



Shipping & Mailing
Inserting

Relay™ 2500, 3500, 4500

Inserting System

User Guide

US English Edition
SV63298 RevB
December 3, 2018

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This guide is designed to support proper setup, operation, troubleshooting, and basic maintenance activities associated with the Relay™ 2500, 3500 and 4500 Inserting Systems.

Version History

Document Part Number	Release Date	Comments
SV63298 Rev A	October 1, 2018	Preliminary draft
SV63298 Rev B	December 3, 2018	Initial release

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1 - Safety

Safety Information	2
Warning Labels and Cautions	4

2 - Product Overview

Product Overview	6
Relay Inserter - Component Overview	8

3 - Using the Touchscreen

Turning on the Touchscreen	12
Navigating the Touchscreen	13
Using the Touchscreen Keyboard	17
Changing the Touchscreen Display Language	18
Logging In	19
Managing Operator Usernames and Passwords	20
Changing an Existing Job Name	22

4 - Product Overview

Programming a Scanning Job	25
Initiating Job Setup	26
Selecting a Job	27
Enabling Scanning (OMR or Barcode)	28
Setting the Fold Type	29
Setting the Main Scanning Sheet Feeder	30
Setting the Second (Supplementary) Sheet Feeder	31
Setting the Insert Feeder	32

Setting the Sealer	33
Setting the Paper Length	34
Setting Fold A	35
Setting Fold B	36
Setting the Envelope Depth	37
Setting the Envelope Stop	38
Setting the Batch Counter	39
Confirming Job Setup	40
Running a Trial Piece	41
Programming a non-Scanning Job	43
Initiating Job Setup	44
Selecting a Job	45
Disabling Scanning	46
Setting the Fold Type	47
Setting Accumulation Options	49
Setting the Main Sheet Feeder	50
Setting the Second (Supplementary) Sheet Feeder	52
Setting the Insert Feeder	53
Setting the Mode Type - Insertion or Fold Only	54
Setting the Sealer	55
Setting the Paper Length	56
Setting Fold A	57
Setting Fold B	58
Setting the Envelope Depth	59
Setting the Envelope Stop	60
Setting the Batch Counter	61
Confirming Job Setup	62
Running a Trial Piece	63
Modifying an Existing Job	65
Deleting a Job	66

5 - Running a Job

Running a Job	68
Turn on the Inserter	69
Turning on the Touchscreen	70
Logging In	71
Selecting a Job to Run	72
Loading the Sheet Feeder	73
Loading the Standard Envelope Feeder	77
Loading the High Capacity Envelope Feeder	79
Loading the Insert Feeder	83
Running a Trial Piece	87
Starting and Stopping the Inserter	89
Adding Sealer Solution	90
Adjusting the Drop Stacker	91

6 - OMR Scanning

About Optical Mark Recognition (OMR) Scanning	94
About OMR Scanning and Feeders	95
About OMR Scanning Types	96
About OMR Scanning Marks	97
OMR Specifications	101
Standard OMR Position - Diagram	102
Adjusting the OMR Scanning Heads	103
OMR Scanning Error Messages	106

7 - Barcode Scanning

About Barcode Scanning	108
About 2D Barcode Data	109

Barcode Scanning Specifications	112
About Barcode Placement	114
Adjusting the Barcode Camera	117
Barcode Scanning Error Messages	118

8 - Error Recovery and Clearing Material Jams

Accumulation Jobs - Error Recovery	120
Empty Feeder - Error Recovery	121
OMR Message - Error Recovery	122
Clearing Material Jams	123
Clearing Material Jams in the Sheet Feeder	124
Clearing Material Jams in the Fold Plates	127
Clearing Material Jams in the Insert Trays	130
Clearing Material Jams in the Carriage Assembly	133
Clearing Material Jams in the Envelope Feeder Area	136
Clearing Material Jams in the Envelope Exit Area	139
Clearing Material Jams in the Envelope Inserting and Sealing Area	142
Clearing Material Jams in the Accumulation Area	145

9 - Reports

About Reports	150
Generating Reports for Scanning Jobs	151
Generating Productivity Reports for Jobs	153

10 - Troubleshooting

Troubleshooting Touchscreen and Inserter Issues	156
Troubleshooting Envelope Issues	157
Troubleshooting Sheet Issues	158
Troubleshooting Insert Issues	159
Troubleshooting Double Detect Issues	160
Error Messages	161

11 - Specifications

Material Specifications	166
Inserter Specifications	172

1 - Safety

In this section

Safety Information	2
Warning Labels and Cautions	4

Safety Information

Follow these precautions whenever you use your inserting system.

General Power Safety

- Place the system close to an easily accessible wall outlet
- Place the system in an accessible location to allow for proper venting of the equipment and to facilitate servicing.
- Use the AC power adapter included with this device. Third party adapters may damage the device
- Plug the AC adapter directly into a properly grounded wall outlet located near the equipment and easily accessible. Failure to properly ground the machine can result in severe personal injury and/or fire.
- The AC adapter (power cord) is the primary means to disconnect this device from the AC supply.
- DO NOT use a wall outlet controlled by a wall switch or one that is shared with other equipment.
- DO NOT use an adapter plug on the line cord or wall outlet.
- DO NOT remove the ground pin from the line cord.
- DO NOT route the AC adapter power cord over sharp edges or trap it between furniture. Make sure there is no strain on the power cord.
- If the unit becomes damaged, unplug it from the wall.

Operation

- Only trained personnel are permitted to operate this equipment. Training must include instruction in operation under normal conditions and emergency situations.
- Read all instructions before attempting to operate the equipment.
- Use this equipment only for its intended purpose.
- Keep fingers, loose clothing, jewelry, long hair and neckties away from all moving parts.
- Avoid touching moving parts or materials while the machine is in use. Before clearing a jam, be sure machine mechanisms come to a complete stop.
- Remove jammed material gently and carefully.

- DO NOT remove covers. Covers enclose hazardous parts that should only be accessed by properly trained service personnel.
- DO NOT place lighted candles, cigarettes, cigars, etc., on the system.
- To prevent overheating, do not cover vent openings.
- Always follow specific occupational safety and health standards for your workplace.
- Before operating the main inserting machine with this device, make sure the machine has been properly prepared and that any other personnel in the area are standing clear of the inserter.
- Immediately report any damaged or non-functioning components that renders the unit unsafe to Service.

Maintenance

- Operation of this equipment without periodic maintenance will inhibit optimum operating performance and could cause the equipment to malfunction.
- Use only approved supplies.
- To reduce the risk of fire or electrical shock, DO NOT attempt to remove covers or disassemble the control panel or its base. The cabinet encloses hazardous parts.
- Improper storage and use of aerosol dusters or flammable aerosol dusters can cause an explosive-like condition that could result in personal injury and / or property damage. Always read instructions and safety precautions on the duster container label.
- Contact your system supplier for:
 - Supplies
 - Material Data Safety Sheets
 - If you damage the unit

If your stacker has an AC adapter

- Use the AC power adapter included with this device; third party adapters may damage the device
- To protect against electrical shock, plug the AC adapter power cord into a grounded wall outlet.
- DO NOT route the power cord for the AC adapter over sharp edges or trap it between it between pieces of furniture. Make sure there is no strain on the power cord.

Warning Labels and Cautions

Pitney Bowes declines all liability in the event of material damage or bodily injury resulting from negligence in the application of these precautions in respect to handling, operating, or servicing, even if not expressly stated in these instructions.



Caution:

Moving mechanisms may result in personal injury. Keep hands, long hair, ties, jewelry and loose clothing away from moving parts.

2 - Product Overview

In this section

Product Overview	6
Relay Inserter - Component Overview	8

Product Overview

This section provides an overview of the hardware components and features of the three Relay inserter models - Relay 2500, Relay 3500 and Relay 4500.

All Relays are equipped with pre-fold accumulation. (This module is located under the top cover of the machine). Pre-fold accumulation enables the collection of mailpieces before folding, all in one operation. It works the same for all fold types.

Relay Model Comparison - Hardware

Components	Relay 2500	Relay 3500	Relay 4500
Sheet Feeder	1	2	2
Envelope Feeder	shingle tray (1)	shingle tray (1)	elevator (1)
Insert Feeder	1	1	1
Integrated operator touchscreen*	yes	yes	yes

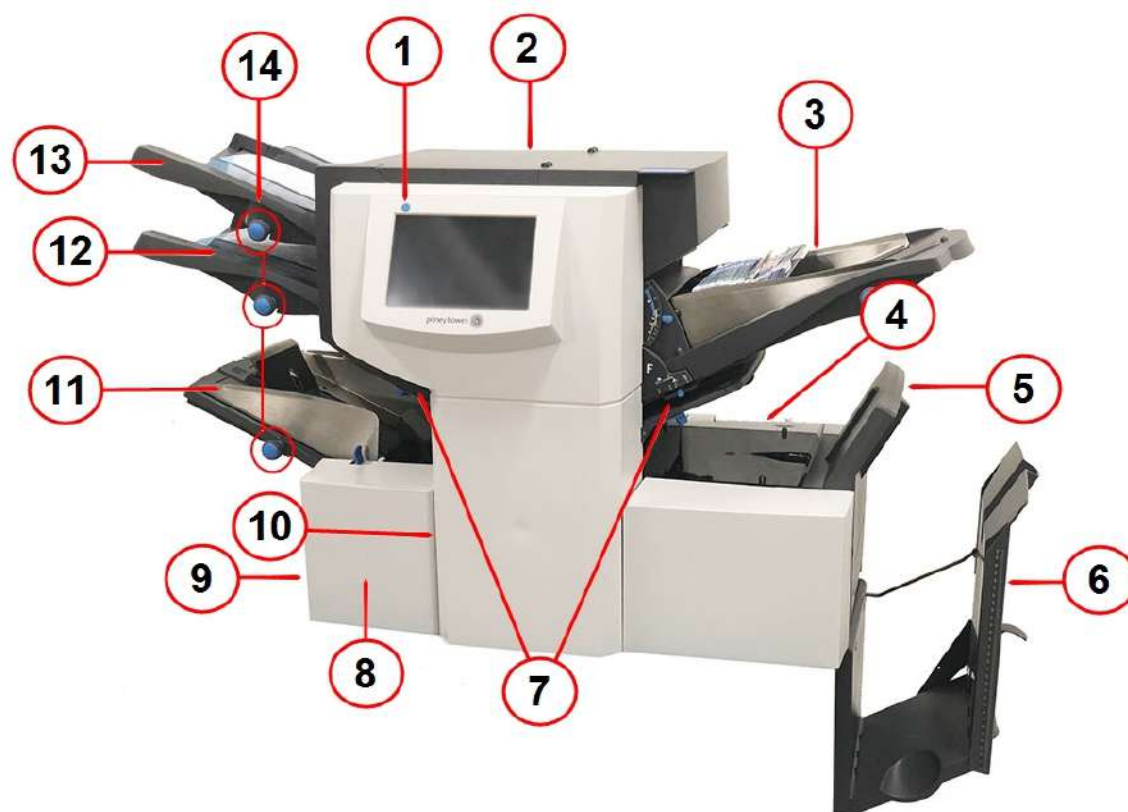
** The touchscreen is a WiFi enabled device. If clients choose to utilize this network connection it is the responsibility of the client to ensure the settings adhere to their IT department standards.*

Product features

Relay models 2500, 3500, 4500 all have these features and options.

- Pre-fold accumulation (located on top of machine under top cover)
- 2D barcode scanning (*optional*)
- OMR (Optical Mark Recognition) scanning (*optional*)
- Sealing - safe seal (supports a complete envelope seal) and no seal option
- Fold options - single-fold, C-fold, Z-fold, double-fold
- Fold-only option (fold without insertion)
- Fully automatic material separation on sheet feeders
- Fully automatic setting of fold plates
- Fully automatic envelope separation
- Fully automatic double document detection (when selected)
- Manually fed, semi-automatic insertion of single and multi-sheet collations
- Job recall functionality

Relay Inserter - Component Overview



Relay 3500 Inserter (on the Relay 4500, the power switch and adjustment knobs are located on front panel)

Item	Description	Item	Description
1	Touchscreen Power Button	8	Manual Advance Knob*
2	Accumulation Area*	9	Power Switch*
3	Insert Feeder	10	Measuring Scale*
4	Sealer Bottle**	11	Envelope Feeder
5	Envelope Inverter	12	Sheet Feeder 2
6	Drop Stacker***	13	Sheet Feeder 1
7	Fold Plate 1 and 2	14	Side Guide Adjustment Knobs

* Not visible in this image

** Located in the back of the inserter

*** Document Inserter Vertical Stacker (DIVS) power stacker option available

Component Descriptions

- **Touchscreen Power Button** - turns on the touchscreen, an integrated interface to enter commands, set up jobs, and change settings. Icons on the display show the system status.
- **Accumulation area** - accumulates the collation before folding.
- **Insert Feeder** - adds additional inserts to your envelope. Material fed from this feeder cannot be folded by the inserter; especially suited to feeding pre-folded or thicker inserts.
- **Sealer Bottle** - provides sealing solution to the envelope sealer; located on the rear of the inserter on the right side, under a hinged cover, labeled with the sealer icon.
- **Envelope Inverter** - transports envelope into the stacker face up.
- **Drop Stacker** - standard stacker, located at the exit of the inserter, it collects finished mailpieces. This device can be latched against the inserter when not in use. An optional power stacker is available, which offer greater capacity than the standard drop stacker.
- **Fold Plate 1 and 2** - create the desired fold in material fed from the sheet feeder(s); the fold plates are automatically set from the touchscreen.
- **Manual Advance Knob** - turns the inserter mechanisms manually to help clear material; located under a cover on the front, left, lower corner of the inserter.
- **Power Switch** - turns the inserter on and off. *(This is located on the front panel of the 4500.)*
- **Measuring Scale** - used to help measure material and envelopes; located on the left side of the inserter near the sheet feeders
- **Envelope Feeder** - feeds envelopes into the inserting area where they are filled with material requested from the other feeder(s).
- **Sheet Feeder 2** - feeds material that requires folding. Its functions are similar to those of sheet feeder 1, but the manual feed option is NOT available from this feeder.
- **Sheet Feeder 1** - this feeder is intended for feeding material that requires folding.
- **Side Guide Adjustment Knobs** - adjusts the side guides on the envelope feeder. *(This is located on the front panel of the 4500.)*

Optional Document Inserter Vertical Stacker (DIVS) - Power Stacker

Some Relay Inserters may have an optional power vertical stacker that is attached at the exit of the inserter. Envelopes are stacked on top of each other, with the newest envelope on the bottom. This keeps completed mailpieces in the same order as they are processed.



3 - Using the Touchscreen

In this section

Turning on the Touchscreen	12
Navigating the Touchscreen	13
Using the Touchscreen Keyboard	17
Changing the Touchscreen Display Language	18
Logging In	19
Managing Operator Usernames and Passwords	20
Changing an Existing Job Name	22

Turning on the Touchscreen

Be sure the inserter is powered up before turning on the touchscreen.

1. The **ON/OFF** power button is located on the top left of the touchscreen. Press and hold the power button for a few seconds to turn the touchscreen on or off.

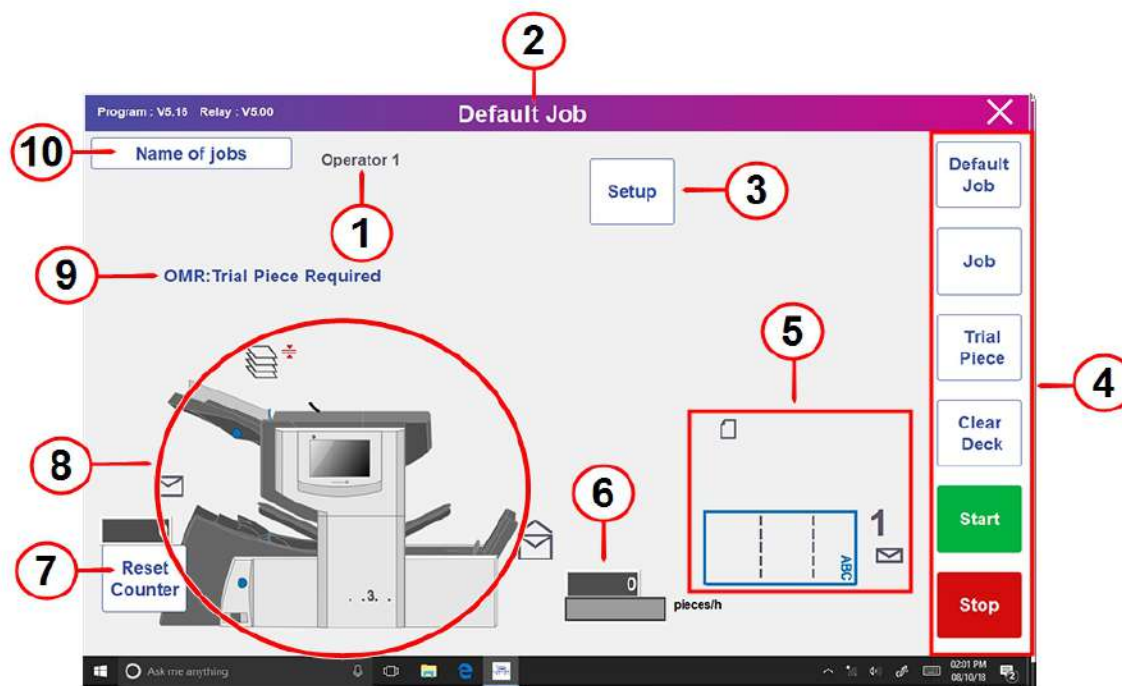


ON/OFF Power Button

NOTE: If the touchscreen is in sleep mode, lightly press the ON/OFF power button.

Navigating the Touchscreen

You can set up and run jobs using the integrated touchscreen. This section provides a basic overview of the main touchscreen elements.

