

# User and Planning Information



# User and Planning Information

#### Note

Before using this information and the product it supports, be sure to read the general information in the 3160 Advanced Function Printer User's Guide, the InfoPrint 60 User's Guide, or the 3160 and InfoPrint 60 Installation and Planning Guide.

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# **Chapter 1. Introducing the Finisher**

This is supplemental information to the 3160 Advanced Function Printer User's Guide, the InfoPrint 60 User's Guide, and the 3160 and InfoPrint 60 Installation and Planning Guide. It is intended for you as the user, the key operator, or the system administrator.

#### **About the Finisher**

An IBM Customer Engineer attached the finisher to your IBM InfoPrint 60 Printer. The IBM Customer Engineer removed the 1500 Sheet Side Stacker, or the 3000 Sheet Side Stacker and the Decurler before installing a finisher on your printer.

**Note:** Even if your printer **is** equipped with the option for running Variable Size Paper and Tabs, your finisher will **not** process tabs from the printer through the finisher in one continuous operation. You can, however, load preprinted tabs into the insert tray. You must load them with the tab on the trailing edge (tabs to the left).

#### **Terms**

A knowledge of some terms may help you understand the finisher.

Term	Definition	
Corner Staple	One staple inserted in one corner of a document by the stapler.	
Default	A value, attribute, or option that is assumed when none has been specified. For this supplement, default implies a factory setting. The defaults you see may have been changed after your printer or finisher was installed.	
Edge Stitch	Two or more staples inserted along one edge of a document by the stapler.	
Insert	A sheet that is included in a finisher job, and is fed from the insert tray not the printer.	
Long-Edge Feed	Describes the Portrait Orientation of paper as it travels through the paper path (see Figure 4 on page 8).	
Saddle Stitch	Two staples inserted in the center fold of a set of sheets by the saddle stitcher (see Figure 7 on page 9).	
Short-Grain Paper	Paper fibers run in the direction of the shortest dimension of a sheet of paper. The strongest and stiffest direction of paper is with the grain.	
Short-Edge Feed	Describes the Landscape Orientation of paper as it travels through the paper path (see Figure 5 on page 9).	
Z-Fold	Ledger-size paper (11x17) is folded up at 8.5 in. from the left edge, and folded up at an additional 4 in. to fit in an 8.5x11 sheet set. The remaining length rests on top. A3-size paper is folded into A4 (see Figure 6 on page 9).	

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#### **Overview**

The finisher handles paper as it arrives from the printer, and can interleave sheets fed from the insert tray. The stapler can only insert staples in the leading edge of the sheet-set as it passes through the finisher. You can include some z-folded sheets in a stapled set. The saddle-stitcher folds and inserts staples at the center fold in a set of sheets.

Figure 1, which shows the finisher detached from the printer, introduces you to the names for the various covers and some of the components. Notice the power switch located at the left, rear of the top cover. Use this power switch to power off or power on the finisher. The printer that is attached to the finisher has an additional, separate power switch. The power switch on the **printer** controls only the printer power. The power switch on the finisher controls only the finisher power. Read "Powering Off the Finisher" on page 24 before powering off the finisher.

**Note:** The printer and the finisher share power. Even with the finisher powered off and the power cable removed from the receptacle, some components in the finisher will remain powered on.

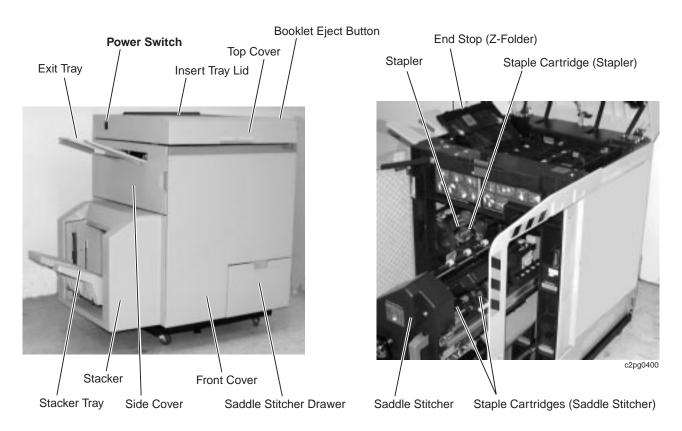


Figure 1. Covers and Components.

**Note:** In Figure 1, notice the power switch, and notice the saddle stitcher in the service position (printer removed for clarity).

The finisher has labels that provide direction for most of the actions the key operator needs to perform. Figure 2 on page 3 shows the location of these labels

(use with Table 1). Refer to these labels when performing key operator actions.

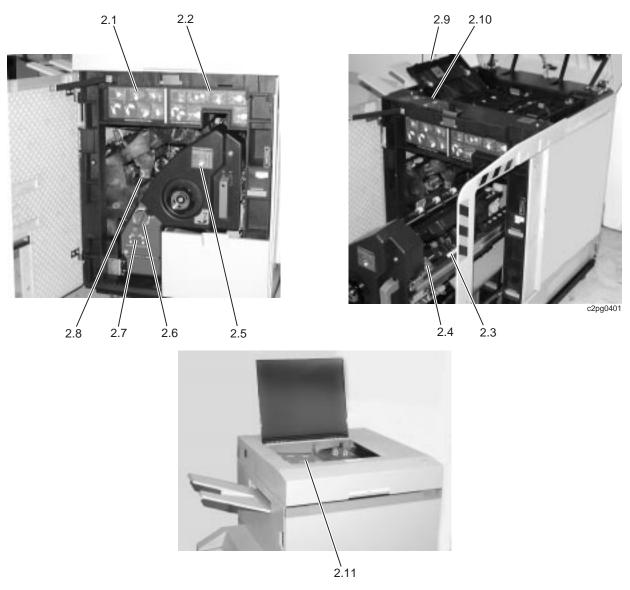


Figure 2. Graphic Labels—IDs and Locations

Table 1. Graphic Labels—IDs, Names, and Locations

Label ID	Label Name	Location
2.1	Changing Staple Cartridge on Stapler	Top of finisher
2.2	Changing Cartridges on Saddle Stitcher	Top of finisher, right of 2.1
2.3	Adjusting Saddle Stitcher for Paper Size	Right side of saddle stitcher (in service position)
2.4	Selecting Staple Position for Saddle Stitcher	Next to 2.3, rear of saddle stitcher (in service position)
2.5	Pull Out Saddle Stitcher	Saddle stitcher
2.6	Paper Size Selection for Saddle Stitcher	Saddle stitcher, below and left of 2.5
2.7	Fine Adjustment for Center Fold	Saddle stitcher, below 2.6
2.8	Lock/Unlock	Stapler

Table 1. Graphic Labels—IDs, Names, and Locations (continued)

Label ID	Label Name	Location
2.9	End Stop for the Paper Size to be Z-Folded	Left center, under top cover (below colored circle)
2.10	Changing Paper Size Selection for Z-Folding	Left front, under top cover
2.11	Loading Insert Tray	Insert tray, under insert tray lid

**Note:** Most of the labels are located behind the front cover; however, 2.9 and 2.10 are under the top cover, and 2.11 is under the insert tray.

