## Relocating Your Printer

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

- 1 Turn off the power to your printer.
- 2 If the printer has a lower feeder unit and/or a 5-bin mailbox, remove them.
- 3 If you are moving to a distant location, follow the instructions for repacking the printer.
- 4 Relocate the printer.

### **WARNING!**

**Your printer weighs approximately 87.1 lbs (39.5 kg) without consumables. Be sure to have help when lifting and moving it.**

**ACHTUNG! Das Gewicht dieses Druckers beträgt ohne Verbrauchsmaterial ca. 39.5 kg. Bitte versuchen Sie niemals, den Drucker alleine anzuheben oder zu transportieren.**

- 5 Unpack and set up the printer in its new location.
- 6 Reinstall the accessories you removed in step 2.



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

Refer to the *Service & Support Guide* or [www.minolta-qms.com](http://www.minolta-qms.com) for additional information on where to obtain assistance if necessary

# Repacking the Printer

## Attention

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

---

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



We **strongly** suggest that you save the packaging materials in case you ever need to move or ship the printer. If you're returning just the printer for service, do not return the interface cables, power cable, documentation, media tray(s), or accessories.

## Attention

---

MINOLTA-QMS cannot be held responsible for damage to your printer during shipment that results from the improper packaging of your printer. You must use the instructions given in this section before repacking the printer in its original shipping carton with the original packing materials. Original shipping cartons are secured to a pallet using disposable strapping and buckling supplies. These supplies must be replaced prior to shipping the printer. If you need replacement packaging, in the United States, call MINOLTA-QMS Spares at (251) 633-4300 extension 2530 and request catalog number 2600674-901. For locations outside the United States, refer to the *Service & Support Guide* or [www.minolta-qms.com](http://www.minolta-qms.com). If you return the printer for service, be sure to write the RMA (Return Merchandise Authorization) number you received from your customer support representative on the outside of the carton before shipping the printer.

If the printer is not strapped to the pallet or if the RMA number is not *prominently* visible on the outside of the return inventory, we will not accept receipt. You can also have a MINOLTA-QMS authorized service provider uninstall and repack your printer. For prices and availability, call 1 (877) 778-2657.

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## 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.
- 2 Remove the fuser oil roller.

- 3 Remove the toner cartridges.
- 4 Remove the waste toner pack.
- 5 Remove the OPC drum.
- 6 Remove the transfer belt.
- 7 Remove the duplex unit (if attached).
- 8 Remove the 5-bin mailbox (if attached).
- 9 Remove the lower input feeder (if attached).
- 10 Repack the printer for shipment.

To avoid toner contamination during shipment, the printer should be repacked without the fuser oil roller, toner cartridges, waste toner pack, OPC drum cartridge, or transfer belt installed.

## Remove the Cables

- 1 Turn off the printer.
- 2 Remove the power cable and all interface cables.

## Remove the Fuser Oil 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. Open the printer's top cover.**

- 3 Rotate the two lock levers to release the fuser oil roller.
- 4 Remove the fuser oil roller.
- 5 Store the fuser oil roller in its original shipping bag.
- 6 Close the printer's top cover.

## Remove the Toner Cartridges

- 1 Open the printer's front cover.

- 2 Remove the four toner cartridges and store them in their original packaging. If the original packaging is not available, protect the toner cartridges from spilling toner.

## Remove the Waste Toner Pack

- 1 With the printer's front cover open, remove the waste toner pack from the printer.
- 2 Use the three plugs on the side of the waste toner pack to seal the opening.
- 3 Store the waste toner pack in its original packaging.

## Remove OPC Drum Cartridge

Remove the OPC drum cartridge and store it in its original packaging. If the original packaging is not available, protect the OPC drum cartridge from damage and light.

## Remove Transfer Belt

- 1 Remove the transfer belt and store it in a plastic bag in a box to avoid toner spillage.
- 2 Close the printer's front cover.

## Remove the Duplex Unit



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

- 1 Open the duplex cover and unhook the spring wire.
- 2 Loosen the two thumbscrews until the duplex unit moves freely away from the right side of the printer.
- 3 Lift duplex unit up and away from the printer.
- 4 Install the original right-side cover that came with the printer.
- 5 Repack the duplex unit in its original shipping carton for storage or shipment.



