

Administrator's Guide

Use this document when you have questions about the Lexmark Optra™ T printer or encounter a problem when using it. This document contains information on operator panel menus, printer messages, troubleshooting, maintenance, and removing printer options.

You may choose to restrict access to the *Administrator's Guide* by placing all of the CD documents, except the *Administrator's Guide*, on a network.

The online *User's Guide* on this CD is a complement to this *Administrator's Guide*.

Click the document name to open it:

[User's Guide](#)

[Roadmap](#)

[Setup Guide](#)

[2000-Sheet Drawer User's Guide](#)

[High-Capacity Output Stacker
Installation Instructions](#)

TIPS

- Use the Adobe Acrobat (3.x or above) icons and table of contents on your screen to navigate and use this document.
- Click the [blue text](#) to link to another part of this document or to another document.
- You can print all or specific pages of this document.



Other sources of information

Drivers, MarkVision and Utilities CD

In addition to printer drivers and utilities, the *Drivers, MarkVision and Utilities* CD includes information about Lexmark printers. After launching the CD, click View Documentation and then click:

- Printer Commands to open the *Technical Reference* and get details about printer languages and commands, interface specifications, and memory management.
- Special Media to open the *Card Stock & Label Guide* and get information about choosing the correct print material.
- MarkVision™ Printer Utility to open documents providing details about the MarkVision printer management software.
- MarkNet™ Print Servers to open documents containing information about configuring MarkNet print servers.

Lexmark Web site

Access our site on the World Wide Web for updated printer drivers, utilities, and documentation:

www.lexmark.com

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Details relating to compatibility are included in the *Technical Reference*.

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Using the Operator Panel and Menus

This section contains information about using the operator panel, changing printer settings, and understanding operator panel menus.

If you are familiar with using an operator panel similar to this, you may want to skip to [“Overview of printer menus” on page 13](#). Otherwise, if you need information see:

NOTE: Changes made to printer settings from a software application override changes made from the printer operator panel. Refer to the [User's Guide](#) for more details.

[“Using the operator panel” on page 7.](#)

[“Printing the menu settings page” on page 9.](#)

[“Changing menu settings” on page 10.](#)

[“Disabling operator panel menus” on page 12.](#)

Using the operator panel

Use the five operator panel buttons to open a menu, scroll through a list of values, change printer settings, and respond to printer messages. The following table describes the functions of each button.

Buttons act upon the information that displays on the second line of the operator panel.

Operator panel buttons

Button	Function
Go	<p>Press Go to:</p> <ul style="list-style-type: none">• Return to Ready if the printer is in an offline situation (Ready does <i>not</i> display on the operator panel).• Exit printer menus and return to Ready.• Clear operator panel error messages.• Exit Power Saver mode and jump start the printer. <p>If you've changed printer settings, press Go before sending a job to print. Ready must display for jobs to print.</p>
Menu> and <Menu	<p>Each end of the button has a function. Press Menu> or <Menu:</p> <ul style="list-style-type: none">• When Ready displays, to take the printer offline (out of the Ready state) and enter the menus. Menu> takes you to the first available menu. <Menu takes you to the last available menu.• When Busy displays, to take the printer to the JOB MENU.• When the printer is offline:<ul style="list-style-type: none">- Press Menu> to go to the next item in the menus, <i>or</i>- Press <Menu to go to the previous item in the menus.• For menu items that have numerical values, such as Copies, press and hold Menu> to scroll forward, or <Menu to scroll backward. Release the button when the number you want displays.

Operator panel buttons (continued)

Button	Function
Select	Press Select to: <ul style="list-style-type: none">• Select the menu displayed on the second line of the operator panel. Depending on the type of menu, this action:<ul style="list-style-type: none">- Opens the menu and displays the first item in the menu.- Opens the menu item and displays the default setting.• Save the displayed menu item as the new default setting. Saved displays and the printer returns to the menu item.• Clear certain messages from the operator panel.
Return	Press Return to return to the previous menu level or menu item.
Stop	Press Stop while Ready , Busy , or Waiting displays to temporarily stop all activity and take the printer offline. The operator panel status message changes to Not Ready . Press Go to return to the Ready , Busy , or Waiting state.

Printing the menu settings page

NOTE: Before printing the menu settings page, make sure the selected paper source holds letter-, legal-, or A4-size paper and the **PAPER TYPE** setting for the source is set to **Plain Paper**.

NOTE: If an error message displays, see “Understanding Printer Messages” on page 93.

The menu settings page shows current settings for the menus and a list of installed options. You can use this page to verify that the printer options are properly installed and the printer settings are set to what you want.

To print a menu settings page:

- 1 Make sure the printer is on and **Ready** displays.
- 2 Press **Menu>** or **<Menu** to enter the menus.
- 3 Continue to press and release **Menu>** until **UTILITIES MENU** displays.
- 4 Press **Select**.
- 5 Press **Menu>** until **Print Menus** displays.
- 6 Press **Select**.

Printing Menu Settings displays until the page prints. The printer returns to **Ready** after the menu settings page prints.

- 7 If you installed options, verify that they are listed under “Installed Features.”

Changing menu settings

Use the operator panel to change printer settings and customize your printer to meet your specific needs.

To select a new value as the default setting:

- 1 From **Ready**, press **Menu>** or **<Menu** to enter the menus.
- 2 Continue to press and release **Menu>** or **<Menu** until the menu you need displays.

See “[Overview of printer menus](#)” on page 13 for a list of the menus and their menu items.

- 3 Press **Select**.

The menu opens and the first menu item in the menu displays.

- 4 Press **Menu>** or **<Menu** until the menu item you need displays.

- 5 Press **Select**.

An asterisk (*) appears beside the current user default setting for that menu item.

Some menu items have submenus. For example, if you select **PAPER MENU**, and then select the **PAPER TYPE** menu item, you must select another menu (such as **Tray 1 Type**) before the available values display.

NOTE: Changes made from a software application override the user default settings made from the printer operator panel.

NOTE: User default settings remain in effect until you save new settings or restore the factory defaults.

A value can be:

- An **On** or **Off** setting.
- A phrase or word that describes a setting.
- A numerical value that you can increase or decrease.

6 Press **Menu>** or **<Menu** until the value you need displays.

7 Press **Select**.

An asterisk (*) appears beside the value to indicate that it is the user default setting. **Saved** displays, then the previous list of menu items displays.

8 Press **Return** to go back to previous menus or menu items and set new default settings.

9 Press **Go** to return to **Ready**.

Disabling operator panel menus

NOTE: Disabling the operator panel menus does not prevent access to the **JOB MENU** or to *Print and Hold* functionality.

To disable the operator panel menus so that changes cannot be made to the printer default settings:

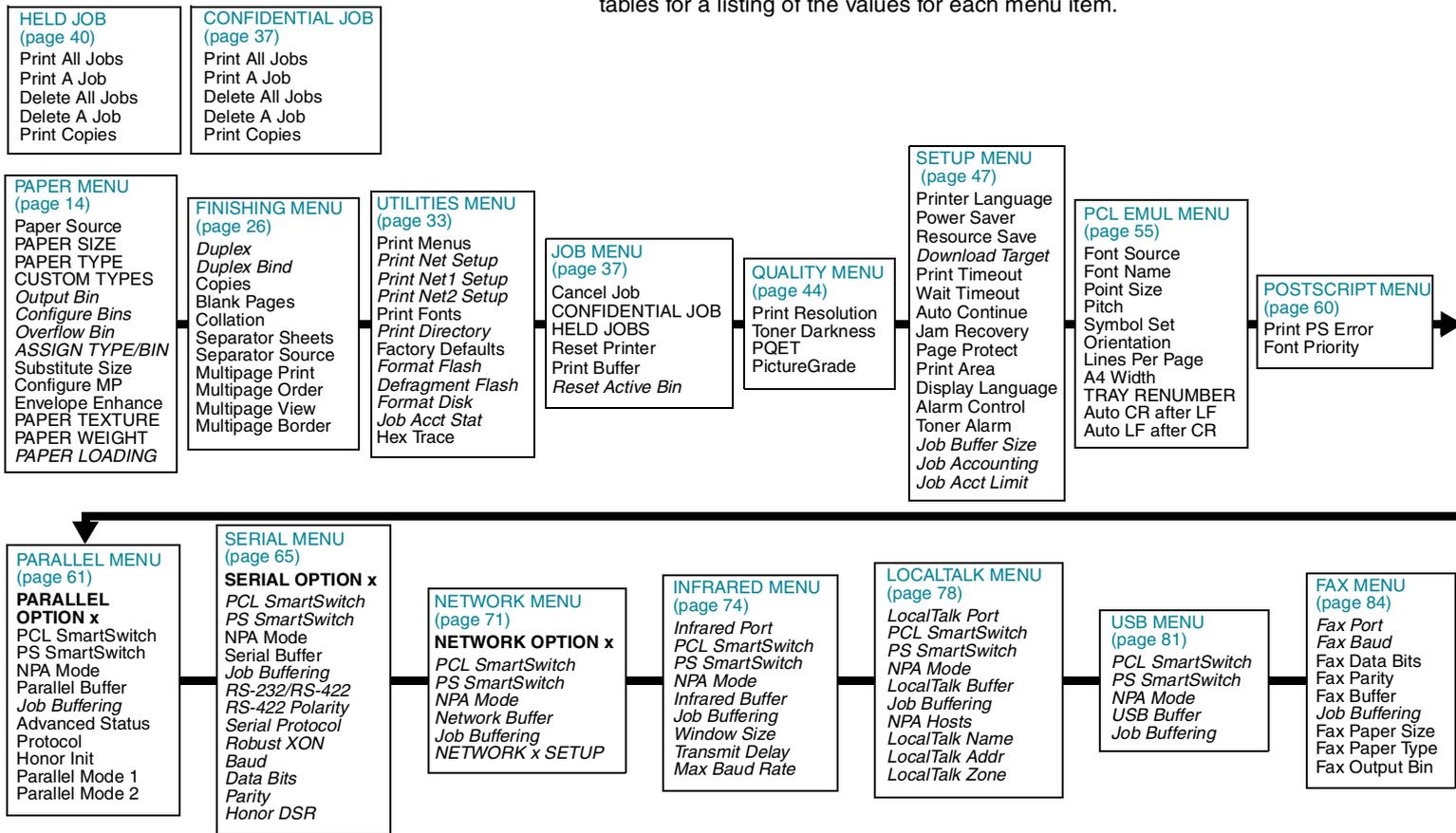
- 1 Turn the printer off.
- 2 Press and hold **Select** and **Return** and turn the printer on.
- 3 Release the buttons when **Performing Self Test** displays.
CONFIG MENU displays on the first line of the operator panel.
- 4 Press **Menu>** until **Panel Menus** displays.
- 5 Press **Select**.
- 6 **Disable** displays on the second line of the operator panel.
- 7 Press **Select**.
Locking Menus briefly displays.
- 8 Press **Menu>** until **Exit Config Menus** displays.
- 9 Press **Select**.

If the operator panel menus are locked and you press **Menu>** or **<Menu**, **Menus Disabled** displays.

To enable the menus, repeat the previous steps.

Overview of printer menus

Menus or menu items in *italics> only display if the corresponding option is installed. Capitalized menu items (for example, PAPER SIZE) have submenus. See the following tables for a listing of the values for each menu item.*



Paper Menu

Use the PAPER MENU to define all settings relating to print material input and output, as well as the specific print material you are using.

Paper Menu

Menu item	Values
Paper Source	<p>Tray 1*</p> <p>Tray 2</p> <p>Tray 3</p> <p>Tray 4</p> <p>Tray 5</p> <p>MP Feeder</p> <p>Env Feeder</p> <p>Manual Paper</p> <p>Manual Env</p> <p>The Paper Source setting identifies the default paper source. Only installed paper sources display.</p> <p>Select Manual Paper when manually feeding a sheet of print material through the multipurpose feeder.</p> <p>Select Manual Env when manually feeding an envelope through the multipurpose feeder.</p> <p>MP Feeder displays only if Configure MP is set to Cassette. If Paper Source is set to MP Feeder and Configure MP is set to First, the Paper Source setting automatically changes to Tray 1.</p> <p>If you are using the same size and type of print material in two paper sources (and the Paper Size and Paper Type settings are correctly set), the trays are automatically linked. When one paper source is empty, print material automatically feeds from the other paper source.</p>
*Factory default	

Paper Menu (continued)

Menu item	Values
PAPER SIZE	<p>Tray x Size (where x represents a tray from 1 to 5) Manual Pap Size</p> <p>Each of the above menu items support the following values as a second menu:</p> <ul style="list-style-type: none">A4* (Country specific)A5JIS B5Letter* (Country specific)LegalExecutiveUniversal <p>MP Feeder Size</p> <ul style="list-style-type: none">A4* (Country specific)A5JIS B5Letter* (Country specific)LegalExecutiveUniversal7 ¾ Envelope9 Envelope10 EnvelopeDL EnvelopeC5 EnvelopeB5 EnvelopeOther Envelope

*Factory default

Paper Menu (continued)

Menu item	Values
PAPER SIZE (continued)	<p>Env Feeder Size Manual Env Size</p> <p>Each of the above menu items support the following values as a second menu:</p> <ul style="list-style-type: none"> 7 ¾ Envelope 9 Envelope 10 Envelope* (Country specific) DL Envelope* (Country specific) C5 Envelope B5 Envelope Other Envelope <p>The PAPER SIZE setting identifies the default formatting size for each paper source. Some paper sources have size sensing. This means the printer automatically determines the size of print material loaded in the paper source.</p> <p>Note: Before loading print material in any paper source, make sure you set the PAPER SIZE and the PAPER TYPE for the paper source. Also, select the paper size and the type from your software application for the print material you are loading.</p> <p>Select Manual Pap Size when manually feeding a single sheet of print material through the multipurpose feeder.</p> <p>Select Manual Env Size when manually feeding a single envelope through the multipurpose feeder.</p> <p>Universal refers to any size that is not considered a standard size. Select Universal from the PAPER SIZE menu when you load print material that doesn't match any of the other available sizes. The printer automatically formats the page for the maximum possible size. You can then set the actual page size from your application software.</p> <p>Select Other Envelope from the PAPER SIZE menu when you load envelopes that do not match any of the other available sizes. The printer automatically formats for the maximum possible envelope size. You can then set the actual envelope size from your application software.</p>
*Factory default	

Paper Menu (continued)

Menu item	Values
PAPER TYPE	<p>Tray x Type (where x represents a tray from 1 to 5) MP Feeder Type Manual Pap Type</p> <p>Each of the above menu items support the following values as a second menu:</p> <ul style="list-style-type: none">Plain Paper*Card StockTransparencyLabelsBondLetterheadPreprintedColored PaperCustom Type x (where x represents a custom type from 1 to 6) <p>Note: MP Feeder Type only displays when Configure MP is set to Cassette.</p> <p>Env Feeder Type Manual Env Type</p> <p>Each of the above menu items support the following values as a second menu:</p> <ul style="list-style-type: none">Envelope*Custom Type x (where x represents a custom type from 1 to 6) <p>Note: Only installed paper sources display.</p>

*Factory default

Paper Menu (continued)

Menu item	Values
PAPER TYPE (continued)	<p>The PAPER TYPE setting lets you specify the type of print material installed in each paper source. This setting is used by the printer in the following ways:</p> <ul style="list-style-type: none">• Enables the printer to optimize print quality for the specified print material.• Enables you to select paper sources through your software application by selecting only a type and size. A source selection is unnecessary.• Enables the printer to automatically link paper sources. Any sources that contain the same type and size of print material are automatically linked by the printer if you have set the PAPER SIZE and the PAPER TYPE to the correct settings for the paper sources. <p>Select Manual Pap Type when manually feeding a single sheet of print material through the multipurpose feeder.</p> <p>Select Manual Env Type when manually feeding an envelope through the multipurpose feeder.</p> <p>Note: Before loading print material in any paper source, make sure you set the PAPER SIZE and the PAPER TYPE for the paper source. Also, select the paper size and the type from your software application for the print material you are loading.</p> <p>Custom Type 1 through 6 refers to special types of print materials. If a user-defined name is available, it displays instead of Custom Type x. Use MarkVision to create custom type names. The name is truncated to 14 characters. See “CUSTOM TYPES” on page 19.</p> <p>If you are using different print material in the paper sources, each source with a different print material must have the PAPER SIZE and PAPER TYPE set to a unique value to disable the automatic tray linking feature. Otherwise, if a paper source becomes empty, the printer selects print material from another source since the printer sees the trays as linked. This might cause a one-page letter to print on a sheet of labels or on a transparency.</p>
*Factory default	

Paper Menu (continued)

Menu item	Values
CUSTOM TYPES	<p>Custom Type x (where x represents a custom type from 1 to 6)</p> <ul style="list-style-type: none">Paper*Card StockTransparencyLabelsEnvelope <p>The CUSTOM TYPES setting identifies the kind of print material used for each of the Custom Types available in the PAPER TYPE menu item. This print material designation optimizes print quality settings when you select print material from a paper source when the type is set to Custom Type x. If a user-defined name is available, it displays instead of Custom Type x, where x represents a number 1 through 6. Use MarkVision to create custom type names. The user-defined name is truncated to 14 characters.</p>
Output Bin	<p>Standard Bin*</p> <p>Bin x (where x represents an output option from 1 to 10)</p> <p>Note: Only installed output options display.</p> <p>The Output Bin setting identifies the default exit for printed material. The standard bin is located on top of the printer. Each additional bin, represented by numbers, is available for each installed output option. If a user-defined name is available, it displays instead of Bin x. The name is truncated to 14 characters. If multiple output bins are assigned the same name, the name only displays once in the Output Bin value list.</p>
*Factory default	

Paper Menu (continued)

Menu item	Values
Configure Bins	<p data-bbox="343 177 529 309">Mailbox* Link Mail Overflow Link Optional Type Assignment</p> <p data-bbox="343 321 1616 373">Configure Bins only displays when at least one output option is installed. Link Optional only displays when at least two optional bins are installed. Mail Overflow only displays when at least four output bins are installed.</p> <p data-bbox="343 384 1616 487">The Mailbox setting allows the Standard Bin and any output options to be selected individually. Printed material is placed in the output bin selected by the print job. If a print job does not specify the output bin, the printed material goes to the default output bin. See “Output Bin” on page 19. When an output bin is full, Remove Paper displays and the printer stops printing until the printed material is removed from the output bin.</p> <p data-bbox="343 499 1616 602">The Link setting allows for bin linking. Bin linking causes all the output bins (standard bin and output options) to be linked together as though they are one large bin. The printer fills the standard bin first. When it is full, the printer starts filling the first output option. As each additional output option is filled, the printer switches to the next installed output option. When the standard bin and all the output options are full, the Remove Paper All Output Bins message displays.</p> <p data-bbox="343 614 1616 717">The Mail Overflow setting allows the Standard Bin and any output options to be selected individually, just as with the Mailbox setting. In addition, an output bin is designated as the "overflow bin". When an output bin is full, instead stopping printing and displaying Remove Paper, the printer automatically diverts printed material to the overflow bin. For information on the Mail Overflow value, see “Overflow Bin” on page 21.</p> <p data-bbox="343 728 1616 809">The Link Optional setting causes all output options to be linked together as though they are one large bin, while leaving the standard bin individually addressable. The printer fills the optional output bin first. When it is full, the printer switches to the next installed output option. When all output options are full, the Remove Paper All Output Bins message displays.</p> <p data-bbox="343 820 1616 901">The Type Assignment setting causes printed media to be directed to output bins based on the paper type of the printed media. Each paper type is assigned to an output bin, and the printer directs the output to the assigned output bin. For information on the Type Assignment value, see “ASSIGN TYPE/BIN” on page 21.</p>
*Factory default	

Paper Menu (continued)

Menu item	Values
Overflow Bin	<p>Standard Bin Bin x (where x represents an output option from 1 to 10)</p> <p>Note: Only installed output options display.</p> <p>Overflow Bin only displays when at least four output bins are installed. If a user-defined bin is available, it displays instead of Bin x. The name is truncated to 14 characters.</p>
ASSIGN TYPE/BIN	<p>Plain Paper Bin Card Stock Bin Transparency Bin Labels Bin Bond Bin Envelope Bin Letterhead Bin Preprinted Bin Colored Bin Custom x Bin (where x represents a custom paper type 1 to 6)</p> <p>Each of the above menu items support the following values as a second menu: Standard Bin Bin x (where x represents an output option from 1 to 10)</p> <p>Note: Only installed output options display.</p> <p>ASSIGN TYPE/BIN only displays when at least one optional bin is installed. If a user-defined name is available, it displays instead of Custom x Bin. Use MarkVision to create custom type names. The name is truncated to 14 characters.</p>
Substitute Size	<p>Off Letter/A4*</p> <p>Select Letter/A4 to let the printer automatically print A4-size jobs on letter-size paper and letter-size jobs on A4-size paper, if the requested size is not currently installed in the paper source.</p>
*Factory default	

Paper Menu (continued)

Menu item	Values
Envelope Enhance	<p>Off On*</p> <p>Use Envelope Enhance to minimize envelope wrinkling. When Envelope Enhance is set to On, you may hear a tapping sound as the envelopes are printing. We recommend you leave Envelope Enhance set to On unless the tapping sound is too loud for your work area.</p> <p>To avoid this sound, set Envelope Enhance to Off. Print a few envelopes. If the quality of print is acceptable, leave Envelope Enhance set to Off. If envelopes crease or wrinkle, set Envelope Enhance to On.</p>
Configure MP	<p>Cassette* Manual First</p> <p>When the multipurpose feeder is set to Cassette and the PAPER SIZE and PAPER TYPE setting are set correctly, the printer treats the multipurpose feeder like any other paper source. If a print job requests a size print material that is only loaded in the multipurpose feeder, the printer selects the print material from the multipurpose feeder for the print job.</p> <p>Select Manual to manually feed single sheets of print material through the multipurpose feeder. The multipurpose feeder acts like a manual feed slot and you can feed only one sheet of print material through at a time.</p> <p>If you set Configure MP to First, the printer feeds print material from the multipurpose feeder until it is empty, regardless of the paper source or paper size requested for the job.</p>
*Factory default	

Paper Menu (continued)

Menu item	Values
PAPER TEXTURE	<p>Plain Texture Card Stock Text Trnsprncy Text Labels Texture Bond Texture Envelope Texture Ltrhead Texture Preprint Texture Colored Texture Custom x Texture (where x represents a custom texture from 1 to 6)</p> <p>Each of the above menu items support the following three values as a second menu:</p> <ul style="list-style-type: none"> • Smooth • Normal* • Rough <p>Note: Rough is the factory default for Bond Texture.</p> <p>Select the appropriate PAPER TEXTURE value (Smooth, Normal, or Rough) for each PAPER TYPE, including Custom Types, that you are using. Set the correct PAPER TEXTURE value for your print material to make sure characters print clearly, without dropouts or voids. If the characters on your printed page appear broken or ill-formed, set PAPER TEXTURE to Rough. If characters on your printed page appear smeared, set PAPER TEXTURE to Smooth or Normal.</p> <p>The PAPER TEXTURE setting works in connection with the PAPER TYPE and PAPER WEIGHT settings. You may need to change those settings to optimize print quality for your specific print material.</p> <p>If a user-defined name is available, it displays instead of Custom x Texture. Use MarkVision to create custom type names. The name is truncated to 14 characters.</p>
*Factory default	

Paper Menu (continued)

Menu item	Values
PAPER WEIGHT	<p>Plain Weight CardStock Weight Trnsprncy Weight Labels Weight Bond Weight Envelope Weight Ltrhead Weight Preprint Weight Colored Weight Custom x Weight (where x represents a custom weight from 1 to 6)</p> <p>Each of the above menu items support the following three values as a second menu:</p> <ul style="list-style-type: none">• Light• Normal*• Heavy <p>Select the appropriate PAPER WEIGHT value (Light, Normal, or Heavy) for each PAPER TYPE, including the Custom Types, that you are using. Set the correct PAPER WEIGHT value for your print material to make sure the toner adheres properly to the page. If you have trouble with toner rubbing off the page, set PAPER WEIGHT to Heavy. If your printed pages are curling excessively, set PAPER WEIGHT to Normal or Light.</p> <p>The PAPER WEIGHT setting works in connection with the PAPER TYPE and PAPER TEXTURE settings. You may need to change those settings to optimize print quality for your specific print material.</p> <p>If a user-defined name is available, it displays instead of Custom x Weight. Use MarkVision to create custom type names. The name is truncated to 14 characters.</p>
*Factory default	

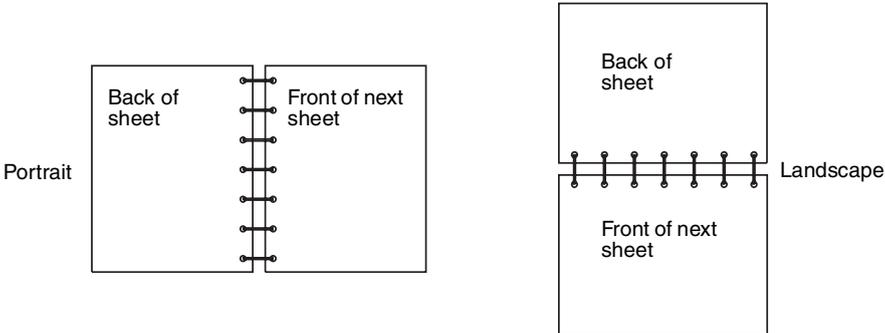
Paper Menu (continued)

Menu item	Values
PAPER LOADING	<p>Card Stock Load Labels Loading Bond Loading Ltrhead Loading Preprint Loading Colored Loading Custom x Loading (where x represents a custom paper name from 1 to 6)</p> <p>Each of the above menu items supports the following values as a second menu:</p> <p>Off* Duplex</p> <p>This setting provides a way to do simplex printing on preprinted media that have been <i>loaded for duplex printing</i>. When the value is set to Duplex for an associated paper type, the printer operating system is notified that the media is loaded <i>specifically for duplex printing</i>. This allows the printer to automatically insert appropriate blank pages when a simplex job is sent to be printed on that particular paper type. For more information on loading preprinted (letterhead) media, refer to the <i>User's Guide</i>.</p> <p>PAPER LOADING only displays if the duplex unit is installed. If a user-defined name is available, it displays instead of Custom x Loading. Use MarkVision to create custom type names. The name is truncated to 14 characters.</p>
*Factory default	

Finishing Menu

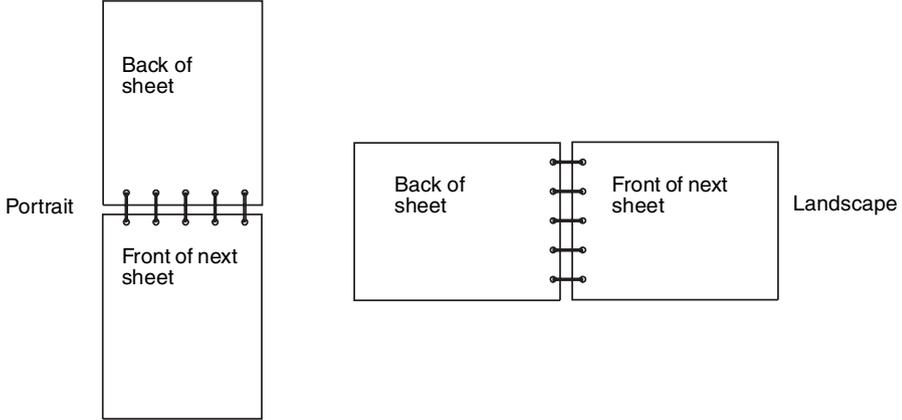
Use the FINISHING MENU to define all printer output settings.