# **Capabilities**

The finisher allows your printer to deliver printed sheets as one of the following:

- · Unfolded single sheets
- Unstapled single sheets
- Unfolded, edge-stitched (1, 2, or 3 staples), or corner-stapled sets
- · Folded, saddle-stitched sets
- Z-folded sheets included in stapled sets (limited to 2 paper sizes)
- Stapled or unstapled sets that include items (such as preprinted tabs) fed from the finisher insert tray
- Saddle-stitched sets interleaving sheets from the printer with sheets from the insert tray

#### **Notes:**

- 1. See "Loading Paper" on page 7 for information about where on the sheet the finisher will staple and saddle stitch. The building of sets is limited to certain sheet sizes.
- 2. Sheet counts used in this supplement assume you will process 20 lb (75 g/m2) bond paper. The use of heavier stock reduces the maximum page count you can expect from your finisher.

# **Input Capacities**

The finisher has the following capacities when processing 20 lb paper:

- · Stapler maximum of 50 sheets per set
- Saddle stitcher maximum of 15 sheets per set (see Table 5 on page 14 for maximum page count for various paper weights)
- Stapler maximum of 3 z-folded sheets per set (see "Z-Folding Recommendations" on page 10)
- Insert tray maximum of 250 sheets

# **Output Capacities**

The finisher has 3 output areas. Anticipate the following capacities when using 20 lb paper:

- · Stacker (the lower exit) maximum of 1600 sheets
- Exit tray (the upper exit) maximum of 50 sheets; receives single sheets and incomplete sets if a paper jam occurs

• Saddle stitcher drawer - ranges from a maximum of 100 stapled sets of 2 sheets each to a maximum of 15 stapled sets of 15 sheets (or equivalent)

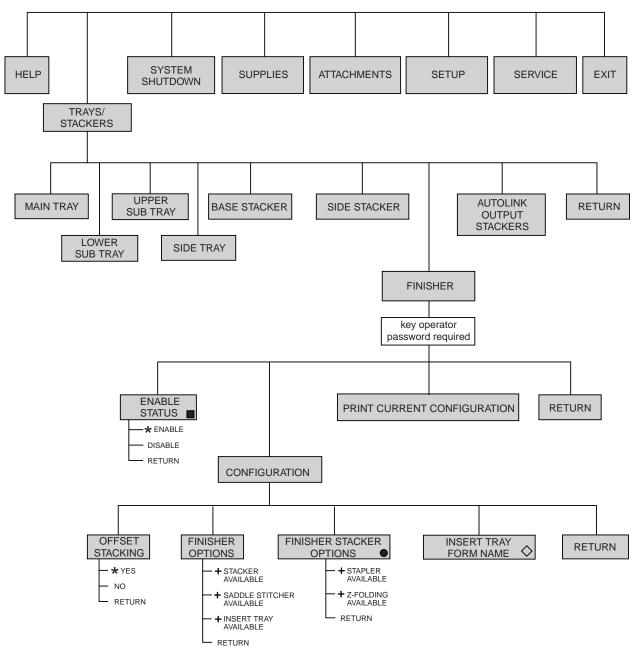
## **Related Publications**

The following publications provide additional information:

- InfoPrint 60 User's Guide
- InfoPrint 60 Finisher Application Design Guide

## **Menu Tree**

You will see additional menu items when the finisher is installed.



- ★ Default (single selection only)
- + Default (multiple selections possible)
- Take printer offline before changing setting
- Available only when STACKER AVAILABLE is selected
- Available only when INSERT TRAY AVAILABLE is selected

Notes: • The device must be present, installed, and enabled in order to appear in the menus.

- Some menu items are accessible only with a password.
- Your specific environment or configuration may prevent some menu items from displaying.

Figure 3. Menu Tree—From Main Menu

c2pg0407

# **Chapter 2. Preparing the Finisher**

The information in this chapter outlines how you prepare the finisher for operation.

## **Acceptable Paper**

Your finisher operates best with 20 lb (75 g/m2) xerographic paper, but accepts the following media:

Table 2. Paper Size Conversion Chart

Paper Name	Paper Dimensions (in.)	Paper Dimensions (mm)
Letter	8.5x11	215.9x279.4
Legal	8.5x14	215.9x355.6
Ledger	11x17	279.4x431.8
<b>B5</b> (corner staple only)	7.2x10.1	182x257
A4	8.3x11.7	210x297
<b>B4</b> (corner staple only)	10.1x14.3	257x364
A3	11.7x16.6	297x420

**Note:** Use the highlighted Paper Dimensions in any reference to print media sizes. The non-highlighted dimensions are provided only for comparison.

If your printer is set up to print on Variable Size Paper (option), consider a trial run on your print job to verify the results for your particular needs.

Always consider a trial run on special jobs before purchasing large quantities of paper or stock.

**Note:** IBM recommends that you do **not** attempt to run labels through the finisher. Limit the use of labels to the base stacker of your printer.

# **Loading Paper**

You can load various paper sizes into the printer to process through the finisher. You also can load sheets into the insert tray of the finisher to be included in your sets. The sheets from the insert tray pass through the finisher only, and do not pass through the printer. Use the label under the insert tray lid to aid you while loading stock into the insert tray. See Figure 2 on page 3.

The examples of finished sets pictured in the following figures depict where you can corner-staple and edge-stitch your sets. The depiction of the stapled set is a single-sided sheet as it would appear after it was removed from the finisher and turned face-up.

Refer to the User's Guide for your printer to learn about paper orientation when loading prepunched, preprinted, edge-sensitive, and side-sensitive paper into the printer.

#### **Notes:**

- If your printer has the Variable Size Paper and Tabs option, you can run Letter-size (8.5x11) and A4-size stock with the short-edge leading (as depicted by Landscape Orientation in Figure 5 on page 9). Other variable size papers (not shown in Table 2 on page 7) that are approved for your **printer** cannot be run through the finisher, and must be run into the **printer** base stacker.
- To prevent problems, it is imperative that the size of paper you load in the trays matches the paper size information you provide through the operator panel. Failure to do so will cause the printer to stop running.
- After you change any aspect of the job you are running, you should monitor the results. As an example, if you begin a new saddle-stitched print job that includes covers from the input tray, verify the orientation of the cover in relation to the pages from the printer. Stated another way, consider the first copy of a job as a sample. Refer to the *InfoPrint 60 Finisher Application Design Guide* for more information.