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

## Remove the 5-bin Mailbox



*If you don't have a 5-bin mailbox installed, skip to the next section.*

- 1 Remove the power cable.
- 2 Remove the side plates and loosen the thumbscrews.
- 3 Lift 5-bin mailbox up and away from the printer.
- 4 Replace the original screen covers on the top of the printer.
- 5 Repack the 5-bin mailbox in its original shipping carton for storage or shipment.



*If you're returning the printer for service, you don't need to return the 5-bin mailbox, unless the problem is with the 5-bin mailbox.*

## Remove the Lower Feeder Unit



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


- 1 Remove the rear bracket securing the lower feeder unit to the printer.
- 2 Remove the upper media tray.
- 3 Remove the brackets on the right and left in front that are securing the optional tray to the printer.
- 4 Replace the upper media tray.
- 5 With the help of another person, lift the printer by its carrying grips and carrying bar, and place the printer on a table.

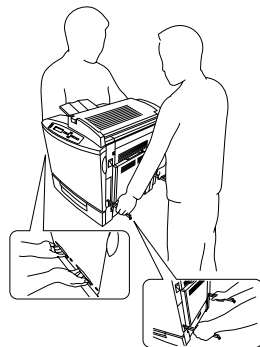
### **WARNING!**

**Your printer weighs approximately 87.1 lbs (39.5 kg) without consumables. Be sure to have help when lifting and moving it.**

**ACHTUNG! Das Gewicht dieses Druckers beträgt ohne Verbrauchsmaterial ca. 39.5 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.

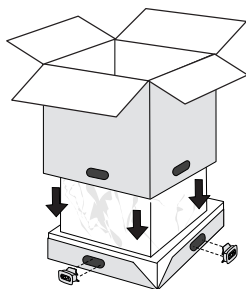
 *If you're returning the printer for service, you don't need to return the lower feeder unit, unless the problem is with the lower feeder unit.*




## Repack the Printer

If you need replacement packaging, in the United States, call MINOLTA-QMS Spares at 1 (251) 633-4300 extension 2530 and request part number 2600674-901 for the repacking kit. Refer to the *Service & Support Guide* or [www.minolta-qms.com](http://www.minolta-qms.com) for locations outside the United States.

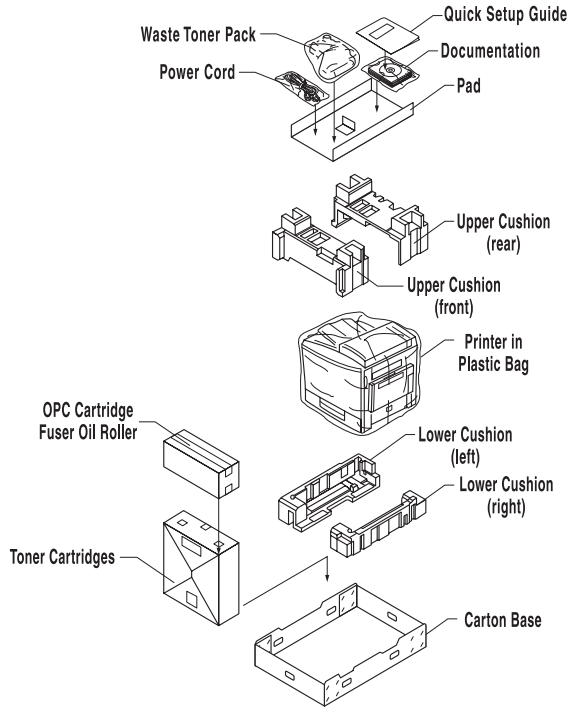
- 1** Place the lower cushions into the shipping carton's base.
- 2** Put the printer's plastic bag into the shipping carton's base.
- 3** With another person's help, put the printer into its plastic bag and tape the bag closed.
- 4** Replace the outer shipping carton over the printer and the base, and secure the shipping carton using the plastic interlocks that came with the original carton.



- 5 Pack the printer for shipment as shown.
- 6 If you're also shipping the power cord and any manuals with the printer, place them in the shipping carton.

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

- 7 Securely tape the top flaps of the shipping carton closed.