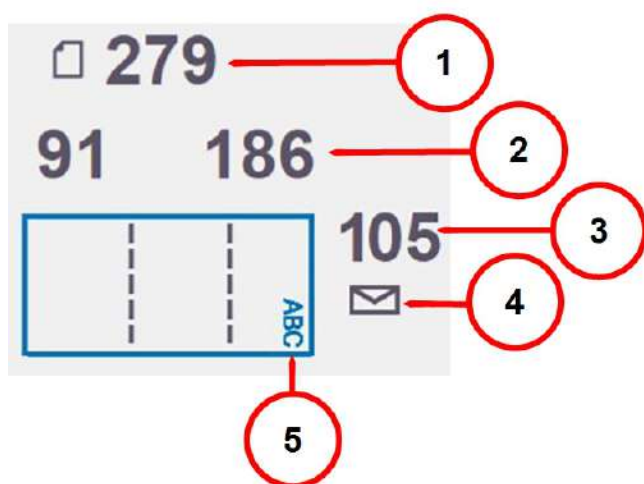


Integrated Touchscreen

Item	Description	Item	Description
1	Operator Name	6	Speed Indicator
2	Job Name	7	Reset Counter
3	Setup Button	8	Inserter Model
4	Menu	9	Job Options and System Messages
5	Paper Area	10	Name of jobs Button

Touchscreen Descriptions

- **Operator name** - logged in operator
- **Job Name** - job name appears here
- **Setup** - tap to access setup mode to program jobs and change options in existing jobs
- **Menu** - set of buttons to select jobs, run a trial piece, start and stop the inserter, clear the deck
- **Material Setup Area** - uses icons and numbers to display material details - paper size, fold(s) set for sheet feeder, envelope depth and address orientation

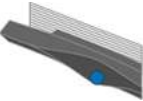


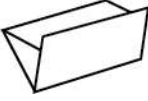
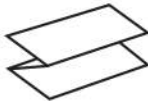
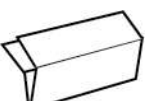
Item	Description	Item	Description
1	Paper Length (mm)	4	Closed or Open Envelope
2	Fold Lines (mm)	5	Address Orientation
3	Envelope Depth (mm)		

- **Speed Indicator** - number of mailpieces produced per hour
- **Reset Counter** - tap to reset the item counter; it ascends for each completed mailpiece that exits the machine
- **Inserter Model** - visual representation of the inserter
- **Job Options and System Messages** - displays job options and system errors or messages
- **Name of jobs** - tap to access the change job name screen

Touchscreen Icons

These icons display to help guide you through setting up and running a job. They indicate envelope specifications, fold types, system status and messages, material jams and other job settings.

Icon	Description
	Indicates Double detect is on (<i>Double detect stops the inserter if two or more sheets are fed simultaneously.</i>)
	Indicates manual feed (<i>icon displays next to feeder set for manual feed</i>)
	Indicates when a sheet feeder is being used (<i>if the feeder is not being used the icon does not display</i>)
	Indicates when an insert feeder is being used (<i>if the feeder is not being used the icon does not display</i>)
	Indicates sheet order and quantity - order of sheets in the feeder and number of sheets accumulated from that feeder
	This icon displays next to the setting you are programming or changing to help guide you through the setup process
	Flashes when the sealer bottle needs refilling
	Indicates the sealer unit is off (envelopes not sealed)
	Indicates the sealer unit is on (automatic envelope sealing)

Icon	Description
	Indicates there is no prime address sheet
	Indicates prime address sheet is on the top, face up
	Indicates prime address sheet is on the bottom, face down
	Indicates a C-fold is selected
	Indicates a Z-fold is selected
	Indicates a double-fold is selected
	Indicates a single-fold is selected
	A warning symbol displays on the insert model, indicating a material stoppage; the position of the symbol indicates where the stoppage has occurred.

Using the Touchscreen Keyboard

Launching the keyboard

- The keyboard automatically launches when you tap in a text field to enter text.

Closing the keyboard

- The keyboard closes when you tap the **Enter** arrow key on the keyboard.



Changing the Touchscreen Display Language

You can change the display language on the touchscreen to a non-English language.

1. Double-tap the **inserter** icon on the touchscreen desktop.
2. When the Operator List displays, tap the **checkmark**.
3. Select **Language > Program** from the main menu bar. A screen opens displaying country flags associated with available languages.
4. Tap the flag that represents the language you want to display on the touchscreen. The flag screen closes automatically and the new language displays.
5. Tap the **checkmark**.
6. Log in with your password or tap **X** to exit.

Logging In

1. Double-tap the **insert** icon on the touchscreen desktop.
2. When the List of operators dialog opens, highlight an Operator and tap the **checkmark**.
3. Tap in the **Password** field. When the keyboard launches, type the password in the field.
4. Tap the **checkmark** to log in.

Managing Operator Usernames and Passwords

The Relay system comes with a set of default operator usernames and passwords. You can change these default usernames and passwords to something unique to each operator. A maximum of 10 operators can be programmed into the touchscreen.

Default Operator Usernames and Passwords

Refer to these default usernames and passwords if you want to change them in your system.

Default Operator Usernames

Username	Password	Username	Password
Operator 1	MDP1	Operator 6	MDP6
Operator 2	MDP2	Operator 7	MDP7
Operator 3	MDP3	Operator 8	MDP8
Operator 4	MDP4	Operator 9	MDP9
Operator 5	MDP5	Operator 10	MDP10

NOTE: The Supervisor password is 71.

Creating operator usernames (renaming default usernames)

You can rename a default Operator username to customize for your users.

1. Double-tap the **insert** icon on the touchscreen desktop.
2. When the List of operators dialog displays, highlight a default Operator to rename (Operator 1 – Operator 10).
3. Tap the **checkmark**.
4. Tap in the **Password** field. When the keyboard launches, type either the Supervisor (71) or the default Operator password in the field.
5. Select **File > Operators > Change** from the main menu bar.

6. Tap in the **New Name** field and type a new operator name using the touchscreen keyboard.
7. Tap the **checkmark** to log in or **X** to exit.

Changing operator passwords

1. Double-tap the **insertter** icon on the touchscreen desktop.
2. When the List of operators dialog opens, highlight an Operator and tap the **checkmark**.
3. Tap in the **Password** field. When the keyboard launches, type the current Operator password in the field. (*DO NOT tap the checkmark.*)
4. Select **File > Password > Change** from the menu bar.
5. Tap in the **New Password** field and type the new password.
6. Tap in the **Confirm** field and type the new password again.
7. Tap the **checkmark** to accept the password.
8. Tap the **checkmark** to log in or **X** to exit.

Recovering lost operator passwords

This is a supervisor activity.

1. Double-tap the **insertter** icon on the touchscreen desktop.
2. When the List of operators dialog opens, select the Operator associated with the lost password and tap the **checkmark**.
3. Tap in the **Password** field. When the keyboard launches, type the Supervisor password (71) in the field. (*DO NOT tap the checkmark.*)
4. Select **File > Password > Recover** from the main menu bar. The recovered password displays in the dialog box. (*Record the password for future reference.*)
5. Tap **OK** to close the dialog box.
6. Type the recovered password into the **Password** field.
7. Tap the **checkmark** to log in or **X** to exit.

Changing an Existing Job Name

You can assign a new name to an existing job.

1. Double-tap the **insert** icon on the touchscreen desktop.
2. When the List of operators dialog displays, highlight a default Operator to rename (Operator 1 – Operator 10).
3. Tap the **checkmark**
4. Tap in the **Password** field. When the keyboard launches, type either the Supervisor (71) or the Operator password in the field.
5. Tap the **checkmark**.
6. Tap the **Name of jobs** button.
7. When the Name of jobs list opens, highlight a job and tap **Change**.
8. Tap in the **New Job Name** field and type the new job name.
9. Tap the **checkmark** to accept the new job name.
10. Tap the **checkmark** to log in or **X** to close the Name of jobs window.

4 - Product Overview

In this section

Programming a Scanning Job	25
Initiating Job Setup	26
Selecting a Job	27
Enabling Scanning (OMR or Barcode)	28
Setting the Fold Type	29
Setting the Main Scanning Sheet Feeder	30
Setting the Second (Supplementary) Sheet Feeder	31
Setting the Insert Feeder	32
Setting the Sealer	33
Setting the Paper Length	34
Setting Fold A	35
Setting Fold B	36
Setting the Envelope Depth	37
Setting the Envelope Stop	38
Setting the Batch Counter	39
Confirming Job Setup	40
Running a Trial Piece	41
Programming a non-Scanning Job	43
Initiating Job Setup	44
Selecting a Job	45
Disabling Scanning	46
Setting the Fold Type	47
Setting Accumulation Options	49
Setting the Main Sheet Feeder	50
Setting the Second (Supplementary) Sheet Feeder	52
Setting the Insert Feeder	53
Setting the Mode Type - Insertion or Fold Only	54
Setting the Sealer	55

Setting the Paper Length	56
Setting Fold A	57
Setting Fold B	58
Setting the Envelope Depth	59
Setting the Envelope Stop	60
Setting the Batch Counter	61
Confirming Job Setup	62
Running a Trial Piece	63
Modifying an Existing Job	65
Deleting a Job	66

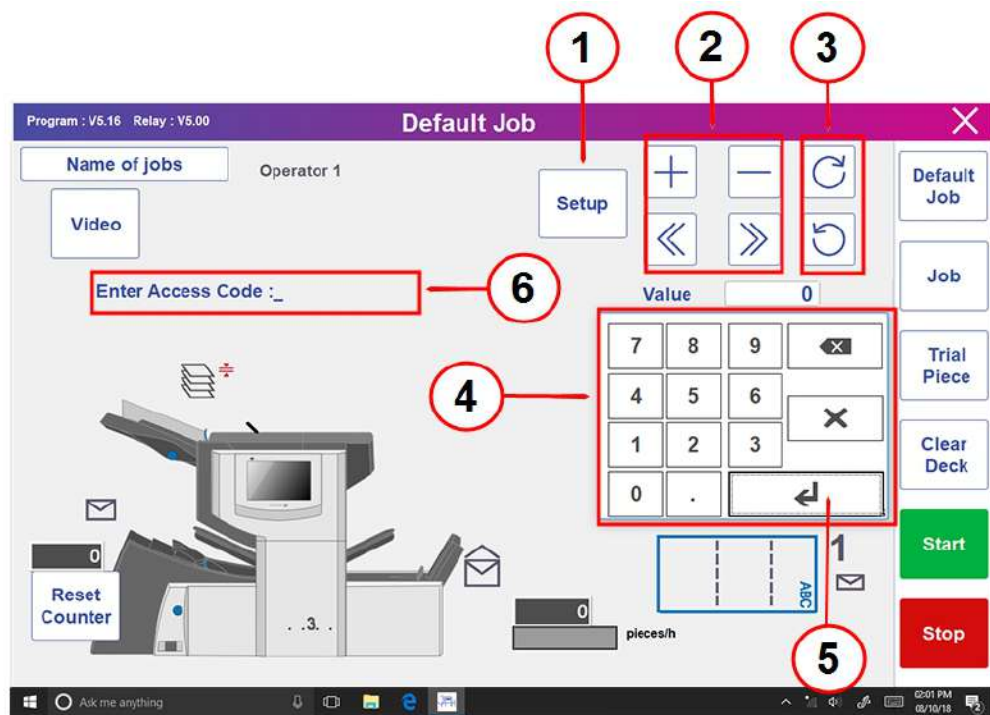
Programming a Scanning Job

Follow these steps to program a **scanning** job. As you move through the various job settings, a **star** icon displays next to the area you are programming, to help guide you through the process.

- *Log in*
- *Initiate job setup*
- *Select a job*
- *Enable scanning (OMR On or Off)*
- *Set fold type*
- *Set the main scanning sheet feeder*
- *Set the second sheet feeder*
- *Set the insert feeder*
- *Set the sealer*
- *Set paper length*
- *Set fold A*
- *Set fold B*
- *Set envelope depth*
- *Set envelope stop*
- *Set batch counter*
- *Confirm job setup*
- *Run a trial piece*

Initiating Job Setup

1. [Log in](#).
2. From the main screen, tap the **Setup** button. The **Enter Access Code**: field displays over the inserter model and the keypad appears on the touchscreen display.
3. Using the keypad, type the Supervisor code (71) and tap the **Enter** key. The **Enter Access Code**: field counts up or down to display the password code entered.



Item	Description	Item	Description
1	Setup Button	4	Keypad
2	Job Options and Settings	5	Enter Key
3	Fast Scroll Buttons*	6	Enter Access Code Field

* These keys are used as a fast forward to move through large changes in job setup settings

4. Tap >> to accept the access code and advance to the job settings.

Selecting a Job

You can select an existing job and modify the settings to fit a new job.

1. Tap the **+** and **–** buttons to scroll through the jobs; highlight the desired job. (The job name in the screen banner changes to display the current jobs.)
2. Tap the **>>** to accept the job and advance to the first setting option.

NOTE: If you use an existing job, the old settings will be overwritten with the new settings selected.

Enabling Scanning (OMR or Barcode)

1. To set the scanning options, tap the **+** and **–** buttons and select the option you want for the job.

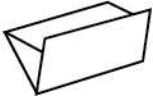
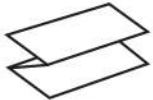
OMR and Barcode Settings

Setting	Scanning Description
OMR off	- OMR scanning off
OMR on	- OMR scanning - Standard OMR mark positioning
OMR + Sequence	- OMR scanning - Wrap Around Sequence - Standard OMR mark positioning
OMR + Select feed	- OMR scanning + Select feed / Autobatch - Standard OMR mark positioning
OMR + Select feed + Sequence	- OMR scanning + Select feed / Autobatch - Wrap Around Sequence OR barcode - Standard OMR mark positioning
2D BCR On	- 2D barcode scanning on

2. Tap the **>>** button to accept the selection and advance to the next setting.

Setting the Fold Type

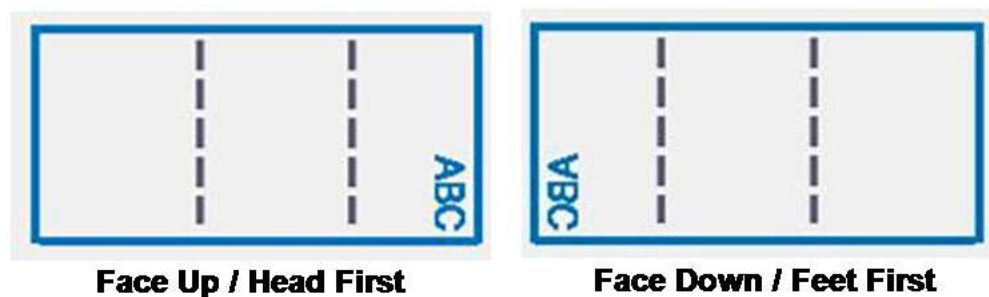
1. Tap the + and – buttons to scroll through the fold types.

<i>Fold Types</i>	
Fold	Description
	C-fold
	Z-fold
	Double-fold
	Single-fold

2. Tap the >> button to accept the fold type and advance to the next setting.

Paper Orientation

Depending on the fold type selected, the display shows the paper orientation for loading into the feeders.

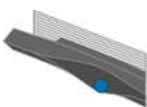


Setting the Main Scanning Sheet Feeder

The main sheet feeder is automatically set for you based on the fold type you selected.

- **C- fold and double-fold** - Sheet Feeder 1 is set as the main sheet feeder
- **Z-fold and single fold** - Sheet Feeder 2 is set as the main sheet feeder

1. Tap the + and – buttons to scroll through the job options.

Icon	Option	Description
	Feeder On	Feeder on
	Double Detect	Feeder running double detect. <i>(Double detect stops the inserter if two or more sheets are fed simultaneously.)</i>
	SF (Select Feed)	Select feed on. <i>(Select feed tells a feeder to feed one extra sheet per envelope).</i>

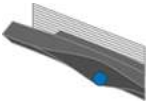
NOTE: If there is no feeder icon displayed, the feeder is not active for this job

2. Tap the >> button to accept the option and advance to the next setting.

Setting the Second (Supplementary) Sheet Feeder

Set the options for the second scanning sheet feeder.

1. Tap the + and – buttons to scroll through the options.

Icon	Option	Description
	Feeder On	Feeder on
	Double Detect	Feeder running double detect. <i>(Double detect stops the inserter if two or more sheets are fed simultaneously.)</i>
	Select Feed	Select feed on. <i>(Select feed tells a feeder to feed one extra sheet per envelope).</i>

NOTE: If there is no feeder icon displayed, the feeder is not active for this job

2. Tap the >> button to accept the options and advance to the next setting.

Setting the Insert Feeder

Determine if you want to use the insert feeder and how it will be used. Set the options accordingly.

1. Tap the + and - buttons to scroll through the options.

Icon	Option	Description
	Feeder On	Feeder on.
	Double Detect On	Feeder running double detect. <i>(Double detect stops the inserter if two or more sheets are fed simultaneously.)</i>
	Select Feed On	.Select Feed on. <i>(Select feed tells a feeder to feed one extra sheet per envelope.)</i>

NOTE: If there is no feeder icon displayed, the feeder is not active for this job

2. Tap the >> button to accept the option and advance to the next setting.

Setting the Sealer

Decide whether you want to seal envelopes and then set the sealer.

1. Tap the **+** and **–** buttons to toggle the seal option to **On** or **Off**.

Icon	Option	Description
	On	Turns the sealer unit on for automatic sealing of envelopes. Make sure the sealer bottle is full of E-Z Seal®.
	Off	Turns the sealer unit off. Envelopes will be processed unsealed.

2. Tap the **>>** button to accept the option and advance to the next setting.

Setting the Paper Length

1. Use the scale on the side of the inserter cover to measure the paper.



- **US letter** - 279 mm (11 inches)
 - **A4 paper** - 297 mm
2. Tap the **+** and **-** buttons to scroll through paper lengths (displayed in mm).
 3. Tap the **>>** button to accept the paper length value and advance to the next setting.

Setting Fold A

Depending on the fold type and paper length settings you selected earlier, the inserter suggests the correct dimension for the first fold. Usually this setting will be fine.

If you want to keep the setting:

1. Tap the >> button to accept the option and advance to the next setting.

If you want to change the setting:

1. To change the standard fold setting, tap the + and – buttons until the length of required fold displays.

NOTE: The inserter automatically limits your options to available specifications on your inserter. As the length of fold A is changed, the dimensions of fold B change automatically to keep within the correct paper length and inserter specifications.

2. Tap the >> button to accept the fold value and advance to the next setting.

Setting Fold B

Similar to setting fold A, the inserter suggests the correct dimension for fold B.

If you want to keep the setting:

1. Tap the >> button to accept the option and advance to the next setting.

If you want to change the setting:

1. Tap the + and – buttons until the length of fold required displays. A **star** icon displays next to the fold panel you are setting.
2. Tap the >> button to accept the fold value and advance to the next setting.

Setting the Envelope Depth

1. Use the measuring scale on the front cover to measure the envelope depth.



2. Tap the + and – buttons to scroll through the measurements (displayed in mm).
3. Tap the >> button to accept the value and advance to the next setting.

Setting the Envelope Stop

The stop has five positions numbered 1 to 5. Setting 3 is the standard setting for normal weight paper with standard folds. A thinner, lighter insert requires a lower setting and a thicker, heavier insert requires a higher setting.

1. Tap the **+** and **–** buttons to scroll through the envelope stop positions.
2. Tap the **>>** button to accept the position and advance to the next setting.

NOTE: After the envelope stop is set, the setting displays on the bottom of the inserter model on the touchscreen. (For example, **..3..**, for position 3.)