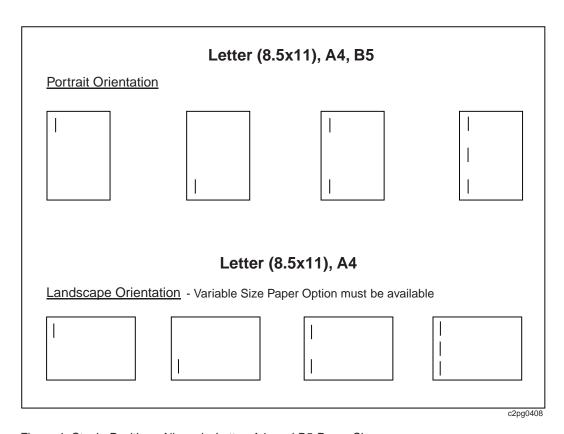


Figure 4. Staple Positions Allowed—Letter, A4, and B5 Paper Sizes

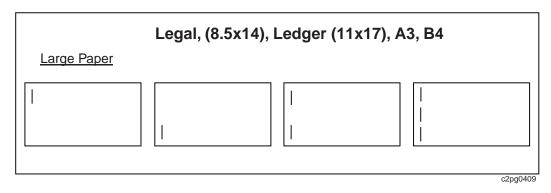


Figure 5. Staple Positions Allowed—Legal, Ledger, A3, and B4 Paper Sizes

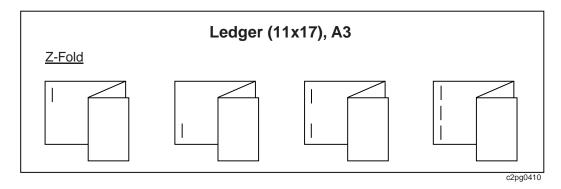


Figure 6. Staple Positions Allowed with Z-Fold—Ledger and A3 Paper Sizes

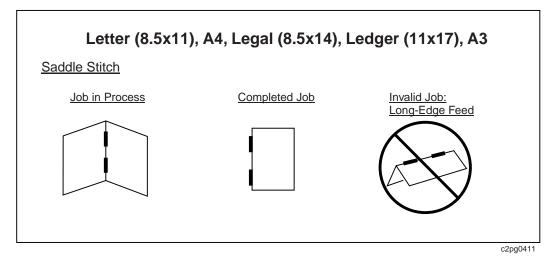


Figure 7. Saddle Stitch Positions Allowed—Letter, A4, Legal, Ledger, and A3 Paper Sizes.

# **Insert Tray**

The insert tray is located on the top of the finisher. After opening the insert tray lid, you can load into the insert tray (250 sheets of 20 lb or equivalent) stock of the same sizes and weights that you can load in the printer. See Figure 8 on page 16 for a depiction of this task.

Use the insert tray to add a set of sheets, cover stock, preprinted sheets, preprinted tabs (like those run on an InfoPrint 60 without a finisher), or separator sheets to a print job. You can staple, saddle-stitch, and z-fold sheets that you load in the insert tray, but you must match the orientation of the paper in the finisher insert tray with the paper in the tray of the printer.

You can hand-build subsets of sheets you want to insert into your job. If you correctly arrange and specify the pages, you can shuffle multiple, individual pages into a finished set. For example, you could build multiple, subsets of pages like a tab after page 4 and a separator sheet after page 10 to be added to your job. You will need to closely monitor this sort of activity for page number and sequence in your finished sets. Run a sample before running multiple copies of a finisher job.

Load preprinted sheets face-up in the insert tray, with the lowest page number on top. These sheets will be interleaved by the finisher, and will arrive face-down in the stacker. A common approach for loading stock like preprinted covers into the insert tray is to load the stock face up, with the top edge of the stock toward the front of the finisher. Your particular job may require another orientation. Verify your results after creating a sample document. Refer to the *InfoPrint 60 Finisher Application Design Guide* for more information.

# **Z-Folding Recommendations**

The following table provides the maximum sheet count for a stapled set when including z-folded sheets. When calculating the quantity of z-folded sheets the finisher can staple, 1 z-folded sheet of 20 lb paper is equal to 7 sheets in a stapled set. The range of paper weight for z-folding is between 20 lb and 32 lb (32 lb paper must be short-grain paper). You can include as many as 3 z-folded sheets in a stapled set.

Table 3. Maximum Sheet Count in a Set—Z-Folded and Unfolded Sheets (20 lb Stock)

Number of z-folded sheets in a set (when z-folding 20-lb stock)	Number of additional unfolded sheets you can add to the z-folded sheets when using 20 lb paper	Number of additional unfolded sheets you can add to the z-folded sheets when using 42 lb paper
3	29	16
2	36	20
1	43	24

The previous table (Table 3) provides information about the sheet count you could expect when z-folding 20 lb stock. The next table (Table 4) provides information about the maximum sheet count when z-folding 32 lb paper. When calculating the quantity of z-folded sheets the finisher can staple, 1 z-folded sheet of 32 lb stock is equal to 11 sheets in a stapled set.

Table 4. Maximum Sheet Count in a Set—Z-Folded and Unfolded Sheets (32 lb Stock)

Number of z-folded sheets in a set (when z-folding 32-lb stock)	Number of additional unfolded sheets you can add to the z-folded sheets when using 20 lb paper	Number of additional unfolded sheets you can add to the z-folded sheets when using 42 lb paper
3	17	10
2	28	16
1	39	22

# **Print Job Examples**

Here are some examples of tasks you can combine on your finisher to build a document:

- Staple 49 printer sheets with a preprinted sheet of the same size and weight from the insert tray
- Insert preprinted tabs (that you loaded in the insert tray) into a document
- Z-fold an 11x17 (or A3) sheet; add it to a 43-sheet, 8.5x11 (or A4) document, and bind or edge stitch the set with 1, 2, or 3 staples
- Saddle stitch 15 printed sheets with a sheet from the insert tray, like a preprinted cover

# **Chapter 3. Operating the Finisher**

This chapter describes how to set up and operate your finisher to z-fold, staple, and saddle stitch printed and preprinted stock. You also can pass through the finisher print jobs that do not need finishing.

## **Setting Up the Finisher for Your Job**

You can use the finisher to create booklets and stapled sets.

When you change print jobs, you may need to reconfigure the finisher. You also may need to reconfigure the finisher if you change paper size or load paper that is not in one of the trays of the printer or the insert tray of the finisher.

To prevent problems, it is imperative that the size of the paper you load in the printer trays or in the finisher insert tray matches the finisher paper size information.

Table 5 on page 14 provides maximum sheet counts per booklet you can expect and Table 6 on page 14 offers booklet counts for various paper weights and cover weights.

Do not press the **Stop** key until the printer has stopped processing jobs.

#### Saddle Stitcher

If the s these s	addle stitcher is not prepared for the paper size you want to run, follow teps:
1.	Press the <b>Stop</b> key on the operator panel to make the printer NOT READY
2.	After the printer has stopped, move the saddle stitcher to the service position. Use label 2.5 as a guide (see Figure 2 on page 3 for the location of all labels).
3.	Pull and hold the colored knob as you move the staple head to align with the mark on label 2.3 for the paper size your finisher will saddle stitch.
4.	Release the knob. Ensure the staple head is locked into position.
5.	Return the saddle stitcher to the operating position.
6.	Close the saddle stitcher drawer.
7.	Use label 2.6 to help you set the colored selector on the front of the saddle stitcher for the paper size your finisher will saddle stitch.
8.	Close all the covers.
9.	See "Checking or Changing Configuration" on page 16 to check or change the configuration.
10.	Press the <b>Start</b> key to make the printer READY.
11.	Run a sample of your job and inspect the output.

#### Notes:

• The dimension of the first half of the booklet you create may not match the dimension of the last half of the booklet. Use the colored adjuster knob (label 2.7) to adjust the width of the booklet. Turn the adjuster clockwise to shorten the width of the front (or top) half and increase the width of the back half of the booklet. Turn the adjuster counterclockwise to increase the width of the front half and shorten the back half of the booklet.