## Strapping/Buckling Kit Contents

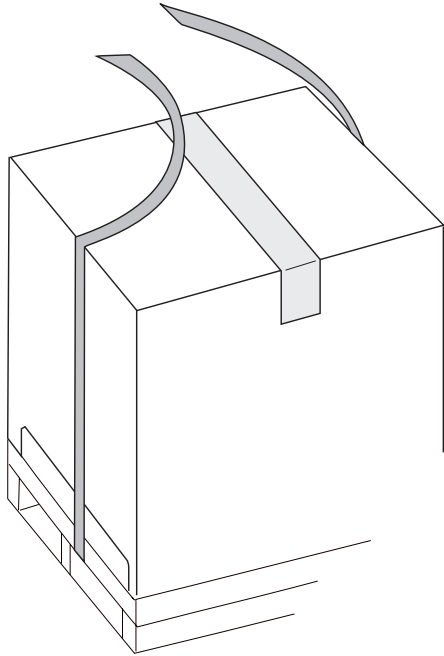
- 4 lengths of strapping precut to the appropriate length
- 4 buckles to secure the strapping



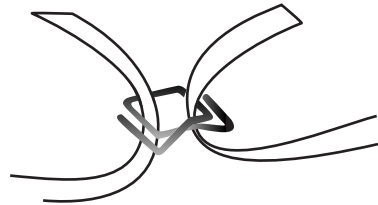


## Strapping/Buckling Instructions

- 1 Thread one end of the strapping through the wooden pallet.
- 2 Pull the two ends of the strapping together at the approximate center of the top of the printer.

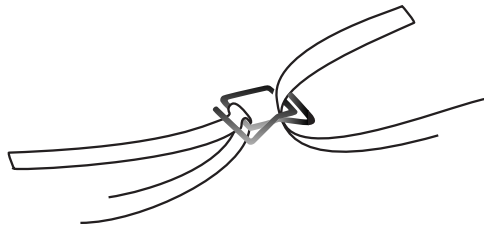


- 3 Thread both ends up through the center of the buckle.



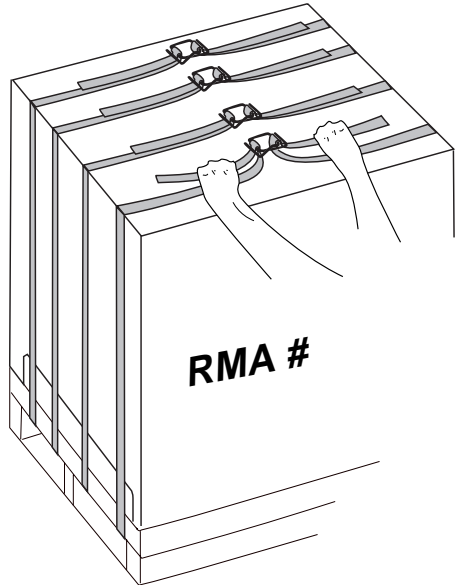
- 4 Weave the slack of one end through the buckle.

- 5 Pull the slack on that end so that the strapping is taut in the buckle.



- 6 Weave the slack of the other end through the buckle.

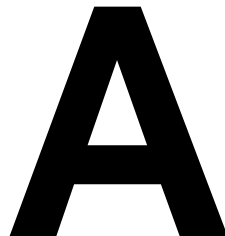
- 7 Pull all of the remaining slack of the strapping through this side of the buckle, until the buckle is taut against the printer box.
- 8 Pull the buckle against the printer as tightly as possible.  
*Some slack may still exist.*
- 9 Repeat this procedure three more times, spacing the straps equidistant across the box.
- 10 Write the RMA number prominently on the carton.



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***Technical  
Specifications***

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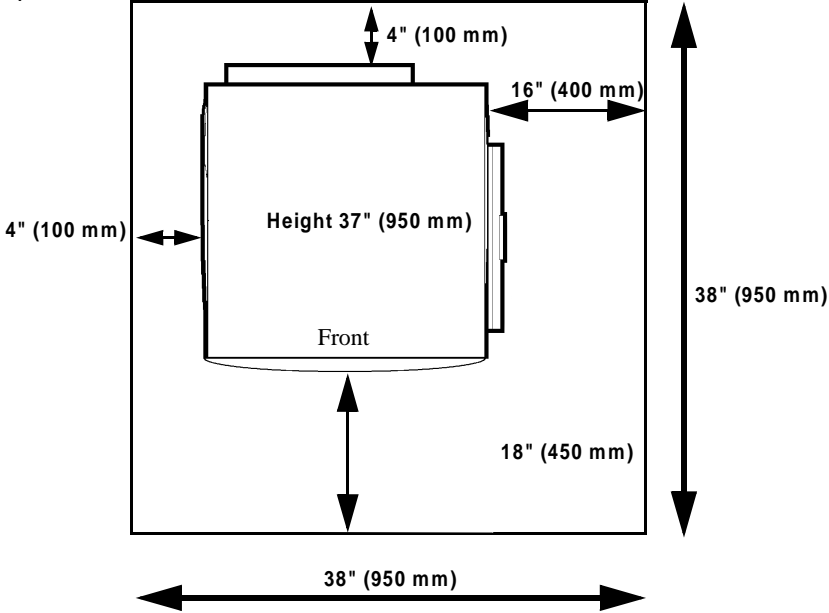