Setting the Batch Counter

- **Batch Counter On** - If the batch counter is turned on, it allows pre-defined batches of finished mailpieces to be automatically processed. When the batch is complete, the inserter automatically stops.
- **Batch Counter Off** - If the batch counter is not turned on, the display counter counts the number of items processed until you tap **Reset Counter**. Tap the **Start** button to begin processing the next batch of mailpieces.

To set the batch counter:

1. Tap the **+** and **–** buttons to toggle the batch mode to **On** or **Off**.

NOTE: If the batch counter is set to on, the inserter prompts for batch quantity. The default quantity is 50, but any value can be selected up to 999 by tapping the **+** and **–** buttons.

2. Tap the **>>** button to accept the setting.

Confirming Job Setup

Job setup is now complete. Using the inserter model and icons, the touchscreen display shows all of the selected job settings.

1. Review the job settings.
2. Tap the << and >> buttons to scroll back and change a setting.
3. When the setup changes are complete, tap the **Setup** button to accept the new settings and exit setup mode.

The touchscreen displays the new job settings with the message Trial Piece Required.

4. Test the setup by *running a trial piece*.

NOTE: The inserter retains job settings until they are changed or deleted, even when the power is disconnected.

Running a Trial Piece

Run a trial piece to test the job settings.

1. Load material and tap the **Trial Piece** button on the menu.

NOTE: When the first job is run after powering up the system, the touchscreen displays the message "Check / Clear Accumulator." This is to verify there are no pieces staged in the accumulator area. If this message is displayed:

- a. Open the accumulator cover to check for pieces.
 - b. Remove any material.
 - c. Close the cover and tap **Trial Piece**.
-

2. Assess the unsealed trial piece to make sure everything inside the envelope is correct. If you need to make changes to the settings:
 - a. Tap the **Setup** button on the main screen.
 - b. Log in with Supervisor password (71).
 - c. Tap the << >> buttons to scroll to the setting you wish to modify.
 - d. Tap the + and – buttons to scroll to the desired option.
3. When the setup changes are complete, tap the **Setup** button to accept the new settings and return to run mode. The inserter saves the job with the new settings.
4. Run another trial piece to test the modified settings.

NOTE: Any time you modify settings you must run a trial piece.

Running trial pieces with linked feeding

When a trial piece is requested for a job where linked feeding is enabled, both feeders must be loaded, as a trial piece will feed from each feeder. Two trial pieces are produced.

Incorrect Address Position - Adjust Fold Setting

If the address is in the incorrect position when you run a trial piece, refer to these fold settings to help fine tune the fold setting.

Fold Type	Address too High	Address too Low
C-fold	Decrease Fold A	Increase Fold A and increase Fold B by the same amount
Z- fold	Increase Fold A	Decrease Fold A and increase Fold B by the same amount
Single-fold	Increase Fold A	Decrease Fold A
Double-fold	Decrease Fold A	Increase Fold A

It is recommended that the fold is only adjusted by 0.20 inches (5 mm) each time.

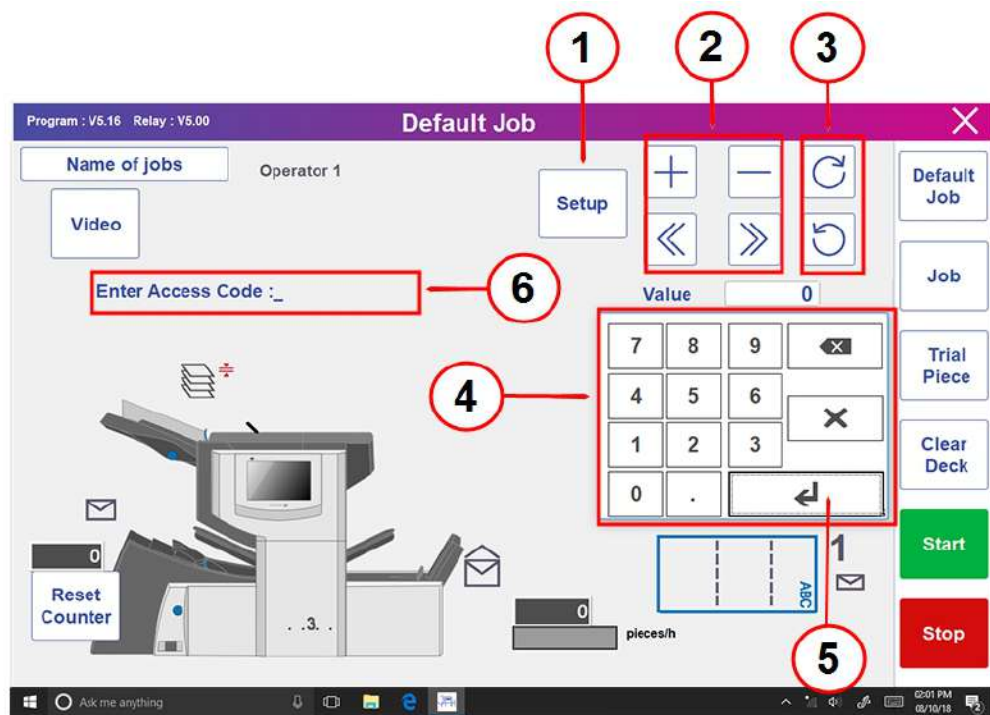
Programming a non-Scanning Job

Follow these steps to program a **non-scanning** job. As you move through the various job settings, a **star** icon displays next to the area being programmed, to help guide you through the process.

- [Log in](#)
- [Initiating job setup](#)
- [Select a job](#)
- [Disable scanning \(OMR Off\)](#) *(Skip this step if your inserter does not have scanning)*
- [Set fold type](#)
- [Set accumulation](#)
- [Set main sheet feeder](#)
- [Set second sheet feeder](#)
- [Set insert feeder](#)
- [Set mode type \(insertion or fold\)](#)
- [Set the sealer](#)
- [Set paper length](#)
- [Set fold A](#)
- [Set fold B](#)
- [Set envelope depth](#)
- [Set envelope stop](#)
- [Set batch counter](#)
- [Confirm job setup](#)
- [Run a trial piece](#)

Initiating Job Setup

1. [Log in](#).
2. From the main screen, tap the **Setup** button. The **Enter Access Code**: field displays over the inserter model and the keypad appears on the touchscreen display.
3. Using the keypad, type the Supervisor code (71) and tap the **Enter** key. The **Enter Access Code**: field counts up or down to display the password code entered.



Item	Description	Item	Description
1	Setup Button	4	Keypad
2	Job Options and Settings	5	Enter Key
3	Fast Scroll Buttons*	6	Enter Access Code Field

* These keys are used as a fast forward to move through large changes in job setup settings

4. Tap >> to accept the access code and advance to the job settings.

Selecting a Job

You can select an existing job and modify the settings to fit a new job.

1. Tap the + and – buttons to scroll through the jobs; highlight the desired job. (The job name in the screen banner changes to display the current jobs.)
2. Tap the >> to accept the job and advance to the first setting option.

NOTE: If you use an existing job, the old settings will be overwritten with the new settings selected.

Disabling Scanning

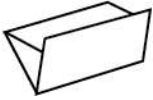
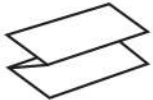
If scanning (OMR or barcode) is enabled on your system, set it to OMR off.

1. When prompted, tap the **+** and **–** buttons to select OMR **off**.
2. Tap the **>>** button to accept the selection and advance to the next setting.

Setting the Fold Type

1. Tap the + and – buttons to scroll through the fold types.

Fold Types

Icon	Fold
	C-fold
	Z-fold
	Double-fold
	Single-fold

2. Tap the >> button to accept the fold type and advance to the next setting.

Paper Orientation

Depending on the fold type selected, the display shows the paper orientation for loading into the feeders.



Face Up / Head First



Face Down / Feet First

Setting Accumulation Options

Accumulation allows multiple sheets to be fed from the sheet feeder into the envelope.

1. Tap the **+** and **–** buttons to scroll through the accumulation options.
2. If you set accumulation to **ON**:
 - a. Tap the **>>** button to set number of pages to feed in each envelope. (Accumulation = 2 to 10)
 - b. Tap the **+** and **–** buttons to enter the number of pages.
3. Tap the **>>** button to accept the option and advance to the next setting.

Inserter Accumulation Settings

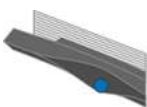
Setting	Description
Accumulation: OFF	Only one page can be fed from each feeder
Accumulation from Main	Multiple sheets will be folded together and inserted into the envelope. (Up to 5 sheets for C-folds, Z-folds, up to 10 sheets for single-folds - a service adjustment may be required to run more than 8 sheets - and up to 3 sheets for double-folds.)
Accumulation From Suppl	A single address main is fed from the main feeder, and up to 4 additional sheets can be collated from the second feeder
Accumulation = (2 to 10)	If Accumulation is ON, select how many pages you want to feed into each envelope.

Setting the Main Sheet Feeder

The main sheet feeder is automatically selected depending on the fold type you selected.

- **C- fold and double-fold** - Sheet Feeder 1 is set as the main sheet feeder
- **Z-fold and single fold** -Sheet Feeder 2 is set as the main sheet feeder

1. Tap the + and – buttons to scroll through the job options.

Icon	Option	Description
	Feeder On	Feeder on
	Double Detect	Feeder running double detect. <i>(Double detect stops the inserter if two or more sheets are fed simultaneously.)</i>
	<i>Manual Feed</i>	Manually feeds collated sets; only available on sheet feeder 1. The inserter waits for manual insertion of each set into sheet feeder 1, after which it will fold and insert the set automatically.
	<i>Linked Feeding: On (only available on Relay 3500 and 4500 models)</i>	Linked feeding on. <i>(Feed comes from the first sheet feeder and when empty, automatically switches feeding from the second sheet feeder.)</i>

NOTE: If there is no feeder icon displayed, the feeder is not active for this job

2. Tap the >> button to accept the option and advance to the next setting.

About Linked Feeding

Linked feeding can only be set on the main sheet feeder on non-scanning jobs. With linked feeding, sheets are initially fed from the main sheet feeder. When that feeder is empty, the inserter automatically switches feeding from the second sheet feeder.

While the job is running with linked feeding enabled, above the inserter model on the touchscreen the display shows: **1 > 2 > 1**. This confirms feeding automatically switches between feeders.

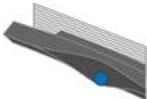
About the Manual Feed Option

- The manual feed setting allows you to run stapled sets of up to five sheets - a maximum of 100 lbs. (400 gsm) per set. The maximum compressed thickness of the set after folding must not exceed 0.08 inches (2 mm).
- The inserter waits for manual insertion of each set into sheet feeder 1, after which it will fold and insert the set automatically.
- When running manual feed mode, sheet feeder 2 becomes inoperable.
- The manual feed option is only available when Accumulation is set to OFF.

Setting the Second (Supplementary) Sheet Feeder

Set the options for the second sheet feeder.

1. Tap the + and – buttons to scroll through the options.

Icon	Option	Description
	Feeder On	Feeder on.
	Double Detect	Feeder running double detect. <i>(Double detect stops the inserter if two or more sheets are fed simultaneously.)</i>

NOTE: If there is no feeder icon displayed, the feeder is not active for this job

2. Tap the >> button to accept the option and advance to the next setting.

Setting the Insert Feeder

Determine if you want to use the insert feeder and how it will be used. Set the options accordingly.

1. Tap the + and - buttons to scroll through the options.

Icon	Option	Description
	Feeder On	Feeder on.
	Double Detect On	Feeder running double detect. <i>(Double detect stops the inserter if two or more sheets are fed simultaneously.)</i>
	Select Feed On	.Select Feed on. <i>(Select feed tells a feeder to feed one extra sheet per envelope.)</i>

NOTE: If there is no feeder icon displayed, the feeder is not active for this job

2. Tap the >> button to accept the option and advance to the next setting.

Setting the Mode Type - Insertion or Fold Only

This setting only appears if accumulation is not turned on. The inserter needs to know if the job requires inserting material into an envelope or if it is a fold-only job.

- **Insertion mode** - activates the envelope feeder for a normal inserting job.
- **Fold-Only mode** - turns the envelope feeder off and sets the inserter to act as a folding module.

To set the mode type:

1. Tap the **+** and **–** buttons to toggle between the options.
2. Tap the **>>** button to accept the mode type and advance to the next setting.

Setting the Sealer

This setting appears on non-scanning jobs only if insertion mode is turned on. Decide if you want to seal envelopes and set the sealer.

1. Tap the **+** and **–** buttons to toggle the option to **On** or **Off**.

Icon	Option	Description
	On	Turns the sealer unit on for automatic sealing of envelopes. Make sure the sealer bottle is full of E-Z Seal®.
	Off	Turns the sealer unit off. Envelopes will be ejected unsealed.

2. Tap the **>>** button to accept the option and advance to the next setting.
 - If you selected either of the sheet feeders, continue to the [Setting the Paper Length](#).
 - If you are using the insert feeder only, folding is not possible; skip to [Setting Envelope Depth](#).

Setting the Paper Length

1. Use the scale on the side of the inserter cover to measure the paper.



- **US letter** - 279 mm (11 inches)
 - **A4 paper** - 297 mm
2. Tap the **+** and **-** buttons to scroll through paper lengths (displayed in mm).
 3. Tap the **>>** button to accept the paper length value and advance to the next setting.

Setting Fold A

Depending on the fold type and paper length settings you selected earlier, the inserter suggests the correct dimension for the first fold. Usually this setting will be fine.

If you want to keep the setting:

1. Tap the >> button to accept the option and advance to the next setting.

If you want to change the setting:

1. To change the standard fold setting, tap the + and – buttons until the length of required fold displays.

NOTE: The inserter automatically limits your options to available specifications on your inserter. As the length of fold A is changed, the dimensions of fold B change automatically to keep within the correct paper length and inserter specifications.

2. Tap the >> button to accept the fold value and advance to the next setting.

Setting Fold B

Similar to setting fold A, the inserter suggests the correct dimension for fold B.

If you want to keep the setting:

1. Tap the >> button to accept the option and advance to the next setting.

If you want to change the setting:

1. Tap the + and – buttons until the length of fold required displays. A **star** icon displays next to the fold panel you are setting.
2. Tap the >> button to accept the fold value and advance to the next setting.
 - **Inserting jobs** - continue to the [Setting the Envelope Depth](#).
 - **Fold-only job** - there are no more job settings, skip to [Confirming the Job Setup](#).

Setting the Envelope Depth

1. Use the measuring scale on the front cover to measure the envelope depth.



2. Tap the + and – buttons to scroll through the measurements (displayed in mm).
3. Tap the >> button to accept the value and advance to the next setting.

Setting the Envelope Stop

The stop has five positions numbered 1 to 5. Setting 3 is the standard setting for normal weight paper with standard folds. A thinner, lighter insert requires a lower setting and a thicker, heavier insert requires a higher setting.

1. Tap the **+** and **–** buttons to scroll through the envelope stop positions.
2. Tap the **>>** button to accept the position and advance to the next setting.

NOTE: After the envelope stop is set, the setting displays on the bottom of the inserter model on the touchscreen. (For example, **..3..**, for position 3.)



Setting the Batch Counter

- **Batch Counter On** - If the batch counter is turned on, it allows pre-defined batches of finished mailpieces to be automatically processed. When the batch is complete, the inserter automatically stops.
- **Batch Counter Off** - If the batch counter is not turned on, the display counter counts the number of items processed until you tap **Reset Counter**. Tap the **Start** button to begin processing the next batch of mailpieces.

To set the batch counter:

1. Tap the **+** and **–** buttons to toggle the batch mode to **On** or **Off**.

NOTE: If the batch counter is set to on, the inserter prompts for batch quantity. The default quantity is 50, but any value can be selected up to 999 by tapping the **+** and **–** buttons.

2. Tap the **>>** button to accept the setting.

Confirming Job Setup

Job setup is now complete. Using the inserter model and icons, the touchscreen display shows all of the selected job settings.

1. Review the job settings.
2. Tap the << and >> buttons to scroll back and change a setting.
3. When the setup changes are complete, tap the **Setup** button to accept the new settings and exit setup mode.

The touchscreen displays the new job settings with the message Trial Piece Required.

4. Test the setup by *running a trial piece*.

NOTE: The inserter retains job settings until they are changed or deleted, even when the power is disconnected.

Running a Trial Piece

Run a trial piece to test the job settings.

1. Load material and tap the **Trial Piece** button on the menu.

NOTE: When the first job is run after powering up the system, the touchscreen displays the message "Check / Clear Accumulator." This is to verify there are no pieces staged in the accumulator area. If this message is displayed:

- a. Open the accumulator cover to check for pieces.
 - b. Remove any material.
 - c. Close the cover and tap **Trial Piece**.
-

2. Assess the unsealed trial piece to make sure everything inside the envelope is correct. If you need to make changes to the settings:
 - a. Tap the **Setup** button on the main screen.
 - b. Log in with Supervisor password (71).
 - c. Tap the << >> buttons to scroll to the setting you wish to modify.
 - d. Tap the + and – buttons to scroll to the desired option.
3. When the setup changes are complete, tap the **Setup** button to accept the new settings and return to run mode. The inserter saves the job with the new settings.
4. Run another trial piece to test the modified settings.

NOTE: Any time you modify settings you must run a trial piece.

Running trial pieces with linked feeding

When a trial piece is requested for a job where linked feeding is enabled, both feeders must be loaded, as a trial piece will feed from each feeder. Two trial pieces are produced.

Incorrect Address Position - Adjust Fold Setting

If the address is in the incorrect position when you run a trial piece, refer to these fold settings to help fine tune the fold setting.

Fold Type	Address too High	Address too Low
C-fold	Decrease Fold A	Increase Fold A and increase Fold B by the same amount
Z- fold	Increase Fold A	Decrease Fold A and increase Fold B by the same amount
Single-fold	Increase Fold A	Decrease Fold A
Double-fold	Decrease Fold A	Increase Fold A

It is recommended that the fold is only adjusted by 0.20 inches (5 mm) each time.

Modifying an Existing Job

Modifying an existing job requires Supervisor level access.

1. Tap the **Setup** button on the main screen. The **Enter Access Code:** field displays over the inserter model and the keypad appears on the touchscreen display.
2. Using the keypad, type the Supervisor code (**71**) and tap the **Enter** key. The **Enter Access Code:** field counts up or down to display the password code entered.
3. Tap the **>>** button to accept the code and advance to the job selection.
4. Tap the **+** and **–** buttons to display the job you wish to modify.
5. Tap the **>>** button to accept the job selection and advance to the job programming settings.
6. Tap the **<<** and **>>** button to scroll through the setting(s).
7. Tap the **+** and **–** buttons to scroll through the options or desired values.
8. Tap the **>>** button to accept the job setting.
9. Tap the **Setup** button to save the changes and exit setup mode.