 The saddle stitcher accepts print jobs of up to 15 sheets when finishing 20 lb paper. Table 5 depicts the maximum sheet count for various paper weights.

Table 5 provides maximum sheet counts per booklet you can anticipate.

Table 5. Maximum Sheet Count in a Set—Saddle Stitcher

Maximum Sheet Count (Per Saddle Stitcher Job) With Various Paper Weights				
Cover Stock	or Stock			
	20 lb Bond	32 lb Bond		
20 lb Bond	15	12		
32 lb Bond	13	8		
50 lb Bond	11	8		
65 lb Bond	8	5		
110 lb Bond	5	3		

Table 6 provides booklet counts for various paper weights and cover weights.

Table 6. Maximum Quantity of Saddle Stitcher Booklets for Various Cover and Paper Weights

	Bo	oklet Yield	Per Sheet	Count Wi	th Various	Paper Wei	ghts		
Cover Weight	20 lb	32 lb	50 lb	65 lb	110 lb	32 lb	50 lb	65 lb	110 lb
Interior Weight	20 lb	20 lb	20 lb	20 lb	20 lb	32 lb	32 lb	32 lb	32 lb
Sheets per Booklet									
2	100	90	85	65	40	80	65	50	25
3	70	60	50	40	25	50	45	35	20
4	40	45	40	33	20	35	30	25	
5	40	35	30	25	15	30	25	20	
6	35	30	25	20		25	20		
7	30	25	22	18		22			
8	25	22	20	16		20			
9	20	20	18						
10	20	18	16						
11	20	17	15						
12	18	16							
13	17	15							
14	16								
15	15								

**Note:** This table is for reference only, and applies to Ledger and A3 paper. These values vary with other paper sizes.

#### **Z-Folder**

**Note:** You can only include 3 z-folded sheets in a finished set.

To prepare the z-folder to accept sheets from the printer and insert tray, follow these steps:

1. Press the Stop key on the operator panel to make the printer NOT READY.
2. After the printer has stopped, open the top cover.
3. Notice label 2.10. Use this label as a guide (see Figure 2 on page 3 for the location of all labels).
4. Locate the end stop (label 2.9). Ensure the end stop is positioned for the paper size the finisher will process. The end stop should be down for 11x17 paper or up for A3 paper. Close the top cover.
5. If you are z-folding sheets fed from the insert tray, open the insert tray lid. Load stock, using label 2.11 for guidance. Close the top cover lid and all the covers.
6. See "Checking or Changing Configuration" on page 16 to check or change the configuration.
7. Press the Start key to make the printer READY.
8. Inspect the output after running a sample to verify satisfactory results.

## **Insert Tray**

Use label 2.11 located under the insert tray lid (see Figure 8 on page 16) as a guide when loading stock (paper) into the insert tray. Notice the recommendations for paper orientation in the artwork of the label. The leading edge of the stock will be the stapled edge for the following operations:

Stapling - Place the inserts face up, with the edge to be stapled to the right.

Saddle Stitching - Place the inserts face up, with the lowest sheet number on top, and the top of the sheet to the front of the finisher.

Z-Folding - Place the inserts face up, with the edge to be stapled to the right.

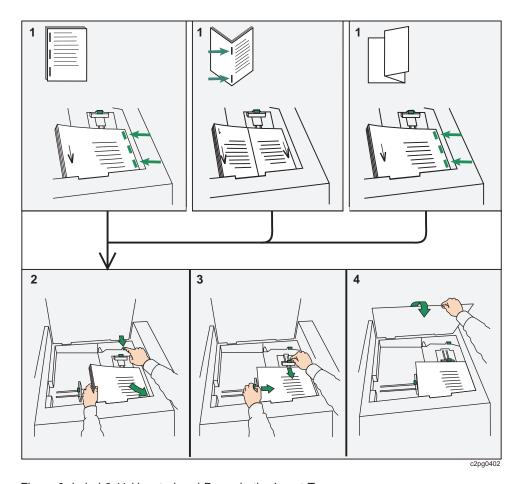


Figure 8. Label 2.11 How to Load Paper in the Insert Tray

- \_\_\_ 1. Press the **Stop** key on the operator panel to make the printer NOT READY.
- \_\_\_ 2. Open the insert tray lid.
- \_\_ 3. Push down on the colored tab (see Figure 8 View 2), and insert the stock face up. Lift up on the colored tab if the spring-loaded plate does not return.
- 4. Adjust both paper guides for the size of the paper you are loading.
- \_\_ 5. Close the insert tray lid.
- \_\_ 6. See "Checking or Changing Configuration" to check or change the configuration.
- \_\_\_ 7. Press the **Start** key to make the printer READY.

# **Checking or Changing Configuration**

After you have prepared the printer for the print job, you should check, and if necessary, change the configuration for the finisher to match the desired printer operation in which you prepared the printer to operate.

- \_\_ 1. Press the **Stop** key on the operator panel of the printer to make the printer NOT READY.
- \_\_ 2. Press the **Menu/Exit** key to enter the MAIN MENU.
- \_\_ 3. Use the printer operator panel to set up the configuration for your job. Refer to Figure 3 on page 6. You can select RETURN if you need to exit a menu

	item that appears in the display of the operator panel.
	a. From the MAIN MENU, select TRAYS/STACKERS, FINISHER.
	b. Enter the key operator password.
	c. From the FINISHER submenu, select CONFIGURATION.
	d. From the CONFIGURATION menu select OFFSET STACKING. Choose YES or NO. When offset stacking is enabled, print job separation is indicated by the jogging of sheets at the beginning of each print job.
	e. Select FINISHER OPTIONS. Choose any or all of the items.
	f. Select FINISHER STACKER OPTIONS. Choose one or both of STAPLER AVAILABLE and Z-FOLDING AVAILABLE.
	<b>Note:</b> Normally, you would want to enable all options so they are available to the host. If you do not want the host to use an option, do not enable that option.
	g. Select RETURN, and scroll to ENABLE STATUS. Choose Enable or Disable.
	h. Press the <b>Menu/Exit</b> key.
4.	Press the <b>Start</b> key to make the printer READY. All future print jobs will be finished according to the selections you made.
Running the Finish	er
1.	Load stock in the finisher insert tray if your job includes items that will not be printed by the printer. This stock might include items like preprinted covers, separator sheets, or preprinted tabs.
2.	Ensure the correct print media is loaded in the specified trays of the printer.
3.	Open the front cover of the finisher, and the insert tray lid. Notice the labels (see Figure 2 on page 3), which provide direction for tasks the key operator is expected to perform.
4.	If your job will be stapled, you do not need to make any adjustments on the finisher. A request to the finisher to staple a job is handled by the data stream.
5.	If your job will be saddle stitched, set the saddle stitcher according to the information in "Saddle Stitcher" on page 26.
6.	If your job will be z-folded, set the z-folder according to the information in "Z-Folder" on page 15.
7.	If your job will be printed on Ledger-size or A3-size paper, lift up the stacker tray extension. See Figure 9 on page 18.