# Requirements

## Space Requirements

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

Top View



If you have added accessories, the printer's height will increase by

<b>Lower feeder unit</b>	4.6" 116.5 mm)
<b>Duplex unit</b>	0" (0 mm)
<b>5-bin mailbox</b>	15.34" (400 mm)

## Power Requirements

<b>Power</b>	<b>Japan</b>	100 VAC 50–60 Hz 12 amps
	<b>North America</b>	120 VAC 50–60 Hz 8 amps
	<b>Europe</b>	220–240 VAC 50–60 Hz 6 amps
	<b>Latin America</b>	120 VAC 50–60 Hz 8 amps 220–240 VAC 50–60 Hz 6 amps
<b>Voltage Fluctuation Rate</b>	<b>Japan</b>	100 VAC $\pm 10\%$
	<b>North America</b>	120 VAC $\pm 10\%$
	<b>Europe</b>	220–240 VAC $\pm 10\%$
	<b>Latin America</b>	120 VAC $\pm 10\%$ 220–240 VAC $\pm 10\%$
<b>Frequency Variation Rate</b>	Within 50–60 $\pm 3$ Hz	

## Location Requirements

- On a hard, flat, level (1° or less slant at any point around the machine) surface capable of supporting the printer, accessories, consumables, and media. Weights are shown below.

Component	Weight
<b>Printer</b>	87.1 lbs (39.5 kg)
<b>Consumables (such as toner, OPC drum)</b>	11 lbs (5.0 kg) (total)
<b>Media</b>	5.2 lbs (1.9 kg) per ream of 20 lb bond (75 g/m <sup>2</sup> ) paper
<b>Lower feeder unit (each)</b>	14.8 lbs (6.7 kg)
<b>Duplex unit</b>	5.3 lbs (2.4 kg)
<b>5-bin mailbox</b>	15.5 lbs (7.0 kg)



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

- In an area with an ambient temperature range of 50°–95° F (10°–35° C) and relative humidity range of 15%–85% (noncondensating).

- Away from cooling and heating sources, extreme temperature or humidity changes, direct sunlight, excessive dust, corrosive chemicals or vapors (such as ammonia), water pipes, refrigerators, and any strong electromagnetic field (such as that created by an air conditioner), open flames, or items that can easily burn, or items that produce excessive vibration.

*If the printer is located in a cold room that is rapidly heated, or if the printer is moved from a cold place to a warm, humid place, condensation may occur within the printer, degrading print quality. If this occurs, allow the printer to adapt to the environment for about one hour before use.*

- Away from water.

*If using a humidifier or water vaporizer in the room with the printer, use only purified or distilled water. Impurities in the water may be released into the air, where they can accumulate inside the printer and cause degraded printer output.*

- Away from open flames or items that can easily burn.
- At an altitude of 0–8202' (0–2500 m).
- Away from items that produce excessive vibration.
- Near your computer—6.5' (2 m) or less for an IEEE 1284 bidirectional parallel connection; cables for other connections may be longer.
- Close to an easily accessible grounded power supply on an exclusively dedicated power outlet.

## **WARNING!**

**Do not connect the groundwire to gas or water pipes or grounding for telephones.**

**Achtung! Das Massekabel keinesfalls an eine Gas- oder Wasserleitung oder eine Erdung für Telefone anschließen.**

- Not connected to the same electrical outlet as noise-generating equipment. If the printer is connected to the same circuit used by other high-current machines, such as a copier or air conditioner, or to an electrically noisy machine, low voltage or noise may cause overheating, computing errors resulting in data loss, and improper performance.
- In a well-ventilated area, but away from wind.
- With enough space to allow adequate ventilation and easy servicing.