Deleting a Job

Deleting an existing job requires Supervisor level access.

1. Tap the **Setup** button on the main screen. The **Enter Access Code:** field displays over the inserter model and the keypad appears on the touchscreen display.
2. Using the keypad, type the Supervisor code (**71**) and tap the **Enter** key. The **Enter Access Code:** field counts up or down to display the password code entered.
3. Tap the **>>** button to accept the code and advance to the job selection.
4. Tap the **+** and **–** buttons to display the job you wish to delete.
5. Tap the **X** button to delete the job. The display shows “Do you want to delete this application?”
6. Tap the **checkmark**.
7. Tap the **X** button to delete the job. The display briefly shows “Deleting Job” as the job is erased.
8. Tap the **Setup** button to exit job setup mode.

5 - Running a Job

In this section

Running a Job	68
Turn on the Inserter	69
Turning on the Touchscreen	70
Logging In	71
Selecting a Job to Run	72
Loading the Sheet Feeder	73
Loading the Standard Envelope Feeder	77
Loading the High Capacity Envelope Feeder	79
Loading the Insert Feeder	83
Running a Trial Piece	87
Starting and Stopping the Inserter	89
Adding Sealer Solution	90
Adjusting the Drop Stacker	91

Running a Job

These activities assume the job has already been programmed.

- *Turn on the inserter*
- *Turn on the touchscreen*
- *Log into the system*
- *Select a job*
- *Load the sheet feeders*
- *Load the envelope feeders*
- *Load the insert feeders*
- *Run a trial piece*
- *Start the inserter*
- *Fill the sealer (if needed)*
- *Adjust the stacker (if needed)*

Turn on the Inserter

1. Verify the power cord is connected to the socket on the back of the inserter.
2. Verify the power cord is plugged into a power outlet near the machine and is easily accessible.
3. Turn the power switch to the ON position.



Relay 4500 Model shown here

NOTE: On Relay Inserter 2500 and 3500 models, the power switch is located on the front, left side of the inserter, under the envelope feeder.

Turning on the Touchscreen

Be sure the inserter is powered up before turning on the touchscreen.

1. The **ON/OFF** power button is located on the top left of the touchscreen. Press and hold the power button for a few seconds to turn the touchscreen on or off.



ON/OFF Power Button

NOTE: If the touchscreen is in sleep mode, lightly press the ON/OFF power button.

Logging In

1. Double-tap the **insert** icon on the touchscreen desktop.
2. When the List of operators dialog opens, highlight an Operator and tap the **checkmark**.
3. Tap in the **Password** field. When the keyboard launches, type the password in the field.
4. Tap the **checkmark** to log in.

Selecting a Job to Run

When you log in, the touchscreen displays the last job run with the message "Trial Piece Required." This is when you select the job you wish to run.

1. Tap the **Job** menu button to scroll through the jobs; keep tapping until the job you want displays.



You can also tap the **Default Job** button (most used job) if you want to run the inserter with the default job settings.

2. Begin loading material; follow the steps in the next section.

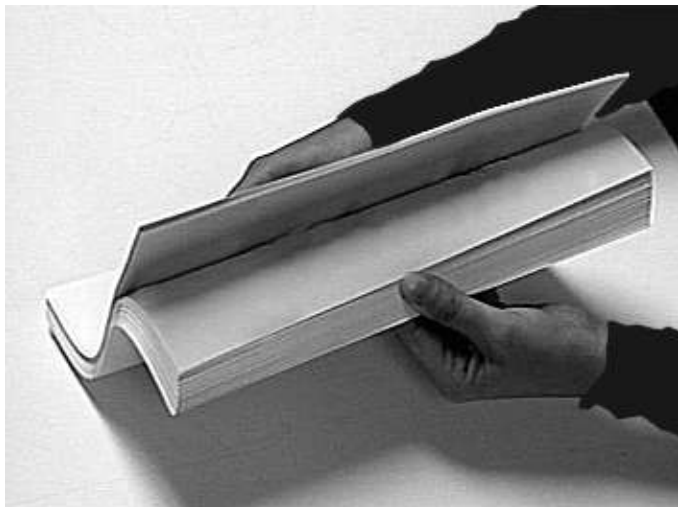
Loading the Sheet Feeder

Automatic Feed Jobs

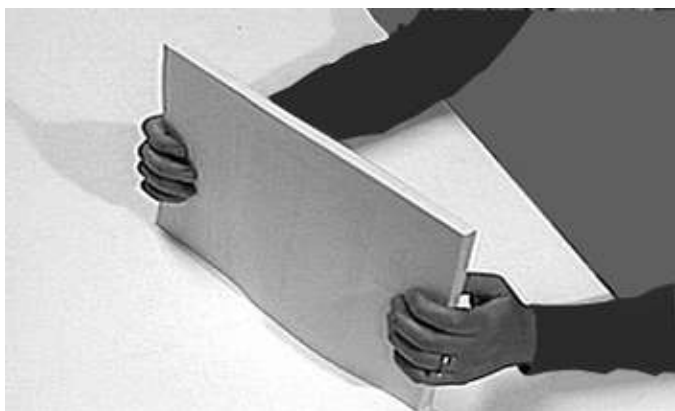
1. Adjust the side guides to the width of the material. Once the guides are touching both sides of the material, turn the side guide control 1/4-turn in the opposite direction. This sets the correct clearance between the guides and the material.



2. Aerate (fan) the stack of paper to ensure that individual sheets are not stuck together.



3. Jog the stack of paper back into alignment. The display indicates the correct orientation of the paper.



4. Place the stack of paper onto the feed deck. Allow the deck to move down and the top of the stack of paper to slide under the feed roller.



Manual Feed Jobs

If you select a manual feed job where sheet feeder 1 is set for manual feed of collated sets, DO NOT load the sheet feeder. Instead, you will feed collated sets one at a time, by hand, as required.

1. Before running a manual feed job, pull back the lever. This opens the feed mechanism for manual feed operation.



NOTE: Return this lever to its normal position when the feeder is used for automatic operation.

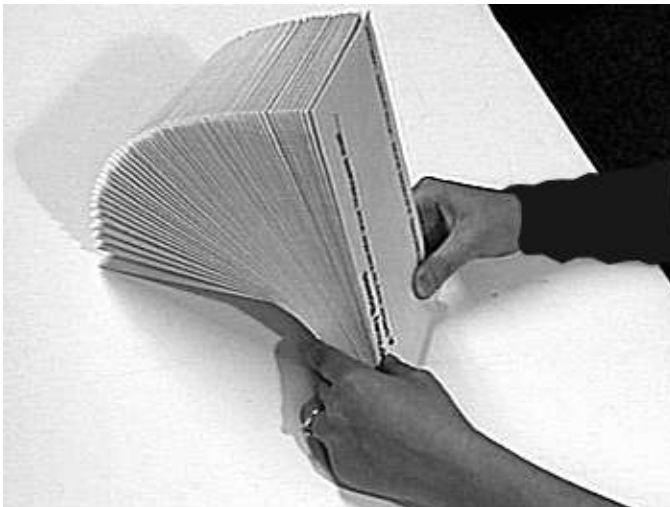
Loading the Standard Envelope Feeder

The Relay 2500 and 3500 use a standard (tray style) sheet feeder to feed the outer envelope for the job.

1. Use the side guide adjustment knob to adjust the side guides to the width of the envelopes.
2. Once the guides are touching both sides of the envelope, turn the adjustment knob 1/4-turn in the opposite direction. This sets the correct clearance between the guides and the envelope.



3. Aerate and fan the stack of envelopes so the individual envelopes are not stuck together.



4. Place the envelopes on the feed deck with the flaps up and trailing. *IMPORTANT! Check that the lead edge of the first envelope is under the front feed roller and the stack of envelopes is shingled on the deck.*
5. Let the wedge slide down behind the stack so the envelopes are supported.



Loading the High Capacity Envelope Feeder

The Relay 4500 uses a high capacity (elevator style) envelope feeder to feed the outer envelopes.

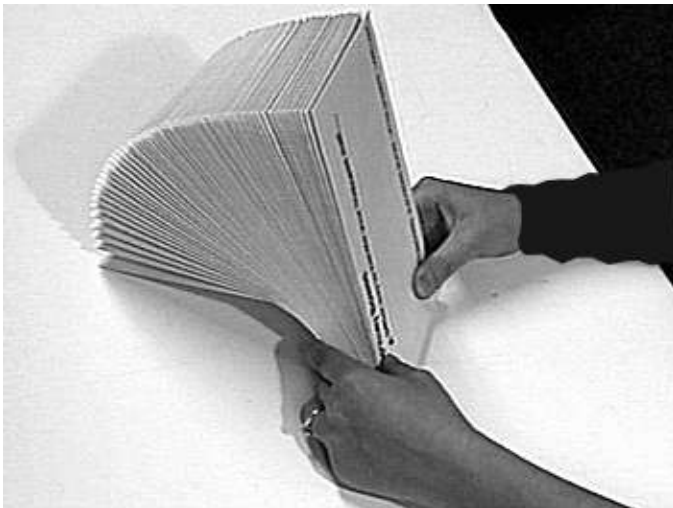
1. Press the envelope feeder loading switch to lower the envelope feeder platform.



2. Use the side guide adjustment knob to adjust the side guides to the width of the envelopes. Once the guides are touching both sides of the envelope, turn the adjustment knob 1/4-turn in the opposite direction. This sets the correct clearance between the guides and the envelope.

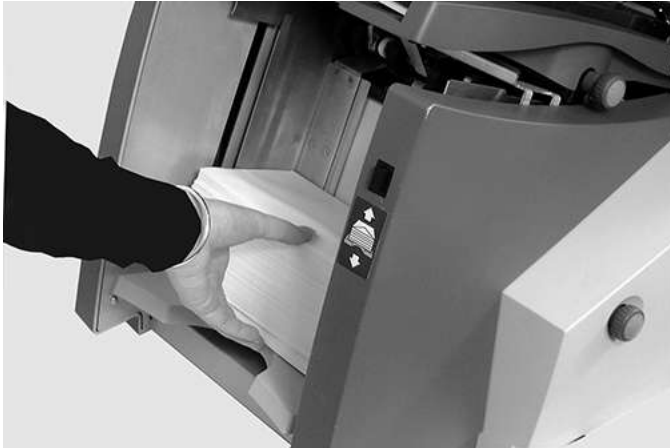


3. Aerate the stack of envelopes and fan it so the individual envelopes are not stuck together.



4. Place the stack of envelopes into the feeder with the flap side **UP** and flap **LAST**.

5. Press the envelope feeder loading switch again to raise the envelope stack to the normal feeding position.



Loading envelopes without stopping the inserter

Shown here on the Relay 4500 with a high capacity (elevator style) envelope feeder.

1. Press the envelope feeder loading switch to lower the feeder platform.



2. Load envelopes as described earlier in this section.
3. Press the envelope feeder loading switch again. The envelope stack rises to the normal feeding position and continues to process automatically.

Loading the Insert Feeder

The insert feeder feeds items that do not require folding. The insert feeder may be removed if it is not required for a job.

1. Use the side guide adjustment knob to adjust the side guides to the width of the inserts you are running.



2. Once the guides are touching both sides of the insert, turn the adjustment knob 1/4-turn in the opposite direction. This sets the correct clearance between the guides and the insert.
3. Refer to the labels located on the insert feeder and match the insert type (slip, reply envelope, pre-folded, booklet) with the icon and color.

Identifying the Insert - If the label indicates a range of settings, we recommend you select a higher number or letter for a thicker the insert.

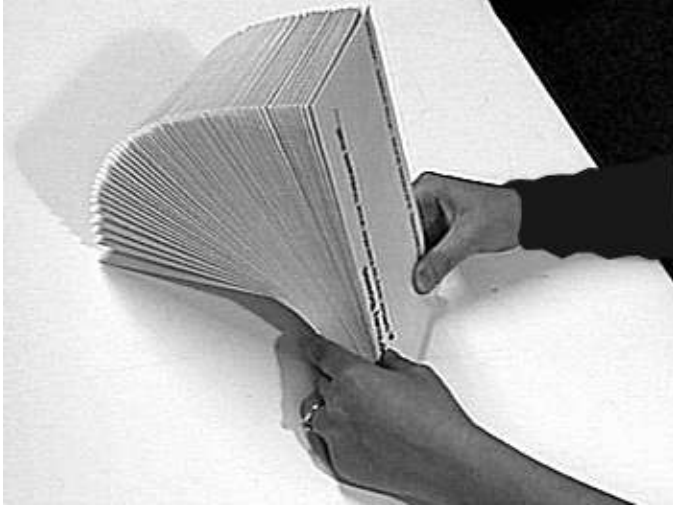
4. Set the blue separator gap lever to the number required.



5. Set the blue separator shield lever to the letter required.



6. Aerate and fan the stack of inserts so the individual pieces are not stuck together.



7. Shingle the inserts and place them on the feed deck. Loading orientation can vary depending on the inserts. Load inserts using these orientation guidelines.



Insert Type	Orientation
Slip	Face up, bottom edge first
Reply Envelope	Face up, top edge first
Pre-folded	Face up, closed edge first
Booklet	Face up, bound edge first

8. Let the wedge (material prop) slide down the stack to support the envelopes.



Running a Trial Piece

Run a trial piece to test the job settings.

1. Load material and tap the **Trial Piece** button on the menu.

NOTE: When the first job is run after powering up the system, the touchscreen displays the message "Check / Clear Accumulator." This is to verify there are no pages staged in the accumulator area. If this message is displayed:

- a. Open the accumulator cover to check for pieces.
 - b. Remove any material.
 - c. Close the cover and tap **Trial Piece**.
-

2. Assess the unsealed trial piece to make sure everything inside the envelope is correct. If you need to make changes to the settings:
 - a. Tap the **Setup** button on the main screen.
 - b. Log in with Supervisor password (71).
 - c. Tap the << >> buttons to scroll to the setting you wish to modify.
 - d. Tap the + and – buttons to scroll to the desired option.
3. When the setup changes are complete, tap the **Setup** button to accept the new settings and return to run mode. The inserter saves the job with the new settings.
4. Run another trial piece to test the modified settings.

NOTE: Any time you modify settings you must run a trial piece.

Running trial pieces with linked feeding

When a trial piece is requested for a job where linked feeding is enabled, both feeders must be loaded, as a trial piece will feed from each feeder. Two trial pieces are produced.

Incorrect Address Position - Adjust Fold Setting

If the address is in the incorrect position when you run a trial piece, refer to these fold settings to help fine tune the fold setting.

Fold Type	Address too High	Address too Low
C-fold	Decrease Fold A	Increase Fold A and increase Fold B by the same amount
Z- fold	Increase Fold A	Decrease Fold A and increase Fold B by the same amount
Single-fold	Increase Fold A	Decrease Fold A
Double-fold	Decrease Fold A	Increase Fold A

It is recommended that the fold is only adjusted by 0.20 inches (5 mm) each time.

Starting and Stopping the Inserter

- Tap the **Start** button on the touchscreen to begin automatic operation. The inserter runs until it runs out of paper or you stop it.
- Tap the **Stop** button on the touchscreen to stop the inserter.



Adding Sealer Solution

1. When the Add sealing solution icon flashes, add E-Z Seal® Solution.

Icon	Description
	Add sealing solution

2. Open the sealer bottle cover hinge located at the rear, right side of the inserter and remove the bottle.



3. Fill the bottle with the solution to the level indicated.
4. Place the sealer bottle in position in the inserter and close the cover.

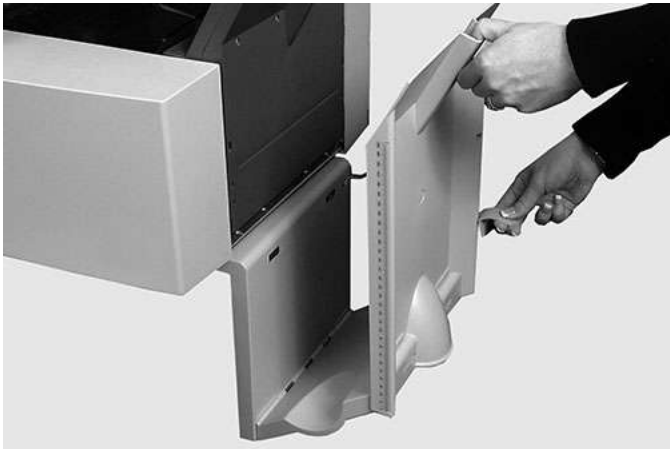
NOTE: If the sealer unit was completely empty, allow time for the fresh solution to soak through the sealer before resuming operation. This helps ensure a good seal.

NOTE: We recommend Pitney Bowes E-Z Seal to minimize algae growth and scale build-up.

Adjusting the Drop Stacker

If necessary, adjust the drop stacker to accommodate the job material.

1. Lift the lever at the rear of the stacker and adjust the stacker to one of the preset positions.



2. Lower the lever to lock the stacker into position.

NOTE: When not in use, the stacker can be raised and latched vertically against the exit area of the inserter.

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6 - OMR Scanning

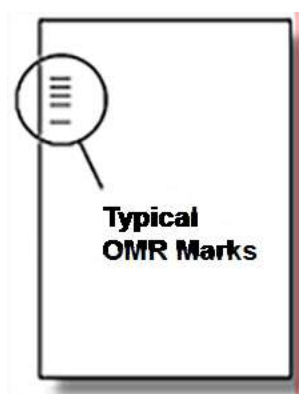
In this section

About Optical Mark Recognition (OMR) Scanning	94
About OMR Scanning and Feeders	95
About OMR Scanning Types	96
About OMR Scanning Marks	97
OMR Specifications	101
Standard OMR Position - Diagram	102
Adjusting the OMR Scanning Heads	103
OMR Scanning Error Messages	106

About Optical Mark Recognition (OMR) Scanning

An OMR mark is normally a dark solid line on a white sheet of paper that is perpendicular to the direction of paper travel. This line must be thick and dense to trigger the OMR scanner.

The OMR scanner works with the OMR system software to check for one or more different OMR marks on a document as it is fed through the system. Tracking of these marks enhances mail piece integrity by assuring the documents that belong together (a set) stay together throughout the inserting process.



Accuracy

OMR scanning on this inserter uses extensive error checking. This means insertion accuracy is very high. The probability of the wrong set of sheets being inserted into an envelope is low.

About OMR Scanning and Feeders

OMR-equipped models have scanning heads on each sheet feeder.

One of the sheet feeders holds sheets with OMR marks and they feed multiple sheets per envelope.