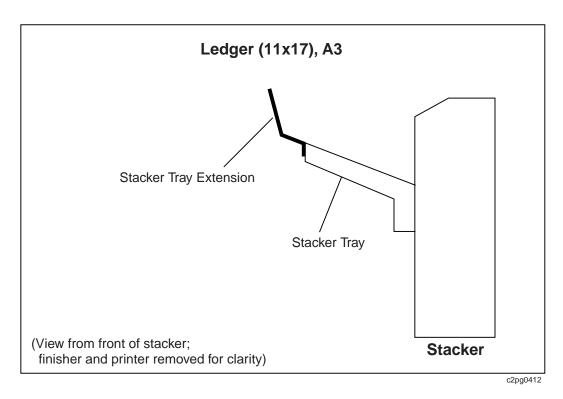


Figure 9. Stacker Tray Extension—Ledger and A3

- \_\_ 8. If your job will be printed on Letter-size or A4-size paper that is long-edge fed, you should use the stacker tray guide (or "guide"). See Figure 10 on page 19.
  - a. Move the guide toward the front of the finisher, and into the operating position.
  - b. Adjust the guide for either Letter-size or A4-size paper. Slide the bar out for Letter-size paper or push the bar in for A4-size paper.
  - c. When you job completes running long-edge fed paper, move the guide out of operating position by moving it toward the rear of the finisher.

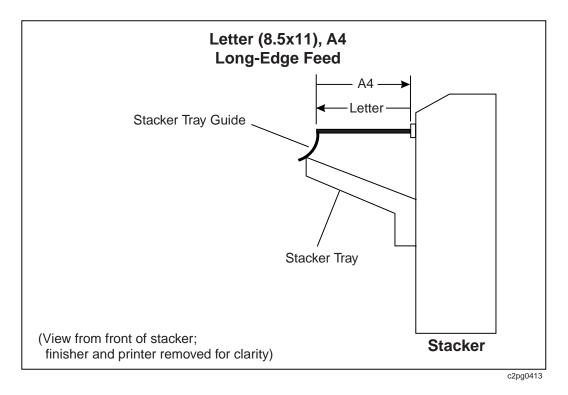


Figure 10. Stacker Tray Guide-Long-Edge Fed Letter and A4

\_\_\_ 9. Verify correct operation before running multiple copies of a job.

#### **Notes:**

- If you send an unfinished job of fewer than 50 sheets, the finisher will hold all the sheets and deliver them to the stacker as a set.
- If you send an unfinished job of more than 50 sheets, the finisher attempts to hold 50 sheets before delivering any output to the stacker. The remainder of the job will arrive in segments until reaching the end of the job.
- The set of pages that is in the printer or the finisher when any error occurs, may not finish correctly.

# **Using the Booklet Eject Button**



Each time you open the saddle stitcher drawer, the finisher automatically drives forward (ejects) into the saddle stitcher drawer the sets that accumulate inside the finisher.

If you operate the finisher with the saddle stitcher drawer in the fully-open position, you can eject the saddle-stitched sets that accumulate without interrupting the job that is currently processing. Press the booklet eject button

located on the top cover (see Figure 1 on page 2 for location) to eject the sets that accumulate in the rear of the drawer. After you press the booklet eject button you must empty the saddle stitcher drawer.

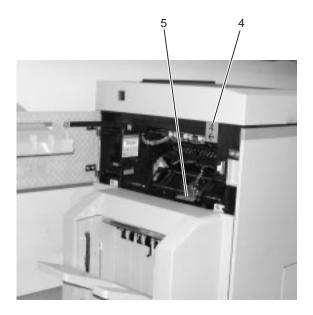
# **Clearing Paper Jams**

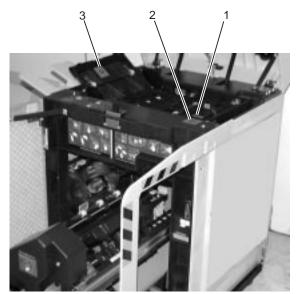
Your printer and finisher have stopped passing paper because of a paper jam. The information in this section helps you locate and clear paper jams inside the finisher. Recovery procedures for a paper jam that occurred in the **printer** can be found in the User's Guide for your printer.

Note: When clearing finisher paper jams that display with a letter inside parentheses, you must open and close all the doors that are mentioned. The letters you may find in parentheses are T, S, F, and X, which represent Top Cover, Side Cover, Front Cover, and Saddle Stitcher Drawer, respectively. See "Display Messages and System Reference Codes (SRCs)" on page 29 for examples. Do not open any doors that are not indicated.

## **Locating and Clearing Finisher Jams**

The location of a paper jam depends on the paper path the finisher was using at the time of the jam. The path may include the finisher insert tray path, the z-folder and stapler path, or the saddle stitcher path. Follow this procedure to locate and clear the jam.





c2pg0403

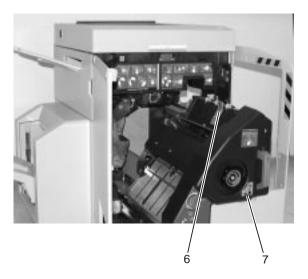


Figure 11. Clearing Jams from the Paper Path Areas

- \_\_ 1. Open **only** the indicated covers. (See the note in "Clearing Paper Jams" on page 20 .)
- \_\_ 2. If indicated, open the top cover. Check Areas 1, 2, and 3. Otherwise, move to step 3. (Do not open this cover if you did not get an indication in the display of the operator panel.)
  - a. In this order, lift the items marked 1 and 2.
  - b. Remove any paper.
  - c. Return item 2, then 1 to the operating position.
  - d. Lift item 3, remove any paper, and return item 3 to the operating position.
- \_\_ 3. If indicated, open the side cover. Check Areas 4 and 5. Locate and remove any paper. Otherwise, move to step 4 on page 22. (Do not open this cover if you did not get an indication in the display of the operator panel.)

4.	If indicated, open the front cover. Move the saddle stitcher to the service position, and check Areas 6 and 7. Otherwise, move to step 5. (Do not open this cover if you did not get an indication in the display of the operator panel.)
	a. Lift the item marked 6. Remove any paper.
	b. Return item 6 to the operating position.
	c. Turn the handwheel (Area 7) counterclockwise to clear paper from the saddle stitcher.
	d. Return the saddle stitcher to the operating position.
	e. Close the saddle stitcher drawer and the front cover.
5.	If the finisher processed sheets from the insert tray, open the insert tray lid and remove any partially-fed sheets.
6.	Remove all sheets from the <b>printer</b> paper path. Refer to the User's Guide for your printer for more information.
7.	Ensure the correct print media is loaded in the specified trays of the <b>printer</b> and the insert tray of the finisher, and that all the printer settings are correct for the paper size you are using.
8.	Close all the covers and press <b>Start</b> to rerun the print job. After the job completes, check the output to ensure your job does not contain any duplicate sheets or any unstapled sets you did not expect. Verify that the current print job is complete with the correct number of sheets in a job and the correct quantity of sets.

#### **Problem Resolution**

To prevent problems, it is imperative that the size of paper you load in the printer paper trays matches the paper size information you set in the finisher.