Finishing Menu

Menu item	Values
Duplex	Off* On Note: Duplex only displays if the duplex unit is installed. Set Duplex to On to print on both sides of the page. Set Duplex to Off to print only on one side of the page. You can print duplexed pages for certain size papers from any paper source except the envelope feeder.
Duplex Bind	Long Edge* Short Edge Note: Duplex Bind only displays if the duplex unit is installed. Duplex bind refers to the way pages are bound or connected and how the printing on the back (even-numbered) pages is oriented in relation to the printing on the front (odd-numbered) pages. Long Edge means pages are bound along the long edge of the page (left edge for portrait and top edge for landscape). 

*Factory default

Finishing Menu (continued)

Menu item	Values
Duplex Bind (continued)	<p>Short Edge means the pages are bound along the short edge.</p>  <p>The diagram illustrates two orientations for short edge binding. On the left, labeled 'Portrait', a vertical sheet is shown with the top edge labeled 'Back of sheet' and the bottom edge labeled 'Front of next sheet'. Five binding marks are shown along the short edge (the left edge). On the right, labeled 'Landscape', a horizontal sheet is shown with the left edge labeled 'Back of sheet' and the right edge labeled 'Front of next sheet'. Five binding marks are shown along the short edge (the top edge).</p>
Copies	<p>1*...999</p> <p>The Copies setting determines the number of copies printed for each page. The printer does not automatically collate the copies. For example, if you send three pages to print and set Copies to 2, the printer prints page 1, page 1, page 2, page 2, page 3, page 3.</p> <p>For information about how to use the Copies setting with the Collation setting, see page 28.</p>
Blank Pages	<p>Do Not Print* Print</p> <p>Select Print to include application-generated blank pages with your print job.</p> <p>Select Do Not Print if you do <i>not</i> want to print any application-generated blank pages that appear in your document.</p>
*Factory default	

Finishing Menu (continued)

Menu item	Values
Collation	<p data-bbox="321 177 361 200">Off*</p> <p data-bbox="321 204 361 227">On</p> <p data-bbox="321 242 1616 319">When Collation is set to Off, the printer prints each page of a job the number of times as specified by the Copies setting. For example, if you send three pages to print and set Copies to 2, the printer prints page 1, page 1, page 2, page 2, page 3, page 3.</p> <p data-bbox="321 334 1616 410">When Collation is set to On, the printer prints the entire job the number of times as specified by the Copies setting. For example, if you send three pages to print and set Copies to 2, the printer prints page 1, page 2, page 3, page 1, page 2, page 3.</p> <p data-bbox="321 425 1616 548">Many applications collate documents by repeatedly sending the file to the printer. As a result, the printer must process each print job until the correct number of copies has printed. This requires additional time since the printer must process the same pages over again. By using Collation, the printer processes the file only once, saves the file in the printer memory, and prints the multiple copies. This saves processing time for the printer and for the application, and overall printing time may be reduced.</p> <p data-bbox="321 563 1616 640">For Collation to work effectively, your software application must recognize this printer feature and not send the job to the printer multiple times. Your application must also let you specify the number of copies needed <i>or</i> let you use the printer default setting for Copies.</p> <p data-bbox="321 655 1616 732">Select Collation from the printer operator panel or from the printer driver. For best results, select <i>Collated</i> in the printer driver and set the number of copies to one. In your application, select <i>Uncollated</i> (if the option is available) and then select the number of copies you want.</p> <p data-bbox="321 747 1616 824">If the job is complex or exceeds the memory capacity of your printer, you may receive an Insufficient Collation Memory message. Press Go to clear the message. The printer collates the remaining pages in memory. If you reset the printer, the printer discards the job.</p>
*Factory default	

Finishing Menu (continued)

Menu item	Values
Separator Sheets	<p>None*</p> <p>Between Copies</p> <p>Between Jobs</p> <p>Between Pages</p> <p>You can have the printer insert blank separator sheets between jobs, between multiple copies of a job, or between each page of a job. Separator sheets are pulled from the source specified in the Separator Source menu item.</p> <p>Select Between Copies for multiple copy jobs. If Collation is set to Off, a blank page is inserted between sets of each printed page. If Collation is set to On, a blank page is inserted between each copy of the job.</p> <p>Select Between Jobs to insert a blank page after each print job. This may be helpful when several people are using the printer.</p> <p>Select Between Pages to insert a blank page between each page of a job. This is useful if you are printing transparencies and want to reduce static build-up when stacking transparencies in the output bin.</p>
Separator Source	<p>Tray 1*</p> <p>Tray 2</p> <p>Tray 3</p> <p>Tray 4</p> <p>Tray 5</p> <p>MP Feeder</p> <p>Env Feeder</p> <p>Note: Only installed paper sources display.</p> <p>If you are using separator sheets, Separator Source lets you specify the paper source that holds the separator sheets. You can only select MP Feeder as the separator source if Configure MP is set to Cassette. If Separator Source is set to MP Feeder and Configure MP is set to First, the Separator Source setting automatically changes to Tray 1. See “Configure MP” on page 22.</p>
*Factory default	

Finishing Menu (continued)

Menu item	Values
Multipage Print	<p>Off*</p> <p>2-Up</p> <p>3-Up</p> <p>4-Up</p> <p>6-Up</p> <p>9-Up</p> <p>12-Up</p> <p>16-Up</p> <p>Use the Multipage Print (N-up) setting to print multiple page images on a single page. For example, 2-Up means two page images are printed on one page, 3-Up means three page images are printed on one page, and so forth.</p> <p>The printer uses the Multipage Order, Multipage View, and Multipage Border settings to determine the order and orientation of the page images and if a border is printed around each page image.</p> <p>Note: Printer setting changes within a print job may affect the results you get when using Multipage Print.</p>
*Factory default	

Finishing Menu (continued)

Menu item	Values																																																
Multipage Order	<p data-bbox="321 177 442 281"> Horizontal* Vertical Rev Horizontal Rev Vertical </p> <p data-bbox="321 292 772 476"> The Multipage Order setting determines the positioning of multiple page images on pages printed using Multipage Print. You may choose one of four different orders. The positioning of page images depends on if the pages are sent to the printer as portrait or landscape images. </p> <p data-bbox="321 487 772 568"> These examples show the result of using each Multipage Order setting on a 4-Up print job. </p> <div data-bbox="815 183 1614 809" style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center; margin: 10px;"> <p>Horizontal</p> <table border="1" style="margin: 0 auto;"> <thead> <tr> <th colspan="2">Portrait</th> <th colspan="2">Landscape</th> </tr> </thead> <tbody> <tr> <td>Page 1</td> <td>Page 2</td> <td>Page 2</td> <td>Page 4</td> </tr> <tr> <td>Page 3</td> <td>Page 4</td> <td>Page 1</td> <td>Page 3</td> </tr> </tbody> </table> </div> <div style="text-align: center; margin: 10px;"> <p>Vertical</p> <table border="1" style="margin: 0 auto;"> <thead> <tr> <th colspan="2">Portrait</th> <th colspan="2">Landscape</th> </tr> </thead> <tbody> <tr> <td>Page 1</td> <td>Page 3</td> <td>Page 3</td> <td>Page 4</td> </tr> <tr> <td>Page 2</td> <td>Page 4</td> <td>Page 1</td> <td>Page 2</td> </tr> </tbody> </table> </div> <div style="text-align: center; margin: 10px;"> <p>Rev Horizontal</p> <table border="1" style="margin: 0 auto;"> <thead> <tr> <th colspan="2">Portrait</th> <th colspan="2">Landscape</th> </tr> </thead> <tbody> <tr> <td>Page 2</td> <td>Page 1</td> <td>Page 1</td> <td>Page 3</td> </tr> <tr> <td>Page 4</td> <td>Page 3</td> <td>Page 2</td> <td>Page 4</td> </tr> </tbody> </table> </div> <div style="text-align: center; margin: 10px;"> <p>Rev Vertical</p> <table border="1" style="margin: 0 auto;"> <thead> <tr> <th colspan="2">Portrait</th> <th colspan="2">Landscape</th> </tr> </thead> <tbody> <tr> <td>Page 3</td> <td>Page 1</td> <td>Page 1</td> <td>Page 2</td> </tr> <tr> <td>Page 4</td> <td>Page 2</td> <td>Page 3</td> <td>Page 4</td> </tr> </tbody> </table> </div> </div>	Portrait		Landscape		Page 1	Page 2	Page 2	Page 4	Page 3	Page 4	Page 1	Page 3	Portrait		Landscape		Page 1	Page 3	Page 3	Page 4	Page 2	Page 4	Page 1	Page 2	Portrait		Landscape		Page 2	Page 1	Page 1	Page 3	Page 4	Page 3	Page 2	Page 4	Portrait		Landscape		Page 3	Page 1	Page 1	Page 2	Page 4	Page 2	Page 3	Page 4
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<p>*Factory default</p>																																																	

Finishing Menu (continued)

Menu item	Values
Multipage View	<p>Auto* Long Edge Short Edge</p> <p>Use the Multipage View setting to select the orientation of the printed page with respect to the page images during Multipage Print.</p> <p>Select Auto to allow the printer to choose between portrait and landscape positioning.</p> <p>Select Long Edge to position the long edge of the print material as the top of the page.</p> <p>Select Short Edge to position the short edge of the print material as the top of the page.</p> <p>Note: For PostScript emulation print jobs, the Auto setting is always in portrait orientation.</p>
Multipage Border	<p>None* Solid</p> <p>Use the Multipage Border setting to specify if a border is printed around each page image during Multipage Print.</p> <p>Select None if you do not want to print a border around each page image.</p> <p>Select Solid to print a solid line border around each page image.</p>
*Factory default	

Utilities Menu

Use the UTILITIES MENU to print a variety of listings relating to available printer resources, printer settings, and print jobs. Additional menu items let you set up printer hardware and troubleshoot printer problems.

Utilities Menu

Menu item	Values
Print Menu	<p>Press Select to print the menu settings page.</p> <p>The menu settings page is a list of the user default settings, the installed options, and the amount of available printer memory. This list also shows you the order of menu items.</p> <p>Note: The menu settings page must be printed on letter-, legal-, or A4-size paper.</p>
Print Net Setup	<p>Press Select to print the internal print server settings page.</p> <p>The internal print server settings page contains information on how your network is set up and the printer settings for your network as defined by the Network x Setup menu item in the NETWORK MENU. See page 71 for details.</p> <p>Note: Print Net Setup only displays if an on-board print server is installed in your printer.</p>
Print Net1 Setup	<p>Press Select to print the internal print server settings page.</p> <p>The internal print server settings page contains information on how your network is set up and the printer settings for your network as defined by the Network x Setup menu item in the NETWORK MENU. See page 71 for details.</p> <p>Note: Print Net1 Setup only displays if an internal print server is installed in your printer.</p>
Print Net2 Setup	<p>Press Select to print the internal print server settings page.</p> <p>The internal print server settings page contains information on how your network is set up and the printer settings for your network as defined by the Network x Setup menu item in the NETWORK MENU. See page 71 for details.</p> <p>Note: Print Net2 Setup only displays if an internal print server is installed in your printer.</p>
*Factory default	

Utilities Menu (continued)

Menu item	Values
Print Fonts	<p>PCL Fonts PS Fonts</p> <p>Press Select to print a font sample list that shows all the fonts currently available in the selected printer language, PCL Fonts or PS Fonts.</p>
Print Directory	<p>Press Select to print a list of all the resources stored in flash memory or on a hard disk.</p> <p>The Print Directory menu item is available only if at least one of the options is installed and formatted. Refer to the <i>Technical Reference</i> for details.</p>
Factory Defaults	<p>Restore All</p> <p>If you select Restore All:</p> <ul style="list-style-type: none"> • All downloaded resources (fonts, macros, symbol sets) in the printer memory are deleted. • All menu settings return to the factory default setting <i>except</i>: <ul style="list-style-type: none"> – The Display Language setting in the SETUP MENU. – All settings in the PARALLEL MENU, SERIAL MENU, NETWORK MENU, INFRARED MENU, LOCALTALK MENU, USB MENU, and FAX MENU.
Format Flash	<p>Yes No</p> <p>Formatting the flash memory deletes all resources (fonts, macros, symbol sets) stored in flash memory and prepares the flash memory card to receive new resources.</p> <p>The Format Flash menu item only displays if the installed flash memory is <i>not</i> defective or Read/Write or Write protected. 51 Defective Flash may display when the printer is turned on, or during flash format and write operations. See “51 Defective Flash” on page 107.</p> <p>Warning: If you select Format Flash and press Go, any data stored in flash memory is lost. <i>Do not turn off the printer while the flash is formatting.</i></p>
*Factory default	

Utilities Menu (continued)

Menu item	Values
Defragment Flash	<p>Yes No</p> <p>Defragmenting the flash memory transfers all undeleted resources stored in flash memory to printer memory and then reformats the flash memory. When the format operation is complete, the undeleted resources are loaded back into flash memory.</p> <p>The Defragment Flash menu item only displays if the installed flash memory is <i>not</i> defective or Read/Write or Write protected. 51 Defective Flash may display when the printer is turned on, or during flash format and write operations. See “51 Defective Flash” on page 107.</p> <p>37 Insufficient Defrag Memory displays if printer memory is too full to perform the Flash Memory Defragment operation. See “37 Insufficient Defrag Memory” on page 105.</p> <p>Warning: <i>Do not turn off the printer while the flash is defragmenting.</i></p>
Format Disk	<p>Yes No</p> <p>Formatting the hard disk deletes all resources stored on the hard disk and prepares it to receive new resources.</p> <p>The Format Disk menu item only displays if the installed hard disk is <i>not</i> defective or Read/Write or Write protected. 61 Defective Disk may display when the printer is turned on, or during disk format and write operations. See “61 Defective Disk” on page 112.</p> <p>Format Disk does <i>not</i> display if Job Buffer Size is set to 100%.</p> <p>Warning: If you select Format Disk and press Go, any data stored on the hard disk is lost. <i>Do not turn off the printer while the hard disk is formatting.</i></p>
*Factory default	

Utilities Menu (continued)

Menu item	Values
Job Acct Stat	<p>Print Clear</p> <p>The Job Acct Stat menu item only displays if a hard disk is installed in your printer and is <i>not</i> defective or Read/Write or Write protected. Job Accounting in the SETUP MENU must be set to On.</p> <p>Select Print to print a list of statistics for a defined number of the most recent print jobs. (The number of jobs is determined by the value of the Job Acct Limit menu item in the SETUP MENU). The statistics include if the job printed with or without errors, the time required to print the job, the size (in bytes) of the job, the requested paper size and paper type, the total number of printed pages, and the number of copies requested.</p> <p>Select Clear to delete all accumulated job statistics from the hard disk. Clearing Job Accounting Stat displays until the process completes. See “Clearing Job Accounting Stat” on page 94.</p>
Hex Trace	<p>Press Select to enter Hex Trace mode.</p> <p>Hex Trace helps isolate the source of a print job problem. With Hex Trace selected, all data sent to the printer is printed in hexadecimal and character representation. Control codes are not run.</p> <p>To exit Hex Trace, turn the printer off or reset the printer. To reset the printer, press Menu> or <Menu. Job Menu displays. Press Menu> or <Menu until Reset Printer displays on the second line of the operator panel. Press Select.</p>
*Factory default	

Job Menu

JOB MENU is only available when the printer is busy processing or printing a job, when a printer message displays, when **Ready** displays, or when the printer is in Hex Trace mode. Press **Menu**> or <**Menu** to open the JOB MENU.

Job Menu

Menu item	Values
Cancel Job	Press Select to cancel the current print job. Cancel Job displays only when the printer is processing a print job.
CONFIDENTIAL JOB	Enter PIN When you enter a correct Personal Identification Number (PIN), the following values are available as second and third menus. Refer to the <i>User's Guide</i> for more details. Print All Jobs PRINT A JOB <Job #1 Username> <Job #1 Jobname> <Job #2 Username> <Job #2 Jobname> <Job #3 Username> <Job #3 Jobname> ... <Job #n Username> <Job #n Jobname> Delete All Jobs DELETE A JOB <Job #1 Username> <Job #1 Jobname> <Job #2 Username> <Job #2 Jobname> <Job #3 Username> <Job #3 Jobname> ... <Job #n Username> <Job #n Jobname>

*Factory default

Job Menu (continued)

Menu item	Values
CONFIDENTIAL JOB (continued)	<p>PRINT COPIES</p> <p><Job #1 Username> <Job #1 Jobname></p> <p><Job #2 Username> <Job #2 Jobname></p> <p><Job #3 Username> <Job #3 Jobname></p> <p>...</p> <p><Job #n Username> <Job #n Jobname></p> <p>Note: CONFIDENTIAL JOB does not display until the printer has processed at least one confidential job. Use your software application or printer driver to create and send a confidential job.</p> <p>Username is based on the username field in your driver. The default is your operating system or logon user name. You can change the name in this field to another name in the driver before you send the job. Jobname contains the file title name defined by the application software when you sent the job. You cannot change this field. If one or both of the fields is empty, the name was not defined by the application. For example, if your last name is Smith and your file is called timesheet, the operator panel may display smith timesheet. The Username and Jobname fields are truncated to 16 characters.</p> <p>When you create a Confidential Job, the printer formats your job and holds it in memory. Printing is delayed until you enter a PIN assigned to the job. Refer to the <i>User's Guide</i> for more details.</p> <p>When a valid PIN is entered, you may choose to:</p> <ul style="list-style-type: none"> Print All Jobs PRINT A JOB PRINT COPIES Delete All Jobs DELETE A JOB <p>Note: Only confidential jobs associated with the entered PIN display.</p>
<p>*Factory default</p>	

Job Menu (continued)

Menu item	Values
CONFIDENTIAL JOB (continued)	<p>Press Menu> or <Menu until the menu item you want displays. Press Select. The following button actions are possible while in this menu item:</p> <ul style="list-style-type: none"> • Press Go to exit the selection and the menu group, and return to Ready. • Press Menu> or <Menu to choose another menu item from the list. <p>Press Return to exit the menu group, but remain in the JOB MENU.</p> <p>Select Print All Jobs to print all confidential jobs, exit the menus, and begin printing.</p> <p>Select PRINT A JOB to choose which jobs to print. A list of available jobs displays. Press Menu> or <Menu to scroll through the list of print jobs. Press Select to choose the job to print. If you make a mistake and want to cancel a job, press Select again. Press Go to exit the menus and begin printing.</p> <p>Select Delete All Jobs to delete all confidential jobs from the printer memory. Delete All Jobs. Go/Stop? displays. Press Go to delete all jobs and exit the menus. Press Stop to return to the previous screen without deleting all confidential jobs.</p> <p>Select DELETE A JOB to choose which jobs to delete. A list of available jobs displays. Press Menu> or <Menu to scroll through the list of print jobs. Press Select to choose the job to delete. If you make a mistake and want to cancel a job, press Select again. Press Go to exit the menus. When a job is marked for deletion, it is removed from the list of available jobs.</p> <p>Select PRINT COPIES to choose which jobs to print and how many copies to print for each job. Press Menu> or <Menu to scroll through the list of print jobs. Press Select to choose the print job. When a numerical value displays, press Menu> or <Menu to increase or decrease the number of copies you want to print. You may choose to print from 1 to 999 copies of a single job at a time. Press Select to save the setting and return to Print Copies to select other jobs. Press Go to exit the menus and begin printing.</p>
<p>*Factory default</p>	

Job Menu (continued)

Menu item	Values
HELD JOBS	<p>Print All Jobs</p> <p>PRINT A JOB</p> <p><Job #1 Username> <Job #1 Jobname></p> <p><Job #2 Username> <Job #2 Jobname></p> <p><Job #3 Username> <Job #3 Jobname></p> <p>...</p> <p><Job #n Username> <Job #n Jobname></p> <p>Delete All Jobs</p> <p>DELETE A JOB</p> <p><Job #1 Username> <Job #1 Jobname></p> <p><Job #2 Username> <Job #2 Jobname></p> <p><Job #3 Username> <Job #3 Jobname></p> <p>...</p> <p><Job #n Username> <Job #n Jobname></p> <p>PRINT COPIES</p> <p><Job #1 Username> <Job #1 Jobname></p> <p><Job #2 Username> <Job #2 Jobname></p> <p><Job #3 Username> <Job #3 Jobname></p> <p>...</p> <p><Job #n Username> <Job #n Jobname></p> <p>Note: You do not need to enter a PIN to access the HELD JOBS menu item values.</p>
*Factory default	

Job Menu (continued)

Menu item	Values
HELD JOBS (continued)	<p>Username is based on the username field in your driver. The default is your operating system or logon user name. You can change the name in this field to another name in the driver before you send the job. Jobname contains the file title name defined by the application software when you sent the job. You cannot change this field. If one or both of the fields is empty, the name was not defined by the application. For example, if your last name is Smith and your file is called timesheet, the operator panel may display smith timesheet. The Username and Jobname fields are truncated to 16 characters.</p> <p>If you create a Repeat Print job, the job formats and prints, but is stored in memory for printing additional copies at a later time. Repeat Jobs are automatically deleted when extra memory is required to process additional jobs or when the number of Repeat Jobs stored exceeds the value of the set limit for Print and Hold Repeat Job Limit. Refer to the User's Guide for more details.</p> <p>If you create a Reserve Print job, the job formats, but does not print. The job is stored in printer memory for printing at a later time. All pages in the job are held in memory until printing is activated by selecting Print All Jobs or PRINT A JOB from the HELD JOB menu item. Reserve Print jobs are not deleted from memory when the job prints. To delete a Reserve Print job, select DELETE A JOB from the HELD JOBS menu item.</p> <p>If you create a Verify Print job, the job formats, one copy of the job prints, and any additional copies are stored in printer memory. This allows you to examine the first copy to be sure it is satisfactory before printing the other copies. If the job is unsatisfactory, select DELETE A JOB from the HELD JOBS menu item, and select the job to delete. To print the remaining copies, select PRINT A JOB from the HELD JOBS menu, and select the print job. Press Go to exit the menus and begin printing. When all copies are printed, the job is deleted from printer memory.</p> <p>When you select HELD JOBS, you may choose to:</p> <ul style="list-style-type: none"> Print All Jobs PRINT A JOB PRINT COPIES Delete All Jobs DELETE A JOB