## **WARNING!**

**Obstructing the ventilation grilles could present a fire hazard.**

**Achtung! Abdeckung der Ventilator-Schlitze kann ein Feuer auslösen.**

## Computer Requirements

Printer performance depends upon the type of computer to which you connect it. We recommend a Pentium-class computer with at least 16 MB of RAM (if you're using Windows Me/98/95) or 32 MB of RAM (if you're using Windows 2000/NT4).

## ENERGY STAR Compliance

All models of the magicolor 2200 Series are compliant with US Environmental Protection Agency (EPA) ENERGY STAR regulations. After a specified period of inactivity, the printer changes to a low-power state (the engine remains on, but the fuser turns off). When a print job is received, the printer returns to normal power within a user-configurable time period.



## Engine and Controller Specifications

### Engine

<b>Engine</b>	Minolta NC-L4001	
<b>Duty cycle</b>	<b>Simplex letter/A4 pages per month</b>	8,000 average prints and up to 35,000 maximum prints per month*



*\*The duty cycle will be affected by the media type, percent coverage, and the number of monochrome versus color pages.*

### Print Speed—Simplex

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

Page size	Monochrome ppm	4-Color ppm
<b>A4</b>	20	5
<b>Letter</b>	20	5
<b>Legal</b>	20	4*

<b>Transparency Film (A/A4)</b>	3.8	2.4
<b>Label (A/A4)</b>	3.8	2.4
<b>Thick (A/A4)</b>	3.8	2.4

## Print Speed—Autoduplex

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

<b>Page size</b>	<b>Monochrome ppm</b>	<b>4-Color ppm</b>
<b>A4</b>	10	2.5
<b>Letter</b>	10	2.5
<b>Legal</b>	10	1.5


## General

<b>Printer type</b>	Desktop, non-impact, 4-color printer
<b>Print method</b>	<b>Scanner:</b> Semiconductor laser with rotating mirror <b>Recorder:</b> Black writing electrophotographic <b>Process:</b> Cyan, magenta, yellow, and black dry toner image transfer to print media <b>Fuser:</b> Heated rollers
<b>Resolution</b>	<b>Standard:</b> 1200x1200 dpi
<b>Toner</b>	<b>Type:</b> Microfine, dry, single component <b>Packaging:</b> User-replaceable cartridges
<b>Warm-up time</b>	<b>Maximum:</b> 110 volts: 150 seconds 220 volts: 160 seconds
<b>Input sources</b>	<b>Standard:</b> 500-sheet tray 150-sheet multipurpose tray <b>Optional:</b> 500-sheet lower input feeder
<b>Output</b>	250-sheet tray on top of printer



## Controller

<b>CPU</b>	IDT RC64574
<b>Resident emulations</b>	<p><b>PostScript</b>—Level 3 (600/1200 dpi)</p> <p><b>HP PCL</b>—PCL5c, PCL XL, PCL5e/GL2 (HP PaintJet XL300 compatible; 600 dpi; 600/1200 dpi, GL2 only)</p> <p><b>PDF</b>—Version 1.2</p> <p><b>HP-GL</b>—7475A/7550/Draftmaster (600 dpi)</p> <p><b>Lineprinter</b>—(600 dpi)</p>
<b>Optional emulations</b>	<p><b>ImageServer</b> (monochrome only)</p> <p><b>CGM</b></p> <p><b>LN03 Plus</b>(300 dpi monochrome only)</p>
<b>Fonts</b>	<p><b>PostScript</b>—137 resident PostScript fonts that can be scaled from 4 points upward and rotated to any angle in 1° increments; all typefaces have multilingual character sets</p> <p><b>HP PCL 5e, 5c</b>—80 scalable and 4 bitmapped fonts</p> <p><b>PCL XL</b>—45 scalable and 9 bitmapped typefaces</p> <p><b>HP-GL</b>—40 resident HP-GL symbol sets</p> <p><b>Type 1 / Type 3 Support</b>—Support for Type 1 and Type 3 host-resident downloadable PostScript fonts</p> <p><b>TrueType</b>—Support for Type 42 (PostScript format) host-resident downloadable TrueType fonts, support for TrueType fonts in PCL</p>
<b>Kanji fonts</b>	<p><b>Hard disk</b>—MINOLTA-QMS Kanji Internal IDE Hard Disk with 7 Morisawa fonts (Ryumin-Light-KL, GothicBBB-Medium, FutoMinA101-Bold, FutoGoB101, Jun101-Light, MidashiMin-MA31, and Midashi Go-MB31)</p>
<b>Standard interfaces</b>	<p><b>CrownNet for Ethernet</b>—10BaseT/100BaseTX</p> <p><b>Parallel</b>—Centronics/IEEE 1284 bidirectional</p>
<b>Optional interfaces</b>	<p><b>Network interface</b>—Support for one optional network interface (CrownNet for Ethernet, supporting EtherTalk, LAN Manager/LAN Server, Netware, and TCP/IP; CrownNet for Token-Ring, supporting LAN Manager/LAN Server, NetWare, and TCP/IP; or Crown for DECnet-TCP/IP)</p> <p><b>SCSI interface</b>—Support for up to 3 external SCSI hard disks (up to 2.2 GB)/Jaz drives/Zip drives</p>