The finisher passes paper into the stacker without inserting staples, for the following conditions:

- · Single sheets of paper are printed
- · Sets of more than 50 sheets of 20 lb paper (or equivalent) for the stapler
- Sets of more than 15 sheets of 20 lb paper (or equivalent) for the saddle stitcher
- The finisher is out of staples (staple cartridge is empty)
- The operator or a user requested an unstapled job

Other conditions also may prevent the building of finished sets. To prevent problems, do not attempt unsupported tasks such as printing on labels or tabs, building a saddle-stitched, z-folded set, or adding an 8.5x11 sheet from the insert tray to a printed set of A4 sheets. See "Capabilities" on page 4.

The finisher sends incomplete sets and invalid print jobs to the exit tray.

#### **Notes:**

- 1. If the finisher cannot recover from an operation, you can run jobs through other finisher operations. Disable the nonrecoverable operation at the printer operator panel to prevent the host from resending print jobs that can not be run.
- 2. Certain finisher errors can prevent finishing operations from being applied.
- 3. Canceling a job can prevent finishing operations from being applied.

4. If you can not clear a status condition that appears on the operator panel, perform a printer restart. If this does not clear the status message, shutdown the printer. See "Restart, Power On, Power Off, Shutdown the Finisher or Printer".

## Restart, Power On, Power Off, Shutdown the Finisher or Printer

Restarting the printer is the action the key operator might take to clear an error message from the display of the operator panel that can not be cleared by opening and closing finisher covers or by clearing paper jams. Powering off the printer is the action the key operator might take before a long period of printer inactivity such as a holiday weekend. A shutdown is the action the key operator must take before powering off the printer.

To perform some of the following procedures, you may need to refer to the User's Guide for your printer.

# **Restarting the Printer**

You can reduce the printer and finisher non-productive time by performing a restart rather than powering off and powering on the printer. To restart the printer, follow the procedure outlined in the User's Guide for your printer.

## **Powering On the Printer**

You must always power on the finisher before you power on the printer. This allows the printer to detect that the finisher is available.

# **Powering Off the Printer**

**Note:** Due to the time involved with shutting down and restarting the printer, it is recommended that this only be done when necessary.

Before you power off the printer, you must perform a shutdown. You then can power off the printer without powering off the finisher. Refer to the procedure for powering off the printer in the User's Guide for your printer.

# Powering On the Finisher

If the **printer** is powered off, power on the finisher, then power on the **printer**. (See Figure 1 on page 2 for the location of the finisher power switch.)

#### OR

If the **printer** is powered on, press the **Stop** key on the operator panel to stop the printer. Then perform a printer restart as outlined in the User's Guide for your printer.

After the restart is complete, verify that the finisher is enabled (see "Checking or Changing Configuration" on page 16). If the finisher is disabled, perform the following steps.

\_\_ 1. Stop the printer.

2.	Disable the attachment. Refer to the User's Guide for your printer.
3.	Enable the finisher. (See "Checking or Changing Configuration" on page 16.)
4.	Re-enable the attachment.
5.	Make the printer READY.

# **Powering Off the Finisher**

**Note:** If the finisher is not powered on, the menu item FINISHER will not appear under the TRAYS/STACKER menu item. See "Powering On the Finisher" on page 23 to enable the finisher.

## **Shutting Down the Printer**

You must perform a shutdown before you power off the printer.

If performing a printer restart (see "Restarting the Printer" on page 23) did not clear a display message or the printer or finisher remains idle when it should be processing a job, you may need to perform a printer shutdown.

To perform a printer shutdown, see the shutdown procedure in the User's Guide for your printer.

# **Chapter 4. Maintaining the Finisher**

## **Ordering Staple Cartridges**

Your finisher uses two different types of staple cartridges.

- Saddle stitcher, 5 000-count staple cartridge (2 required)
   Carton reorder number is 1402727. 1 cartridge per carton; 24 cartons (24 cartridges) per case
- Stapler, 10 000-count staple cartridge (1 required)
   Carton reorder number is 1402728. 2 cartridges per carton; 6 cartons (12 cartridges) per case

You can order staple cartridges from the following location:

Lexmark International, Incorporated 2800 Wells Branch Parkway Austin, TX 78728

Telephone: 800–438–2468 Fax: 800–522–3422

# **Replacing Staple Cartridges**

The interval for replacing staple cartridges depends on the demand requested by the users. To replace a stapler staple cartridge, follow the steps in "Stapler". To replace the saddle stitcher staple cartridge, follow the steps in "Saddle Stitcher" on page 13.

#### Notes:

- If you re-install the same staple cartridge, you must tear off any staples that are not housed inside the staple cartridge. Refer to Figure 12 on page 26 or Figure 13 on page 27 to help you understand this procedure. See Figure 2 on page 3 for label location.
- If your finisher exhausts a staple cartridge, you can disable (at the operator panel) that function and continue to use other functions of the finisher. See "Checking or Changing Configuration" on page 16.

# **Stapler**

Replace the staple cartridge in the stapler by following this procedure:

- 1. Open the finisher front cover.
- \_\_\_ 2. Notice label 2.1. (See Figure 2 on page 3 for location.)

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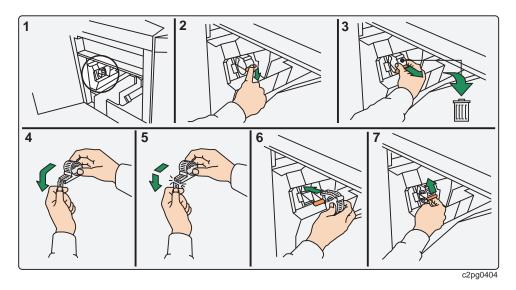


Figure 12. Label 2.1—Checking Staple Cartridge on Stapler

- \_\_ 3. Locate and snap down the lock lever to the unlock position, as shown on the label of the staple cartridge.
- \_\_ 4. If you are re-installing the staple cartridge you just removed, review label 2.1 (Figure 12, View 5) for instructions that help you trim off the staples that are **not** housed inside the staple cartridge.
- \_\_ 5. Install the staple cartridge and snap the lock lever up into the lock position.
- \_\_ 6. Close the front cover, and press the **Start** key on the operator panel to make the printer READY.

#### Saddle Stitcher

Replace both staple cartridges in the saddle stitcher by following this procedure:

- \_\_\_ 1. Standing in front of the finisher, open the finisher front cover.
- \_\_ 2. Notice label 2.2, as depicted in Figure 13 on page 27 (see Figure 2 on page 3 for location).