*Factory default

Job Menu (continued)

Menu item	Values
HELD JOBS (continued)	<p>Press Menu> or <Menu until the menu item you want displays. Press Select. The following button actions are possible while in this menu item:</p> <ul style="list-style-type: none"> • Press Go to exit the selection and the menu group, and return to Ready. • Press Menu> or <Menu to choose another menu item from the list. <p>Press Return to exit the menu group, but remain in the JOB MENU.</p> <p>Select Print All Jobs to print all jobs, exit the menus, and begin printing. All Repeat Print, Reserve Print, and Verify Print jobs are printed.</p> <p>Select PRINT A JOB to choose which jobs to print. A list of available jobs displays. Press Menu> or <Menu to scroll through the list of print jobs. Press Select to choose the job to print. If you make a mistake and want to cancel a job, press Select again. Press Go to exit the menus and begin printing. All Repeat Print, Reserve Print, and Verify Print jobs are listed.</p> <p>Select Delete All Jobs to delete all held jobs from the printer memory. Delete All Jobs. Go/Stop? displays. Press Go to delete all jobs and exit the menus. Press Stop to return to the previous screen without deleting all held jobs. All Repeat Print, Reserve Print, and Verify Print jobs are deleted.</p> <p>Select DELETE A JOB to choose which jobs to delete. A list of available jobs displays. Press Menu> or <Menu to scroll through the list of print jobs. Press Select to choose the job to delete. If you make a mistake and want to cancel a job, press Select again. Press Go to exit the menus. When a job is marked for deletion, it is removed from the list of available jobs. All Repeat Print, Reserve Print, and Verify Print jobs are listed.</p> <p>Select PRINT COPIES to choose which jobs to print and how many copies to print for each job. Press Menu> or <Menu to scroll through the list of print jobs. Press Select to choose the print job. When a numerical value displays, press Menu> or <Menu to increase or decrease the number of copies you want to print. You may choose to print from 1 to 999 copies of a single job at a time. Press Select to save the setting and return to Print Copies to select other jobs. Press Go to exit the menus and begin printing. All Print, Reserve Print, and Verify Print jobs are listed.</p>
*Factory default	

Job Menu (continued)

Menu item	Values
Reset Printer	<p>Press Select to reset the printer.</p> <p>When you select Reset Printer, the printer resets to the user default setting for each menu item. All downloaded resources (fonts, macros, symbol sets) in printer memory (RAM) are deleted. All data on the currently selected host interface is deleted from the interface link buffer. All Print and Hold jobs are deleted.</p> <p>Note: Before selecting Reset Printer, exit the software application you are using.</p>
Print Buffer	<p>Press Select to print any data stored in the print buffer.</p> <p>This menu item is only available when you enter the JOB MENU while Waiting displays. The Waiting state occurs if an incomplete job is sent to the printer or an ASCII job, such as a print screen command, is printing.</p>
Reset Active Bin	<p>Reset Active Bin displays if one of the following conditions exist:</p> <ul style="list-style-type: none"> • Configure Bins in the PAPER MENU is set to either Mailbox, Mail Overflow, or Type Assignment. • If Configure Bins is set to Mailbox, Mail Overflow, or Type Assignment, two or more bins must be grouped by assigning them the same bin name. • Busy or Waiting displays. • Menu> is pressed to display the JOB MENU. <p>When bins are linked together, they are filled sequentially. If paper is removed from the linked bins between jobs, all subsequent jobs are sent to the bin that last received paper (active bin). Reset Active Bin sends all subsequent print jobs to the first bin in the sequence of linked bins instead of resuming with the current bin.</p> <p>Note: Reset Active Bin does not apply to the standard bin and has no effect if the selected bins are either full or nearly full.</p> <p>Reset Active Bin will perform one of the following operations:</p> <ul style="list-style-type: none"> • If Configure Bins is set to Mailbox, Mail Overflow, or Type Assignment: The value list consists of names assigned to groups of linked bins. Press Menu> until the grouped bin name you want displays. Press Select to reset the active bin for that group.
*Factory default	

Quality Menu

Use the QUALITY MENU to change settings affecting the quality of the printed characters and images.

Quality Menu

Menu item	Values
Print Resolution	<p>300 dpi 600 dpi* 1200 Image Q 1200 dpi</p> <p>The Print Resolution setting defines the number of dots printed per inch (dpi). The higher the setting, the sharper the clarity of printed characters and graphics.</p> <p>If your print jobs consist nearly entirely of text, select 600 dpi for the highest quality output. Select 1200 Image Q (1200 Image Quality) when your job contains bitmapped images, such as scanned photos or some business graphics, that will benefit from enhanced line screening.</p>
*Factory default	

Quality Menu (continued)

Menu item	Values
Toner Darkness	<p>1 2 3 4 5 6 7* 8 9 10</p> <p>Use Toner Darkness to lighten or darken the image appearance in your print jobs and conserve your toner supply. For finer line width, higher definition in graphics, and lighter gray-scale images, decrease the Toner Darkness value. For bolder line widths or darker gray-scale images, increase the Toner Darkness value. For very bold text, set Toner Darkness to 10. If you want to conserve the toner supply, set Toner Darkness to a value less than 7. Press Menu> or <Menu to scroll through the values. Press Select to choose the Toner Darkness value you want to use. A vertical bar () indicates the factory default setting. An arrow symbol (V) indicates a user default setting.</p>
PQET	<p>Off On*</p> <p>When printed characters appear to have jagged or uneven edges, set PQET (Print Quality Enhancement Technology) to On to improve the print quality of your text and make the characters appear smoother. The PQET setting is only available when Print Resolution is set to 300 dpi.</p>

*Factory default

Quality Menu (continued)

Menu item	Values
PictureGrade	Off On* Use the PictureGrade™ menu item to improve the quality of gray-scale printing at 300, 600, and 1200 dpi resolutions in PostScript emulation. If you select Off , the printer uses the standard screening parameters. If you select On , different default screening parameters are used to improve the print quality of graphics.
*Factory default	

Setup Menu

Use the SETUP MENU to configure a variety of printer features.

Setup Menu

Menu item	Values
Printer Language	<p>PCL Emulation*</p> <p>PS Emulation</p> <p>The printer language defines how the computer communicates with the printer. Your computer uses printer languages, such as PCL emulation and PostScript emulation, to send print data to the printer. Setting a printer language as the default does not prevent the software application from sending print jobs that use the other printer language.</p>
Power Saver	<p>Disabled</p> <p>1...120 (20*)</p> <p>The Power Saver menu item lets you reduce power usage when the printer is idle by determining the length of time (in minutes) the printer waits after a job is printed before it goes to a reduced power state.</p> <p>If you have selected a Power Saver value, the Power Saver message replaces the Ready message and becomes the new printer default when the printer is in a Ready state. Both messages indicate the printer is ready to receive jobs.</p> <p>If your printer is in constant use, select a high setting, such as 120. Under most circumstances, this keeps the printer ready to print with minimum warm-up time. However, a high setting also uses more energy.</p> <p>Set Power Saver to 1 to put the printer in Power Saver mode one minute after it finishes a print job. This uses much less energy, but requires more warm-up time for the printer. If your printer shares an electrical circuit with room lighting and you notice lights flickering, you may want to set Power Saver to 1.</p> <p>If you want a balance between energy consumption and a shorter warm-up period, select a Power Saver value between 1 and 120 minutes.</p>
*Factory default	

Setup Menu (continued)

Menu item	Values
Resource Save	<p>Off* On</p> <p>The Resource Save setting determines what the printer does with downloaded resources, such as fonts and macros, if it receives a job that requires more memory than is available.</p> <p>If Resource Save is set to On, the printer retains all permanent downloaded resources for all printer languages during language changes and printer resets. If the printer runs out of memory, Memory Full displays on the operator panel.</p> <p>If Resource Save is set to Off, the printer retains permanent downloaded resources only until memory is needed. It deletes those resources stored for the inactive printer language.</p>
Download Target	<p>RAM* Flash Disk</p> <p>The Download Target menu item specifies the storage location for downloaded resources, such as fonts and macros.</p> <p>Storing downloaded resources in flash memory or hard disk is permanent storage rather than the temporary storage that RAM provides. You can add resources to flash memory or to the hard disk until the option is full. Use your software application or the printer utilities to download resources to the printer.</p> <p>The Download Target menu item only displays if formatted flash memory or a hard disk is installed in the printer and is <i>not</i> defective or Read/Write or Write protected. 51 Defective Flash or 61 Defective Disk may display when the printer is turned on, or during format and write operations. See “51 Defective Flash” on page 107 or “61 Defective Disk” on page 112.</p> <p>Disk does <i>not</i> display for Download Target if Job Buffer Size is set to 100%.</p> <p>If neither option is installed, Download Target does <i>not</i> display and all downloaded resources are automatically stored in printer memory (RAM).</p>
*Factory default	

Setup Menu (continued)

Menu item	Values
Print Timeout	<p>Disabled 1...255 (90*)</p> <p>The Print Timeout setting determines the time (in seconds) the printer waits before printing the last page of a print job that does not end with a command to print the page. The print timeout counter does not start until the Waiting message displays. When a print timeout occurs, the printer stores the page in the print buffer.</p> <p>Select Disabled to turn Print Timeout off. When Print Timeout is disabled, the printer does not print the last page of a print job until one of the following occurs:</p> <ul style="list-style-type: none">• The printer receives enough information to fill the page.• The printer receives a Form Feed command.• You select Print Buffer from the JOB MENU. See page 43 for details.
Wait Timeout	<p>Disabled 15...65535 (40*)</p> <p>The Wait Timeout setting determines the amount of time (in seconds) the printer waits to receive additional bytes of data from the computer. When this timeout expires, the print job is canceled.</p> <p>Select Disabled to turn Wait Timeout off.</p> <p>Wait Timeout is only available when using PostScript emulation. The setting has no effect on PCL emulation print jobs.</p>
*Factory default	

Setup Menu (continued)

Menu item	Values
Auto Continue	<p>Disabled*</p> <p>5...255</p> <p>Set Auto Continue to a value between 5 seconds and 255 seconds to have the printer continue printing after it detects one of the following errors:</p> <ul style="list-style-type: none">34 Short Paper35 Res Save Off Deficient Memory37 Insufficient Collation Area37 Insufficient Defrag Memory37 Insufficient Memory - Held Jobs may be lost.38 Memory Full39 Complex Page51 Defective Flash52 Flash Full53 Unformatted Flash54 Standard Serial Error54 Std Network Software Error54 Network x Software Error54 Serial Option x Error54 Std Par ENA Connection Lost54 Std Ser Fax Connection Lost54 Ser x Fax Connection Lost54 Par x ENA Connection Lost55 Insufficient Fax Buffer56 Standard Serial Disabled56 Serial Port x Disabled56 Std Parallel Port Disabled56 Parallel Port x Disabled

*Factory default

Setup Menu (continued)

Menu item	Values
Auto Continue (continued)	<p>61 Defective Disk 62 Disk Full 63 Unformatted Disk 80 Scheduled Maintenance 88 Toner Low Print Jobs on Disk?</p> <p>If one of these errors occurs and Auto Continue is set to Disabled, the printer stops and waits for operator intervention. When Auto Continue is set to a numerical value, the printer waits for the specified length of time and then automatically resumes processing.</p> <p>This setting is also used as a timer. After an inactive period in the menus, the printer automatically exits the menus and returns to Ready.</p>
Jam Recovery	<p>On Off Auto*</p> <p>When Jam Recovery is set to Off, the printer does not reprint a page that has jammed.</p> <p>When Jam Recovery is set to On, the printer keeps the image for a printed page until the printer signals that the page has successfully exited the printer. The printer reprints all jammed pages.</p> <p>If Jam Recovery is set to Auto, the printer keeps the image and reprints the page unless the memory required to hold the page is needed for other printer tasks.</p>
*Factory default	

Setup Menu (continued)

Menu item	Values
Page Protect	Off* On Set Page Protect to On to make sure an entire page is processed before it is printed. This may be helpful if you are having trouble printing a page properly because of complex page errors. If you still cannot print the page, your printer may not have enough memory to process the page. You may have to reduce the size and number of fonts on the page, or increase the installed printer memory. For most print jobs, you do not need to set Page Protect to On . When Page Protect is set to On , printing may be slowed.
Display Language (Default set by country - all values may not be available)	English French German Italian Spanish Danish Norwegian Dutch Swedish Portuguese Finnish Japanese Russian Polish Hungarian Turkish Czech The Display Language setting determines the language of the text that displays on the operator panel display.
*Factory default	

Setup Menu (continued)

Menu item	Values
Alarm Control	<p>Off Single* Continuous</p> <p>Select Single or Continuous if you want the alarm to sound any time the printer requires intervention. Select Off if you do not want the alarm to sound.</p>
Toner Alarm	<p>Off* Single Continuous</p> <p>The Toner Alarm setting lets you set the printer to stop printing when a toner low condition occurs. If you select Single or Continuous, the printer stops printing, displays 88 Toner Low, and sounds the alarm. If you select Off, the printer displays Toner Low and continues printing.</p>
Job Buffer Size	<p>Disabled* 10 ... 100</p> <p>Job buffering lets you delay processing of a print job. The job is temporarily stored on an optional hard disk before being printed. This usually frees the host computer during the actual printing of a print job.</p> <p>The Job Buffer Size menu item lets you select the amount of hard disk space allocated to job buffering for all ports that have job buffering set On.</p> <p>The Job Buffer Size menu item does not display if the installed option is defective or is Read/Write or Write protected. 61 Defective Disk displays during printer power on. See “61 Defective Disk” on page 112.</p> <p>Job Buffer Size can be set to Disabled or from 10% to 100% in 1% increments. The first displayed size is 10%. When the job buffer size is changed and saved, the hard disk is reformatted and current hard disk contents are deleted.</p>

*Factory default

Setup Menu (continued)

Menu item	Values
Job Accounting	<p>Off* On</p> <p>If you have an optional disk installed in your printer, set Job Accounting to On to use the disk to store statistical information about your most recent print jobs. The statistics include whether the job printed with or without errors, the time required to print the job, the size (in bytes) of the job, the requested paper size and paper type, the total number of printed pages and the number of copies requested.</p> <p>Job Accounting only displays if the hard disk is <i>not</i> defective, Read/Write or Write protected or if Job Buffer Size is set to 100%. 61 Defective Disk displays during printer power on. See “61 Defective Disk” on page 112.</p> <p>If your printer has a hard disk installed, it is capable of compiling print job statistics and storing them to disk. You may print these statistics. See “Job Acct Stat” on page 36.</p>
Job Acct Limit	<p>Disabled 10...1000 (1000*)</p> <p>The Job Acct Limit menu item does <i>not</i> display if the hard disk is defective, Read/Write or Write protected, or if Job Buffer Size is set to 100%. 61 Defective Disk displays during printer power on. See “61 Defective Disk” on page 112.</p> <p>The Job Acct Limit menu item specifies the number of print jobs for which statistics are maintained on your printer hard disk. For example, if you set the limit to 10, the statistics from the 10 most recent print jobs are stored to disk. When the limit is reached, the oldest print job statistics are discarded and replaced with the statistics from the print job currently being printed. The number of jobs contained in the statistics data never exceeds the Job Accounting Limit.</p> <p>Note: When Job Acct Limit is set to Disabled, print job statistics are stored for each print job until the hard disk is full. When the Job Accounting Limit is modified, all print job statistics currently stored on the hard disk are cleared.</p>
*Factory default	

PCL Emul Menu

Use the PCL EMUL MENU to change printer settings that only affect jobs printed using the PCL emulation printer language.

PCL Emul Menu

Menu item	Values
Font Source	Resident* Download Flash Disk All The Font Source setting determines which fonts display in the Font Name menu. If a font source is not installed or does not contain any fonts, it is not listed as a value. Fonts are loaded and stored on the flash memory option.
Font Name	Font position and font name for all fonts in the selected font source (displays on both lines of the operator panel) (R0 Courier 10*) Always select the font source before you select a font name. After you select a font source, choose the specific font from the Font Name menu item. The printer displays the font source abbreviation, font ID, and font name for each font. The font source abbreviation is R for resident, F for flash, K for disk, and D for download.
Point Size (only displays for PostScript or typographic fonts)	1...1008 (in increments of 0.25) (12*) If you chose a scalable typographic font, you can select the point size for the font. Point size refers to the height of the characters in the font. One point equals approximately 1/72 of an inch. You can select point sizes from 1 to 1008 in increments of 0.25 points.

* Factory default

PCL Emul Menu (continued)

Menu item	Values
Pitch (only displays for fixed or monospaced fonts)	0.08...100 (in increments of 0.01) (10*) If you chose a scalable monospaced font, you can select the font pitch. Pitch refers to the number of fixed-space characters in a horizontal inch of type. You can select a pitch from 0.08 to 100 characters per inch (cpi) in increments of 0.01 cpi. For non-scalable monospaced fonts, the pitch displays, but it cannot be changed.
Symbol Set	List of Symbol Set IDs and Symbol Set names (displays on both lines of the operator panel) 10U PC-8* (Country specific) 12U PC-850* (Country specific) A symbol set is a set of alphabetic and numeric characters, punctuation, and special symbols used when printing with a selected font. Symbol sets support the different requirements for languages or specific applications, such as math symbols for scientific text. The printer displays only the symbol sets supported for the selected font name.

* Factory default

PCL Emul Menu (continued)

Menu item	Values
Orientation	<p>Portrait* Landscape</p> <p>The Orientation setting determines how the printing is oriented on the page. Select Portrait to run the printing parallel to the short edge of the print material.</p> <div data-bbox="477 322 618 483" style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>This is PORTRAIT orientation. This is PORTRAIT orientation.</p> </div> <p>Select Landscape to run the printing parallel to the long edge of the print material.</p> <div data-bbox="482 548 670 684" style="border: 1px solid black; padding: 5px; margin: 10px auto; width: fit-content;"> <p>This is LANDSCAPE orientation. This is LANDSCAPE orientation.</p> </div>
Lines per Page	<p>1...255</p> <p>60* (Country specific) 64* (Country specific)</p> <p>Use the Lines per Page menu item to change the number of lines that print on each page. The setting can range from 1 to 255 lines per page. The printer sets the amount of space between each line (vertical line spacing) based on the Lines per Page, Paper Size, and Orientation settings. Select the correct PAPER SIZE and Orientation before setting Lines per Page.</p>
* Factory default	

PCL Emul Menu (continued)

Menu item	Values
A4 Width	<p>198 mm* 203 mm</p> <p>The A4 Width menu item lets you select the width of the logical page for A4 paper. When you select 198 mm, the width of the logical page is compatible with that of the Hewlett-Packard LaserJet 5 printer. When you select 203 mm, the width of the logical page is wide enough to print eighty 10-pitch characters.</p>
TRAY RENUMBER	<p>Assign MP Feeder Assign Tray x (where x represents a tray from 1 to 5) Assign Env Feeder Assign Man Paper Assign Man Env</p> <p>Each of the above menu items supports the following three values:</p> <ul style="list-style-type: none">Off*0 ... 199None <p>VIEW FACTORY DEF Restore Defaults</p> <ul style="list-style-type: none">YesNo <p>Note: Only installed paper sources display. However, you may set TRAY RENUMBER to uninstalled sources. Assign MP Feeder only displays when Configure MP is set to Cassette.</p>

* Factory default

PCL Emul Menu (continued)

Menu item	Values
TRAY RENUMBER (continued)	<p>The TRAY RENUMBER menu item lets you configure your printer to work with printer drivers or applications that use different source assignments to request a given input source.</p> <p>Select Off to use the factory default paper source assignments.</p> <p>Select a numeric value (0 ... 199) to assign a custom value to a paper source.</p> <p>Select None if you want the paper source to ignore the Select Paper Feed command.</p> <p>Select VIEW FACTORY DEF to view the factory default values assigned to each paper source.</p> <p>In the Restore Defaults menu item, select Yes to return all tray assignments to factory default values.</p> <p>Refer to the <i>User's Guide</i> for information on available paper sources for your printer.</p> <p>Refer to the <i>Technical Reference</i> for more information about assigning source numbers.</p>
Auto CR after LF	<p>Off*</p> <p>On</p> <p>The Auto CR after LF setting determines if the printer automatically performs a carriage return after a line feed control command.</p>
Auto LF after CR	<p>Off*</p> <p>On</p> <p>The Auto LF after CR setting determines if the printer automatically performs a line feed after a carriage return control command.</p>
* Factory default	

PostScript Menu

Use the POSTSCRIPT MENU to change settings that only affect jobs printed using the PostScript emulation printer language.

PostScript Menu

Menu item	Values
Print PS Error	Off* On Select On to print PostScript emulation errors. If an error occurs, the job stops processing, the error message prints, and the printer discards the job. If Print PS Error is set to Off and an error occurs, the job is discarded but no error message prints.
Font Priority	Resident* Flash / Disk The Font Priority menu item only displays if a flash memory or disk is installed, formatted and is <i>not</i> defective, Read/Write or Write protected and Job Buffer Size is <i>not</i> set to 100% .
*Factory default	

Parallel Menu

Use the PARALLEL MENU to change settings affecting jobs sent to the printer through the parallel interface connection, and displays as one of the following:

NOTE: **PARALLEL OPT x** only displays if a parallel card is installed.

- STD PARALLEL
- PARALLEL OPT x (where x is optional parallel interface connection 1 or 2)

Parallel Menu

Menu item	Values
PCL SmartSwitch	Off On* If PCL SmartSwitch is set to On , the printer examines the data on the parallel interface connection and selects PCL emulation if the data indicates that is the printer language. If both PCL SmartSwitch and PS SmartSwitch are set to Off , the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch setting is set to Off , the printer uses the language that has its SmartSwitch setting set to On as the default.
PS SmartSwitch	Off On* If PS SmartSwitch is set to On , the printer examines the data on the parallel interface connection and selects PostScript emulation if the data indicates that is the printer language. If both PCL SmartSwitch and PS SmartSwitch are set to Off , the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch setting is set to Off , the printer uses the language that has its SmartSwitch setting set to On as the default.
* Factory default	

Parallel Menu (continued)

Menu item	Values
NPA Mode	<p>On Off Auto*</p> <p>NPA is a mode of bidirectional communication that follows the conventions defined in <i>Network Printing Alliance Protocol, A Printer/Host Control Specification Developed by the NPA</i>. NPA mode requires special processing of the print data.</p> <p>If NPA Mode is set to On, the data received must be in NPA format. If not, it is rejected as bad data. If NPA Mode is set to Off, the printer does not perform any NPA processing. If NPA Mode is set to Auto, the printer examines the data to determine the format and then processes it in either format.</p> <p>The NPA Mode setting in the PARALLEL MENU applies only to the parallel interface connection.</p> <p>Note: Changing the NPA Mode setting automatically resets the printer.</p>
Parallel Buffer	<p>Disabled Auto*</p> <p>3K to maximum size allowed</p> <p>You can configure the size of the parallel input buffer to meet the requirements of your system.</p> <p>The maximum size available for modification depends on the amount of memory in your printer, the size of the other link buffers, and whether Resource Save is set to On or Off. To maximize the range for the Parallel Buffer size, you can disable or reduce the size of the serial, network, infrared, LocalTalk, and Universal Serial Bus (USB) buffers.</p> <p>Choose Auto to let the printer calculate a buffer size proportional to the total amount of available printer memory. In most cases, Auto is the recommended setting.</p> <p>Note: Changing the Parallel Buffer setting automatically resets the printer.</p>
* Factory default	

Parallel Menu (continued)

Menu item	Values
Job Buffering	<p>Off* On</p> <p>Job Buffering lets you delay processing of a print job. The job is temporarily stored on a hard disk before being printed, usually freeing the host computer while the job prints.</p> <p>The Job Buffering menu item only displays if the installed hard disk is formatted and is <i>not</i> defective, Read/Write or Write protected, and if Job Buffer Size is <i>not</i> set to Disabled. 61 Defective Disk may display when the printer is turned on, or during disk format and write operations. See page 112 for details.</p> <p>If Job Buffering is set to On, print jobs are buffered to the hard disk. If Job Buffering is set to Off, print jobs are not buffered.</p> <p>Note: Changing the Job Buffering setting automatically resets the printer.</p>
Advanced Status	<p>Off On*</p> <p>If Advanced Status is set to On, bidirectional communication is enabled through the parallel interface.</p>
Protocol	<p>Standard Fastbytes*</p> <p>You can select Standard or Fastbytes protocol for the parallel interface. Fastbytes is compatible with most existing parallel interface implementations. Use Standard only if you experience parallel interface problems.</p> <p>Refer to the <i>Technical Reference</i> for more information about the parallel interface.</p>
Honor Init	<p>Off* On</p> <p>The Honor Init setting determines whether the printer honors hardware initialization requests from the computer. The computer requests initialization by activating the INIT signal on the parallel interface. Many personal computers activate the INIT signal each time the computer is turned on and off.</p>

* Factory default

Parallel Menu (continued)

Menu item	Values
Parallel Mode 1	<p>Off On*</p> <p>The Parallel Mode 1 setting controls the pull up resistors on the parallel port signals. It is useful for personal computers that have open collector outputs on the parallel port signals.</p> <p>Set Parallel Mode 1 to On to disable the resistors or to Off to enable the resistors.</p> <p>Note: Parallel Mode 1 is not displayed for the Standard Parallel port.</p>
Parallel Mode 2	<p>Off On*</p> <p>The Parallel Mode 2 setting determines if the parallel port data is sampled on the leading or trailing edge of strobe.</p> <p>If Parallel Mode 2 is set to On, the parallel port data is sampled on the leading edge of strobe.</p> <p>If Parallel Mode 2 is set to Off, the parallel port data is sampled on the trailing edge of strobe.</p>
* Factory default	

Serial Menu

Use the SERIAL MENU to change settings affecting jobs sent to the printer through the serial interface port. The SERIAL MENU only displays when a serial interface port exists on the printer as a standard feature or as an option, and displays as one of the following:

NOTE: Serial interface is a standard feature on Optra T612 and T612n printers.