- Sheet feeder 1 for C-fold and double-fold
- Sheet feeder 2 for Z-fold and single-fold

You can set up the sheet and insert feeders to be under the selective control of the OMR sheets. As a result, OMR can be used to fill an envelope with a variable number of sheets from one feeder, with or without a supplementary sheet and an insert.

A supplementary sheet and folded insert are nested with the first collation in the envelope. Because OMR applications allows each envelope to contain tailored contents, the collated set will allow the address bearing sheet to show through the window on the envelope. This ensures that each set of sheets is addressed to the correct recipient.

NOTE: Due to limitations of having only a single sheet feeder, OMR scanning is available for only C-fold and double-fold material on the Relay 2500.

About OMR Scanning Types

Basic OMR

- Enables the collation of multi-page documents
- Enables a variable number of sheets per envelope
- Accumulates sheets, folds and inserts them.

Enhanced OMR

- Enables the system to stop feeding sheets at selected points in a run and / or select whether the other feeders are used.
- Provides a higher level of mailpiece integrity so that sensitive documents are not sent to the wrong customer.
- Offers the Select feed option. This option feeds an additional sheet (from the supplementary sheet feeder) or insert feeder on command from the OMR code.

About OMR Scanning Marks

OMR features vary depending on the options purchased. Some marks described here are available as added features that expand OMR capability.

OMR Scan Mark Positions

For inserter scanners to read the printed OMR marks correctly, the marks must be located within a defined range of positions on the page. Standard OMR position is within approximately the first one-third of the page.

Marks Used for OMR Scan Codes

These are the OMR marks that can or must be allocated to an OMR Code.

Benchmark

This is a mandatory mark. It must be the first mark of the code and appear on every page within the set.

Safety

This is a mandatory mark that improves the integrity of your mail piece. It is automatically placed immediately after the benchmark.

End-of-Collation (EOC)

This mark indicates that this sheet is the last sheet fed within the collation or set (the address sheet).

The system operates on the absence of this mark, that is, the action will take place if the mark is not read by the scanner. It is therefore indicated on the OMR code as Not EOC.

Beginning-of-Collation (BOC)

This mark indicates this sheet is the first sheet fed within the collation or set.

The system operates on the absence of this mark, that is, the action will take place if the mark is not read by the scanner. It is therefore indicated on the OMR code as Not BOC.

Parity

This mark is a security feature that makes the number of marks total an even number when printed. If any one of the marks is missed during scanning, the inserter stops so the operator can correct the error.

Re-timing Mark

This mark is mandatory in each group of OMR marks making up the code (see later in this section for an explanation of OMR mark grouping).

It allows the inserter to recalibrate for accurate scanning. Re-timing marks count in the parity calculation.

Select Feed (SF1, SF2)

These marks are used to control the feed of material from the feeder holding the supplementary sheets/inserts on a set-by-set basis. Therefore select feed cannot be used on a single-station inserter.

Use Select Feed 1 marks in the primary sheet feeder to select material from the supplementary sheet feeder. For C- and double fold, the primary feeder is sheet feeder 1. For Z- and single fold, the primary feeder is Sheet Feeder 2.

Use Select Feed 2 marks in the primary sheet feeder to select material from the insert feeder. For C-folds and double-folds, the primary feeder is sheet feeder 1. For Z-folds and single-folds, the primary feeder is Sheet Feeder 2.

Auto Batch

When the auto batch function is being used, this scan mark identifies the last sheet of a batch. It signals the inserter to automatically stop the machine so an operator can remove the finished batch of mailpieces and then restart the mailrun. The mark must appear on all sheets of the OMR set that requests this function.

Wrap Around Sequence (WAS1, WAS2, WAS3)

This is a numbering system which uses a sequential binary coding. If a page is missing or the set goes out of sequential order, the system stops processing and declares an error.

Three wrap around sequence marks are used within the code. The use of three binary digits allows a decimal count of 0 to 7. Pages are numbered from 0 up to 7, and then back to 0 on a continuous cycle throughout the print run.

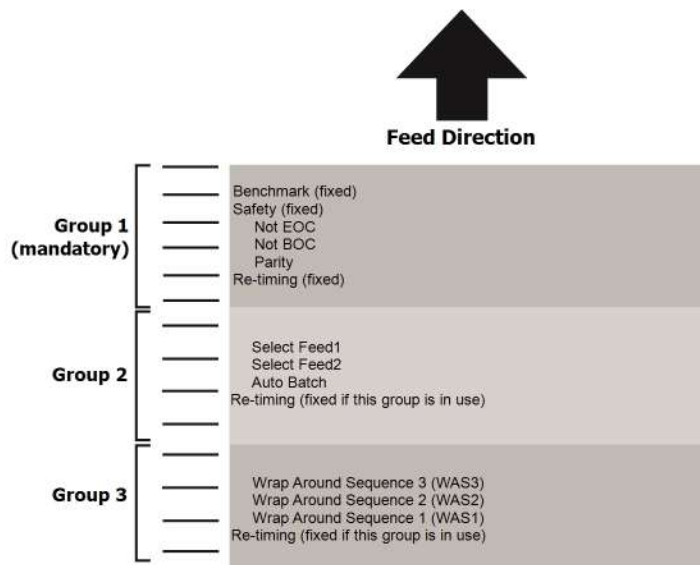
OMR Mark Grouping

Each OMR code begins with two fixed marks: benchmark and safety mark. These marks are located at the end nearest to the sensor. These are followed by one, two, or three groups of marks where each group comprises three data marks followed by a fixed mark. Each data mark is present or absent as required to reflect the desired function. Each code must end with a re-timing mark.

The **Basic OMR** mode uses only Group 1. The **Enhanced OMR** mode uses Group 1 plus Group 2 and / or Group 3, as needed for a particular job.

C-fold and Double-fold Jobs

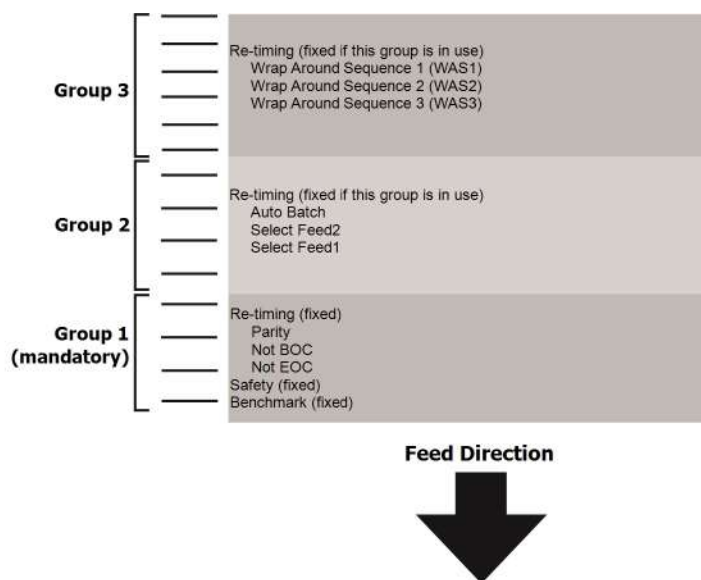
Place marks in the upper left corner of the sheet. Print marks in top-to-bottom order.



Print sheets in normal collation order. The first sheet processed in each set is the address sheet and the last sheet processed is the last of each set.

Z-fold and Single-fold Jobs

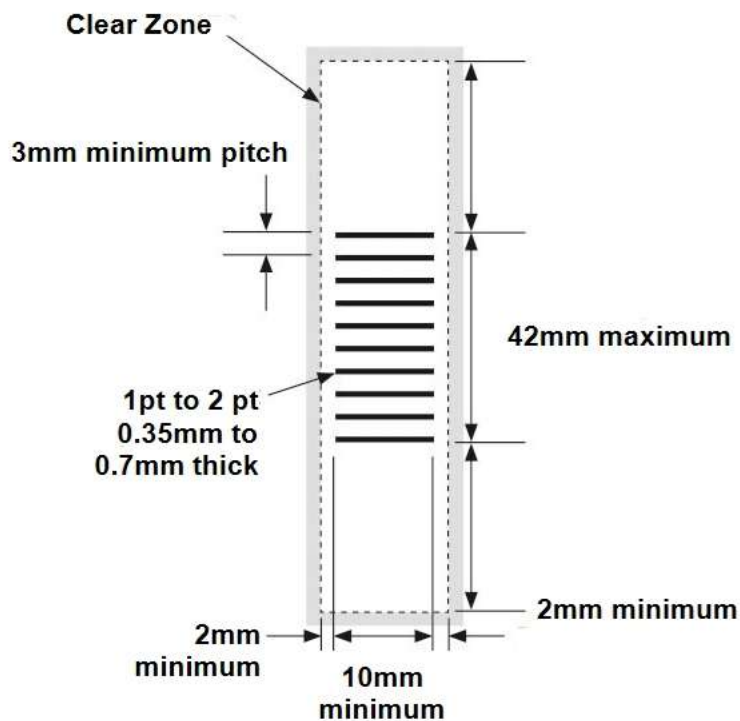
Place marks in the lower right corner of the sheet. Print marks in bottom-to-top order:



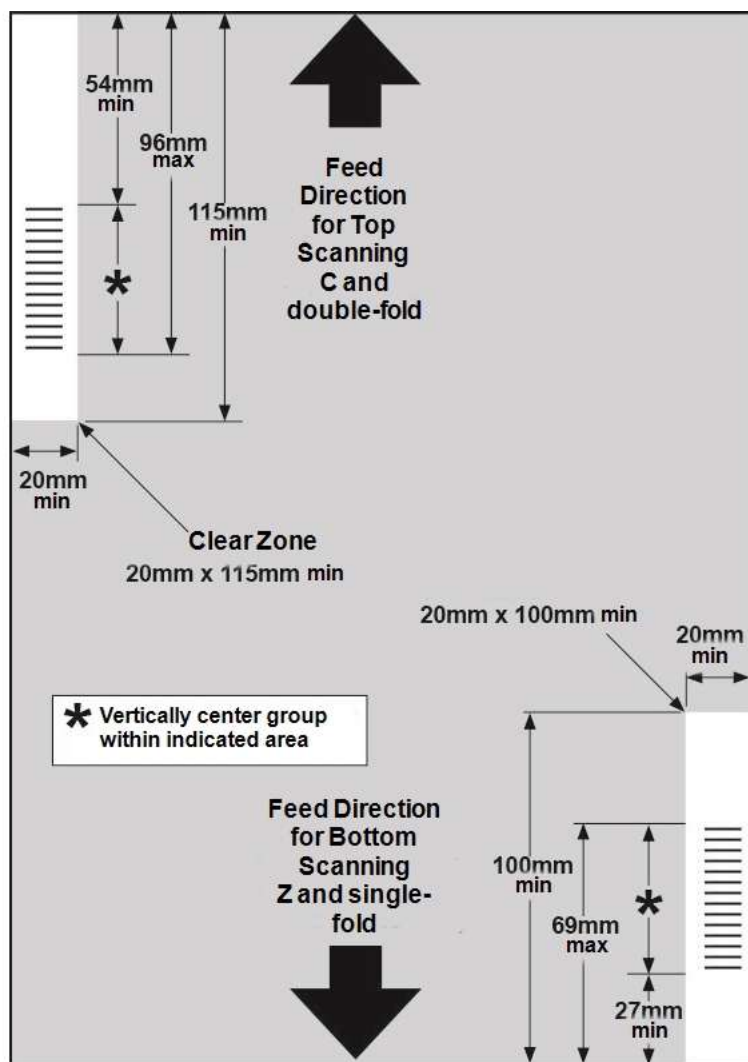
Print sheets in normal collation order. The first sheet processed in each set is the address sheet and the last sheet processed is the last of each set.

OMR Specifications

- The OMR mark must be a solid black line between 1 and 2 points thick - 0.014" (0.35 mm) to 0.027 inch (0.7 mm), and at least 0.393 inch (10 mm) wide.
- Each mark position must be evenly spaced, at least 0.118 inch (3 mm) apart.
- The area around the marks (the clear zone) should be kept clear from print and any other marks that the scanner might read in error.
- There should be no print on the opposing face of the sheet immediately behind the clear zone.



Standard OMR Position - Diagram



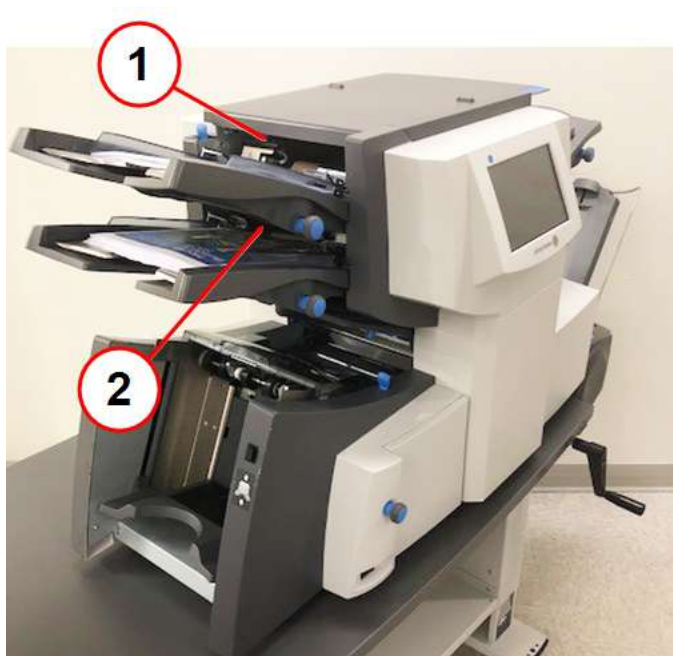
Position OMR marks:

- C-fold and Double-fold: top scanning, top left corner
- Z-fold and Single-fold: bottom scanning, bottom right corner

Adjusting the OMR Scanning Heads

In order for OMR scanning to work correctly, it is important to ensure that the scanning heads are positioned in line with the scan dash (OMR) marks printed on the material.

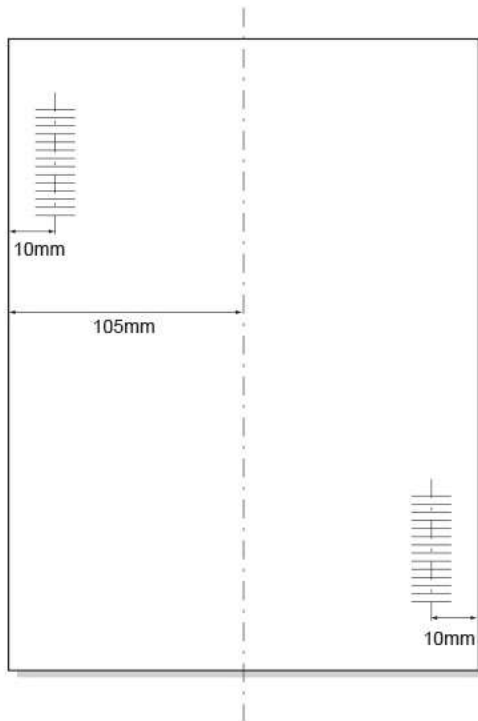
1. Open the top cover of sheet feeder 1, and find the scanning head, near the rear of the inserter.
2. Remove both sheet feeder 2 and the fold plate below sheet feeder 2 to find the scanning head for of sheet feeder 2, mounted to the front of the inserter.



Item	Description
1	Top Sheet Feeder Scanner
2	Bottom Sheet Feeder Scanner

3. Fold a sheet of material in half and measure the distance from the side of the sheet to the middle.
 - A4 size sheet = 105 mm
 - Letter size sheet = 8.5 x 11 inches (108 mm)

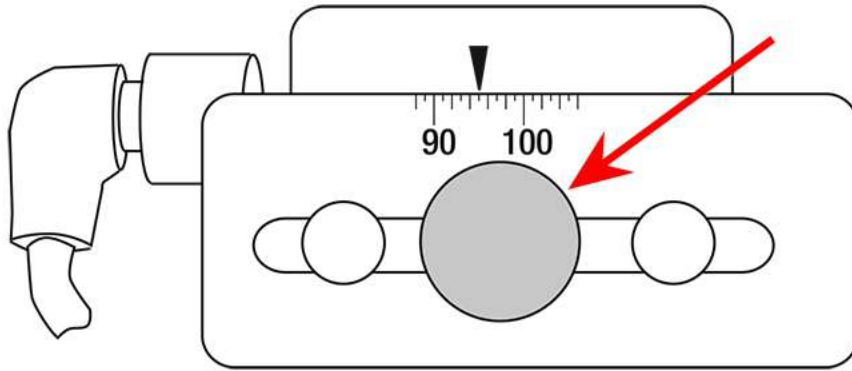
- Next, measure the distance from the edge of the sheet to the middle of the scan dash marks (as shown in the following example), and subtract this measurement from the half-fold measurement.



Folding Example

- Half-fold measurement for an A4 size sheet, is 105 mm.
- If the distance from the edge of the form to the middle of the scan dash marks is 10 mm, the scanning head setting will be 95 mm (105 mm – 10 mm).

5. Loosen the locking knob and set the relevant scanning head to the correct setting.



Locking Knob

6. Re-tighten the locking knob.
7. If you adjusted the bottom sheet feeder scanner, install both sheet feeder 2 and the fold plate.

OMR Scanning Error Messages

Message	Action
Bad OMR marks Spacing	Two marks that are closer together than half the expected distance are read. Check scan marks on material
No OMR marks	- No marks on paper - Scan sensor is not centered over scan marks - Paper not loaded correctly
Bad OMR Code length	Code type on paper does not match the setup. (Example: setup has OMR+ Sequence but paper has OMR + Select Feed + Sequence)
Bad OMR Code format	Re-timing scan mark is missing; check material. (Example: mark 6 missing from 10 mark code)
Expected 1st Sheet of set	BOC mark (position 4) was present when not expected. First page of the set was expected
Not a new Envelope	BOC mark (position 4) absent when it was expected; pages other than the first of set were expected
OMR: Parity Error	Code doesn't have an even number of marks
OMR: Sequence Error	Sequence number is not sequential with the previous page fed. Therefore, sheets are in the wrong order or missing
OMR: SF marks Inconsistent	Selective feed and Autobatch marks at positions 7 to 9 are different from those on the previous sheet of this set
OMR: SF not in Use	Selective feed mark is present at positions 7 to 8, but the job setup does not include select feed
OMR: Set too Large	The set contains too many sheets from the main feeder.
OMR: End of Batch Ready to Run	- Inserter has stopped for "End of Batch" - Allows the operator to manually sort envelopes
Mode Change Recheck Feeders	Scroll at least to the paper length setting before the system accepts the job setup.