<b>RAM</b>	<b>Type:</b> PC-100 Compliant SDRAM DIMMs <b>Base system RAM:</b> 128 MB <b>Total RAM:</b> Upgradable to 384 MB (through 3 DIMM connectors)
<b>Optional RAM</b>	32, 64, and 128 MB DIMMs
<b>System software</b>	Softloadable; stored in Flash ROM
<b>Internal IDE hard disk</b>	Optional, up to 2.2 GB  <i>For information about hard disks recommended for your printer, see the magicolor 2210 Answer Base through the Internet at <a href="http://www.minolta-qms.com/support/">http://www.minolta-qms.com/support/</a>, or contact Technical Support (see the Service &amp; Support Guide for a complete listing of support telephone numbers).</i>
<b>Time-of-day clock</b>	Optional (socket provided for)
<b>Job accounting</b>	Crown job accounting; requires an optional IDE drive
<b>Warning function convenience</b>	Optional, BuzzBox (light/buzzer printer warning device); operates over a parallel connection
<b>Convenience copier</b>	Optional, SC-210 operates over a parallel connection

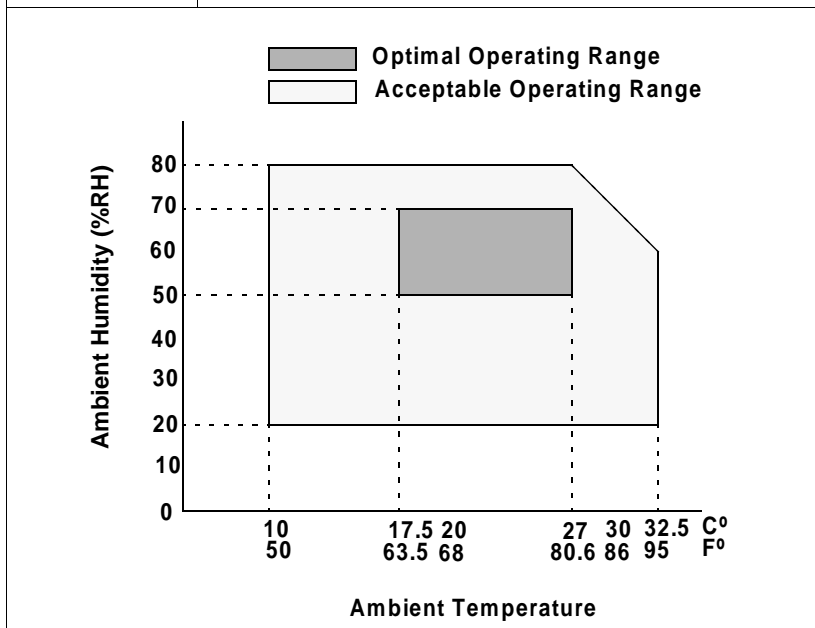
## Electrical

### Voltage and Power

<b>Voltage and frequency</b>	<b>US:</b> 120 volts $\pm 10\%$ at 50–60 Hz $\pm 3$ Hz <b>Japan:</b> 100 volts $\pm 10\%$ at 50–60 Hz $\pm 2$ Hz <b>International:</b> 220-240 volts $+10\%$ at 50–60 Hz $\pm 3$ Hz	
<b>Phase</b>	Single	
<b>Power consumption</b>	<b>Mode</b>	<b>Maximum</b>
	<b>Operation</b>	100/120 volts—1000 watts 220 volts—1100 watts
	<b>Standby</b> <b>Power saver</b>	250 watts 45 watts
<b>Compliance</b>	<b>ENERGY STAR compliant</b>	