SERIAL OPTION x only displays if a Tri-Port interface card is installed.

- STANDARD SERIAL
- SERIAL OPTION x (where x is serial interface connection 1 or 2)

Serial Menu

Menu item	Values
PCL SmartSwitch	Off On* If PCL SmartSwitch is set to On , the printer examines the data on the serial interface connection and selects PCL emulation if the data indicates that is the printer language. If both PCL SmartSwitch and PS SmartSwitch are set to Off , the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch is set to On , the printer uses that language as the default.
PS SmartSwitch	Off On* If PS SmartSwitch is set to On , the printer examines the data on the serial interface connection and selects PostScript emulation if the data indicates that is the printer language. If both PCL Smartswitch and PS Smartswitch are set to Off , the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch is set to On , the printer uses that language as the default.
* Factory default	

Serial Menu (continued)

Menu item	Values
NPA Mode	<p>On Off Auto*</p> <p>NPA is a mode of bidirectional communication that follows the conventions defined in <i>Network Printing Alliance Protocol, A Printer/Host Control Specification Developed by the NPA</i>. NPA mode requires special processing of the print data.</p> <p>If NPA Mode is set to On, the data received must be in NPA format. If not, it is rejected as bad data. If NPA Mode is set to Off, the printer does not perform any NPA processing. If NPA Mode is set to Auto, the printer examines the data to determine the format and then processes it in either format.</p> <p>The NPA Mode setting in the SERIAL MENU applies only to the serial interface connection.</p> <p>Note: Changing the NPA Mode setting automatically resets the printer.</p>
Serial Buffer	<p>Disabled Auto* 3K to maximum size allowed</p> <p>You can configure the size of the serial input “Overview of printer menus” on page 13 to meet the requirements of your system. If the limited size of the input buffer is preventing you from continuing work in your application each time you send a job to the printer, you may want to increase the buffer size.</p> <p>The maximum size depends on the amount of memory in your printer, the size of the other link buffers and whether the Resource Save setting is set to On or Off. To maximize the range for the Serial Buffer size, you can disable or reduce the size of the parallel, network, infrared, LocalTalk, and USB buffers. Choose Auto to let the printer calculate a buffer size proportional to the total amount of available printer memory. In most cases, Auto is the recommended setting.</p> <p>Note: Changing the Serial Buffer setting automatically resets the printer.</p>
* Factory default	

Serial Menu (continued)

Menu item	Values
Job Buffering	<p>Off* On</p> <p>Job Buffering lets you delay processing of a print job. The job is temporarily stored on a hard disk before being printed, usually freeing the host computer while the job prints.</p> <p>The Job Buffering menu item only displays if the installed hard disk is formatted and is <i>not</i> defective, Read/Write or Write protected, and if Job Buffer Size is <i>not</i> set to Disabled. 61 Defective Disk may display when the printer is turned on, or during disk format and write operations. See “61 Defective Disk” on page 112.</p> <p>If Job Buffering is set to On, print jobs are buffered to the hard disk. If Job Buffering is set to Off, print jobs are not buffered.</p> <p>Note: Changing the Job Buffering setting automatically resets the printer.</p>
RS-232/RS-422	<p>RS-232* RS-422</p> <p>Choose the serial communication configuration for your printer. Select RS-422 to automatically set Serial Protocol to XON/XOFF.</p>
RS-422 Polarity	<p>Normal* Reverse</p> <p>Select Normal or Reverse polarity.</p> <p>This setting is only available if the serial communication configuration is set to RS-422. Select SERIAL MENU, SERIAL OPTION 1, RS-232/RS-422, and RS-422.</p>
* Factory default	

Serial Menu (continued)

Menu item	Values
Serial Protocol	<p>DTR* (hardware handshaking) DTR/DSR (hardware handshaking) XON/XOFF (software handshaking) XON/XOFF/DTR (combined handshaking) XON/XOFF/DTR/DSR (combined handshaking)</p> <p>The printer supports hardware handshaking, software handshaking, and combined hardware and software handshaking as indicated in the list of values for this menu item.</p> <p>Refer to the <i>Technical Reference</i> for more information about serial interface.</p>
Robust XON	<p>Off* On</p> <p>Robust XON only applies to the serial port if Serial Protocol is set to XON/XOFF. When Robust XON is set to On, the printer sends a continuous stream of XONs to the host computer to indicate that the serial port is ready to receive more data.</p>
* Factory default	

Serial Menu (continued)

Menu item	Values
Baud	1200 2400 4800 9600* 19200 38400 57600 115200 138200 172800 230400 345600 <p>This setting lets you select the rate at which data is being sent to or from your computer. 138200, 172800, 230400, and 345600 only display for the STANDARD SERIAL MENU.</p> <p>Refer to the <i>Technical Reference</i> for information about the range of baud values.</p>
Data Bits	7 8* <p>This setting lets you select the number of data bits that are sent in each transmission frame. Refer to the <i>Technical Reference</i> for more information about data bits.</p>
* Factory default	

Serial Menu (continued)

Menu item	Values
Parity	<p>Even Odd None* Ignore</p> <p>This setting lets you select the parity for serial input and output data frames.</p> <p>Even The port expects to receive data frames with an even number of logical 1's per byte. The port transmits XOFF and XON with even parity. If the port detects a parity error, the port sends an inverted question mark to the printer instead of the character sent by the host system.</p> <p>Odd The port expects to receive data frames with an odd number of logical 1's per byte. The printer transmits XOFF and XON with odd parity. If the printer detects a parity error, the port sends X'5F' to the printer instead of the character sent by the host system.</p> <p>None The port expects no parity bit when it receives data. The port transmits XON and XOFF without parity bits.</p> <p>Ignore The port expects a parity bit when the port receives a data frame. The port ignores the parity bit. The port uses even parity when it transmits XON and XOFF.</p> <p>Refer to the <i>Technical Reference</i> for more information about parity.</p>
Honor DSR (only available if configured for RS-232)	<p>Off* On</p> <p>Honor DSR determines if the printer uses the Data Set Ready (DSR) signal. DSR is one of the handshaking signals for most serial interface cables. If Honor DSR is set to Off, data received by the serial interface is seen as valid data. If Honor DSR is set to On, only data received while the DSR signal is in high condition is treated as valid data.</p> <p>The serial interface uses DSR to distinguish data sent by the computer from data created by electrical noise in the serial cable. This electrical noise can cause stray characters to print.</p> <p>Set Honor DSR to On to prevent stray characters from printing.</p>

* Factory default

Network Menu

Use the NETWORK MENU to change settings affecting jobs sent to the printer through the network port. The NETWORK MENU only displays when a print server port exists on the printer as a standard feature or as an option, and displays as:

NOTE: Network interface is a standard feature on the Optra T616n, T614n, T612n, and T610n printers.

- STANDARD NETWORK
- NETWORK OPTION x (where x represents network connection 1 or 2)

Network Menu

Menu item	Values
PCL SmartSwitch	Off On* If PCL SmartSwitch is set to On , the printer examines the data on the network interface connection and selects PCL emulation if the data indicates that is the printer language. If both PCL SmartSwitch and PS SmartSwitch are set to Off , the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch is set to On , the printer uses that language as the default.
PS SmartSwitch	Off On* If PS SmartSwitch is set to On the printer examines the data on the network interface connection and selects PostScript emulation if the data indicates that is the printer language. If both PCL SmartSwitch and PS SmartSwitch are set to Off , the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch is set to On , the printer uses that language as the default.
* Factory default	

Network Menu (continued)

Menu item	Values
NPA Mode	<p>Off Auto*</p> <p>NPA is a mode of bidirectional communication that follows the conventions defined in <i>Network Printing Alliance Protocol, A Printer/Host Control Specification Developed by the NPA</i>. NPA mode requires special processing of the print data.</p> <p>If NPA Mode is set to On, the data received must be in NPA format. If not, it is rejected as bad data. If NPA Mode is set to Off, the printer does not perform any NPA processing. If NPA Mode is set to Auto, the printer examines the data to determine the format and then processes it in either format.</p> <p>The NPA Mode setting in the NETWORK MENU applies only to the network interface connection.</p> <p>Note: Changing the NPA Mode setting automatically resets the printer.</p>
Network Buffer	<p>Auto* 3K to maximum size allowed</p> <p>You can configure the size of the network buffer to meet the requirements of your system. If the limited size of the input buffer is preventing you from continuing work in your application each time you send a job to the printer, you may want to increase the buffer size.</p> <p>The maximum size available for modification depends on the amount of memory in your printer, the size of the other link buffers, and whether Resource Save is set to On or Off. To maximize the range for the Network Buffer size, you can disable or reduce the size of the parallel, serial, infrared, LocalTalk, and USB buffers.</p> <p>Choose Auto to let the printer calculate the buffer size proportional to the total amount of available printer memory. In most cases, Auto is the recommended setting.</p> <p>Note: Changing the Network Buffer setting automatically resets the printer.</p>
* Factory default	

Network Menu (continued)

Menu item	Values
Job Buffering	<p>Off* On</p> <p>Job Buffering lets you delay processing of a print job. The job is temporarily stored on a hard disk before being printed, usually freeing the host computer while the job prints.</p> <p>The Job Buffering menu item only displays if the installed hard disk is formatted and is <i>not</i> defective, Read/Write or Write protected, and if Job Buffer Size is <i>not</i> set to Disabled. 61 Defective Disk may display when the printer is turned on, or during disk format and write operations. See “61 Defective Disk” on page 112.</p> <p>If Job Buffering is set to On, print jobs are buffered to the hard disk. If Job Buffering is set to Off, print jobs are not buffered.</p> <p>Note: Changing the Job Buffering setting automatically resets the printer.</p>
STD NET SETUP or NETWORK x SETUP	<p>Values for this menu item are supplied by the specific network card. Open the menu to see the available values. Refer to the documentation on the <i>Drivers, MarkVision and Utilities</i> CD for more details.</p>
* Factory default	

Infrared Menu

Use the INFRARED MENU to change settings affecting jobs sent to the printer through the infrared interface port.

NOTE: This menu only displays if a Tri-Port interface card is installed.

If **Infrared Port** is set to **Disabled**, all other menu items in the INFRARED MENU are not available.

Infrared Menu

Menu item	Values
Infrared Port	Disabled* IR Option 1 IR Option 2 Select IR Option x to activate the infrared port on the Tri-Port interface card. If you select Disabled , all of the other menu items in the INFRARED MENU are not available.
PCL SmartSwitch	Off On* If PCL SmartSwitch is set to On , the printer examines the data on the infrared interface connection and selects PCL emulation if the data indicates that is the printer language. If both PCL SmartSwitch and PS SmartSwitch are set to Off , the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch is set to On , the printer uses that language as the default.
PS SmartSwitch	Off On* If PS SmartSwitch is set to On the printer examines the data on the network infrared connection and selects PostScript emulation if the data indicates that is the printer language. If both PCL SmartSwitch and PS SmartSwitch are set to Off , the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch is set to On , the printer uses that language as the default.
* Factory default	

Infrared Menu (continued)

Menu item	Values
NPA Mode	<p>Off Auto*</p> <p>NPA is a mode of bidirectional communication that follows the conventions defined in <i>Network Printing Alliance Protocol, A Printer/Host Control Specification Developed by the NPA</i>. NPA mode requires special processing of the print data.</p> <p>If NPA Mode is set to On, the data received must be in NPA format. If not, it is rejected as bad data. If NPA Mode is set to Off, the printer does not perform any NPA processing. If NPA Mode is set to Auto, the printer examines the data to determine the format and then processes it in either format.</p> <p>The NPA Mode setting in the INFRARED MENU applies only to the infrared interface connection.</p> <p>Note: Changing the NPA Mode setting automatically resets the printer.</p>
Infrared Buffer	<p>Disabled Auto* 5K to maximum size allowed</p> <p>You can configure the size of the Infrared Buffer to meet the requirements of your system. If the limited size of the input buffer is preventing you from continuing work in your application each time you send a job to the printer, you may want to increase the buffer size.</p> <p>The maximum size available for modification depends on the amount of memory in your printer, the size of the other link buffers, and whether Resource Save is set to On or Off. To maximize the range for the Infrared Buffer size, you can disable or reduce the size of the parallel, serial, network, LocalTalk, and USB buffers.</p> <p>Choose Auto to let the printer calculate a buffer size proportional to the total amount of available printer memory. In most cases, Auto is the recommended setting.</p> <p>Note: Changing the Infrared Buffer setting automatically resets the printer.</p>

* Factory default

Infrared Menu (continued)

Menu item	Values
Job Buffering	<p>Off*</p> <p>On</p> <p>Job Buffering lets you delay processing of a print job. The job is temporarily stored on a hard disk before being printed, usually freeing the host computer while the job prints.</p> <p>The Job Buffering menu item only displays if the installed hard disk is formatted and is <i>not</i> defective, Read/Write or Write protected, and if Job Buffer Size is <i>not</i> set to Disabled. 61 Defective Disk may display when the printer is turned on, or during disk format and write operations. See “61 Defective Disk” on page 112.</p> <p>If Job Buffering is set to On, print jobs are buffered to the hard disk. If Job Buffering is set to Off, print jobs are not buffered.</p> <p>Changing the Job Buffering setting automatically resets the printer.</p>
Window Size	<p>Auto*</p> <p>1</p> <p>The Window Size setting specifies the maximum number of infrared frames the printer can receive before it must send an acknowledgment to the host computer.</p> <p>Select Auto to let the printer automatically set the window size during a power on reset to maximize link performance.</p> <p>In most cases, Auto is the recommended setting. If you have trouble printing when you use the infrared port, changing the Window Size setting to 1 may resolve the problem.</p>
* Factory default	

Infrared Menu (continued)

Menu item	Values
Transmit Delay	<p>Auto* None 1...15</p> <p>The Transmit Delay setting defines the amount of time the printer must wait before transmitting meaningful infrared data to the host computer, as well as the amount of time the printer requests the host computer to wait before it transmits infrared data.</p> <p>Select Auto to let the printer automatically set the Transmit Delay value during a power on reset to maximize link performance.</p> <p>In most cases, Auto is the recommended setting. If you have trouble printing when you use the infrared port, selecting a high Transmit Delay setting, such as 15, may resolve the problem.</p>
Max Baud Rate	<p>2400 9600 19200 38400 57600 115200 576000 1152000* 4000000</p> <p>The maximum baud rate possible for both the printer and the infrared adapter is automatically set during a power on reset. However, if your printer is situated in a bright or highly reflective environment, you may experience intermittent communication problems. If you do, select a lower baud rate for the infrared connection.</p>

* Factory default

LocalTalk Menu

Use the LOCALTALK MENU to change settings affecting jobs sent to the printer through the LocalTalk port.

NOTE: This menu only displays if a Tri-Port interface card is installed.

If **LocalTalk Port** is set to **Disabled**, all other menu items in the LOCAL-TALK MENU are not available.

LocalTalk Menu

Menu item	Values
LocalTalk Port	Disabled* LTalk Option 1 LTalk Option 2 Select LTalk Option x to activate the LocalTalk port on the Tri-Port interface card. If you select Disabled , all of the other menu items in the LOCALTALK MENU are not available.
PCL SmartSwitch	Off On* If PCL SmartSwitch is set to On , the printer examines the data on the LocalTalk interface connection and selects PCL emulation if the data indicates that is the printer language. If both PCL SmartSwitch and PS SmartSwitch are set to Off , the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch is set to On , the printer uses that language as the default.
PS SmartSwitch	Off On* If PS SmartSwitch is set to On , the printer examines the data on the specified LocalTalk interface connection and selects PostScript emulation if the data indicates that is the printer language. If both PCL SmartSwitch and PS SmartSwitch are set to Off , the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch is set to On , the printer uses that language as the default.
* Factory default	

LocalTalk Menu (continued)

Menu item	Values
NPA Mode	<p>Off Auto*</p> <p>NPA is a mode of bidirectional communication that follows the conventions defined in <i>Network Printing Alliance Protocol, A Printer/Host Control Specification Developed by the NPA</i>. NPA mode requires special processing of the print data.</p> <p>If NPA Mode is set to On, the data received must be in NPA format. If not, it is rejected as bad data. If NPA Mode is set to Off, the printer does not perform any NPA processing. If NPA Mode is set to Auto, the printer examines the data to determine the format and then processes it in either format.</p> <p>The NPA Mode setting in the LOCALTALK MENU applies only to the LocalTalk interface connection.</p> <p>Note: Changing the NPA Mode setting automatically resets the printer.</p>
LocalTalk Buffer	<p>Disabled Auto* 6K to maximum size allowed</p> <p>You can configure the size of the LocalTalk input buffer to meet the requirements of your system. If the limited size of the input buffer is preventing you from continuing work in your application each time you send a job to the printer, you may want to increase the buffer size.</p> <p>The maximum size available for modification depends on the amount of memory in your printer, the size of the other link buffers, and whether Resource Save is set to On or Off. To maximize the range for the LocalTalk Buffer size, you can disable or reduce the size of the parallel, serial, network, infrared, and USB buffers.</p> <p>Choose Auto to let the printer calculate a buffer size proportional to the total amount of available printer memory. In most cases, Auto is the recommended setting.</p> <p>Note: Changing the LocalTalk Buffer setting automatically resets the printer.</p>
* Factory default	

LocalTalk Menu (continued)

Menu item	Values
Job Buffering	<p>Off* On</p> <p>Job Buffering lets you delay processing of a print job. The job is temporarily stored on a hard disk before being printed, usually freeing the host computer while the job prints.</p> <p>The Job Buffering menu item only displays if the installed hard disk is formatted and is <i>not</i> defective, Read/Write or Write protected, and if Job Buffer Size is <i>not</i> set to Disabled. 61 Defective Disk may display when the printer is turned on, or during disk format and write operations. See “61 Defective Disk” on page 112.</p> <p>If Job Buffering is set to On, print jobs are buffered to the hard disk. If Job Buffering is set to Off, print jobs are not buffered.</p> <p>Changing the Job Buffering setting automatically resets the printer.</p>
NPA Hosts	<p>1...10 (2*)</p> <p>Use this setting to specify the maximum number of NPA hosts that can register for NPA printer alerts. When the number of hosts registered for NPA alerts exceeds the quantity specified by NPA Hosts, any additional hosts attempting to register for alerts are ignored.</p> <p>Note: Changing the NPA Hosts setting automatically resets the printer.</p>
LocalTalk Name	<p>Lexmark (Printer Name)</p> <p>This setting identifies the printer model name stored in printer memory. It cannot be modified through the operator panel.</p>
LocalTalk Addr	<p>(LocalTalk Node Number)</p> <p>This setting identifies the LocalTalk Node number assigned to the printer. It cannot be modified through the operator panel.</p>
LocalTalk Zone	<p>(Zone name provided by LocalTalk network)</p> <p>This setting determines the LocalTalk Zone. This setting cannot be modified through the operator panel.</p>
* Factory default	

USB Menu

Use the USB MENU to change settings affecting the Universal Serial Bus (USB) interface port. It displays as:

NOTE: **USB OPTION x** only displays if a USB/Parallel interface card is installed.

- USB OPTION x (where x represents USB port 1 or 2)

USB Menu

Menu item	Values
PCL SmartSwitch	<p>Off On*</p> <p>If PCL SmartSwitch is set to On, the printer examines the data on the USB interface connection and selects PCL emulation if the data indicates that is the printer language.</p> <p>If both PCL SmartSwitch and PS SmartSwitch are set to Off, the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch is set to On, the printer uses that language as the default.</p>
PS SmartSwitch	<p>Off On*</p> <p>If PS SmartSwitch is set to On, the printer examines the data on the specified USB interface connection and selects PostScript emulation if the data indicates that is the printer language.</p> <p>If both PCL SmartSwitch and PS SmartSwitch are set to Off, the printer uses the language specified in the Printer Language menu as the default. If only one SmartSwitch is set to On, the printer uses that language as the default.</p>
* Factory default	

USB Menu (continued)

Menu item	Values
NPA Mode	<p>On Off Auto*</p> <p>NPA is a mode of bidirectional communication that follows the conventions defined in <i>Network Printing Alliance Protocol, A Printer/Host Control Specification Developed by the NPA</i>. NPA mode requires special processing of the print data.</p> <p>If NPA Mode is set to On, the data received must be in NPA format. If not, it is rejected as bad data. If NPA Mode is set to Off, the printer does not perform any NPA processing. If NPA Mode is set to Auto, the printer examines the data to determine the format and then processes it in either format.</p> <p>The NPA Mode setting in the USB MENU applies only to the USB interface connection.</p> <p>Note: Changing the NPA Mode setting automatically resets the printer.</p>
USB Buffer	<p>Disabled Auto* 3K to maximum size allowed</p> <p>You can configure the size of the USB input buffer to meet the requirements of your system. If the limited size of the input buffer is preventing you from continuing work in your application each time you send a job to the printer, you may want to increase the buffer size.</p> <p>The maximum size available for modification depends on the amount of memory in your printer, the size of the other link buffers, and whether Resource Save is set to On or Off. To maximize the range for the USB Buffer size, you can disable or reduce the size of the parallel, serial, network, infrared, and LocalTalk buffers.</p> <p>Choose Auto to let the printer calculate a buffer size proportional to the total amount of available printer memory. In most cases, Auto is the recommended setting.</p> <p>Note: Changing the USB Buffer setting automatically resets the printer.</p>

* Factory default

USB Menu (continued)

Menu item	Values
Job Buffering	<p data-bbox="321 177 364 200">Off*</p> <p data-bbox="321 204 355 227">On</p> <p data-bbox="321 242 1579 293">Job Buffering lets you delay processing of a print job. The job is temporarily stored on a hard disk before being printed, usually freeing the host computer while the job prints.</p> <p data-bbox="321 305 1614 385">The Job Buffering menu item only displays if the installed hard disk is formatted and is <i>not</i> defective, Read/Write or Write protected, and if Job Buffer Size is <i>not</i> set to Disabled. 61 Defective Disk may display when the printer is turned on, or during disk format and write operations. See “61 Defective Disk” on page 112.</p> <p data-bbox="321 397 1553 448">If Job Buffering is set to On, print jobs are buffered to the hard disk. If Job Buffering is set to Off, print jobs are not buffered.</p> <p data-bbox="321 460 1119 489">Note: Changing the Job Buffering setting automatically resets the printer.</p>
* Factory default	

Fax Menu

Use the FAX MENU to change settings affecting fax data received by the printer through the serial interface port. The FAX MENU only displays when a serial interface port exists on the printer as a standard feature or as an option.

NOTE: Serial interface is a standard feature on the Optra T612 and T612n printers. **SERIAL OPTION x** only displays if a Tri-Port interface card is installed.