7 - Barcode Scanning

In this section

About Barcode Scanning	108
About 2D Barcode Data	109
Barcode Scanning Specifications	112
About Barcode Placement	114
Adjusting the Barcode Camera	117
Barcode Scanning Error Messages	118

About Barcode Scanning

Barcode applications support mailpiece integrity by ensuring proper mailpiece assembly. Barcodes contain specific instructions about your mailpiece and can be printed on the front of your primary sheet set. Information like record number, page number, and page total can be contained in the code.

How 2D Barcode Scanning Works

2D barcode scanning is an optional feature. If your machine is equipped with 2D barcode scanning, a 2D barcode camera takes a picture of the barcode and then decodes the information to create instructions for building that particular mailpiece.

When the barcode sheet is fed, the information in the barcode gets sent to the inserter. The inserter checks this information and verifies that the correct sheet is fed and inserted into the envelope. If a sheet is skipped or if the sheets get out of sequential order, the inserter stops processing and displays an error.

Barcode Scanning Jobs - Feeding and Folds

- Sheet Feeder 1 (the top feeder) holds the sheets with the barcodes printed on them for C-folds and double-folds.
- Sheet Feeder 2 (the bottom feeder) holds the sheets with barcodes printed on them for Z-folds and single-folds.
- Multiple sheets can be inserted into an envelope with barcode scanning. The number of sheets inserted into an envelope is determined by the information in the barcode.
- An additional sheet or insert can be fed from other feeders with barcode scanning.
- When processing sheets using single fold, the set size can be adjusted to enable the processing of heavier sheets.

NOTE: The Relay 2500 can process C-folds and double-folds with barcode scanning.

About 2D Barcode Data

Barcodes encode information in a visual pattern that the scanner on the inserter can read. A combination of squares make up an element that the scanner decodes into alpha or numeric characters. Relay inserters require a barcode with 18 characters decoded into a specific format.

Character Functionality

This section details the functions for each of the 18 characters in the barcode. These functions cannot be changed; all 18 characters must be used.

Character Positions 1 - 14 (Match Random Code)

These characters can be made up from numbers like an account number, employee number, invoice number or reference number. The inserter expects these characters to be the same on every sheet within the prime sheet set, (scanned sheets within the completed outer envelope). These characters do not need to ascend or descend throughout the print run.

All 14 characters must be used. If the number the client is referring to is less than 14 characters, then the proceeding unused characters must be 0s.

For example, if the client invoice number is 8 characters long, 000000 (six 0s) must proceed the client's invoice characters to make a total of 14 characters

Character Position 15 (Stop and Select Feed)

This character is used as a processing feature and when decoded, instructs the inserter to perform different functions. This table details character 15 values and states the function for the different values.

Value and Function of Character 15

Value	Function
0	No Function – machine cycles with no additional function.
1	SF1 (Select Feeds an additional sheet from Sheet Feeder 2)
2	SF2 (Select Feeds an additional insert from the Insert Feeder)
3	SF1 + SF2 (Select Feeds additional sheet from Sheet Feeder 2 and an insert from the Insert Feeder)
4	Stop (Stops the machine once the mailpiece is completed and exited)
5	SF1 + Stop (Select Feeds an additional sheet from Sheet Feeder 2 and Stops the machine once the mailpiece is completed and exited)
6	SF2 + Stop (Select Feeds Insert from Insert Feeder and stops the machine once the mailpiece is completed and exited)
7	SF1 + SF2 + Stop (Select Feeds an additional Sheet from Sheet Feeder 2 and Insert from the Insert Feeder, then stops the machine once the mailpiece is completed and exited)

Character Position 16 (Page Numbering)

This character is used as a sequential count for sheets inserted into each envelope. The first sheet fed will have a value of '1,' the second sheet a value of '2,' the third '3', and so on, until the last sheet is fed.

When a new sheet set is presented to the barcode scanner (inserted into a different envelope) the sequential count is restarted.

NOTE: Two characters cannot be shown to represent 10 sheets, so instead the letter 'A' is used, (i.e. ... 5, 6, 7, 8, 9, A).

Character Position 17 (Page Count)

This character tells the inserter the total number of sheets within the sheet set being feed from the primary feeder and inserted into the outer envelope.

NOTE: When the value of character 16 is the same as character 17, it indicates this is the last sheet fed for that envelope (End of Collation process). The inserter ejects the envelope out through the exit area.

Character Position 18 (Wrap Around Sequence Ascending)

This character is a sequential number (that cycles from 0 - 7) throughout the print run. The inserter will stop and declare an error if a page is missing or the sheet set is out of sequential order.

Barcode Scanning Specifications

Printing Barcode Symbols

These specifications provide details about how and where barcode symbols should be printed.

- Barcodes must be a grade A barcode
- Barcodes must only be printed in black on white paper only
- Barcodes should be printed using 600 dpi or greater
- Barcodes should not be printed over any text or graphics
- Barcodes should not intersect any perforation in the paper
- A 6 mm clear zone is required around the barcode
- No other datamatrix barcodes can be placed in the area in front of the controlling barcode or within 25 mm behind or to either side of it
- Only alpha numeric characters are supported

Paper (Sheets)

These specifications provide details about what type of paper should be used when printing barcodes.

- Minimum paper weight 75 - 80 gsm (20 lb)
- Maximum paper weight 120 gsm (32 lb)
- A4 and letter size sheets supported
- Barcodes must be printed in black on white paper only

2D Barcodes Datamatrix

2D barcodes are only read by 2D barcode cameras.

- Minimum Module Size: 0.35 mm
- Maximum Module Size: 0.63 mm
- Type: ECC 200 standards
- Minimum Symbol Size: 5 mm x 5 mm
- Maximum Symbol Size: 10 mm x 10 mm
- Code Size: 16 x 16 cells (square shaped codes only)
- Cell sizes should all be identical

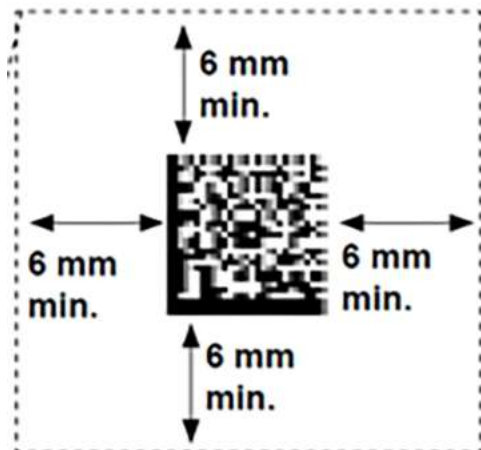
About Barcode Placement

Barcode Placement Areas

The barcode can be positioned anywhere within the barcode placement area. Barcode zones are the specific guidelines regarding printing text and additional barcodes in the areas around the primary barcode. Those zones are described in this section.

Clear Zone

The clear zone is the area immediately around the barcode. This area, on both facing and reverse sides of the sheet, should be kept clear from all other print, punched holes and perforations.



Clear Zone

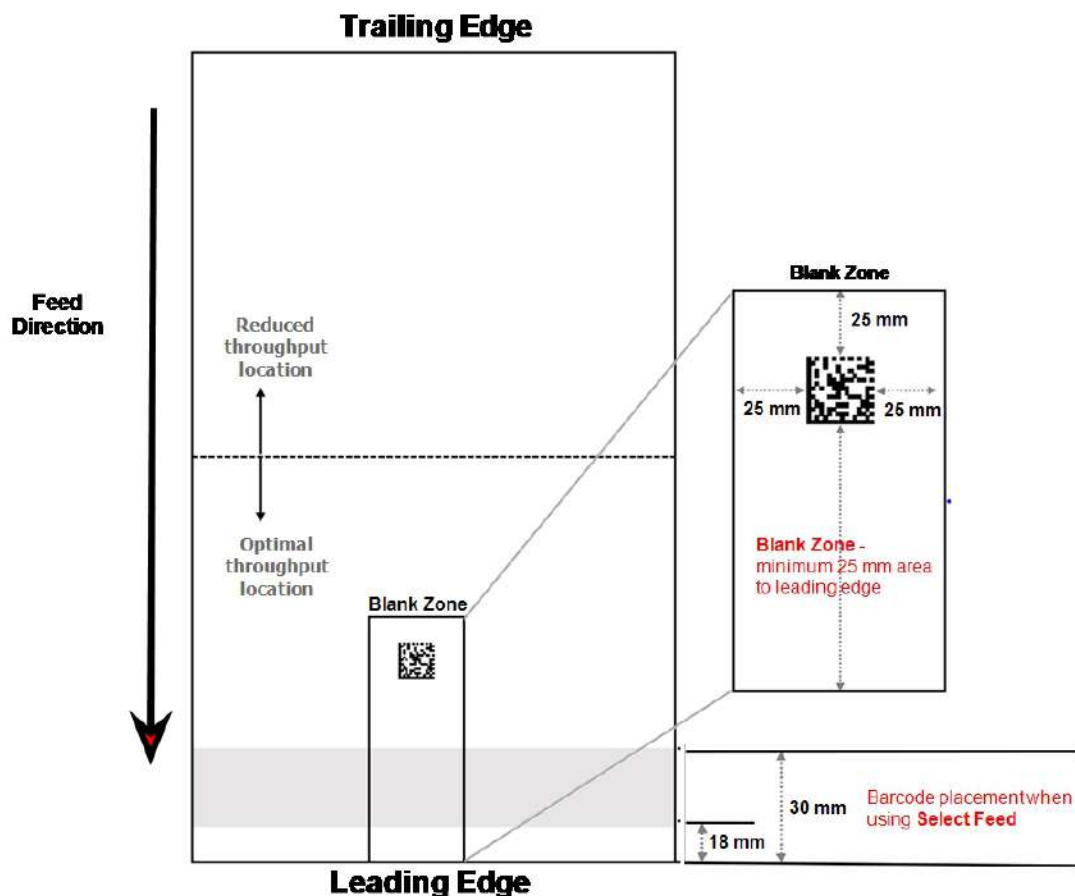
Blank Zone

The blank zone is the area around the controlling barcode (the first barcode scanned by the machine), which should be kept free from other barcodes.

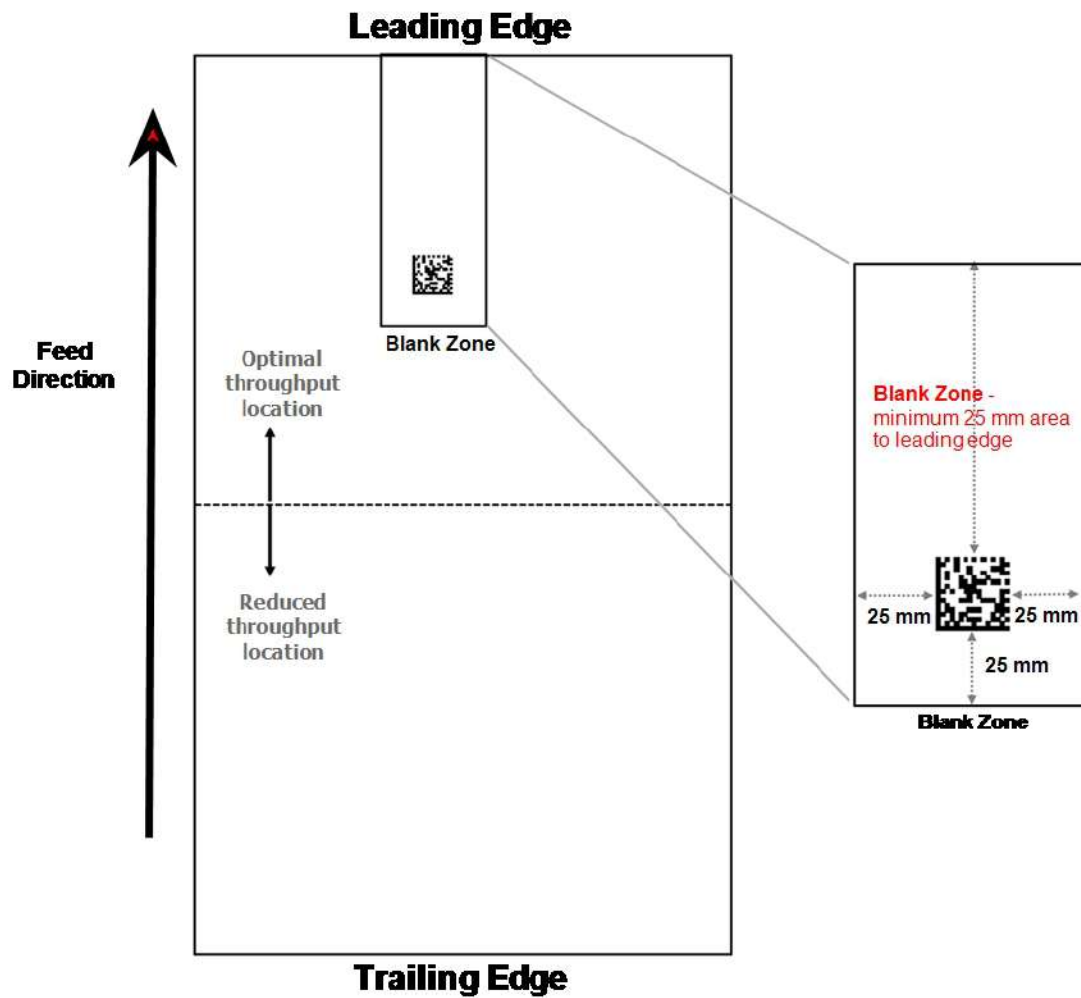
A **single barcode** can be printed anywhere on the front side of a sheet except when the Select Feed scanning feature is being used. When **Select Feed** is turned on, with single and Z-folds only, the controlling barcode must be printed within **18 - 30 mm** of the leading edge.

If **multiple barcodes** are printed on a sheet, no other barcodes can be printed within 25 mm of the controlling barcode and the leading edge of the paper.

Single-Fold and Z-fold Applications



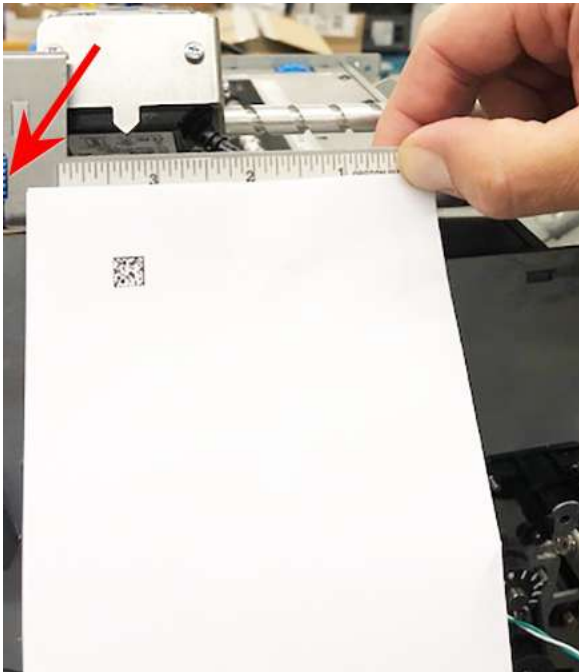
Double-fold and C-fold Applications



Adjusting the Barcode Camera

Use these steps to adjust the barcode camera on either the top or bottom assembly.

1. Fold a sample sheet lengthwise, with a 2D barcode printed on it.
2. Place the folded edge on the “0” located on the camera adjusting guide.
3. Use the blue knob on the camera bracket assembly to move the camera arrow into position, centered in the middle of the barcode.



Blue Adjustment Knob (not visible here)

Barcode Scanning Error Messages

Message	Issue	Solution
No OMR marks	- Barcode was not seen by scanner - Paper not loaded correctly	- Reposition the barcode scanner - Check paper orientation - Confirm barcode sheet is in the right feeder
Expected first sheet of set	Expected first sheet of set was not detected by barcode scanner	- Add missing page(s) - Correct sheet sequence
Not a new envelope	First sheet of set was detected; rest of sheets were expected	Add missing sheets and/or correct your sheet sequence
OMR: Sequence error	Sequence number in barcode is not sequential with the previous page fed	Add missing sheets and/or correct the sheet sequence
OMR: SF Marks Inconsistent	n/a	Not used for barcode jobs
OMR: Set to Large	Sheet set contains too many sheets	Refer to fold types and thickness limits in this guide
OMR: End of Batch – Ready to Run	Indicates machine has stopped for “End of Batch.”	Operator can manually sort envelopes in stacker
Mode change re-check feeders		Check the sheet and insert feeder settings for the job before exiting setup mode

8 - Error Recovery and Clearing Material Jams

In this section

Accumulation Jobs - Error Recovery	120
Empty Feeder - Error Recovery	121
OMR Message - Error Recovery	122
Clearing Material Jams	123
Clearing Material Jams in the Sheet Feeder	124
Clearing Material Jams in the Fold Plates	127
Clearing Material Jams in the Insert Trays	130
Clearing Material Jams in the Carriage Assembly	133
Clearing Material Jams in the Envelope Feeder Area	136
Clearing Material Jams in the Envelope Exit Area	139
Clearing Material Jams in the Envelope Inserting and Sealing Area	142
Clearing Material Jams in the Accumulation Area	145

Accumulation Jobs - Error Recovery

If the inserter stops during an accumulation job:

1. Tap the **Clear Deck** button on the menu.
2. The envelope at the insertion area ejects into the stacker. You must manually remove the remaining pages of the set from the feeder.
3. Fold / insert the remaining pages into the envelope.
4. Tap the **Start** button to resume operation once you determined the cause of the stoppage.



Empty Feeder - Error Recovery

If a feeder runs out of material the inserter will stop; follow these instructions that scroll across the display.

1. Re-fill the empty tray.
2. Tap the **Start** button to continue.

OR

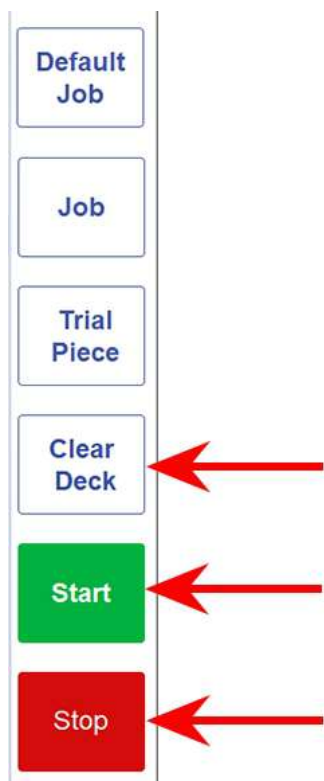
1. Tap the **Stop** and **Clear Deck** buttons.
2. Reload the feeders and proceed as prompted.