## Environmental

<b>Noise level</b>	<b>Printing:</b> Less than 55 dB (A) <b>Standby:</b> Less than 41 dB (A)
<b>Relative humidity</b>	<b>Operating:</b> 15-85% RH (noncondensing) <b>Transportation/Storage:</b> 30–85% RH (noncondensing)
<b>Temperature range</b>	<b>Operating:</b> 50-95° F (10-35° C) <b>Transportation/Storage:</b> 32-95° F (0-35° C)
<b>Altitude</b>	<b>Operating:</b> 0-8202 ft (0-2500 m)
<b>Inclination</b>	<b>Operating:</b> 1° or less slant at any point around the machine



# Physical

	Main Body	Main Body with Lower Input Feeder	Main Body with Duplex Unit and Lower Input Feeder
<b>Dimensions</b>	<b>W:</b> 18.2 in. (463 mm) <b>H:</b> 20.6 in. (511 mm) <b>D:</b> 21.3 in. (522 mm)	<b>W:</b> 18.2 in. (463 mm) <b>H:</b> 22.0 in. (560 mm) <b>D:</b> 21.3 in. (522 mm)	<b>W:</b> 18.2 in. (463 mm) <b>H:</b> 22.0 in. (560 mm) <b>D:</b> 21.3 in. (522 mm)
<b>Weight (excluding consumables)</b>	<b>Unpacked:</b> 87.1 lbs (39.5 kg)	<b>Unpacked:</b> Printer: 87.1 lbs (39.5 kg) Lower Input Feeder: 13.2 lbs (6.0 kg)	<b>Unpacked:</b> Printer: 87.1 lbs (39.5 kg) Lower Input Feeder: 13.2 lbs (6.0 kg) Duplex Unit: 3.7 lbs (1.7 kg)
<b>Weight (including consumables)</b>	<b>Shipping:</b> 117 lbs (53 kg)	<b>Shipping*:</b> Printer: 117 lbs (53 kg) Lower Input Feeder: 31 lbs (14 kg)	<b>Shipping*:</b> Printer: 117 lbs (53 kg) Lower Input Feeder: 14.8 lbs (6.7 kg) Duplex Unit: 5.3 lbs (2.4 kg)
<b>Notes</b>	* Shipped separately.		

# Print Media

<b>Delivery—Output Tray</b>	<b>Output:</b> Face-down <b>Tray Capacity:</b> 500 sheets of 20 lb bond (75 g/m <sup>2</sup> ) paper
<b>Delivery—Mailbox</b>	<b>Output:</b> Face-down <b>Mailbox Bin Capacity:</b> Each bin holds approximately 50 sheets of 16–24 lb (60–90 g/m <sup>2</sup> ) bond letter/A4 paper only
<b>Input sources</b>	<b>Upper input feeder (500-sheet tray):</b> Paper, transparencies <b>Optional lower input feeder (500-sheet tray):</b> Paper, transparencies <b>Multipurpose tray (150 sheet):</b> Envelopes, labels, paper, thick stock, transparencies

<b>Media sizes, types, and weights</b>	See “Media Types” on page 35.
<b>Notes</b>	The maximum media weight supported for duplex printing is 24 lb bond (90g/m <sup>2</sup> ).

## Document Option Commands

This lists the supported Document Option Commands (DOCs) for your magi-color 2210. The commands are grouped by feature type.

Each command is preceded by either a DOC statement (%%) or an Include-Feature statement (%%IncludeFeature). See the *Crown Document Option Commands* manual for information on all other commands.