If **Fax Port** is set to **Disabled**, all other menu items in the FAX MENU are unavailable.

Fax Menu

Menu item	Values
Fax Port	Disabled* Std Serial Ser Option 1 Ser Option 2 Select Ser Option x to activate the serial port and configure it to receive fax data. If you select Disabled , all of the other menu items in the FAX MENU are not available.
* Factory default	

Fax Menu (continued)

Menu item	Values
Fax Baud	1200 2400 4800 9600 19200* 38400 57600 115200 This setting lets you select the rate at which fax data is being sent to or from your computer. Refer to the <i>Technical Reference</i> for information about the range of baud values.
Fax Data Bits	7 8* This setting lets you select the number of fax data bits that are sent in each transmission frame. Refer to the <i>Technical Reference</i> for more information about data bits.
* Factory default	

Fax Menu (continued)

Menu item	Values
Fax Parity	<p data-bbox="322 177 390 281">Even Odd None* Ignore</p> <p data-bbox="322 292 920 315">This setting lets you select the parity for fax data frames.</p> <p data-bbox="357 327 1621 413">Even The port expects to receive data frames with an even number of logical 1's per byte. The port transmits XOFF and XON with even parity. If the port detects a parity error, it sends an inverted question mark to the printer instead of the character sent by the host system.</p> <p data-bbox="357 419 1621 499">Odd The port expects to receive data frames with an odd number of logical 1's per byte. The printer transmits XOFF and XON with odd parity. If the printer detects a parity error, it sends X'5F' to the printer instead of the character sent by the host system.</p> <p data-bbox="357 505 1621 533">None The port expects no parity bit when it receives data. The port transmits XON and XOFF without parity bits.</p> <p data-bbox="357 533 1621 591">Ignore The port expects a parity bit when it receives a data frame. The port ignores the parity bit and uses even parity when it transmits XON and XOFF.</p> <p data-bbox="322 602 1032 625">Refer to the <i>Technical Reference</i> for more information about parity.</p>
* Factory default	

Fax Menu (continued)

Menu item	Values
Fax Buffer	<p>Disabled Auto* 105K to max size allowed</p> <p>You can configure the size of the fax buffer to meet the requirements of your system. If the limited size of the input buffer is preventing you from receiving fax data, you may want to increase the fax buffer size.</p> <p>The maximum size depends on the amount of memory in your printer, the size of the other link buffers and whether the Resource Save setting is set to On or Off. To maximize the range for the Fax Buffer size, you can disable or reduce the size of the parallel, network, infrared, LocalTalk, and USB buffers.</p> <p>Choose Auto to let the printer calculate a buffer size proportional to the total amount of available printer memory. In most cases, Auto is the recommended setting.</p> <p>Note: Changing the Fax Buffer setting automatically resets the printer.</p>
Job Buffering	<p>Off* On</p> <p>Job Buffering lets you delay processing of a print job. The job is temporarily stored on a hard disk before being printed, usually freeing the host computer while the job prints.</p> <p>The Job Buffering menu item only displays if the installed hard disk is formatted and is <i>not</i> defective, Read/Write or Write protected, and if Job Buffer Size is <i>not</i> set to Disabled. 61 Defective Disk may display when the printer is turned on, or during disk format and write operations. See “61 Defective Disk” on page 112.</p> <p>If Job Buffering is set to On, print jobs are buffered to the hard disk. If Job Buffering is set to Off, print jobs are not buffered.</p> <p>Note: Changing the Job Buffering setting automatically resets the printer.</p>

* Factory default

Fax Menu (continued)

Menu item	Values
Fax Paper Size	<p>A4* (Country specific) A5 JIS B5 Letter* (Country specific) Legal Executive Universal</p> <p>The Fax Paper Size setting lets you specify the size print material used for printing fax data. Incoming faxes are automatically formatted to print on the paper size set in the Fax Paper Size menu item.</p> <p>The printer automatically prints from the paper source containing the correct paper size and paper type as specified in the Fax Paper Size and Fax Paper Type settings. If no paper source contains the correct paper size and paper type, you are prompted to change the print material in a selected source to match the Fax Paper Size and Fax Paper Type settings.</p>
* Factory default	

Fax Menu (continued)

Menu item	Values
Fax Paper Type	<p>Plain Paper*</p> <p>Card Stock</p> <p>Transparency</p> <p>Labels</p> <p>Bond</p> <p>Letterhead</p> <p>Preprinted</p> <p>Colored Paper</p> <p>Custom Type 1</p> <p>Custom Type 2</p> <p>Custom Type 3</p> <p>Custom Type 4</p> <p>Custom Type 5</p> <p>Custom Type 6</p> <p>The Fax Paper Type setting lets you specify the type of print material used for printing fax data.</p> <p>The printer automatically prints from the paper source containing the correct paper size and paper type as specified in the Fax Paper Size and Fax Paper Type settings. If no paper source contains the correct paper size and paper type, you are prompted to change the print material in a selected source to match the Fax Paper Size and Fax Paper Type settings.</p> <p>Custom Type 1 through 6 refers to special types of print materials. Use MarkVision to create custom type names. The user-defined name is truncated to 14 characters. See “CUSTOM TYPES” on page 19.</p>
* Factory default	

Fax Menu (continued)

Menu item	Values
Fax Output Bin	<p>Standard Bin*</p> <p>Bin x (where x represents an output option from 1 to 10)</p> <p>Note: Only installed output options display.</p> <p>The Fax Output Bin setting identifies the default exit for printed fax data. The standard bin is located on top of the printer. Each additional bin, represented by numbers, is available for each installed output option. If a user-defined name is available, it displays instead of Bin x. The name is truncated to 14 characters. If multiple output bins are assigned the same name, the name only displays once in the Fax Output Bin value list.</p> <p>The Fax Output Bin value can be set to a linked set of bins using the name assigned to the linked set. This allows you to increase the capacity of the fax output bin.</p>
* Factory default	

Config Menu

Use the CONFIG MENU to change printer operation settings.

To access the CONFIG MENU:

- 1 Turn the printer off.
- 2 Press and hold **Select** and **Return** and turn the printer on.
- 3 Release the buttons when **Performing Self Test** displays.
(Press **Go** to display **Config Menu** if it does not display on line 1).

Config Menu

Menu item	Values
Maint Cnt Value	Press Select to view the current value of the maintenance page counter.
Reset Maint Cnt	Press Select twice to reset the maintenance page counter back to zero (0). Note: This should be done only after the fuser unit has been replaced. See “Maintaining Your Printer” on page 122 for more details.
Prt Quality Pgs	Press Select to print the quality test pages. The first page contains a combination of graphics and text. The remaining pages contain graphics only. Note: Make sure PAPER SIZE in the PAPER MENU is set to Letter , Legal , or A4 .
Panel Menus	Disable Enable* Select Disable to lock the operator panel menus. Select Enable to unlock the operator panel menus.

* Factory default

Config Menu (continued)

Menu item	Values
Buffered Jobs	Discard Select Discard to delete all print jobs stored in the print buffer.
Factory Defaults	Restore All If you select Restore All : <ul style="list-style-type: none"> • All downloaded resources (fonts, macros, symbol sets) in the printer memory are deleted. • All menu settings return to the factory default setting <i>except</i>: <ul style="list-style-type: none"> – The Display Language setting in the SETUP MENU. – All settings in the PARALLEL MENU, SERIAL MENU, NETWORK MENU, INFRARED MENU, LOCALTALK MENU, USB MENU, and FAX MENU.
Narrow Media	Plain Width Card Stock Width Trnsprncy Width Labels Width Bond Width Letterhead Width Preprinted Width Colored Width Envelope Width Custom x Width (where x represents a custom width from 1 to 6) Each of the above menu items support the following values as a second menu: Normal* Narrow If a user-defined name is available, it displays instead of Custom x Width . Use MarkVision to create custom type names. The name is truncated to 14 characters.
Exit Config Menu	Press Select to exit the CONFIG MENU . The printer automatically restarts and returns to Ready .
* Factory default	

Understanding Printer Messages

This section describes the various messages that may display on your operator panel.

Status messages give information about the current state of the printer.

Warning messages also give information about the current state of the printer. Warning messages display on the second line of the operator panel.

NOTE: Throughout this book, print jobs sent as Confidential Job, Reserve Print, Repeat Print, or Verify Print are referred to as *Print and Hold* jobs.

Attendance messages indicate printer errors that you must resolve before you can continue printing.

Service messages indicate printer failures that may require servicing.

For more information, click the appropriate link below:

[“Status messages” on page 94.](#)

[“Warning messages” on page 102.](#)

[“Attendance messages” on page 104.](#)

Status messages

Status messages display on the first line of the operator panel and provide information on the current state or status of the printer.

Some messages require both lines to display the entire message.

Status message	Meaning and allowed action
Activating Menu Changes	The printer is reset to activate a printer setting change. No button actions are possible while this message displays.
Busy	<p>The printer is busy receiving, processing, or printing data. The printer indicator light blinks while data is processed. The operator panel displays one of the following items on line 1 while the printer processes data:</p> <ul style="list-style-type: none">• A PJI RDYMSG, if it is defined• A Network Printing Alliance (NPA) protocol job name if one is defined• The printer language <p>Note: If you use the PJI RDYMSG command, a customized message may display instead of Busy. For more information, refer to the <i>Technical Reference</i>.</p> <ul style="list-style-type: none">• Press Stop to take the printer out of the Busy state. Not Ready displays. No more data is processed, but all print material in the printer paper path prints. Press Go to return to Busy.• Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select.• Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>
Cancelling Job	The printer is processing a request to cancel the current print job.
Clearing Job Accounting Stat	The printer is deleting all job statistics stored on the hard disk. No button actions are possible while this message displays.

Status message	Meaning and allowed action
Defragmenting DO NOT POWER OFF	The printer is defragmenting the flash memory to reclaim storage space occupied by deleted resources. No button actions are possible while this message displays.
Deleting Jobs Queuing and Deleting Jobs	The printer is deleting one or more <i>Print and Hold</i> jobs. This message displays if you select Delete All Jobs or Delete A Job and there are no jobs in the print queue. The printer is deleting one or more <i>Print and Hold</i> jobs. This message displays if one or more print jobs are selected for deletion and there are jobs in the print queue. No button actions are possible while either of these messages displays. See DELETE A JOB or Delete All Jobs on page 39 for more details.
Disabling Menus Enabling Menus	The operator panel menus are being locked. The operator panel menus are being unlocked. No button actions are possible while this message displays.
Files will be Lost. Go/Stop?	This message displays when you change the Job Buffer Size setting. The printer must reformat the hard disk and asks for confirmation to continue and erase all files on the hard disk. <ul style="list-style-type: none"> • Press Go to continue. The hard disk formats and the specified job buffer partition is created. Format Disk displays while the hard disk formats. • Press Return or Stop to cancel the operation.
Flushing Buffer	The printer is flushing corrupted print data and discarding the current print job. This message may also occur when the printer has insufficient memory to process a complex PostScript emulation job. See “38 Memory Full” on page 106 for details. No button actions are possible while this message displays.
Formatting Flash DO NOT POWER OFF	The flash memory is formatting. No button actions are possible while this message displays. Note: Do not turn the printer off while this message displays.

Status message	Meaning and allowed action
Formatting Disk	<p>The hard disk is formatting.</p> <p>No button actions are possible while this message displays.</p> <p>Note: Do not turn the printer off while this message displays.</p>
Invalid Font Data	<p>This message displays if the font data on the flash memory is not valid.</p> <p>When this message displays, the Ready and Busy messages do not display until valid font data is stored on the flash memory.</p> <p>No button actions are possible while this message displays.</p>
Invalid Network x Code or Invalid Standard Network Code	<p>This message displays if the code in internal print server x, where x represents network port 1 or 2, has not been programmed or is not valid. You can download network code while this message displays.</p> <p>When this message displays, the Ready and Busy messages do not display until valid code is programmed into the internal print server.</p> <p>No button actions are possible while this message displays.</p>
Locking Menus	<p>This message briefly displays after the operator panel menus have been disabled. See “Disabling operator panel menus” on page 12.</p> <p>No button actions are possible while this message displays.</p>
Menus Disabled	<p>The printer menus are disabled. This message displays when Menu> or <Menu is pressed while Ready displays. See “Disabling operator panel menus” on page 12.</p> <p>No button actions are possible while this message displays.</p>
Network Card Busy	<p>The internal print server is being reset. The NETWORK x SETUP menu item in the NETWORK MENU is not available while this message displays.</p> <p>No button actions are possible while this message displays.</p>

Status message	Meaning and allowed action
Not Ready	<p>The printer is in the Not Ready state, which means it cannot receive or process data.</p> <ul style="list-style-type: none"> • Press Go to take the printer out of Not Ready. • Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>
Performing Self Test	<p>The printer is running the normal series of start-up tests after you turn it on. When the tests are complete, the printer returns to Ready.</p> <p>No button actions are possible while this message displays.</p>
Power Saver	<p>The printer is in Power Saver mode.</p> <ul style="list-style-type: none"> • Press Go to take the printer out of Power Saver mode and quick start the printer. • Press Menu> or <Menu to enter the menus. • Press Stop to take the printer offline. Not Ready displays and no data is processed. Press Go to return to Power Saver mode.

Status message	Meaning and allowed action
<p>Printing Directory List</p> <p>Printing Font List</p> <p>Printing Job Accounting Stat</p> <p>Printing Menu Settings</p> <p>Printing Quality Test Pages</p>	<p>The printer is processing or printing a directory of all files stored in the flash memory or on the hard disk.</p> <p>The printer is processing or printing a list of all available fonts for the selected printer language.</p> <p>The printer is processing or printing the Job Accounting Statistics.</p> <p>The printer is processing or printing a list of the printer user default settings and installed options. See “Printing the menu settings page” on page 9.</p> <p>The printer is processing or printing the quality test pages.</p> <p>The message displays until the function completes and the page prints.</p> <ul style="list-style-type: none"> • Press Stop to take the printer offline. Not Ready displays. No more data is processed, but all print material in the printer paper path prints. Press Go to return to the previous message. • Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>
<p>Prog Engine Code DO NOT POWER OFF</p>	<p>The printer is programming new code into the flash memory.</p> <p>No button actions are possible while this message displays.</p> <p>Note: Do not turn the printer off while this message displays.</p>

Status message	Meaning and allowed action
Prog System Code DO NOT POWER OFF	<p>The printer is programming new system code. When the programming is completed successfully, the printer performs a power on reset.</p> <p>No button actions are possible while this message displays.</p> <p>Note: Do not turn the printer off while this message displays.</p>
Program Flash DO NOT POWER OFF	<p>The printer is storing resources, fonts or macros, in the flash memory. If information is written to the flash memory and to the hard disk at the same time, Program Flash displays.</p> <p>No button actions are possible while this message displays.</p> <p>Note: Do not turn the printer off while this message displays.</p>
Programming Disk DO NOT POWER OFF	<p>The printer is storing resources, fonts or macros, on the hard disk. If information is written to the flash memory and to the hard disk at the same time, Program Flash displays.</p> <p>No button actions are possible while this message displays.</p> <p>Note: Do not turn the printer off while this message displays.</p>
Queuing Jobs Queuing and Deleting Jobs	<p>The printer is sending one or more <i>Print and Hold</i> jobs selected in the print queue to print. This message displays if you select Print All Jobs, Print A Job, Print Copies and no jobs are selected for deletion.</p> <p>The printer is sending one or more <i>Print and Hold</i> jobs selected in the print queue to print. This message displays if one or more jobs are selected in the print queue to print and one or more jobs are selected for deletion.</p> <p>No button actions are possible while either of these messages displays.</p> <p>See PRINT A JOB or Print All Jobs on page 39 for more details.</p>
Ready	<p>The printer is ready to receive and process data.</p> <ul style="list-style-type: none"> • Press Menu> or <Menu to take the printer out of Ready and enter the menus. • Press Stop to take the printer offline. Not Ready displays and no data is processed. Press Go to return to Ready. <p>Note: If you use the PjL RDYMSG command, a customized message may display instead of Ready. For more information, refer to the <i>Technical Reference</i>.</p>

Status message	Meaning and allowed action
Ready Hex	<p>The printer is ready and Hex Trace mode is active. Hex Trace isolates the source of a print job problem. When Hex Trace is selected, all data sent to the printer prints in hexadecimal and character representation. Control codes print, but do <i>not</i> execute.</p> <ul style="list-style-type: none"> • Turn the printer off to exit Hex Trace. • Press Stop to take the printer offline. Not Ready displays and no data is processed. Press Go to return to Ready. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>
Res Reduced	<p>The resolution of the page is reduced from 600 dots per inch (dpi) to 300 dpi to prevent a 38 Memory Full error. 1200 dpi pages do not undergo resolution reduction. If a 1200 dpi print job runs out of memory, a 38 Memory Full error occurs. Res Reduced displays for the duration of the current job.</p>
Resetting Active Bin	<p>The printer is setting the active bin back to the first bin of a set of linked bins.</p> <p>No button actions are possible while this message displays.</p>
Resetting the Printer	<p>The printer is deleting any print jobs in process and restoring all printer settings to user defaults.</p> <p>No button actions are possible while this message displays.</p>
Restoring Factory Defaults	<p>The printer is restoring factory defaults. See page 92 for details about which printer settings are affected.</p> <p>No button actions are possible while this message displays.</p>
Unlocking Menus	<p>If the operator panel menus are disabled, this message briefly displays after they are enabled. See “Disabling operator panel menus” on page 12.</p> <p>No button actions are possible while this message displays.</p>

Status message	Meaning and allowed action
<p>Waiting</p>	<p>Waiting displays when one of the following occurs:</p> <ul style="list-style-type: none"> • The printer has received a page of data to print, but is waiting for an End of Job command, Form Feed command, or for additional data. Waiting displays until the Print Timeout occurs or additional data is received. • Collation is set to On, but the print job has not been canceled. Termination of the print job is required before page collated copies print. <p>The printer language displays on line 1 to the right of the Waiting message.</p> <ul style="list-style-type: none"> • Print the contents of the buffer. Press Go, Menu>, or <Menu to enter the JOB MENU. Press Menu> or <Menu until Print Buffer displays. Press Select. See “Print Buffer” on page 43. • Press Stop to take the printer out of Waiting. Not Ready displays. Press Go to return to Waiting. • Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. • Reset the active bin. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Active Bin displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>

Warning messages

Warning messages display on the second line of the operator panel. If none of the following conditions exist, line 2 of the operator panel is blank.

Warning message	Meaning
<linked set bin name> Full	One of the linked set of output bins is full. <linked set bin name> represents a user-defined name. This message <i>only</i> displays when Configure Bins is set to Mailbox , Mailbox Overflow , or Type Assignment . See page 20 for details.
Bin x Full <bin name> Full	The linked set of output bins is full, where x represents an output bin 1 through 10 and <bin name> is a user-defined name. This message <i>only</i> displays when Configure Bins is set to Link , or Link Optional . See page 20 for details.
Check Config ID	The printer configuration identification (ID) is not set or is not valid. Call Lexmark Customer Support.
Fax	The printer is processing a fax through the standard serial port.
Fax x	The printer is processing a fax through port x, where x represents the active interface port.
Infrared x	The printer is locked onto infrared interface port x, where x represents the active communication link.
LocalTalk x	The printer is locked onto LocalTalk interface port x, where x represents the active communication link.
Maintenance	The printer requires replacement of routine maintenance items to maintain top performance, and avoid print quality and paper feed problems. This message displays until maintenance is performed and the printer maintenance counter is reset. See “Maintaining Your Printer” on page 122 .
Network x	The printer is locked onto network interface port x, where x represents the active communication link.
Network x, y	The printer is locked onto a network interface port, where x represents the active communication link and y represents the channel.
Overflow Bin Full	The designated overflow bin is full. This message <i>only</i> displays when Configure Bins is set to Mailbox Overflow . See page 20 for details.

Warning message	Meaning
Parallel	The standard parallel interface is the active communication link.
Parallel x	The printer is locked onto parallel interface port x, where x represents the active communication link.
Serial	The standard serial interface is the active communication link.
Serial x	The printer is locked onto serial interface port x, where x represents the active communication link.
Std Bin Full <std bin name> Full	An output bin is full. <std bin name> represents a user-defined name. This message <i>only</i> displays when Configure Bins is set to Link Optional . See page 20 for details.
Toner Low	The level of toner in the print cartridge is low. The message clears when the upper front door is opened. To utilize the remaining toner, remove the print cartridge, shake it gently, and reinstall it in the printer. You can repeat this process until the print quality becomes unacceptable. Before the toner supply is depleted, the printer might display Toner Low again until you replace the print cartridge.
Tray x Empty	Paper tray x, where x represents tray number 1 through 5, is empty. If more than one paper tray is empty, the printer displays the message for the higher numbered tray first. This message does <i>not</i> display for the multipurpose feeder or the envelope feeder.
Tray x Low	Paper tray x, where x represents tray number 1 through 5, has a low supply of print material. If more than one paper tray is low, the printer displays the message for the higher numbered tray first. This message does <i>not</i> display for the multipurpose feeder or the envelope feeder.
Tray x Missing	Paper tray x, where x represents tray number 1 through 5, is missing from the printer. If more than one paper tray is missing, the printer displays the message for the higher numbered tray first.
USB x	The printer is processing data through USB port x, where x represents the active USB port.

Attendance messages

The following messages are listed in numerical order.

For paper jam errors, the entire paper path must be cleared of print material before you can continue printing. Refer to the *User's Guide* for detailed information.

Attendance message	Meaning and required action
31 Defective Print Cartridge	<p>A defective print cartridge is installed.</p> <p>Open the upper front door, remove the print cartridge, and install another print cartridge.</p>
32 Unsupported Print Cartridge	<p>An unsupported print cartridge is installed.</p> <p>Open the upper front door, remove the print cartridge, and install an appropriate print cartridge.</p>
34 Short Paper	<p>The printer determines the paper length is too short to print the formatted data. This occurs when the printer does not know the actual paper size loaded in tray. For auto-size sensing trays, this error occurs if the paper stop is <i>not</i> in the correct position. This message also displays if you select Universal as a Paper Size setting and use print material too short for the page format.</p> <ul style="list-style-type: none">• Press Go to clear the message and continue printing.• Make sure the Paper Size setting in the PAPER MENU is correct for the size print material you are using. If MP Feeder Size is set to Universal, make sure your print material is large enough.• Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select.• Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>

Attendance message	Meaning and required action
35 Res Save Off Deficient Memory	<p>The printer lacks the memory needed to enable Resource Save. This message usually indicates that too much memory is allocated for one or more of the printer link buffers.</p> <p>To enable Resource Save after this message displays:</p> <ul style="list-style-type: none"> • Install additional memory, <i>or</i> • Set the link buffer to Auto, and exit the menus to activate the link buffer changes. When Ready displays, enable Resource Save from the SETUP MENU and modify the link buffer again. <p>Press Go to disable Resource Save and continue printing.</p>
37 Insufficient Collation Area	<p>The printer memory used to store pages of data is too full to collate the rest of the print job.</p> <ul style="list-style-type: none"> • Press Go to clear the message, print the portion of the job already in memory, and collate the rest of the job. • Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>
37 Insufficient Defrag Memory	<p>The printer memory used to store undeleted flash resources is too full to perform the flash memory defragment operation.</p> <ul style="list-style-type: none"> • Press Go to clear the message. <p>To perform the defragment operation, you can:</p> <ul style="list-style-type: none"> • Delete fonts, macros, and other data in printer RAM. • Install additional printer memory.

Attendance message	Meaning and required action
<p>37 Insufficient Memory</p> <p>Held Jobs may be lost.</p>	<p>The printer memory contains <i>Print and Hold</i> jobs and is too full to continue processing the current job.</p> <p>Note: The messages, 37 Insufficient Memory and Held Jobs may be lost., display alternately on the operator panel until you do one of the following:</p> <ul style="list-style-type: none"> • Press Go to clear the message and continue printing. The printer frees memory by deleting the oldest held print job and continues deleting held jobs until there is enough printer memory to process the current print job. • All Repeat, Verify, and Reserve Print jobs are deleted before any Confidential Print Jobs are deleted. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>
<p>38 Memory Full</p>	<p>The printer is processing data, but the memory used to store pages is full.</p> <ul style="list-style-type: none"> • Press Go to clear the message and continue printing. However, some data may not print or may not print correctly. • Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p> <p>After resetting the printer, reduce the complexity of the print job and send it to print again. To simplify the print job:</p> <ul style="list-style-type: none"> • Reduce the amount of text or graphics on a page. • Reduce the print resolution. • Delete unnecessary downloaded fonts or macros. • Install additional printer memory.