OMR Message - Error Recovery

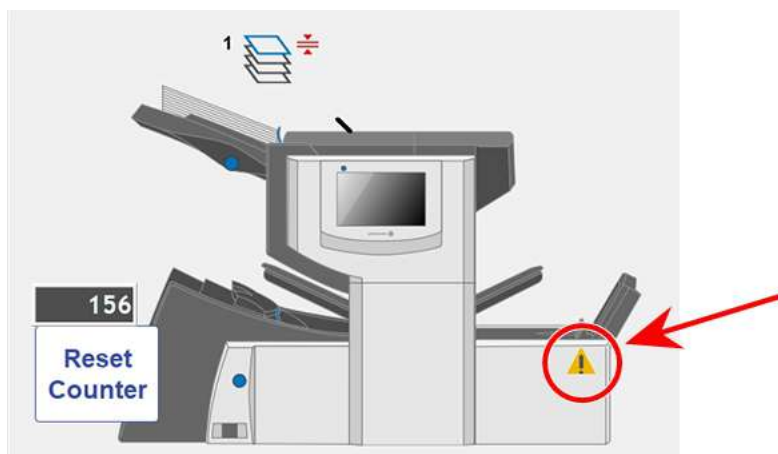
If the inserter stops during a job, and indicates an OMR error message:

1. Tap the **Clear Deck** button on the control panel. Any envelope at the insertion area will eject into the stacker.
2. The remaining pages of the current set will feed / fold and eject into the stacker. Manually insert into the envelope if necessary.
3. The FIRST page of the NEXT set will pre-feed into the feed rollers and stop. Pull the sheet back to the normal feed position .
4. Tap the **Start** button to resume operation.



Clearing Material Jams

In the event of a material stoppage, the touchscreen display flashes a caution symbol on the inserter model, indicating where the stoppage has occurred.



After you physically remove a material jam, clear the inserter using the **Clear Deck** function.

NOTE: After you remove the material, sometimes the machine may display a message instructing you to remove pages or envelopes from the inserter. (This message displays in the Job Options and System Messages area on the touchscreen above the inserter model.) The inserter will not run until all the instructions are followed.

Clearing Material Jams in the Sheet Feeder

1. **Remove the sheet feeder trays** - lift the rear of the tray slightly and pull it straight out from the inserter.

If the tray is loaded, gently hold the material in place to prevent it sliding forward as the tray is removed.

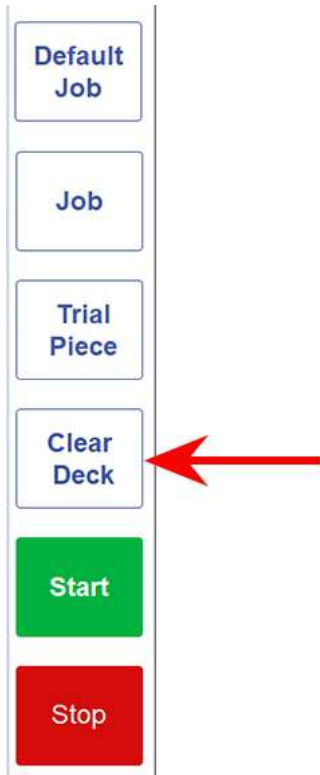


2. Remove the jammed material. If necessary, *use the manual advance knob* to move the material forward.

NOTE: Avoid pulling pages backwards out of the machine, towards the sheet feeder. It is better to clear sheet feeder jams by moving material forward and removing it from the accumulator area.

3. **Replace the sheet feeder trays:**
 - a. Place the tray into its location guides in the side frames.
 - b. Lift the rear of the tray slightly and push it into the inserter. The tray automatically drops into its correct position.

4. Tap the **Clear Deck** button to clear the paper path of any remaining material.



5. Tap the **Start** button to resume operation.

Using the Manual Advance Knob

Once you locate the jammed material, you may need to use the manual advance knob to manually feed paper out of the grip of feed rollers.

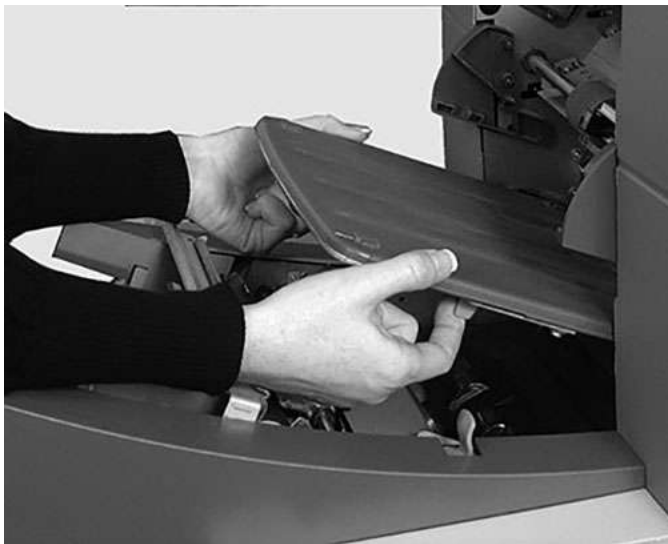
The manual advance knob is located behind the drop-down cover at the left front of the inserter.



Clearing Material Jams in the Fold Plates

1. Remove the fold plates -

- a. Pull the two catches on the underside of the plate outward to release them.
- b. Pull the plate straight out of the inserter.

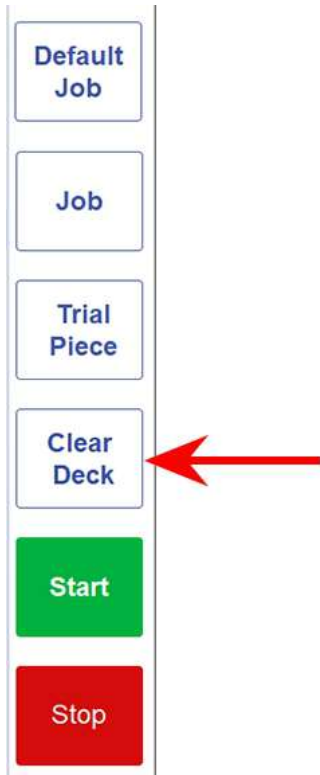


2. Remove the jammed material. If necessary, *use the manual advance knob* to move the material forward.

3. Replace the fold plates -

- a. Pull the two catches (on the underside of the plate) outward to release.
- b. Slide the plate into its location guides and release the catches to lock the plate in position.

4. Tap the **Clear Deck** button to clear the paper path of any remaining material.

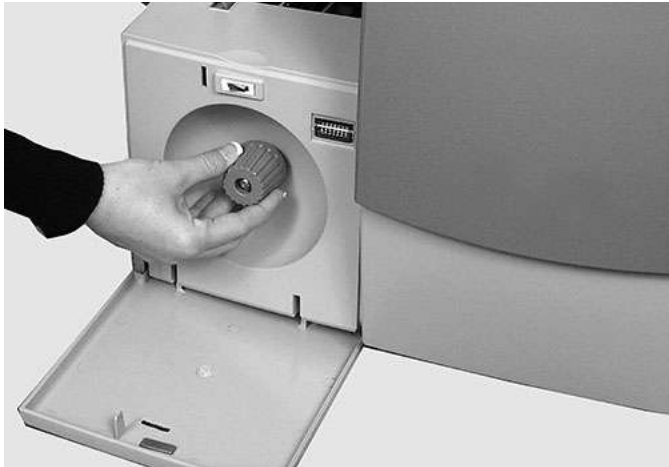


5. Tap the **Start** button to resume operation.

Using the Manual Advance Knob

Once you locate the jammed material, you may need to use the manual advance knob to manually feed paper out of the grip of feed rollers.

The manual advance knob is located behind the drop-down cover at the left front of the inserter.

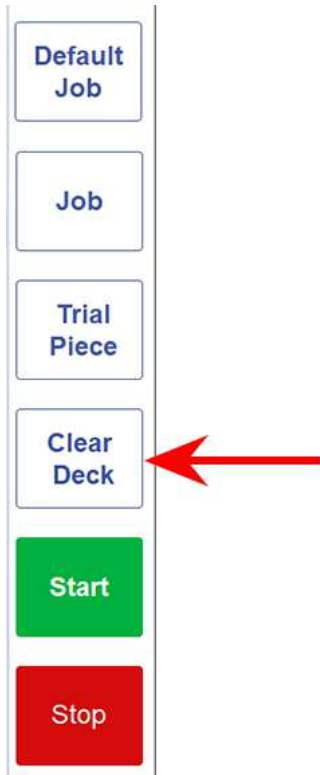


Clearing Material Jams in the Insert Trays

1. **Remove the insert trays** - pull the insert tray straight out from the inserter.
2. Remove the jammed material. If necessary, *use the manual advance knob* to move the material forward.
3. **Replace the insert trays** - slide the tray into the location guides; push until it clicks into place.



4. Tap the **Clear Deck** button to clear the paper path of any remaining material.



5. Tap the **Start** button to resume operation.

Using the Manual Advance Knob

Once you locate the jammed material, you may need to use the manual advance knob to manually feed paper out of the grip of feed rollers.

The manual advance knob is located behind the drop-down cover at the left front of the inserter.



Clearing Material Jams in the Carriage Assembly

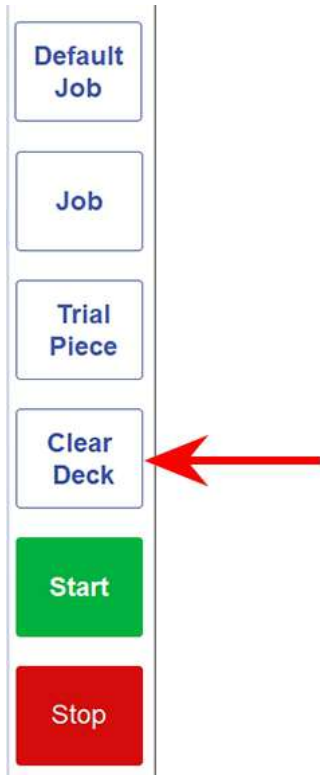
If the [Clear Deck](#) function doesn't clear the jam, follow these steps to physically clear the jam.

1. Remove the insert feeder.
2. Remove fold plate 2.
3. Pull out the carriage assembly.



4. Remove the jammed material. If necessary, [use the manual advance knob](#) to move the material forward.
5. Reinstall the carriage assembly.

6. Tap the **Clear Deck** button to clear the paper path of any remaining material.

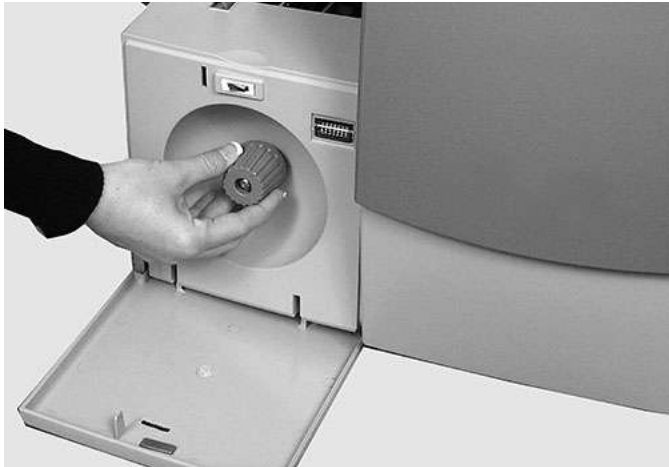


7. Tap the **Start** button to resume operation.

Using the Manual Advance Knob

Once you locate the jammed material, you may need to use the manual advance knob to manually feed paper out of the grip of feed rollers.

The manual advance knob is located behind the drop-down cover at the left front of the inserter.



Clearing Material Jams in the Envelope Feeder Area

1. Pull the release lever in the direction of the arrow.
2. Lift the envelope area feed rollers for access to the jam.



3. Remove the jammed material. If necessary, *use the manual advance knob* to move the material backwards.

NOTE: Envelope jams in the Envelope Feeder area may be hard to see. After lifting the envelope feed rollers, carefully reach under the rollers to feel for jammed material.

4. Relatch the feed rollers after you remove the jam.
5. Release the envelope area feed rollers and let them rest in position.
6. Push the rollers firmly down until they latch into position.

7. Tap the **Clear Deck** button to clear the paper path of any remaining material.



8. Tap the **Start** button to resume operation.

NOTE: You can get better access to this area by removing fold plate 1 and sheet feeder 2.

Using the Manual Advance Knob

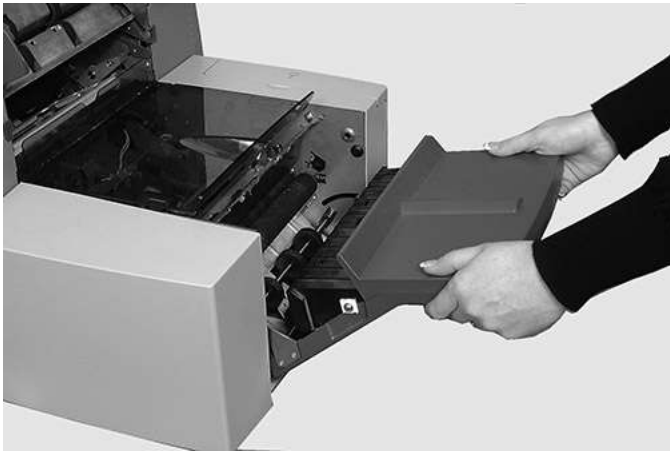
Once you locate the jammed material, you may need to use the manual advance knob to manually feed paper out of the grip of feed rollers.

The manual advance knob is located behind the drop-down cover at the left front of the inserter.

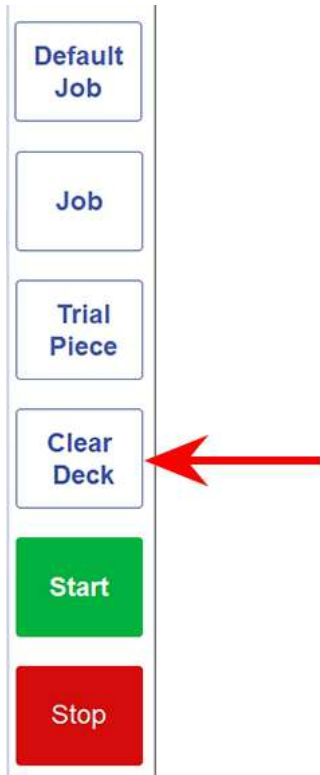


Clearing Material Jams in the Envelope Exit Area

1. Pivot the envelope inverter down (shown here) to gain access to the jammed material.
2. Remove the jammed material. If necessary, *use the manual advance knob* to move the material forward.
3. Close the access door, make sure to latch it firmly in position.



4. Tap the **Clear Deck** button to clear the paper path of any remaining material.



5. Tap the **Start** button to resume operation.

Using the Manual Advance Knob

Once you locate the jammed material, you may need to use the manual advance knob to manually feed paper out of the grip of feed rollers.

The manual advance knob is located behind the drop-down cover at the left front of the inserter.

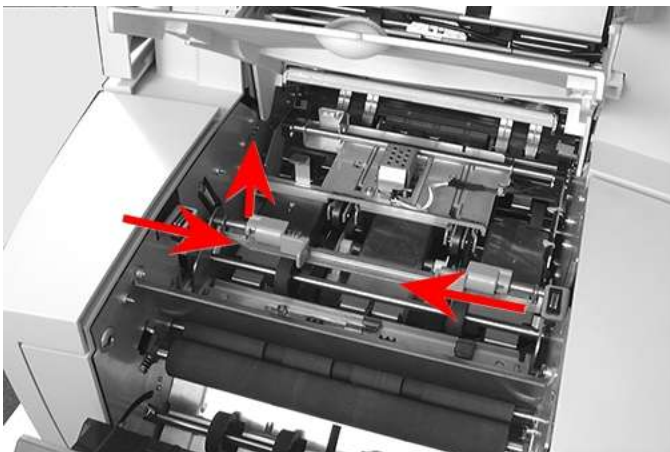


Clearing Material Jams in the Envelope Inserting and Sealing Area

1. Lift the tinted plastic cover and lower the envelope inverter access door.

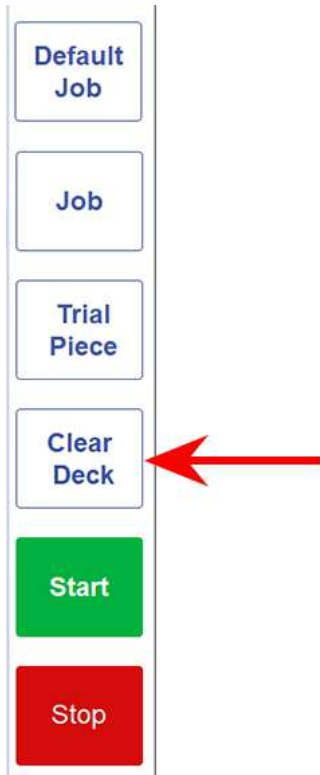


2. The points identified here can be unlatched to allow access to jammed material.



3. Remove the jammed material. If necessary, *use the manual advance knob* to move the material forward.

4. Tap the **Clear Deck** button to clear the paper path of any remaining material.



5. Tap the **Start** button to resume operation.

Using the Manual Advance Knob

Once you locate the jammed material, you may need to use the manual advance knob to manually feed paper out of the grip of feed rollers.

The manual advance knob is located behind the drop-down cover at the left front of the inserter.



Clearing Material Jams in the Accumulation Area

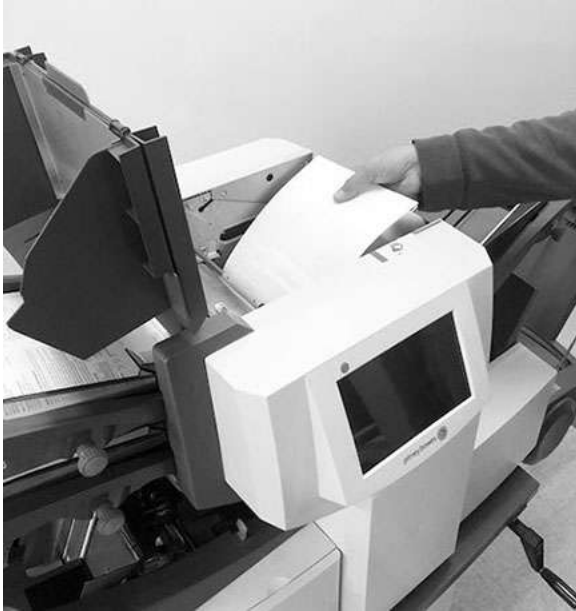
1. Grasp the blue tab and lift the first cover open.