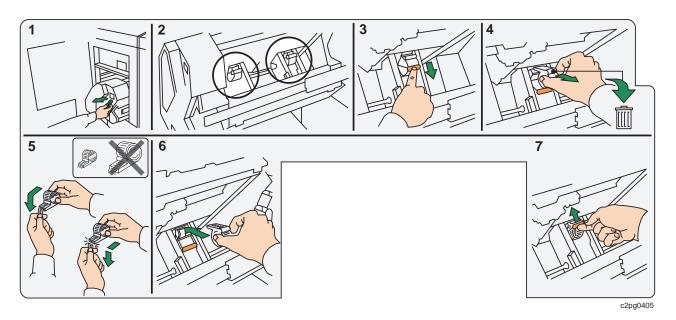


Figure 13. Label 2.2—Checking Staple Cartridge on Saddle Stitcher

- \_\_ 3. Move the saddle stitcher to the service position. Use label 2.5 for guidance. (See Figure 2 on page 3 for location of label 2.5.)
  - \_\_ a. Grasp and lift up the colored handle.
  - \_\_ b. Use the colored handle to pull the saddle stitcher toward you, out of the finisher and into the service position. The saddle stitcher drawer will pull out with the saddle stitcher.
- \_\_\_ 4. Locate and snap down each lock lever to the unlock position.
- \_\_ 5. If you are re-installing the staple cartridge you just removed, review label 2.2 (Figure 13, View 5) for instructions that help you trim off the staples that are **not** housed inside the staple cartridge.
- \_\_ 6. Install the staple cartridges and snap the lock levers up into the lock position.
- \_\_\_ 7. Return the saddle stitcher to the operating position.
- \_\_\_ 8. Return the saddle-stitcher drawer to the operating position.
- \_ 9. Close the front cover, and press the **Start** key on the operator panel to make the printer READY.

# Cleaning the Finisher

IBM recommends you occasionally clean the interior and exterior of the finisher to reduce service time and cost. Consider performing these tasks weekly, or more often when finisher use becomes heavier.

- \_\_ 1. Remove paper dust from the paper path.
- \_\_\_ 2. Remove any loose staples from the stapler and saddle stitcher areas.
- \_\_ 3. Clean the covers with a water-moistened, lint-free cloth or a lint-free cloth moistened with water and a mild detergent.

## Chapter 5. Messages

Just as is done for the printer or a stacker, messages and codes about the finisher appear in the display of the operator panel.

#### **Display Messages and System Reference Codes (SRCs)**

When you see messages in the display of the operator panel, refer to Table 7 for the recommended recovery action. As with any problem, call for service if you cannot resolve a problem or the recovery action does not clear the message. If an SRC is provided for you in the operator panel display, note the SRC for future reference.

#### Notes:

- 1. SRCs do not always appear in the display of the operator panel.
- 2. Some Display Messages are reused with various SRCs. SRCs are best understood by your IBM Customer Engineer.
- 3. The Display Message variable text T,S,F,X in Table 7 represents shortened terms for Top, Side, Front, Saddle Stitch covers, respectively. You must open, then close each of the covers listed in parentheses to reset the finisher. Perform this action **only** on the covers displayed. You can open and close these covers in any order.
- 4. N/A in Table 7 represents information that is "not available" or "not applicable."
- 5. If the finisher cannot recover from an operation, you can run jobs through other finisher operations. Disable the nonrecoverable operation at the printer operator panel to prevent the host from resending jobs that can not be run.
- 6. Certain finisher errors can prevent finishing operations from being applied.

After you perform the recovery action, do the following:

- \_\_\_ 1. If the message remains displayed, press the **Enter** key on the operator panel of the printer to clear the message. If the message continues to display, review "Powering Off the Finisher" on page 24.
- \_\_\_ 2. Press the **Start** key on the operator panel to continue printing.

Table 7. Display Messages and System Reference Codes

Display Message	SRC	Description	Recovery Action	
CHANGING	N/A	This message displays while a finisher activity is completing.	Not an error; informational only. No action required.	
CHECK FORM NAME IN MENU	N/A	Multiple form names are available for the detected form size in the insert tray.	Select the desired form name for the job you intend to run.	
FINISHER DISABLED	N/A	Finisher disabled.	Not an error; informational only. No action required.	

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Table 7. Display Messages and System Reference Codes (continued)

FINISHER ERROR with SRC	8330 8331 8332 8347	A hardware error occurred.	<ol> <li>Power off the finisher.</li> <li>Shutdown and power off the printer (see note 5 on page 29).</li> <li>Power on the finisher.</li> <li>Power on the printer.</li> <li>Note: See "Restart, Power On, Power Off, Shutdown the Finisher or Printer" on page 23 for a procedure for each of these steps.</li> </ol>
FINISHER ERROR with SRC	8342 8343 8344 8345 8346 8374 8384 8390 8391 8396	An error occurred which can be retried.	Press <b>Start</b> to resume printing.
FINISHER ERROR (T,S,F,X)	N/A	An error occurred which can be retried.	<ol> <li>Open and close the top, side, and front covers. Open and close the saddle stitcher drawer.</li> <li>Press Start to resume printing.</li> </ol>
FINISHER FRONT COVER OPEN	N/A	The front cover of the finisher is not latched.	1 0
FINISHER PAPER JAM (FRONT) with SRC	8355 8356 8357 8361 8362 8363 8376 8388 8398	Paper is detected in the paper path.	See "Clearing Paper Jams" on page 20.
FINISHER PAPER JAM (F,X) with SRC	8358 8359	Paper is detected in the paper path.	See "Clearing Paper Jams" on page 20.
FINISHER PAPER JAM (SIDE) with SRC	8305 8329	Paper is detected in the paper path.	See "Clearing Paper Jams" on page 20.
FINISHER PAPER JAM (T,F) with SRC	8310 8334 8351 8352 8353 8354 8360 8375 8377 8380	Paper is detected in the paper path.	See "Clearing Paper Jams" on page 20.
FINISHER PAPER JAM (T,F,X)	N/A	Paper is detected in the paper path.	See "Clearing Paper Jams" on page 20.

Table 7. Display Messages and System Reference Codes (continued)

FINISHER PAPER JAM (TOP) with SRC	8300 8301 8302 8303 8308 8309 8312 8316 8317 8335 8336 8337	Paper is detected in the paper path.	See "Clearing Paper Jams" on page 20.	
FINISHER PAPER JAM (T,S) with SRC	8306 8307 8313 8320 8321 8324 8328 8338 8341	Paper is detected in the paper path.	See "Clearing Paper Jams" on page 20.	
FINISHER PAPER JAM (T,S,F) 8315	8315	Paper is detected in the paper path.	See "Clearing Paper Jams" on page 20.	
FINISHER SIDE COVER OPEN	N/A	The side cover of the finisher is not latched.	Close the side cover.	
FINISHER TOP COVER OPEN	N/A	The top cover of the finisher is not latched.	Close the top cover.	
FUNCTION UNAVAIL DISABLE ATTACH	N/A	The attempted operation cannot be completed while the printer is online.	<ol> <li>Disable the attachment.</li> <li>Repeat the operation.</li> <li>Enable the attachment.</li> </ol>	
OUT OF PAPER INSERT TRAY	N/A	Insert tray is empty or the paper is incorrectly loaded.	Load paper or check that the paper is properly loaded.	
OUT OF STAPLES	8322	The stapler staple cartridge or saddle stitcher staple cartridge is empty.	<ol> <li>Install a new staple cartridge. See "Replacing Staple Cartridges" on page 25.</li> <li>If the condition persists, disable the stapler. You can continue to use the saddle stitcher, z-folder, and offset stacking (see note 5 on page 29).</li> </ol>	
SADDLE STITCHER COVER OPEN	8382	Saddle stitcher cover is open.	Close the saddle stitcher cover.	
SADDLE STITCHER ERROR 8365	8365	The job contained too many sheets to staple or fold.  Change the job setup to recount.		
SADDLE STITCHER ERROR 8372	8372	The job is too thick to fold.  Change the job setup to reduce count.		
SADDLE STITCHER ERROR 8387	8387	A partial job remains in the saddle stitcher.		
SADDLE STITCHER ERROR 8397	8397	A partial job remains in the saddle stitcher.	Remove sheets from the saddle stitcher.	