Attendance message	Meaning and required action
<p>39 Complex Page</p>	<p>The page may not print correctly because the amount of text, graphics, or print information on the page is very complex.</p> <ul style="list-style-type: none"> • Set Page Protect in the SETUP MENU to On and send the print job again. • Press Go to clear the message and continue printing. However, some data may not print or may not print correctly. Try to simplify the print job. • Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>
<p>51 Defective Flash</p>	<p>The printer detects a defective flash memory. This message displays when you turn the printer on, or during format and write to flash operations.</p> <ul style="list-style-type: none"> • Press Go to clear the message and continue printing. <p>Note: You must install a different flash memory before you can perform any flash memory operations.</p>
<p>52 Flash Full</p>	<p>There is not enough free space in the flash memory to store the data that was sent.</p> <ul style="list-style-type: none"> • Press Go to clear the message and continue printing. Downloaded fonts and macros not previously stored in flash memory are deleted. • Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>

Attendance message	Meaning and required action
53 Unformatted Flash	<p>The printer detects an unformatted flash memory. This message displays when you turn the printer on.</p> <p>You must format the flash memory before you can perform any flash memory operations. To format the flash memory, select Format Flash from the UTILITIES MENU.</p> <p>Press Go to clear the message and continue printing. If the error message remains, the flash memory may be defective and need replacing.</p>

Attendance message	Meaning and required action
54 Standard Serial Error	<p>A serial interface error is detected (framing or parity) on the standard serial port. This error usually indicates the serial link has not been set up correctly. When the serial error displays, the reporting of other serial errors is suppressed until interface parameters are changed or the printer is reset.</p>
54 Serial Option x Error	<p>A serial interface error is detected (framing or parity) on serial port x, where x is optional serial port 1 or 2. This error usually indicates the serial link has not been set up correctly. When the serial error displays, the reporting of other serial errors is suppressed until interface parameters are changed or the printer is reset.</p>
54 Std Par ENA Connection Lost	<p>Displays only during the printer power on cycle to indicate the connection to an external print server (also called an external network adapter or ENA) is lost.</p>
54 Par x ENA Connection Lost	
54 Std Ser Fax Connection Lost	<p>The standard serial port or serial port x, where x is an optional serial port, is configured to receive fax data, but the connection to the external modem has been lost. If Fax Port in the FAX MENU is <i>not</i> set to Disabled, the printer automatically assumes a modem is connected for fax processing. See “Fax Menu” on page 84.</p>
54 Ser x Fax Connection Lost	
54 Std Network Software Error	<p>The printer has detected that a network port is installed but cannot establish communications with it.</p>
54 Network x Software Error	<ul style="list-style-type: none"> • It may be necessary to program new firmware in the network interface via the parallel port after this message has been cleared.
	<p>Check the interface to:</p>
	<ul style="list-style-type: none"> • Verify you are using the correct cable. • Make sure the parallel or serial interface parameters (protocol, baud, parity, data bits) are correct.
	<p>If one of these messages display:</p>
	<ul style="list-style-type: none"> • Press Go to clear the message and continue printing. However, some data may not print or may not print correctly. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select.
	<p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>

Attendance message	Meaning and required action
<p>55 Insufficient Fax Buffer</p>	<p>The printer link buffer used to process data is too full to receive an incoming fax.</p> <p>This message usually displays when the printer is busy receiving, processing, or printing data from a host interface connection while fax data is being received through a serial interface port configured for fax processing.</p> <ul style="list-style-type: none"> • Press Go to clear the message and continue printing. However, some data may not print or may not print correctly. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p> <p>After this message displays, the connection between the printer and the sending fax machine is broken. The printer will not accept additional fax data until sufficient fax buffer space is made available. However, any fax data stored in the fax buffer is printed. See “Fax Menu” on page 84.</p>
<p>56 Standard Serial Disabled</p> <p>56 Serial Port x Disabled</p>	<p>Data is sent to the printer across the serial port, but the serial port is disabled. When the serial error displays, the reporting of other serial errors is suppressed until the menus are entered or the printer is reset.</p> <p>Note: This error is <i>not</i> detected for optional serial ports on an Tri-Port interface card.</p> <p>If this message displays:</p> <ul style="list-style-type: none"> • Make sure Serial Buffer in the SERIAL MENU is <i>not</i> set to Disabled. • Press Go to clear the message. The printer discards any data received on the serial port. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>

Attendance message	Meaning and required action
<p>56 Std Parallel Port Disabled</p> <p>56 Parallel Port x Disabled</p>	<p>Data is sent to the printer through the parallel port, but the parallel port is disabled. When the error displays, the reporting of other errors is suppressed until the menus are entered or the printer is reset.</p> <p>If one of these messages display:</p> <ul style="list-style-type: none"> • Make sure Parallel Buffer in the PARALLEL MENU is <i>not</i> set to Disabled. • Press Go to clear the message. The printer discards any data received through the parallel port. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>
<p>58 Too Many Trays Attached</p> <p>58 Too Many Bins Attached</p> <p>58 Too Many Disks Installed</p> <p>58 Too Many Flash Options</p>	<p>The printer detects that too many optional drawers with matching trays are installed.</p> <p>The printer detects that too many output options are installed or an unsupported configuration of output bins is installed. For example, you must install the high-capacity output stacker as the first output option on the printer.</p> <p>The printer detects that too many hard disks are installed. You can install only one hard disk in your printer.</p> <p>The printer detects that too many flash memory options are installed.</p> <p>Turn the printer off and remove the extra option.</p>
<p>59 Incompatible <Device></p>	<p>The printer detects that an incompatible option is installed. Options compatible with your printer are labeled with a colored triangle.</p> <p><device> is one of the following paper handling options:</p> <ul style="list-style-type: none"> – envelope feeder – duplex unit – tray x, where x represents a tray from 2 to 5 – output bin x, where x represents a bin from 1 to 10

Attendance message	Meaning and required action
61 Defective Disk	<p>The printer detects a defective hard disk. This message displays when you turn the printer on, or during hard disk format or write operations.</p> <p>Press Go to clear the message and continue printing.</p> <p>Note: You must install a different hard disk before you can perform any hard disk operations.</p>
62 Disk Full	<p>There is not enough free space in the hard disk to store the data that was sent.</p> <ul style="list-style-type: none"> • Press Go to clear the message and continue processing. Any information not previously stored in the hard disk is deleted. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>
63 Unformatted Disk	<p>The printer detects an unformatted hard disk when you turn the printer on.</p> <ul style="list-style-type: none"> • Format the hard disk. Select Format Disk from the UTILITIES MENU. • Press Go to clear the message and continue printing. <p>If the error message remains, the hard disk may be defective and need replacing.</p> <p>Note: Hard disk operations are not allowed until the defective disk is replaced and the new one is formatted.</p>
70 - 79 messages	<p>Reserved for messages relating to the internal print server.</p> <p>For more information, refer to the documentation on the <i>Drivers, MarkVision and Utilities</i> CD.</p>
80 Scheduled Maintenance	<p>This message displays when you need to replace routine maintenance items to maintain top printer performance. Failure to replace these items will <i>not</i> interrupt printer operations, but can result in unsatisfactory performance and poor print quality. See “Maintaining Your Printer” on page 122 for details.</p>
81 Engine Code CRC Failure	<p>Microcode in the engine flash code module has failed a CRC check.</p> <p>Press Go to clear the message and discard the code. Re-transmit the microcode data from the host computer.</p>
88 Toner Low	<p>The toner supply is low.</p> <p>Press Go to clear the message.</p>

Attendance message	Meaning and required action
200 Paper Jam Remove Cartridge	<p>The printer detects a paper jam under the print cartridge. Open the upper front door, remove the cartridge, and gently remove the jammed print material. Reinstall the print cartridge and close the upper front door. Refer to the <i>User's Guide</i> for more details.</p> <p>Press Go to clear the message and continue printing. A new copy of the page prints if Jam Recovery is set to On or Auto. However, the Auto setting does not guarantee the page will print.</p>
201 Paper Jam Remove Cartridge	<p>The printer detects a paper jam under the print cartridge and further back in the printer. Open the upper front door, remove the print cartridge, and gently remove the jammed print material. Reinstall the cartridge and close the upper front door. Refer to the <i>User's Guide</i> for more details.</p> <p>Press Go to clear the message and continue printing. A new copy of the page prints if Jam Recovery is set to On or Auto. However, the Auto setting does not guarantee the page will print.</p>
202 Paper Jam Open Rear Door	<p>The printer detects a paper jam behind the printer rear door. Open the rear door and gently remove the jammed print material. Close the rear door. Refer to the <i>User's Guide</i> for more details.</p> <p>Press Go to clear the message and continue printing. A new copy of the page prints if Jam Recovery is set to On or Auto. However, the Auto setting does not guarantee the page will print.</p>
230 Paper Jam Check Duplex	<p>The printer detects a paper jam in the duplex unit. Remove the duplex front access cover. If the print material is visible, gently remove it and replace the duplex front access cover. Otherwise, open the duplex rear door, remove the print material, and close the duplex rear door.</p> <p>Occasionally, print material may jam as it enters the duplex unit. Open the printer rear door, remove the jammed print material, and close the printer rear door. Refer to the <i>User's Guide</i> for more details.</p> <p>Press Go to clear the message and continue printing. A new copy of the page prints if Jam Recovery is set to On or Auto. However, the Auto setting does not guarantee the page will print.</p>
24x Paper Jam Check Tray x	<p>The printer detects a paper jam in tray x, where x represents a tray from 1 to 5. Open tray x and remove the print material. If the paper tray is difficult to remove, remove the trays above and below it to access the jammed print material. Refer to the <i>User's Guide</i> for more details.</p> <p>Press Go to clear the message and continue printing. A new copy of the page prints if Jam Recovery is set to On or Auto. However, the Auto setting does not guarantee the page will print.</p>

Attendance message	Meaning and required action
250 Paper Jam Check MP Feeder	<p>The printer detects a paper jam in the multipurpose feeder. If the print material is visible from the front of the multipurpose feeder, pull it out gently. If only a small portion is visible, open the upper front door, remove the print cartridge, and remove the jammed print material. Reinstall the cartridge and close the upper front door. Refer to the User's Guide for more details.</p> <p>Press Go to clear the message and continue printing. A new copy of the page prints if Jam Recovery is set to On or Auto. However, the Auto setting does not guarantee the page will print.</p>
260 Paper Jam Check Env Feeder	<p>The printer detects a paper jam in the envelope feeder. If the envelope is visible from the front of the envelope feeder, move the envelope weight, remove the stack of envelopes, and pull the jammed envelope straight out. If only a small portion is visible, pull the envelope feeder straight out of the printer and set it aside. Open the printer upper front door and pull the jammed envelope out. If the envelope is still difficult to remove, you may have to remove the print cartridge to release it. Reinstall the cartridge, if it was removed, close the upper front door, and reinstall the envelope feeder. Refer to the User's Guide for more details.</p> <p>Press Go to clear the message and continue printing. A new copy of the page prints if Jam Recovery is set to On or Auto. However, the Auto setting does not guarantee the page will print.</p>
27x Paper Jam Check Bin x	<p>The printer detects a paper jam in output option x, where x is output option 1 to 8. If print material is visible from the front of the output option tray, pull it straight out. If only a portion of the print material is visible from the output option tray, open the output option rear door, remove the jammed print material, and close the output option rear door. If the print material is not visible, it is jammed between two output options. Open the rear doors for both output options, and remove the jammed print material. Refer to the User's Guide for more details.</p> <p>Press Go to clear the message and continue printing. A new copy of the page prints if Jam Recovery is set to On or Auto. However, the Auto setting does not guarantee the page will print.</p>
900—999 Service messages	<p>These service messages indicate printer failures that may require service.</p> <p>When a service message occurs, the printer immediately stops printing. Turn the printer off, wait for about 10 seconds, and then turn the printer on.</p> <p>If the service message recurs, call for service and report the message number and description of the problem.</p>

Attendance message	Meaning and required action
<p>Change <input source> <Custom Type Name> <size> <type><size></p>	<p>The printer detects a different print material loaded in the paper source than what is set in the PAPER SIZE or PAPER TYPE menus.</p> <p>Line 1 displays the paper source (<input source>), which is one of the following items:</p> <ul style="list-style-type: none"> • Tray x, where x is a paper tray from 1 to 5 • MP Feeder • EnvFeeder <p>Note: Only installed paper sources display.</p> <p>Line 2 displays one of the following items:</p> <ul style="list-style-type: none"> • <Custom Type Name>: A user-defined name for custom type 1 through 6. The name is truncated to 16 characters. Use MarkVision to create custom type names. • <size>: If the requested type matches the type currently in the paper source and the custom type name has not been defined by you, only the print material or envelope size displays. The name is truncated to 16 characters. • <type><size>: The requested type (<type>) is a type other than a custom type. The type name is truncated to 9 characters. The requested size (<size>) of print material or envelope displays. The size name is truncated to 6 characters. <p>When this message displays you can:</p> <ul style="list-style-type: none"> • Load the requested size and type print material in the paper source. The printer automatically clears the message and continues printing the job. • Press Select to clear the message and continue printing. • Cancel the current job. Press Menu or <Menu to enter the JOB MENU. Press Menu or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu or <Menu to enter the JOB MENU. Press Menu or <Menu until Reset Printer displays. Press Select. • Reset the active bin. Press Menu or <Menu to enter the JOB MENU. Press Menu or <Menu until Reset Active Bin displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>

Attendance message	Meaning and required action
<p>Check <device> Connection</p> <p>Reattach <device></p>	<p>The printer has lost communication with one of the following devices:</p> <ul style="list-style-type: none"> • Tray x, where x represents a tray from 2 to 5 • Output bin x, where x represents an output bin from 1 to 10 • Duplex unit • Envelope feeder <p>Note: Only installed options display.</p> <p>Communication may be lost if the optional device was removed from the printer, for example, to clear a paper jam. It may still be attached to the printer, but may not be fully connected or may be experiencing a hardware failure.</p> <p>If this message displays:</p> <ul style="list-style-type: none"> • Reestablish communication by removing the optional device and reattaching it to the printer. When the optional device is recognized by the printer, the message clears. • Press Go to run a configuration change and continue printing. The printer resumes printing <i>without</i> the optional device. • In case of a hardware failure, turn the printer off and back on. If the error recurs, turn the printer off, remove the optional device, and call for service.
<p>Close Door or Insert Cartridge</p>	<p>The upper front door is open or the print cartridge is not installed.</p> <p>Close the door or install the print cartridge, then close the door.</p>
<p>Close Duplex Rear Door</p>	<p>The duplex rear door is open.</p> <p>Close the duplex rear door.</p>
<p>Delete All Jobs. Go/Stop?</p>	<p>The printer requests confirmation to delete all <i>Print and Hold</i> jobs. This message displays if Delete All Jobs is selected from the CONFIDENTIAL JOB or the HELD JOBS menu item.</p> <ul style="list-style-type: none"> • Press Go to continue. The printer deletes all Confidential jobs, or all Repeat Print, Reserve Print, and Verify Print jobs. • Press Stop to cancel this operation. <p>See “CONFIDENTIAL JOB” on page 37 or “HELD JOBS” on page 40 for more details.</p>

Attendance message	Meaning and required action
Enter PIN: =____	The printer requires you to enter the four-digit Personal Identification Number (PIN) associated with the CONFIDENTIAL JOB menu item. Use the printer operator panel buttons to enter the number. Refer to the <i>User's Guide</i> for more details.
Load <input source> <Custom Type Name> <size> <type><size>	<p>The printer is trying to feed print material from a paper source it detects is empty.</p> <p>Line 1 displays the paper source (<input source>), which is one of the following items:</p> <ul style="list-style-type: none"> • Tray x, where x is a paper tray from 1 to 5 • MP Feeder • EnvFeeder <p>Note: Only installed paper sources display.</p> <p>Line 2 displays one of the following items:</p> <ul style="list-style-type: none"> • <Custom Type Name>: A user-defined name for custom type 1 through 6. The name is truncated to 16 characters. • <size>: If the requested type matches the type currently in the tray and the custom type name has not been defined by you, only the print material or envelope size displays. The name is truncated to 16 characters. • <type><size>: The requested type (<type>) is a type other than a custom type. The type name is truncated to 9 characters. The requested size (<size>) of print material or envelope displays. The size name is truncated to 6 characters. <p>When this message displays you can:</p> <ul style="list-style-type: none"> • Load the requested size and type print material in the paper source. The printer automatically clears the message and continues printing the job. • Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. • Reset the active bin. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Active Bin displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>

Attendance message	Meaning and required action
<p>Load Manual <Custom Type Name> <size> <type><size></p>	<p>The printer requests print material to be manually fed from the multipurpose feeder.</p> <p>Line 2 displays one of the following items:</p> <ul style="list-style-type: none"> • <Custom Type Name>: A user-defined name for custom type 1 through 6. The name is truncated to 16 characters. • <size>: If the requested type matches the type currently in the tray and the custom type name has not been defined by you, only the print material or envelope size displays. The name is truncated to 16 characters. • <type><size>: The requested type (<type>) is a type other than a custom type. The type name is truncated to 9 characters. The requested size (<size>) of print material or envelope displays. The size name is truncated to 6 characters. <p>When this message displays you can:</p> <ul style="list-style-type: none"> • Load the requested size or type of print material in the multipurpose feeder. The printer automatically clears the message and continues printing the job. • Press Go if the correct size and type print material is loaded in the multipurpose feeder. • Press Select to clear the message. The printer searches for the correct size and type of print materials in trays 1 - 5, multipurpose feeder, or envelope feeder. • Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. • Reset the active bin. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Active Bin displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>
<p>Insert Duplex Front Cover</p>	<p>The duplex front access cover is open.</p> <p>Close the duplex front access cover.</p>

Attendance message	Meaning and required action
<p>Insert <tray></p>	<p>The printer is requesting a paper tray to be inserted so it can continue printing. This message displays when the printer needs to select print material from a missing paper source. This may happen if you remove a paper tray to fill it with print material while a job is printing. To avoid this message, press Stop, wait for the job to stop printing, and then remove the trays to fill them.</p> <p><tray> represents one of the following:</p> <ul style="list-style-type: none"> • Tray 1 • Tray 2 • Tray 3 • Tray 4 • Tray 5 <p>Note: Only installed paper trays display.</p> <p>When this message displays you can:</p> <ul style="list-style-type: none"> • Insert the paper tray to clear the message and continue printing. • Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. • Reset the active bin. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Active Bin displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>

Attendance message	Meaning and required action
<p>Install <device> or Cancel Job</p>	<p>The printer is requesting one of the following devices to be installed so it can print a job:</p> <ul style="list-style-type: none"> • Tray x, where x represents a tray from 2 to 5 • Output bin x, where x represents an output bin from 1 to 10 • Duplex unit • Envelope feeder <p>Note: Only installed options display.</p> <p>When this message displays you can:</p> <ul style="list-style-type: none"> • Insert the device to clear the message and continue printing. • Cancel the current job. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Cancel Job displays. Press Select. • Reset the printer. Press Menu> or <Menu to enter the JOB MENU. Press Menu> or <Menu until Reset Printer displays. Press Select. <p>Note: Resetting the printer deletes all current data from the print buffer, including all <i>Print and Hold</i> jobs. See “Reset Printer” on page 43.</p>
<p>No Jobs Found. Retry?</p>	<p>The Personal Identification Number (PIN) you entered is not a PIN associated with any print job.</p> <ul style="list-style-type: none"> • Press Go to enter another PIN. • Press Stop to exit the PIN entry prompt. <p>Refer to the User's Guide for more details.</p>
<p>Print Jobs on Disk ?</p>	<p>This message displays when Print Job Buffering is enabled and the printer is turned off while print jobs are being spooled to the hard disk. When the printer is turned back on, it asks for confirmation to print the waiting jobs.</p> <ul style="list-style-type: none"> • Press Go to print the jobs. • Press Return or Stop to delete all spooled jobs from the hard disk without printing them.
<p>Remove Paper Standard Bin</p>	<p>The printer has detected the standard output bin is full.</p> <p>Remove the print material from the standard bin and press Go to continue printing.</p>
<p>Remove Paper Output Bin x</p>	<p>The printer has detected output bin x, where x represents bin 1 through 10, is full.</p> <p>Remove the print material from the output bin and press Go to continue printing.</p>

Attendance message	Meaning and required action
<p>Remove Paper All Output Bins</p>	<p>The printer has detected all output bins are full because all the bins are linked together as one bin. Remove the print material from all output bins and press Go to continue printing.</p>
<p>Remove Paper <linked set bin name></p>	<p>The printer has detected all output bins in <linked set bin name> are full. <linked set bin name> represents a user-defined name for a set of linked bins. The linked set bin name is truncated to 16 characters. Remove the print material from all output bins and press Go to continue printing.</p>

Maintaining Your Printer

NOTE: 80 Scheduled Maintenance displays after 300,000 pages have printed to let you know it is time to replace printer maintenance items.

NOTE: If you need help with your Lexmark printer, visit our Web site at: <http://www.lexmark.com/support/index.html>. This site includes helpful information about using your printer, including a list of phone numbers for the Lexmark Customer Support Center in your country.

Even though your printer is easy to maintain, you may want to designate an administrator to do the setup and maintenance of your printer. All users sharing the printer should refer printing problems and maintenance tasks to this administrator.

From time to time, you will need to replace routine printer maintenance items such as the print cartridge, fuser assembly, charge roll, and transfer roll. Replacement of these items should be done at regular intervals to maintain top performance, optimize print quality, and avoid printing problems. For your convenience, Lexmark offers a maintenance kit that contains these parts. See [page 127](#) for ordering a maintenance kit.

For more information, click the appropriate text:

“Changing the print cartridge” on page 123.

“Replacing the charge roll” on page 124.

“Replacing the transfer roll” on page 125.

“Replacing the fuser assembly” on page 126.

“Ordering supplies” on page 127.

“Storing supplies” on page 130.

Changing the print cartridge

NOTE: Lexmark does not recommend that you use print cartridges from a third party. Print quality and printer reliability cannot be guaranteed if you do. For best results, use Lexmark supplies with the printer.



NOTE: The print cartridge warranty is voided by unauthorized refilling.

We recommend you order a new print cartridge when the **Toner Low** message first displays. You will need to have it available when the current one no longer prints satisfactorily. See [page 128](#) for information on ordering print cartridges.

Complete the following steps to replace the print cartridge. Refer to the documentation that comes with the print cartridge for detailed installation information.

- 1** Remove the used print cartridge.
- 2** Clean the printer.
- 3** Install the new print cartridge.
- 4** Replace the fuser cleaner if you are printing special label applications.
- 5** Follow the instructions on the new print cartridge box to return the used print cartridge to Lexmark for recycling.

When you return a used print cartridge, you contribute to a worldwide recycling effort at no cost to you.

Replacing the charge roll

You should order a new charge roll kit when toner fog or background shading appears on printed pages. See [page 129](#) for ordering a charge roll.

Complete the following steps to replace the charge roll. Refer to the documentation that comes with the charge roll for detailed installation information.

- 1** Turn the printer off and unplug the printer power cord.
- 2** Open the front doors and remove the print cartridge.
- 3** Remove the old charge roll.
- 4** Install the new charge roll.
- 5** Reinstall the print cartridge and close the front doors.
- 6** Plug the printer power cord into a properly grounded electrical outlet and turn the printer on.

Replacing the transfer roll

You should order a new transfer roll when light print, toner fog or background shading appears on printed pages. See [page 129](#) for ordering a transfer roll.

Complete the following steps to replace the transfer roll. Refer to the documentation that comes with the transfer roll for detailed installation information.

- 1** Turn the printer off and unplug the printer power cord.
- 2** Open the front doors and remove the print cartridge.
- 3** Remove the old transfer roll.
- 4** Install the new transfer roll.
- 5** Reinstall the print cartridge and close the front doors.
- 6** Plug the printer power cord into a properly grounded electrical outlet and turn the printer on.

Replacing the fuser assembly

CAUTION: The fuser assembly is hot! Turn the printer off and wait twenty minutes before changing the fuser assembly.

NOTE: For best results, use Lexmark supplies with the printer. If you are in the U.S. or Canada, call 1-800-438-2468 for information about Lexmark Authorized Supplies Dealers in your area. In other countries, contact the place where you bought your printer.

You should order a new fuser assembly when toner fog or background shading appears on printed pages. See [page 129](#) for ordering a fuser assembly.

Complete the following steps to replace the fuser assembly. Refer to the documentation that comes with the fuser assembly for detailed installation information.