2. Lift the next blue tab and pull that cover back.



3. Remove the jammed material from the accumulation area.

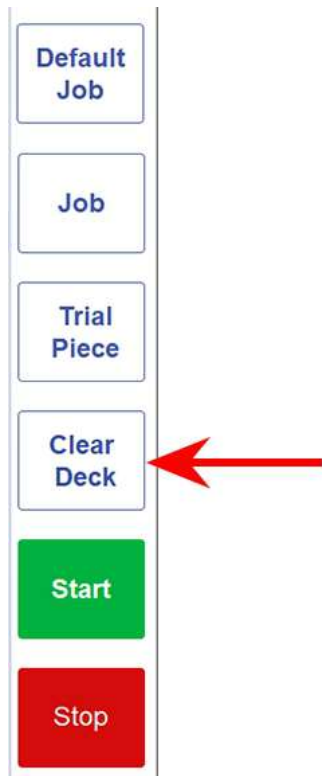


4. Lift the guide bar with the blue handle to expose the paper path. Verify there is no paper is currently in the paper path.



5. Pivot the guide bar back into place using the blue handle; be sure it clicks into place.

6. Rotate the top cover back into place and resume operation.
7. Tap the **Clear Deck** button to clear the paper path of any remaining material.



8. Tap the **Start** button to resume operation.

9 - Reports

In this section

About Reports	150
Generating Reports for Scanning Jobs	151
Generating Productivity Reports for Jobs	153

About Reports

The Relay Inserter offers reports that capture mailpiece data for specific jobs and individual mailpieces. There are reports for scan and non-scanning jobs. These reports can be generated, viewed, saved or printed using the touchscreen.

NOTE: It is the client's responsibility to connect their touchscreen to their wireless network if they want to print reports.

Generating Reports for Scanning Jobs

Reports containing job details for scanning jobs include - match code (Piece ID), date, time, operator, expected and actual scans, status read (OK or N OK) and job number.

This type of report can be generated by date. Reports for jobs in the current calendar month can be accessed using the calendar feature. Reports for jobs outside the current calendar month can be accessed using the archived reports steps. These reports are only available for scanning jobs.

Generate a report for a scan job within the current calendar month

1. Double-tap the **Reports** icon on the touchscreen desktop.



2. To select a date within the current calendar month, tap the **Open by date** icon at the top of the screen.



3. Select the date on the calendar of the current month. Job details for that scan job populates the screen.

4. Print or save the report.
 - a. Tap the **print** icon.
 - b. Tap **PDF** or **Word**.
 - c. Browse to a location and save the report.

NOTE: It is the client's responsibility to connect their touchscreen to their wireless network if they want to print reports.

Generate a report for a scan job outside the current calendar month

1. Double-tap the **Reports** icon on the touchscreen desktop.



2. To select a date outside the current calendar month, tap the **Open by File (Pages)** icon at the top of the screen.



3. Browse for the desired .CSV file (/PITNEY/Inserter Control/Archiving ANR).
4. Highlight the file and tap **Open**. Job details for that scanning job populate the screen.

Generating Productivity Reports for Jobs

Productivity reports display job summary information for all the jobs run on the selected date. Productivity reports contain information for both scanning and non-scanning jobs.

Reports include - job name, operator, start and finish dates and times, job duration, type of fold, insert mode, envelope sealing, number of mailpieces, average speed, number of failures and number of stoppages.

To generate a productivity report:

1. Double-tap the **Reports** icon on the touchscreen desktop.



2. Tap the **Statistics** icon at the top of the screen.



3. Tap the **Open by File** (Pages) icon at the top of the screen.



4. When the calendar opens, tap the date.

A productivity report opens and displays job summary information for all the jobs run that day.

10 - Troubleshooting

In this section

Troubleshooting Touchscreen and Inserter Issues	156
Troubleshooting Envelope Issues	157
Troubleshooting Sheet Issues	158
Troubleshooting Insert Issues	159
Troubleshooting Double Detect Issues	160
Error Messages	161

Troubleshooting Touchscreen and Inserter Issues

Issue	Cause	Possible Solution
Blank screen	• Tablet is asleep • No power • Inserter not turned on	• Push the blue power button to wake up the tablet • Verify power cord is firmly connected and wall socket is on • Turn the power switch ON
Only time and date are showing	The screen saver is on	Swipe up on the tablet to resume operation
Error Opening COM or communication failure	Power cord not connected	• Verify the power cord is firmly connected and the wall socket is on • Turn the power switch on
Inserter not operating	• Cover open • Feed trays or fold plates not located correctly	• Verify all covers are closed; check display for cover information • Remove and relocate all feeders and fold plates • Verify all feeders and fold plates are in correct position and seated
Insertion issues	Outer envelope contents are not entering the envelope correctly	• Check the envelope troubleshooting information • Check that the fold selected is correct for the material size. • If running heavy or light material, the envelope stop adjustment might need changing • Large page count insertion may require a Service adjustment

Troubleshooting Envelope Issues

Issue	Causes	Possible Solution
Poor Envelope Feed	- Envelope side guides set incorrectly - Poor envelope quality - Envelopes loaded incorrectly	- Set the guides to the envelope width and then back off 1/4 turn - Check that the envelopes are not curled. Try a new box of envelopes. Make sure to fan stack before loading - Load envelopes flap side up with the flap feeding last
Envelopes Fail to Open	- Envelopes loaded incorrectly - Poor envelope quality	- Load envelopes flap side up with the flap feeding last - Check the envelopes are not stuck due to excessive dampness - Try a new box of envelopes
Envelope Sealing Issues	- No sealing solution - Seal mode not selected - Poor sealing	- Refill the sealer unit - Check job setup - Activate sealing mode - Sealing felts may need to be changed

Troubleshooting Sheet Issues

Issue	Causes	Possible Solution
Poor Sheet Feed	• Feeder not selected to feed • Sheet feeder side guides set incorrectly • Sheets loaded incorrectly	• Check job setup • Set guides to sheet width and back off 1/4 turn • Verify the two insert feeder adjustments (number and letter settings) are set correctly for the type of insert you're running
Multiple Sheets Feed when One Sheet is Expected	• Manual feed mode is selected • Sheets loaded incorrectly	• Check job setup and manual feed lever position • Make sure to fan stack <i>before</i> loading
Address in Wrong Position in Envelope Window	• Address bearing sheets incorrectly loaded • Folds incorrectly set	• Load sheets so that the address appears through the envelope window • Check job setup
Poor Folding	• A fold is <i>almost</i> corresponding with a perforation on the sheet, causing a box fold or third fold	• Adjust the fold sizes slightly to avoid this situation

Troubleshooting Insert Issues

Issue	Causes	Possible Solution
Poor Insert Feed	• Feeder not selected to feed • Insert feeder side guides set incorrectly • Inserts loaded incorrectly • Insert feeder wedge used incorrectly • Inserts out of specification	• Check job setup • Set guides to sheet width and back off 1/4 turn • Verify the two insert feeder adjustments (number and letter settings) are set correctly for the type of insert being run • Make sure to fan the stack before loading. It may help to change the orientation of the insert stack • Let the wedge slide down behind the insert stack for support • Check the specifications in this guide

Troubleshooting Double Detect Issues

Issue	Causes	Possible Solution
Insertter Stops for Doubles that Aren't There or Feeds Doubles without Stopping	• Double detect is not turned ON • Double detect is not correctly calibrated	• Check double detect status - double detect icon appears alongside all items where the double detect is operational • Check that the envelopes are not curled. Try a new box of envelopes. Make sure to fan stack before loading • Run a trial piece whenever a new batch of material is loaded to recalibrate double detect - the new batch might be of slightly different thickness

Error Messages

This	
BAD OMR MARK THICKNESS	Review the specifications for OMR & Make necessary adjustments to printed markings as appropriate
CALL SERVICE	Power the inserter off and on. If the message is still displayed, call Service.
CHECK /CLEAR FEEDER	Feeder indicated has failed to feed material. Remove material from the feed tray, reload and restart the inserter.
ENVELOPE FEEDER	• Verify envelopes are loaded correctly • Verify there aren't any envelopes jammed under the envelope feed rollers
CHECK FOLD PLATE	Fold plate indicated is not located correctly. Remove fold plate and relocate.
CHECK INVERTER	Envelope inverter unit has not set to its correct position. • Open the inverter cover and check for material • Close the cover and restart
CHECK LAST MAILPIECE	Envelope has failed to open. • Check the envelopes are loaded correctly • Reload the envelopes and restart machine
CLEAR FOLD PLATE	Material was detected inside the fold plate indicated on the display. • Remove the fold plate and check for any material • Install fold plate

This	
CLEAR INSERTION AREA	Material was detected in the inserting area. • Open the tinted plastic cover on the right side of the inserter and remove any material • Use the jam access lever on the envelope feeder to check for jammed envelopes under the feed roller • Close the cover and restart the inserter
CLEAR MOISTENER	Material is detected in the sealer brush area. • Open the tinted plastic cover on left hand side of machine and remove any material • Close cover and restart the inserter.
CLEAR SEALER	Material is detected in the sealer brush area. • Open the tinted plastic cover on left side of the inserter and remove any material • Close cover and restart
CLOSE COVER	Cover indicated is not fully closed. Close the indicated cover and restart the inserter.
CLOSE MAN ADV COVER	The manual advance knob door is not fully closed. Close the door.
DEFLECTOR ERROR	The function of half fold is not possible due to a fault. Remove fold plates and check for any material.
DOUBLE FEED	A double feed has been detected from the feed tray indicated. • Remove the material from the inserter and restart • If double feeds persist, request another trial piece.
DOUBLE FEED CHECK STACKER	A double feed has been detected from the feed tray indicated. • Remove the double feed from the stacker • Restart the inserter.

This	
FOLD PLATES NOT SET	The fold plates has not set to the correct position. • Remove fold plates and check for any material • Install the fold plates and restart the inserter
MANUAL FEED TIMEOUT	Material feed has not been detected within a predetermined time. • In manual feed mode, material must be fed within a set time • Restart the machine by pressing Start
PAPER SHORT	The inserter detected that the material used is too short in length. • Check the actual material length matches the length displayed • If correct, request another trial piece
PAPER SHORT CHECK STACKER	The inserter detected that the material used is too short in length. • Check the actual material length matches the length displayed • If correct, request another trial piece
SET LEVER	The manual feed lever is in the incorrect position for the mode of running. • Move the manual feed lever to the correct position (left position: manual; right: automatic).
STREAM FEED	The inserter detected two sheets fed together from the feed tray indicated. • Remove the material from the inserter. Reload and restart the inserter
STREAM FEED CHECK STACKER	The inserter detected two sheets fed together from the feed tray indicated. • Remove the stream feed from the stacker. Reload and restart the inserter
SYSTEM ERROR POWER DOWN	A fault has been detected in the main software. • Switch the inserter off and on and retry. If the problem persists, call for Service.
TRAY EMPTY	The tray indicated has no material. Reload the tray and press Start.

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11 - Specifications

In this section

Material Specifications	166
Inserters Specifications	172

Material Specifications

All specifications are subject to change without notification and are subject to test.

Overall Material Requirements

- For best performance, use only materials approved by Pitney Bowes
- Materials should be good quality and properly stored.
- Recommended storage conditions:
 - 65° F (18°) to 77° F (25° C)
 - 40% to 60% relative humidity

Sheet Feeders

Sheet Sizes

	Minimum sheet size	Maximum sheet size
Width	7 inches (178 mm)	9 inches (229 mm)
Length	7 inches (178 mm)	16 inches (406 mm)

Paper Weights

	Minimum	Maximum
Non-OMR	18 lb (70 gsm)	32 lb (120 gsm)
OMR	18 lb (70 gsm)	32 lb (120 gsm)

Fold Configurations (material length limits before folding)

Fold Type	Measurement
Single-fold	6 inches (150 mm) - 12 inches (314 mm)
C-fold	8 inches (200 mm) - 14 inches (356 mm)
Z-fold	8.5 inches (215 mm) - 14 inches (356 mm)
Double-fold	10.5 inches (270 mm) - 16 inches (406 mm)

Double Document Detector Material Range

Minimum	Maximum
18 lb (70 gsm)	32 lb (120 gsm)

Feed Tray Capacity

Maximum of 325 sheets of 20 lb (80 gsm) paper

Manual Feed Mode

For manual feed applications sheet feeder 1 is used, plus the insert feeder if required.

- Inserter processes stapled sets of up to five sheets of 20 lb. bond (80 gsm) up to a maximum total weight of 100 lbs. (400 gsm) per set.
- Maximum compressed thickness after folding must not exceed 0.078 inch (2 mm).
- Using glossy or coated sheets is *not* recommended

Fold Type and Overall Thickness Limits

Refer to this table for the maximum number of sheets that can be accumulated for each fold type.

IMPORTANT! Do not program jobs that exceed these maximums or impose them by OMR code printing and/or OMR selective feed.

Number of Sheets	Paper Weights (lb / gsm)		
	18-20 lb (70-80 gsm)	20-26 lb (81-100 gsm)	26-32 lb (101-120 gsm)
1	C, Z, S, D	C, Z, S, D	C, Z, S, D
2	C, Z, S, D	C, Z, S, D	C, Z, S
3	C, Z, S	C, Z, S	
4	C, Z, S		
5	C, Z, S		

Fold types: C = C-fold, Z = Z-fold, S = Single-fold, D = Double-fold

NOTES:

- You can use the sheet limits above with one additional sheet from the supplementary feeder plus one insert, only if total mail piece contents do not exceed 0.078 in. (2 mm) total compressed thickness can be used.
- For single fold only, using 18 lb. to 20 lb. (70 - 80 gsm) paper only, you can get a maximum 10 items in an envelope. This maximum includes any additional sheets from the supplementary feeder and / or insert feeder. The overall maximum compressed thickness of 0.078 in. (2 mm) still applies.

Insert Feeder

Insert Sizes

	Minimum insert size	Maximum insert size
Width	5 inches (127 mm)	9 inches (230 mm)
Length	3.25 inches (82 mm)	6 inches (152 mm)

Paper Weights

	Minimum	Maximum
Non-folded cut sheet	20 lbs (75 gsm)	50 lbs (180 gsm)
Single	20 lbs (75 gsm)	50 lbs (180 gsm)
Folded material	16 lbs (60 gsm)	50 lbs (180 gsm)
Inserts of up to a maximum compressed thickness of 0.078 inches (2 mm)		

NOTE: Pre-folded or single panel inserts should be fed from the insert feeder

Double Document Detector Material Range

Minimum	Maximum
16 lbs (60 gsm)	32 lbs (120 gsm)

Feed Tray Capacity

- Up to a maximum of 300 inserts

Sealer

- Inserters seal up to a maximum of 1,200 envelopes between refills
- SafeSeal on two or more sheets

Stacker

- Envelope stackers accommodate up to 150 filled envelopes (depending on size and contents of the envelope).

Envelope Feeder

Minimum Envelope Size

- Depth: 3.5 inches (88 mm)
- Width: 8.5 inches (220 mm)

Maximum Envelope Size

- Depth: 6.5 inches (164 mm)
- Width: 9.5 inches (242 mm)

Envelope Weights

- Minimum: 17 lbs (65 gsm)
- Maximum: 26 lbs (100 gsm)

Envelope Tray Capacity

- Up to a maximum of 300 24 lb (90 gsm) envelopes

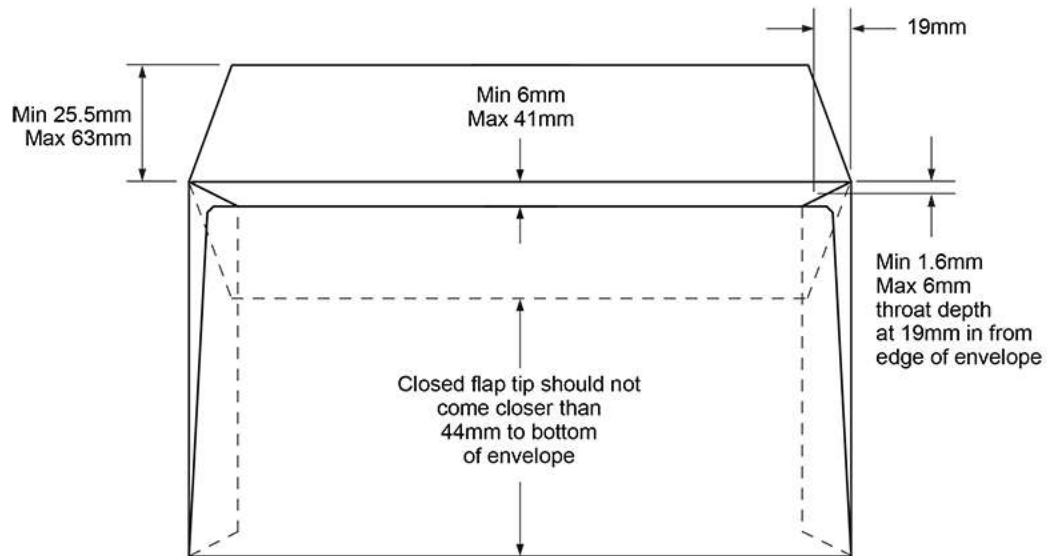
End Clearance

- End clearance between insert and envelope - minimum of 0.236 inches (6 mm) at each side
- Overall - a minimum of 0.472 inches (12 mm)
- Take this measurement with all documents placed in the envelope

Depth Clearance

- **Inserts (unfolded)** - allow a minimum clearance of 0.118 inches (3 mm), below the flap crease after it is fully inserted into the envelope.
- **Inserts (folded)** - allow a minimum clearance of 0.236 inches (6 mm), below the flap crease after it is fully inserted into the envelope.

Envelope Flap and Throat Requirements



Inserter Specifications

Physical Dimensions

- Length - 38.6 inches (980 mm)
- Depth - 20.25 inches (514 mm)
- Height - 20.75 inches (525 mm)
- Weight - 143 lbs. (65 kg)

Noise Level

- 71dBA (system running)

Electrical

- USA and Canada: 120V, 60Hz, 6.0A
- Europe: 220/240V 50Hz
- Japan: 100V, 50/60Hz

Cycle Speed

These speeds are dependent on inserter condition, operator skill, fold type, and material quality.

Model	Cycle Speed (per hour)
Relay 2500	2,500
Relay 3500	3,000
Relay 4500	3,500

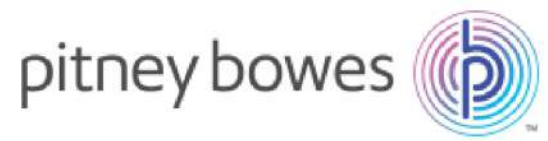
Feeder Configurations

Model	Sheet Feeder	Insert Feeder	Envelope Feeder
Relay 2500	1	1	1
Relay 3500	2	1	1
Relay 4500	2	1	1 (high capacity)

Fold Options

Model	Fold Types
Relay 2500	Single, C, Z, Double
Relay 3500	Single, C, Z, Double
Relay 4500	Single, C, Z, Double

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