Table 7. Display Messages and System Reference Codes (continued)

SADDLE STITCHER ERROR with SRC	8366 8367 8368 8369 8370 8371	Detected missing staple, staple problem, or folding problem with saddle stitcher.	<ol> <li>Analyze the saddle stitched output to determine the problem. If a staple is missing from your output, remove and replace that staple cartridge. See "Saddle Stitcher" on page 26 for instructions.</li> <li>If the condition persists, disable the saddle stitcher. You can continue to use the stapler, z-folder, and offset stacking (see note 5 on page 29).</li> </ol>	
SADDLE STITCHER FAILURE with SRC	8386 8389 8392 8393 8394	A hardware error was detected in the saddle stitcher.	<ol> <li>Remove and reinstall the two saddle stitcher staple cartridges. Use label 2.2 as a guide. (See Figure 2 on page 3 for location of label.)</li> <li>If the condition persists, disable the saddle stitcher. You can continue to use the stapler, z-folder, and offset stacking (see note 5 on page 29).</li> </ol>	
STACKER FULL FINISHER STACKER	8333	The maximum number of jobs are in the finisher stacker.	Empty the finisher stacker.	
STACKER FULL SADDLE STITCHER	8364	The maximum number of jobs are in the saddle stitcher drawer.	If you operate the finisher with the saddle stitcher drawer in the fully-opened position, press the booklet eject button.  OR  If you operate the finisher with the saddle stitcher drawer in the closed position, empty the saddle stitcher	
STAPLER FAILURE 8325	8325	Staple cartridge is installed incorrectly.	<ol> <li>drawer.</li> <li>Remove and reinstall the staple cartridge in the stapler. Use label 2.1 as a guide. (See Figure 2 on page 3 for location of label.)</li> <li>If the condition persists, disable the stapler. You can continue to use the saddle stitcher, z-folder, and offset stacking (see note 5 on page 29).</li> </ol>	
STAPLING ERROR with SRC	8323 8326 8327	Detected missing staple or other stapler problem.	<ol> <li>Analyze the stapler output to determine the problem. If a staple is missing, remove and replace the staple cartridge. See "Stapler" on page 25 for instructions.</li> <li>If the condition persists, disable the stapler. You can continue to use the saddle stitcher, z-folder, and offset stacking (see note 5 on page 29).</li> <li>Note: Occasionally SRC 8323 appears in the display of the printer, but will not stop the printing operation.</li> </ol>	

Table 7. Display Messages and System Reference Codes (continued)

Z-FOLD POSITION ERROR 8340	8340	Z-fold end stop is in the wrong place.	1. Move the end stop down for 11x17 paper or up for A3 paper.
			2. Press <b>Start</b> to make the printer READY.

# **Chapter 6. Planning Information**

Use the information in this chapter to prepare the site for the finisher. Consider the environmental and space requirements. Review other sections of this document for information such as acceptable paper and how to order staple cartridges. An IBM Customer Engineer will install and set up the finisher for operation. You must provide an adequate supply of staple cartridges.

### **Site Requirements**

Table 8. Finisher Considerations

Item	Requirements
Voltage (Outlet)	100-120 V ac (±10%) single phase, 60 Hz, 15-amp circuit, two wires + ground
	200-240 V ac (±10%) single phase, 50 Hz, 15-amp circuit, two wires + ground
Nominal Frequency	50 or 60 Hz (±1.0%)
Input Current	4.0 amperes at 100-120V; 2.5 amperes at 230V
Power Input	175 VA (Maximum Standby) at 100V; 210 VA at 230V
	320 VA (Maximum Printing) at 100V; 390 VA at 230V
Average Power Consumption at:	Power Dissipation
Idle	80 watts at 100V; 90 watts at 120V or 230V
Operating	170 watts at 100V; 175 watts at 120 or 230V
Acoustic Criteria	Values
Sound Power	4.97 BELS (idle); 6.04 BELS (operating - 3 staples on edge)
Sound Pressure	49-17 dBA (idle); 58.64 dBA (operating - 3 staples on edge)

#### **Notes:**

- 1. The finisher uses a universal power supply that can receive input power from either a 110 V plug or a 220 V plug.
- 2. Inrush current is 40 A at 120 V ac (60 Hz) and 60 A at 230 V ac (50 Hz) peak. Both these values decay within 3 AC cycles.
- 3. The power cord is determined by the ordering country. A 9-foot (3 m) cord is provided for most of the U.S.A., a 6-foot (2 m) cord is provided for Chicago, IL.
- 4. Grounded neutral is required for the 50 Hz version of the finisher.

You must consider the following environmental requirements:

Range
16°C to 29.4°C (60°F to 85°F)
20% to 80% relative humidity
192 kg (423 lb) (finisher and packaging)
33 kg (73 lb) (packaging)
159 kg (350 lb) (finisher)
See Figure 14 on page 36

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### **Host Requirements**

To support finishing operations, your host must operate at the following levels (or higher):

- PSF/MVS at Version 2, Release 2.0, with APAR OW24360
- PSF/400 at Version 4 Release 3, or at a previous level with the appropriate PTF
- · InfoPrint Manager at Version 3 Release 1

#### **Space Requirements**

These are the minimum space requirements for a finisher attached to an InfoPrint 60. The printer and finisher are shown in both the service position and the operating position. The overall height of the finisher is 100 cm (39.4 in.).

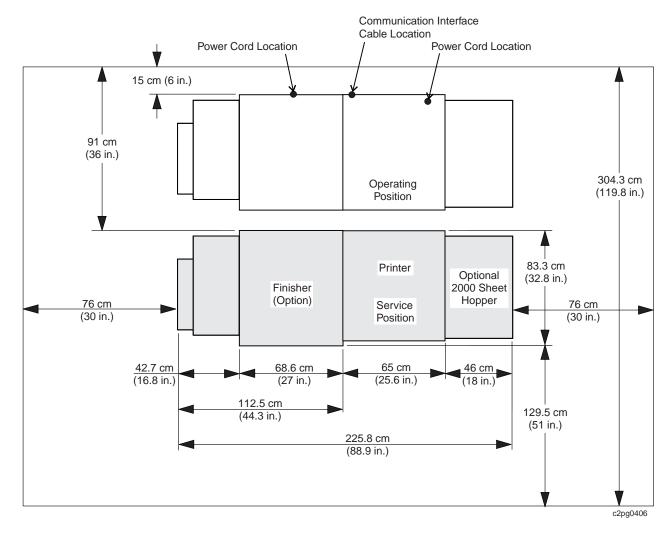


Figure 14. Minimum Clearance

**Note:** Printers with Channel Attach configuration must be installed and remain in a serviceable position to avoid interfering with connected cables.

# IBM.

Part Number: 24L3782



Printed in the United States of America on recycled paper containing 10% recovered post-consumer fiber.

24L3782

\$544-5604-00