- 1** Turn the printer off, unplug the printer power cord, and wait twenty minutes.
- 2** Remove the top cover and all installed output options. If you have a duplex unit remove the printer from the duplex unit.
- 3** Remove the fuser cover. (If you have a label printer, lift up and remove the fuser cleaner.)
- 4** Open the rear access door and remove the redrive.
- 5** Remove the old fuser assembly.
- 6** Install the new fuser assembly and replace the redrive.
- 7** Close the rear access door and replace the fuser cover if necessary.
- 8** If you have a duplex unit, reinstall the printer on it. Reinstall all output options and the top cover.
- 9** Plug the printer power cord into a properly grounded electrical outlet and turn the printer on.

Ordering supplies

For best results, use Lexmark supplies with the printer. If you are in the U.S. or Canada, call 1-800-438-2468 for information about Lexmark Authorized Supplies Dealers in your area, or visit the Lexmark Web site at www.lexmark.com. In other countries, contact the place where you bought your printer.

Maintenance kit

We recommend you order a maintenance kit when the **80 Scheduled Maintenance** first displays. The maintenance kit contains all the items necessary to replace the fuser assembly, the charge roll, and the transfer roll. See the following table for the maintenance kit part number for your specific printer.

Description Volts/Watts	Part number
Maintenance kit for Optra T616(n) and T614(n) 220V, 875W	99A1763
Maintenance kit for Optra T612(n) and T610(n) 220V, 550W	99A1765
Maintenance kit for Optra T616(n) and T614(n) 115V, 875W	99A1762
Maintenance kit for Optra T612(n) and T610(n) 115V, 550W	99A1764

Print cartridges

We recommend you order a new print cartridge when the **Toner Low** message first displays. You will need to have it available when the current one no longer prints satisfactorily.

There are three recommended print cartridges specifically designed for your printer:

Print cartridge part numbers*	Optra T print cartridge average yield***	Print coverage (approximate)
12A5840	10,000 pages	5%
12A5845	25,000 pages	5%
12A5849 (special label cartridge, is shipped with a label fuser cleaner**)	25,000 pages	5%
<p>* Sold at a special price with the understanding that you return your empty cartridges only to Lexmark. For regular priced cartridges without these terms, order part number 12A5740 (10,000 pages) or 12A5745 (25,000 pages).</p> <p>** Label fuser cleaners are not recommended for duplex printing.</p> <p>*** 5% coverage established at nominal darkness (Toner Darkness = 5).</p>		

Label fuser cleaner

A special label fuser cleaner should be used for label applications to optimize feeding reliability. They are included in the print cartridge box when you order part number 12A5849. You also may order this item separately using part number 99A0725.

Label fuser cleaners are not recommended for duplex printing.

Charge roll To order a charge roll kit, use Lexmark part number 99A1017.

Transfer roll To order a transfer roll kit, use Lexmark part number 99A1015.

Fuser assembly See the following table for the fuser assembly part number for your specific printer.

Description Volts/Watts	Part number
Fuser assembly for Optra T612(n) and T610(n) 115V, 550W	99A1660
Fuser assembly for Optra T612(n) and T610(n) 220V, 550W	99A1661
Fuser assembly for Optra T616(n) and T614(n) 115V, 875W	99A1584
Fuser assembly for Optra T616(n) and T614(n) 220V, 875W	99A1585

Storing supplies

Store supplies in their original packaging until you are ready to install them.

Do not store supplies in:

- Temperatures greater than 43°C (110°F)
- An environment with extreme changes in humidity or temperature
- Direct sunlight
- Dusty places
- A car for a long period of time
- An environment where corrosive gases are present
- An environment with salty air

Solving Printer Problems

NOTE: If an error message displays, see [“Understanding Printer Messages” on page 93.](#)

When you have a problem, first make sure that:

- The printer power cord is plugged into the printer and a properly grounded electrical outlet.
- The printer power switch is on.
- The electrical outlet is not turned off by any switch or breaker.
- Other electrical equipment plugged into the outlet is working.
- You try turning the printer off, then wait for about 10 seconds, and turn the printer on. This often fixes the problem.
- Your printer driver settings are correct.

If the problem persists, click the appropriate text below for more information:

[“Display problems” on page 132.](#)

[“Printing problems” on page 133.](#)

[“Print quality problems” on page 135.](#)

[“Option problems” on page 139.](#)

[“Network printing problems” on page 142.](#)

[“Other problems and questions” on page 143.](#)

Display problems

If the suggested corrective action does not fix the problem, call your service representative.

Problem	Action
Menu Disabled status message displays on the operator panel.	<p>The operator panel menus are disabled. To enable the menus:</p> <ul style="list-style-type: none">• Turn the printer off.• Press and hold Select and Return and then turn on the printer.• Release the buttons when Performing Self Test displays.• CONFIG MENU displays on the first line of the operator panel.• Press Menu> until Panel Menus displays.• Press Select.• Enable displays on the second line of the operator panel.• Press Select.• Enabling Menus briefly displays.• Press Menu> until Exit Config Menus displays.• Press Select. <p>If the operator panel menus are password protected, see “Disabling operator panel menus” on page 12.</p>
Operator panel displays only diamonds or is blank.	<ul style="list-style-type: none">• Turn the printer off, wait about 10 seconds, and turn the printer on.• Performing Self Test displays on the operator panel. When the test is completed, Ready displays. <p>If the messages do not display, turn the printer off and call the Lexmark Customer Support Center.</p>
Menu settings changed from the operator panel have no effect.	<p>Settings in the software application, the printer driver, or the printer utilities are overriding the settings in the operator panel.</p> <ul style="list-style-type: none">• Change the menu settings from the printer driver, the printer utilities, or the software application instead of the operator panel.• Disable the settings in the printer driver, the printer utilities, or the software application so you can change settings from the operator panel.

Printing problems

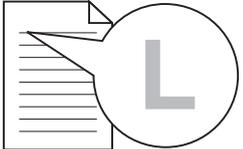
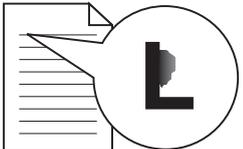
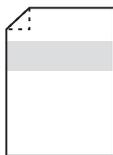
If the suggested corrective action does not fix the problem, call your service representative.

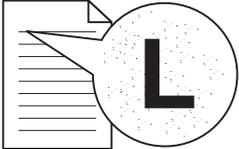
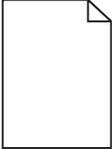
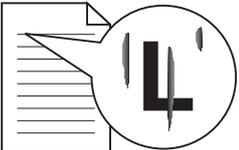
Problem	Action
<p>Job did not print or incorrect characters printed.</p>	<p>Make sure Ready displays on the operator panel before you send a job to print. Press Go to return to Ready.</p> <p>Make sure there is print material loaded in the printer. Press Go to return to Ready.</p> <p>Verify that the printer is using the correct printer language.</p> <ul style="list-style-type: none"> • Verify that the correct printer driver is being used. • Make sure the parallel, serial, or USB cable is firmly plugged in at the back of the printer. • Check the cable connection. Make sure you are using the correct cable. Use IEEE 1284-compliant parallel cable. We recommend Lexmark part number 1329605 (10 ft) or 1427498 (20 ft). If you use RS-232 Serial, verify that a null modem cable is used. • If the printer is connected through a switch box, try a direct connection. • Verify that the correct paper size is selected through the operator panel, in the printer driver, or in the software application setting. • Make sure PCL SmartSwitch and PS SmartSwitch are set to On. • If a print spooler is used, verify that the spooler is not stalled. • If you print across a network or on a Macintosh, see “Network printing problems” on page 142. <p>Check the printer interface from the SETUP MENU.</p> <p>Determine which host interface you are using. Print a menu settings page to verify that the current interface settings are correct. See “Printing the menu settings page” on page 9.</p> <p>If you are using serial interface:</p> <ul style="list-style-type: none"> • Make sure Honor DSR is set to Off. • Check the protocol, baud, parity, and data bit settings. The settings on the printer and on the host computer should match.
<p>Connected to the USB port, but the printer will not print.</p>	<p>Make sure you are using Windows 98 or another USB-capable operating system supported by Lexmark.</p>

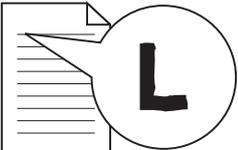
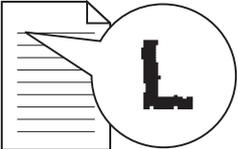
Problem	Action
Print material misfeeds or multiple feeds occur.	<ul style="list-style-type: none"> • Make sure the print material you are using meets the specifications for your printer. Refer to the <i>User's Guide</i> for more details. • Flex print material before loading it in any of the paper sources. • Make sure the print material is loaded correctly. • Make sure the paper width and length guides on the paper sources are adjusted correctly. • Do not overfill the paper sources. • Do not force print material into the multipurpose feeder when you load it; otherwise, it may skew or buckle. • Remove any curled print material from paper sources. • Load the recommended print side correctly for the type of print material you are using. Refer to the <i>User's Guide</i> for more details. • Load less print material in the paper sources. • Turn the print material over or around and try printing again to see if feeding improves. • Do not mix print material types. • Do not mix reams of print material. • Remove the top and bottom sheets of a ream before loading the print material. • Load a paper source only when it is empty.
Envelope misfeeds or multiple feeds occur.	Remove the stack of envelopes from the envelope feeder. Load one envelope, feed it through the printer, and then reload the stack of envelopes in the envelope feeder.
Unexpected page breaks.	Check the Print Timeout setting in the SETUP MENU . Increase the setting. See “Print Timeout” on page 49 .
Job prints from the wrong paper source or on the wrong print material.	Check the PAPER TYPE setting in the PAPER MENU on the printer operator panel and in the printer driver. See “PAPER TYPE” on page 17 .
Paper does not stack neatly in any output bin.	Turn the paper stack over in the tray or multipurpose feeder.
Printer does not duplex pages.	<ul style="list-style-type: none"> • Make sure Duplex is selected in both the FINISHING MENU and in the printer driver. • Make sure you have enough printer memory installed.

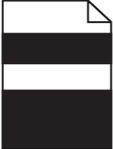
Print quality problems

If the suggested corrective action does not fix the problem, call your service representative.

Problem	Action
<p>Print is too light.</p> 	<ul style="list-style-type: none">• The toner may be low. Remove the cartridge. To utilize the remaining toner, shake the cartridge gently. Reinstall the same print cartridge.• Change the Toner Darkness setting in the QUALITY MENU. See “Toner Darkness” on page 45.• If you are printing on an uneven print surface, change the PAPER WEIGHT and PAPER TEXTURE settings in the PAPER MENU. See “PAPER TYPE” on page 17.• Verify that the correct print material is being used.
<p>Toner smears or print comes off the page.</p> 	<ul style="list-style-type: none">• If you are printing on an uneven print surface, change the PAPER WEIGHT and PAPER TEXTURE settings in the PAPER MENU. See “PAPER TYPE” on page 17.• Verify that the print material is within the printer specifications. Refer to the User's Guide for more details.• If the problem continues, call the Lexmark Customer Support Center.
<p>Toner appears on the back of the printed page.</p> 	<p>Toner is on the transfer roll. To help prevent this, do not load print material that is smaller than the page size of the job to be printed.</p> <ul style="list-style-type: none">• Open and close the printer upper front door to run the printer setup cycle and clean the transfer roll.

Problem	Action
<p>Toner fog or background shading appears on the page.</p> 	<ul style="list-style-type: none"> • Check the print cartridge to make sure it is installed correctly. • Change the print cartridge. See “Maintaining Your Printer” on page 122 for more details. • If the problem continues, change the charge roll. See “Replacing the charge roll” on page 124.
<p>Entire page is white.</p> 	<ul style="list-style-type: none"> • Make sure the packaging material is removed from the print cartridge. • Check the print cartridge to be sure it is installed correctly. • Check the toner supply.
<p>Streaks appear on the page.</p> 	<ul style="list-style-type: none"> • The toner may be low. Remove the cartridge. To utilize the remaining toner, shake the cartridge gently. Reinstall the same print cartridge. • If you are using pre-printed forms, make sure the ink can withstand temperatures of 212°C (414°F).

Problem	Action
<p>Printing is too dark.</p> 	<p>Change the Toner Darkness setting in the QUALITY MENU. See “Toner Darkness” on page 45.</p> <p>Note: Macintosh users should make sure the lines per inch (lpi) setting is not set too high in the software application.</p>
<p>Characters have jagged or uneven edges.</p> 	<ul style="list-style-type: none"> • Change the Print Resolution setting in the QUALITY MENU to 600 dpi or 1200 dpi. See “Print Resolution” on page 44. • Turn PQET in the QUALITY MENU to On. See “PQET” on page 45. • If you are using downloaded fonts, verify that the fonts are supported by the printer, the host computer, and the software application.
<p>Image quality is poor.</p> 	<p>Resolution was automatically reduced. Reduce the complexity of the print job or add additional printer memory. See “Res Reduced” on page 100.</p>

Problem	Action
<p>Part or all of the page is printed in black.</p> 	<ul style="list-style-type: none"> • Check the print cartridge to see if it is installed correctly. • If the charge roll has been replaced, verify that it is installed correctly.
<p>The job prints, but the left and top margins are incorrect.</p>	<ul style="list-style-type: none"> • Make sure the PAPER SIZE setting in the PAPER MENU is correct. See “PAPER SIZE” on page 15. • Make sure the margins are set correctly in the software application you are using.

Option problems

If the suggested corrective action does not fix the problem, call your service representative.

Problem	Action
Option does not operate correctly after it is installed or it quits working.	<ul style="list-style-type: none">• Make sure the option is marked with a colored triangle, indicating it is compatible with your printer.• Turn the printer off, wait for about 10 seconds, and turn the printer on. If this does not fix the problem, unplug the printer, and check the connection between the option and printer.• Print the menu settings page and check to see if the option is listed in the Installed Options list. If the option is not listed, reinstall it.• Make sure the option is selected in the software application you are using. <p>For Macintosh users: Make sure the printer is set up in CHOOSER.</p>
Option does not operate correctly after it is installed.	Drawers: <ul style="list-style-type: none">• Make sure the connection between drawers (250-sheet drawer, 500-sheet drawer, 2000-sheet drawer) or the connection between a drawer and a duplex unit or the printer is secure.• Make sure the print material is loaded correctly. Refer to the <i>User's Guide</i> for more details.
	Envelope feeder: <ul style="list-style-type: none">• Make sure the connection between the envelope feeder and the printer is secure.• Make sure the PAPER SIZE setting is correct in both the PAPER MENU and in the software application.• Make sure the envelopes are loaded correctly. Refer to the <i>User's Guide</i> for more details.
	Duplex unit: <ul style="list-style-type: none">• Make sure the connection between the duplex unit and the printer is secure. If the duplex unit is listed on the menu settings page, but print material jams when it enters or exits the duplex unit, the printer and duplex unit may not be properly aligned.• Make sure the duplex front access cover is securely installed.

Problem	Action
Option does not operate correctly after it is installed.	<p>Output expander: Make sure the connection between each output expander or the connection between the output expander and the printer is secure. If the output expander is listed on the menu settings page, but print material jams when it exits the printer and enters the output expander, it may not be properly installed. Reinstall each output expander.</p>
	<p>High-capacity output stacker: Make sure the connection between the output stacker and the printer is secure. If the high-capacity output stacker is listed on the menu settings page, but print material jams when it exits the printer and enters the output stacker, it may not be properly installed. Reinstall the high-capacity output stacker.</p>
	<p>5-Bin mailbox: Make sure the connection between each 5-bin mailbox or the connection between the 5-bin mailbox and the printer is secure. If the 5-bin mailbox is listed on the menu settings page, but print material jams when it exits the printer and enters the mailbox, it may not be properly installed. Reinstall each 5-bin mailbox.</p>
	<p>Flash memory: Make sure flash memory is securely connected to the printer system board.</p>
	<p>Printer memory: Check to make sure printer memory is securely connected to the printer system board.</p>
	<p>Hard disk with adapter: Make sure the hard disk is securely connected to the hard disk adapter card. Also make sure the hard disk adapter card is securely connected to the printer system board.</p>
	<p>Internal print server:</p> <ul style="list-style-type: none"> • Make sure the internal print server (also called an internal network adapter or INA) is securely connected to the printer system board. • Make sure you are using the correct cable, that it is securely connected, and that the network software is correctly set up. <p>Refer to the <i>Drivers, MarkVision and Utilities</i> CD for more details.</p>

Problem	Action
Option does not operate correctly after it is installed.	<p>Tri-Port interface: Make sure the Tri-Port interface card is securely connected to the printer system board.</p> <p>For Macintosh users:</p> <ul style="list-style-type: none"> • Make sure the host computer is set to LocalTalk. • If you are using a phone wire connection, a terminator plug must be used.
	<p>Infrared adapter: If infrared communication stops or does not occur, check the following:</p> <ul style="list-style-type: none"> • Communication distance: The distance between the two infrared ports should be 1 meters (39 in.) or less. If communication does not occur between ports, move the ports closer together. • Make sure both ports are stable. • Make sure the computer and the printer are on a level surface. • Make sure the angle of communication between the two infrared ports is within 15 degrees of either side of an imaginary line drawn between the two infrared ports. • Make sure there is no bright light, such as direct sunshine, interfering with communication. • Make sure no objects are placed between the two infrared ports.
	<p>USB/Parallel interface:</p> <ul style="list-style-type: none"> • Make sure the USB/Parallel interface card is securely connected to the printer system board. • Make sure you are using the correct cable and that it is securely connected.

Network printing problems

If the suggested corrective action does not fix the problem, call your service representative.

Problem	Action
Job did not print or incorrect characters printed.	<p>If you are using either a Lexmark internal print server or external print server, verify that it is set up properly and the network cable is connected.</p> <p>Note: Refer to the <i>Drivers, MarkVision, and Utilities</i> CD for more details.</p> <p>For Novell users:</p> <ul style="list-style-type: none">• Make sure the netware.driv file is dated October 24, 1994 or later.• Make sure the NT (no tabs) flag is included in the capture statement. <p>For Macintosh users:</p> <ul style="list-style-type: none">• The printer may need an optional internal print server to allow Macintosh connection.• Verify that the printer is set up correctly in CHOOSER.

Other problems and questions

If the suggested corrective action does not fix the problem, call your service representative.

Problem	Action
How do I get updated printer drivers or utilities?	<ul style="list-style-type: none">• The <i>Drivers, MarkVision and Utilities</i> CD that came with your printer contains printer drivers and utilities, or• Visit the Lexmark Web site, http://www.lexmark.com, for the most current printer drivers or utilities.
How do I attach a serial cable to the printer?	If your printer is configured with a serial port, or you have installed an optional interface card, refer to the Setup Guide .
Where are the printer escape codes listed?	Refer to the <i>Technical Reference</i> available on the <i>Drivers, MarkVision and Utilities</i> CD or at the Lexmark Web site, http://www.lexmark.com .

Removing Options

Important Guidelines

Keep the following guidelines in mind when removing any options:

- Remove all print material from any option before removing it.
- To remove any paper option, you must first remove any options or the printer installed above it.
- All options should be removed individually; never attempt to remove two or more options at once.
- Make sure the printer power is off and the power cord and any cables are unplugged *before* removing any options.

For information, click the appropriate text:

[“Removing an output option” on page 145.](#)

[“Removing the envelope feeder” on page 148.](#)

[“Removing the printer” on page 150.](#)

[“Removing a paper tray or duplex unit” on page 151.](#)

[“Removing printer or flash memory” on page 152.](#)

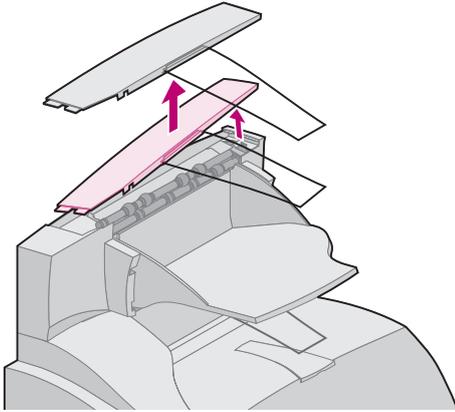
[“Removing an option card” on page 153.](#)

Removing an output option

Follow these instructions to remove an output expander, 5-bin mailbox, or high-capacity output stacker.

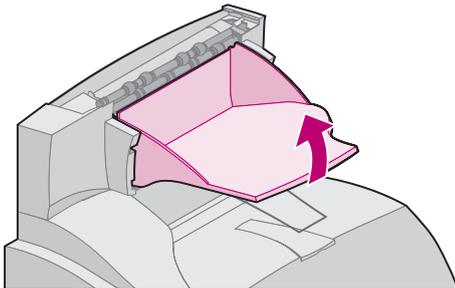
- 1 If you are removing the topmost output option and do not plan to return it to that position, remove the top cover.

You must attach the top cover to the printer or topmost output option when you finish removing output options. In addition, it may be necessary to remove the paper bail from the top cover, depending on the type of output option to which it is attached. Refer to the [Setup Guide](#) for more information.

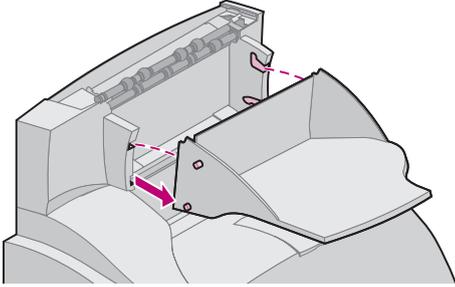


- 2 If you are removing an output expander, detach the output expander tray. If you are removing a 5-bin mailbox or high-capacity output stacker, skip to step 3.

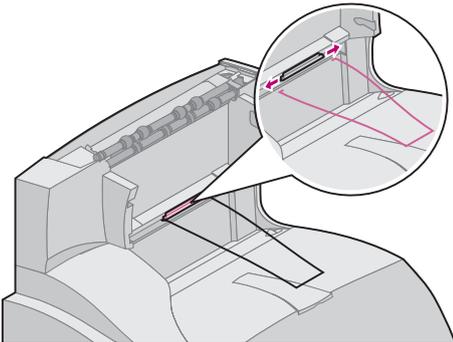
- a Hold the edge of the tray and lift it up so the lower tabs come out of the slots on the output expander.

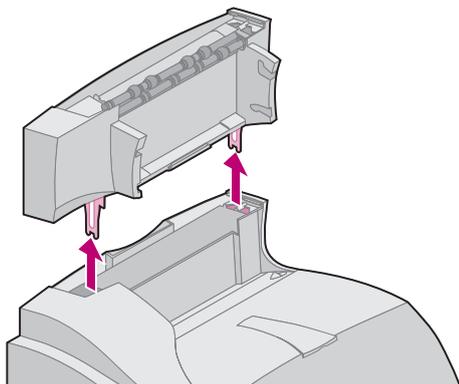


- b** Pull the tray straight out toward you to remove the upper tabs from the output expander slots.



- 3** The output option may have a wire paper bail attached. If so, remove the tips of the paper bail from the ends of the plastic bracket on the bottom of the output option. Refer to the [Setup Guide](#) when you are ready to re-attach it to an output option.



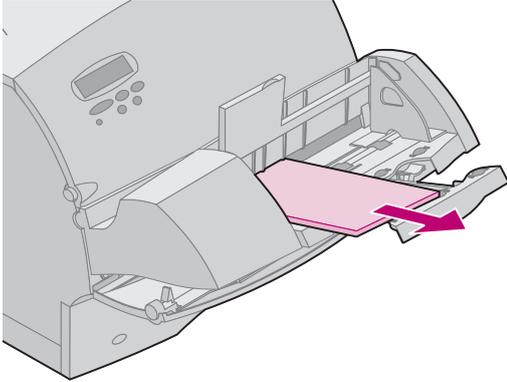


WARNING: The edges of the mounting brackets could damage tabletops or fabrics.

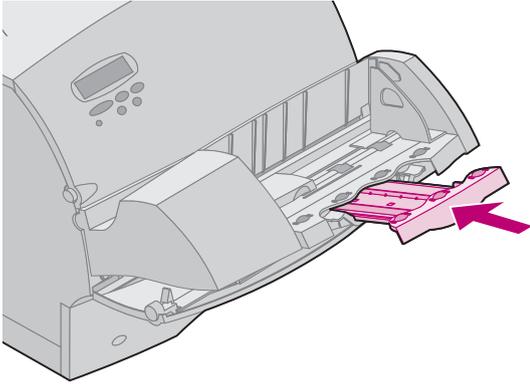
4 Carefully lift the option straight up until it is completely disconnected from the option below it or from the printer. Set it aside.