## Supported DOCs

### Header/Trailer Page Commands

Print charge number	%%ChargeNumber
Print copyright statement	%%CopyRight:
Print document creator	%%Creator:
Print creation date and time	%%CreationDate:
Print current date	%%Date:
End comments	%%EndComments
Print document owner	%%For:
Print document host	%%Host:
	%%Page
Job completion notification via email	%%Notify
Select page order	%%PageOrder
Save job for reprinting (proof and print)	%%Retain: proof
Print routing information	%%Routing:
Print document title	%%Title:
Print version and revision	%%Version:
Print header page	%%IncludeFeature: header
Print trailer page	%%IncludeFeature: trailer

### HP-GL Emulation Commands

Select enhanced resolution	%%IncludeFeature: enhanced
Expand plot	%%IncludeFeature: expand
Select original paper size	%%IncludeFeature: size

Select pen width and color	%%IncludeFeature: pen
Select plotter	%%IncludeFeature: plotter
Scale the image	%%IncludeFeature: scaling
Set origin	%%IncludeFeature: origin

## HP PCL 5e Emulation Commands

Install object	%%IncludeFeature: install
Remove object	%%IncludeFeature: remove
Remove resource	%%IncludeFeature: removeresource
Retain temporary	%%IncludeFeature: retaintemporary
Select default font	%%IncludeFeature: font
Select default font ID	%%IncludeFeature: fontid
Reset	%%IncludeFeature: reset
Select scalable fonts	%%IncludeFeature: scalablefonts
Select symbol set	%%IncludeFeature: symbolset
Set carriage return to CR+LF	%%IncludeFeature: crisrlf
Set linefeed to CR+LF	%%IncludeFeature: lfisrlf
Set number of lines per inch	%%IncludeFeature: linesperinch
Set point size	%%IncludeFeature: pointsize
Resource	%%IncludeFeature: resource

## Lineprinter Emulation Commands

Select font for current job	%%IncludeFeature: font
Set point size for current job	%%IncludeFeature: pointsize
Specify character map type	%%IncludeFeature: map
Number lines	%%IncludeFeature: number
Set tabs	%%IncludeFeature: tabs
Set linefeed to CR+LF	%%IncludeFeature: lfisrlf
Set carriage return to CR+LF	%%IncludeFeature: crisrlf
Set formfeed to CR+FF	%%IncludeFeature: ffrisrff
Wrap lines	%%IncludeFeature: autowrap
Set number of lines per page	%%IncludeFeature: linesperpage
Set margins	%%IncludeFeature: lpmargins
Set orientation	%%IncludeFeature: lporientation

## CCITT Groups 3 and 4 Commands

Start decompression	%%ImageData
Set encoded byte flag	%%EBAMode
Set end of block	%%BlockEnd
Set line end	%%LineEnd

Eject page	%%PageEnd
Set image position	%%ImagePosition
Invert image	%%InvertImage
Set dpi for image expansion	%%DPI
Set data compression	%%Compression
Reverse bits	%%BitReverse
End print job	%%JobEnd
Set image size	%%ImageSize
Set image rotation	%%Rotation
Set source image origin	%%SourceImageOrigin
Set source image position	%%SourceImagePosition

## Document Formatting

Logical page orientation	%%IncludeFeature: pageorientation
Number up printing	%%IncludeFeature: pagegrid
Offset logical page	%%IncludeFeature: pageoffsets
Print borders	%%IncludeFeature: border
Scale logical page	%%IncludeFeature: pagescaling
Print background images	%%IncludeFeature: background
Set printer resolution	%%IncludeFeature: resolution
Print page range	%%IncludeFeature: pagerange
Duplex printing	%%IncludeFeature: duplex
Collate print job	%%IncludeFeature: collate
Logical page size	%%IncludeFeature: pagesize
Select number of copies	%%IncludeFeature: numcopies
Select paper	%%IncludeFeature: input
Select orientation	%%IncludeFeature: orientation
Select emulation	%%IncludeFeature: emulation
Logical margins	%%IncludeFeature: margins
Select color separations	%%IncludeFeature: colorseparation
Select color or monochrome	%%IncludeFeature: colormodel
Media type	%%IncludeFeature: mediatype
Select Output Bins	%%IncludeFeature: output
Select New Layout	%%IncludeFeature: newlayout

## Job and Subjob Boundary Commands

Sessions (only via network interface)	%%Sessions
End of document	%%EndOfDocument <ESC>%-12345x

## LN03 Plus Commands

Identify product  
Control line wrap  
Specify default paper size  
Control transformation point

Adjust image horizontally  
Adjust image vertically  
Set power-up configuration

%%IncludeFeature: product  
%%IncludeFeature: autowrap  
%%IncludeFeature: paper\_size  
%%IncludeFeature:  
    paper\_size\_override  
%%IncludeFeature: xorigin  
%%IncludeFeature: yorigin  
%%IncludeFeature:  
    reset\_override



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