5 Refer to the [Setup Guide](#) when you are ready to re-attach options.

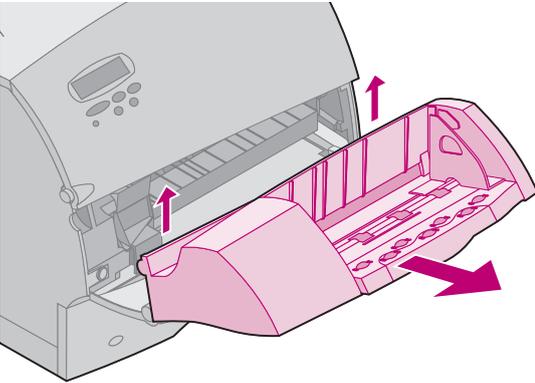
Removing the envelope feeder



- 1 Remove envelopes from the envelope feeder.



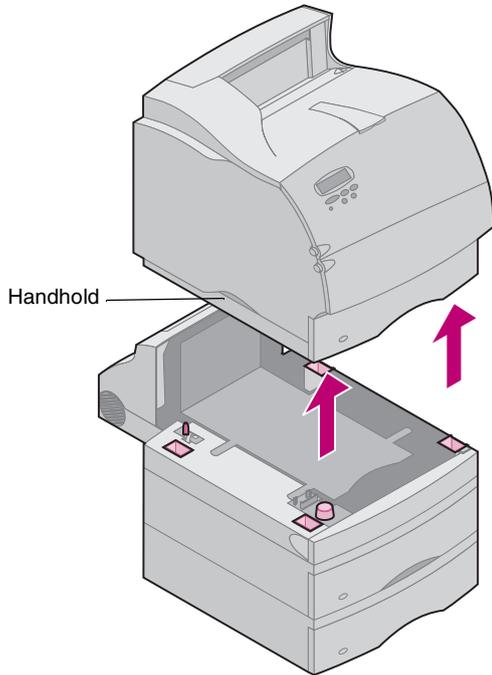
- 2 Push the envelope support to the closed position.
- 3 Open the upper front door.



- 4 Pull the envelope feeder up slightly and straight out of the printer. Set it aside.
- 5 Close both front doors.
- 6 Refer to the [Setup Guide](#) when you are ready to re-attach options.

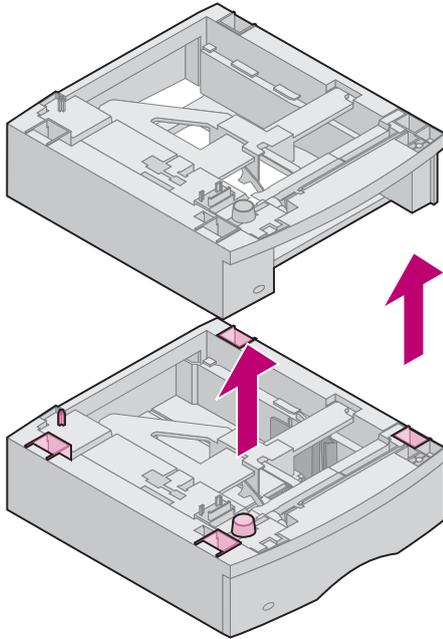
Removing the printer

CAUTION: Make sure your fingers are not under the printer when you set it down. Use the handholds on the printer or ask someone to help you lift it.



- 1 Ask someone to help you lift the printer by the handholds and set it aside.
- 2 Refer to the [Setup Guide](#) when you are ready to re-attach options.

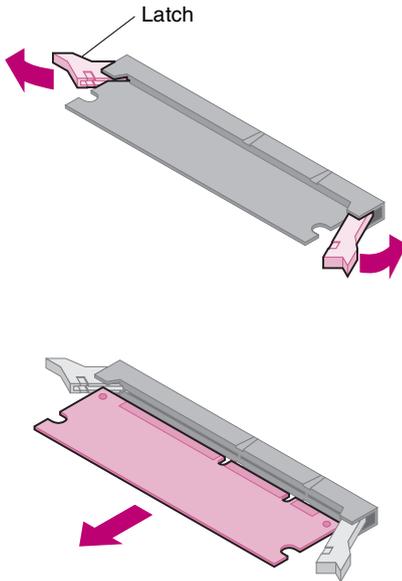
Removing a paper tray or duplex unit



- 1 Carefully lift the option straight up until it is completely disconnected from the option below it. Set it aside.
- 2 Refer to the [Setup Guide](#) when you are ready to re-attach options.

Removing printer or flash memory

WARNING: Electronic components are easily damaged by static electricity. Touch something metal before you touch the memory option.

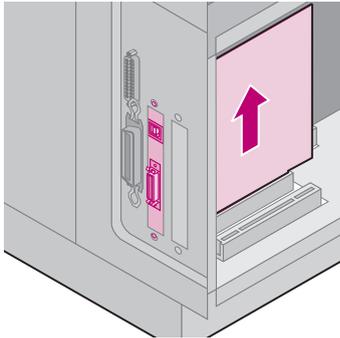
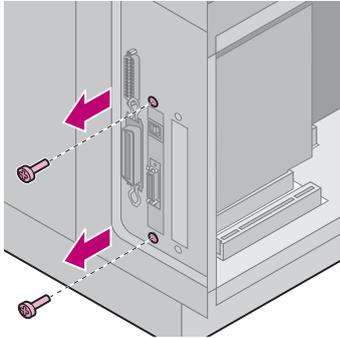


If necessary, refer to the [Setup Guide](#) for instructions on accessing the printer system board.

- 1 Locate the memory option you want to remove.
- 2 Push out on the latches at each end of the connector.
- 3 Pull the memory option out of the connector.
- 4 Place the memory option in its original packaging. If you did not save the packaging, wrap it in paper and store it in a box.
- 5 If you need to install a replacement memory option or other option on the system board, refer to the [Setup Guide](#).
- 6 Refer to the [Setup Guide](#) for instructions on closing the printer system board.

Removing an option card

WARNING: Electronic components are easily damaged by static electricity. Touch something metal before you touch the card.



If necessary, refer to the [Setup Guide](#) for instructions on accessing the printer system board.

- 1 Locate the option you want to remove.
- 2 Loosen and remove the two screws over and under the slot. Gently pull the card out of the connector on the system board.
- 3 Place the option card in its original packaging. If you did not save the packaging, wrap the card in paper and store it in a box.
- 4 If you need to install another option on the system board, refer to the [Setup Guide](#).
- 5 Refer to the [Setup Guide](#) for instructions on closing the printer system board.

Understanding Fonts

This section contains basic information about fonts, their characteristics, and the specific fonts available in PCL 6 and PostScript 3 emulations.

Typefaces and fonts

A *font* is a set of characters and symbols created with a distinct design. The distinct design is called a *typeface*. The typefaces you select add personality to a document. Well-chosen typefaces make a document easier to read.

The printer has numerous resident fonts in PCL 6 and PostScript 3 emulations. See [“Resident fonts” on page 159](#) for a listing of all resident fonts.

Weight and style

Typefaces are often available in different weights and styles. These variations modify the original typeface so you can, for example, emphasize important words in text or highlight book titles. The different weights and styles are designed to complement the original typeface.

Weight refers to the thickness of the lines that form the characters. Thicker lines result in darker characters. Some words commonly used to describe the weight of a typeface are bold, medium, light, black and heavy.

Style refers to other typeface modifications, such as tilt or character width. Italic and oblique are styles where the characters are tilted. Narrow, condensed and extended are three common styles that modify the character widths.

Some fonts combine several weight and style modifications; for example, Helvetica Narrow Bold Italic. A group of several weight and style variations of a single typeface is called a *typeface family*. Most typeface families have four variations: regular, italic, bold, and bold italic. Some families have more variations, as the following illustration for the Helvetica typeface family shows:

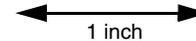
Helvetica	ABCDEFGHIJKLMNOPQRSTUVWXYZ
<i>Helvetica-Italic</i>	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZ</i>
Helvetica-Bold	ABCDEFGHIJKLMNOPQRSTUVWXYZ
<i>Helvetica-BoldItalic</i>	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZ</i>
Helvetica-Narrow	ABCDEFGHIJKLMNOPQRSTUVWXYZ
<i>Helvetica-Narrow Italic</i>	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZ</i>
Helvetica-Narrow Bold	ABCDEFGHIJKLMNOPQRSTUVWXYZ
<i>Helvetica-Narrow-BoldItalic</i>	<i>ABCDEFGHIJKLMNOPQRSTUVWXYZ</i>

Pitch and point size

The size of a font is specified as either a pitch or point size, depending on whether the font is fixed space or proportional.

In fixed space fonts, each character has the same width. *Pitch* is used to specify the size of fixed space fonts. It is a measure of the number of characters that will print in one horizontal inch of type. For example, all 10-pitch fonts print 10 characters per inch (cpi) and all 12-pitch fonts print 12 cpi:

Courier	10 Pitch	1234567890
Courier-Bold	10 Pitch	1234567890
Courier	12 Pitch	123456789012
Courier-Bold	12 Pitch	123456789012



In *proportional* (or *typographic*) fonts, every character can have a different width. Since proportional fonts have characters with different widths, the font size is specified in point size, not pitch. *Point size* refers to the height of the characters in the font. A *point* is defined as 1/72 inch. The characters in a font printed at 24 point will be twice as large as the characters in the same font printed at 12 point. The following

illustration shows samples of a font printed in different point sizes:

48 point 36 point

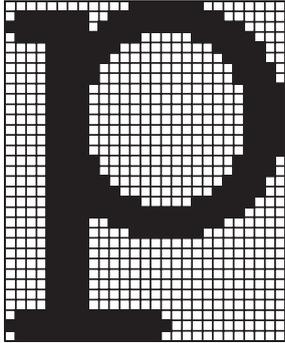
24 point 18 point 12 point 10 point

The point size of a font is defined as the distance from the top of the tallest character in the font to the bottom of the lowest character in the font. Due to the definition of point size, different fonts printed at the same point size may appear quite different in size. This is because there are other font parameters that affect how the font looks. However, the point size of a font is an excellent specification of the relative size of a font. The following examples illustrate two very different proportional fonts at 14 point:

ITC Avant Garde
abcdefghijklmnopABCDEF GH

ITC Zapf Chancery
abcdefghijklmnopABCDEF GH

Bitmapped and scalable fonts



The printer uses both bitmapped and scalable fonts.

Bitmapped fonts are stored in printer memory as predefined patterns of bits that represent a typeface at a specific size, style and resolution. An example of a character from a bitmapped font is shown at left.

Bitmapped fonts are available in different type styles and point sizes as downloadable fonts. Contact the place where you bought your printer for more information about downloadable fonts.

Scalable fonts (also called *outline* fonts) are stored as computer programs that define the outlines of the characters in the font. Each time you print characters from a scalable font, the printer creates a bitmap of the characters at the point size you choose and saves it temporarily in printer memory.

These temporary bitmapped fonts are deleted when you turn off or reset the printer. Scalable fonts provide the flexibility of printing in many different point sizes.

Your printer uses different scalable font formats for downloading fonts to the printer. PCL 6 emulation uses *Intellifont* and *TrueType* scalable fonts. PostScript 3 emulation uses *Type 1* and *TrueType* scalable fonts. There are thousands of different scalable fonts available in these different font formats from numerous font suppliers.

If you plan to use many downloadable bitmapped or scalable fonts or if you plan to use many different sizes of scalable fonts, you may need to purchase additional memory for your printer.

Resident fonts

Your printer is equipped with resident fonts stored permanently in printer memory. Different fonts are available in PCL 6 and PostScript 3 emulations. Some of the most popular typefaces, like Courier and Times New Roman, are available for all printer languages.

The following tables list all the fonts resident in your printer. See [page 172](#) for instructions on how to print samples of the fonts. You can select the resident fonts from your software application, or from the operator panel if you are using PCL 6 emulation.

Resident Scalable Fonts	
PCL 6 emulation	PostScript 3 emulation
Albertus Medium	AlbertusMT
	AlbertusMT-Italic
	AlbertusMT-Light
Albertus Extra Bold	
Antique Olive	AntiqueOlive-Roman
Antique Olive Italic	AntiqueOlive-Italic
Antique Olive Bold	AntiqueOlive-Bold
	AntiqueOlive-Compact
Arial	ArialMT
Arial Italic	Arial-ItalicMT
Arial Bold	Arial-BoldMT
Arial Bold Italic	Arial-BoldItalicMT
ITC Avant Garde Book	AvantGarde-Book
ITC Avant Garde Book Oblique	AvantGarde-BookOblique
ITC Avant Garde Demi	AvantGarde-Demi
ITC Avant Garde Demi Oblique	AvantGarde-DemiOblique
ITC Bookman Light	Bookman-Light
ITC Bookman Light Italic	Bookman-LightItalic
ITC Bookman Demi	Bookman-Demi
ITC Bookman Demi Italic	Bookman-DemiItalic

Resident Scalable Fonts (continued)	
PCL 6 emulation	PostScript 3 emulation
Clarendon Condensed Bold	
Coronet	Coronet-Regular
CourierPS	Courier
CourierPS Oblique	Courier-Oblique
CourierPS Bold	Courier-Bold
CourierPS Bold Italic	Courier-BoldOblique
CG Omega	
CG Omega Bold	
CG Omega Italic	
CG Omega Bold Italic	
Garamond Antiqua	Garamond-Antiqua
Garamond Halbfett	Garamond-Halbfett
Garamond Kursiv	Garamond-Kursiv
Garamond Kursiv Halbfett	Garamond-KursivHalbfett
Helvetica Light	Helvetica-Light
Helvetica Light Oblique	Helvetica-LightOblique
Helvetica Black	Helvetica-Black
Helvetica Black Oblique	Helvetica-BlackOblique
Helvetica	Helvetica
Helvetica Italic	Helvetica-Oblique

Resident Scalable Fonts (continued)	
PCL 6 emulation	PostScript 3 emulation
Helvetica Bold	Helvetica-Bold
Helvetica Bold Italic	Helvetica-BoldOblique
Helvetica Narrow	Helvetica-Narrow
Helvetica Narrow Italic	Helvetica-Narrow-Oblique
Helvetica Narrow Bold	Helvetica-Narrow-Bold
Helvetica Narrow Bold Italic	Helvetica-Narrow-BoldOblique
CG Times	Intl-CG-Times
CG Times Italic	Intl-CG-Times-Italic
CG Times Bold	Intl-CG-Times-Bold
CG Times Bold Italic	Intl-CG-Times-BoldItalic
Univers Medium	Intl-Univers-Medium
Univers Medium Italic	Intl-Univers-MediumItalic
Univers Bold	Intl-Univers-Bold
Univers Bold Italic	Intl-Univers-BoldItalic
Courier	Intl-Courier
Courier Italic	Intl-Courier-Oblique
Courier Bold	Intl-Courier-Bold
Courier Bold Italic	Intl-Courier-BoldOblique
Letter Gothic	LetterGothic
Letter Gothic Italic	LetterGothic-Slanted

Resident Scalable Fonts (continued)	
PCL 6 emulation	PostScript 3 emulation
Letter Gothic Bold	LetterGothic-Bold
	LetterGothic-BoldSlanted
Marigold	Marigold
Century Schoolbook Roman	NewCenturySchlbk-Roman
Century Schoolbook Italic	NewCenturySchlbk-Italic
Century Schoolbook Bold	NewCenturySchlbk-Bold
Century Schoolbook Bold Italic	NewCenturySchlbk-BoldItalic
	Optima
	Optima-Bold
	Optima-BoldItalic
	Optima-Italic
Palatino Roman	Palatino-Roman
Palatino Italic	Palatino-Italic
Palatino Bold	Palatino-Bold
Palatino Bold Italic	Palatino-BoldItalic
SymbolPS	Symbol
Symbol	
Times Roman	Times-Roman
Times Italic	Times-Italic
Times Bold	Times-Bold

Resident Scalable Fonts (continued)	
PCL 6 emulation	PostScript 3 emulation
Times Bold Italic	Times-BoldItalic
Times New Roman	TimesNewRomanPSMT
Times New Roman Italic	TimesNewRomanPS-ItalicMT
Times New Roman Bold	TimesNewRomanPS-BoldMT
Times New Roman Bold Italic	TimesNewRomanPS-BoldItalicMT
	Univers
	Univers-Oblique
	Univers-Bold
	Univers-BoldOblique
Univers Condensed Medium	Univers-Condensed
Univers Condensed Medium Italic	Univers-CondensedOblique
Univers Condensed Bold	Univers-CondensedBold
Univers Condensed Bold Italic	Univers-CondensedBoldOblique
Wingdings	Wingdings-Regular
ITC Zapf Chancery Medium Italic	ZapfChancery-MediumItalic
ITC Zapf Dingbats	ZapfDingbats
	Univers-Extended
	Univers-ExtendedObl
	Univers-BoldExt
	Univers-BoldExtObl

Resident Scalable Fonts (continued)	
PCL 6 emulation	PostScript 3 emulation
	Univers-Light
	Univers-LightOblique
	Clarendon
	Clarendon-Light
	Clarendon-Bold
	Helvetica-Condensed
	Helvetica-Condensed-Bold
	Helvetica-Condensed-BoldObl
	Helvetica-Condensed-Oblique
	StempelGaramond-Bold
	StempelGaramond-BoldItalic
	StempelGaramond-Italic
	StempelGaramond-Roman
	Apple-Chancery
	Chicago
	Geneva
	Monaco
	NewYork
	Oxford
	Taffy

Resident Scalable Fonts (continued)	
PCL 6 emulation	PostScript 3 emulation
	Monalisa-Recut
	Candid
	Bodoni
	Bodoni-Italic
	Bodoni-Bold
	Bodoni-BoldItalic
	Bodoni-Poster
	Bodoni-PosterCompressed
	CooperBlack
	CooperBlack-Italic
	Copperplate-ThirtyTwoBC
	Copperplate-ThirtyThreeBC
	Eurostile
	Eurostile-Bold
	Eurostile-ExtendedTwo
	Eurostile-BoldExtendedTwo
	GillSans
	GillSans-Italic
	GillSans-Bold
	GillSans-BoldItalic

Resident Scalable Fonts (continued)	
PCL 6 emulation	PostScript 3 emulation
	GillSans-Condensed
	GillSans-BoldCondensed
	GillSans-Light
	GillSans-LightItalic
	GillSans-ExtraBold
	Goudy
	Goudy-Italic
	Goudy-Bold
	Goudy-BoldItalic
	Goudy-ExtraBold
	HoeflerText-Regular
	HoeflerText-Italic
	HoeflerText-Black
	HoeflerText-BlackItalic
	HoeflerText-Ornaments
	JoannaMT
	JoannaMT-Italic
	JoannaMT-Bold
	JoannaMT-BoldItalic
	LubalinGraph-Book

Resident Scalable Fonts (continued)	
PCL 6 emulation	PostScript 3 emulation
	LubalinGraph-BookOblique
	LubalinGraph-Demi
	LubalinGraph-DemiOblique

PCL 6 emulation	PostScript 3 emulation
Line Printer 16	
POSTNET Barcode	

Symbol sets

A *symbol set* is the collection of alphabetic and numeric characters, punctuation, and special characters available in the font you select. Symbol sets support the requirements for different languages or specific applications, such as math symbols used for scientific text.

In PCL 6 emulation, a symbol set also defines which character will print for each key on the keyboard (or more specifically, for each *code point*). Some applications require different characters at some code points. To support multiple applications and languages, your printer has 83 symbol sets for the resident PCL 6 emulation fonts.

Symbol sets for PCL 6 emulation

Not all font names support all of the symbol sets listed. Refer to the *Technical Reference* to determine which symbols sets are supported by each font name.

ABICOMP Brazil/Portugal	ISO 21: German	PC-853 Latin 3 (Turkish)
ABICOMP International	ISO 25: French	PC-855 Cyrillic
DeskTop	ISO 57: Chinese	PC-857 Latin 5 (Turkish)
Legal	ISO 60: Norwegian version 1	PC-858 Multilingual Euro
MC Text	ISO 61: Norwegian version 2	PC-860 Portugal
Microsoft Publishing	ISO 69: French	PC-861 Iceland
Russian-GOST	ISO 84: Portuguese	PC-863 Canadian French
Ukrainian	ISO 85: Spanish	PC-865 Nordic
PCL ITC Zapf Dingbats	ISO 8859-1 Latin 1 (ECMA-94)	PC-866 Cyrillic

PS ITC Zapf Dingbats	ISO 8859-2 Latin 2	PC-869 Greece
PS Math	ISO 8859-5 Latin/Cyrillic	PC-911 Katakana
PS Text	ISO 8859-7 Latin/Greek	PC-1004 OS/2
Pi Font	ISO 8859-9 Latin 5	Math-8
Symbol	ISO 8859-10 Latin 6	Greek-8
Wingdings	ISO 8859-15 Latin 9	Turkish-8
POSTNET Barcode	PC-8 Bulgarian	Roman-8
ISO : German	PC-8 Danish/Norwegian (437N)	Roman-9
ISO : Spanish	PC-8 Greek Alternate (437G)	Roman Extension
ISO 2: IRV (Int'l Ref Version)	PC-8 Turkish (437T)	Ventura ITC Zapf Dingbats
ISO 4: United Kingdom	PC-8 Latin/Greek	Ventura International
ISO 6: ASCII	PC-8 PC Nova	Ventura Math
ISO 10: Swedish	PC-8 Polish Mazovia	Ventura US
ISO 11: Swedish for Names	PC-8 Code Page 437	Windows 3.0 Latin 1
ISO 14: JIS ASCII	PC-775 Baltic (PC-8 Latin 6)	Windows 98 Cyrillic
ISO 15: Italian	PC-850 Multilingual	Windows 98 Greek
ISO 16: Portuguese	PC-851 Greece	Windows 98 Latin 1
ISO 17: Spanish	PC-852 Latin 2	Windows 98 Latin 2
		Windows 98 Latin 5
		Windows 98 Latin 6 (Baltic)

Downloadable fonts

You can download scalable fonts in PostScript 3 emulation and either scalable or bitmapped fonts in PCL 6 emulation. Fonts can be downloaded to printer memory or to a flash memory option or hard disk option. Fonts downloaded to flash memory or hard disk remain in memory even after the printer language changes, the printer resets, or the printer is turned off.

MarkVision includes a remote management function that lets you manipulate the font files you have downloaded to flash memory or hard disk. See the *Drivers, MarkVision and Utilities* CD for more information about MarkVision.

Printing a font sample list

To print samples of all the fonts currently available for your printer:

- 1 Make sure the printer power is on and the **Ready** status message displays.
- 2 Press **Menu>** or **<Menu** to enter the menus.
- 3 Continue to press and release **Menu>** until you see **UTILITIES MENU**.
- 4 Press **Select**.
- 5 Press **Menu>** until **Print Fonts** displays.
- 6 Press **Select**.
- 7 Press **Menu>** or **<Menu** until either **PCL Fonts** or **PS Fonts** displays on the second line of the operator panel.
 - Select **PCL Fonts** to print a listing of the fonts available to the PCL emulator.
 - Select **PS Fonts** to print a listing of the fonts available to the PostScript 3 emulator. This choice only displays when the PostScript printer language is available in the printer.
- 8 Press **Select**.

The message **Printing Font List** displays and remains on the operator panel until the page prints. The printer returns to the **Ready** state after the font sample list prints.

Printer Specifications

Dimensions

	Optra T616	Optra T616n	Optra T614	Optra T614n	Optra T612	Optra T612n	Optra T610	Optra T610n
Height in. (mm)	15.9 (404) 21.2 ² (538)	15.9 (404) 21.2 ² (538)	15.9 (404)	15.9 (404) 21.2 ² (538)	14.9 (379)	15.9 (404)	13.4 (340)	13.4 (340)
Width in. (mm)	16.5 (418)	16.5 (418)	16.5 (418)	16.5 (418)	16.5 (418)	16.5 (418)	15.7 (400)	15.7 (400)
Depth in. (mm)	20.2 (513)	20.2 (513)	20.2 (513)	20.2 (513)	20.2 (513)	20.2 (513)	19.6 (498)	19.6 (498)
Weight¹ lb. (kg)	45 (20.4) 52 ³ (23.6)	45 (20.4) 52 ³ (23.6)	45 (20.4)	45 (20.4) 52 ³ (23.6)	44.5 (20.2)	45 (20.4)	43.5 (19.7)	43.5 (19.7)

¹ Weight of printer includes print cartridge.

² Height of printer with included 500-sheet drawer.

³ Weight of printer with included 500-sheet drawer.

Duty cycle

Maximum Duty Cycle			
Optra T616(n)	Optra T614(n)	Optra T612(n)	Optra T610(n)
Up to 200,000 pages per month	Up to 130,000 pages per month	Up to 100,000 pages per month	Up to 65,000 pages per month

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