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Shipping & Mailing
Postage & Carrier Accounting

# Pulse Input and Output Modules

## PLTA, PLTB, Y20R, PLM1, PLM2, PLM3, PLM4

## Operator Guide

US English Edition
SV63252 RevA
July 14, 2017

This guide covers operator information related to the Pulse input and output modules. You will need to refer to the Pulse  Inserter Module Operator Guide (SV63186) for more information on the inserter section of the system.

# Version History

| Document Part Number | Release Date | Comments |
|---|---|---|
| SV63252 RevA | July 14, 2017 | Initial release |

# Pulse Input and Output PCNs

| Module | PCN |
|---|---|
| Pulse Input (60 HZ) | PLTA |
| Pulse Input (50 HZ) | PLTB |
| Auto Buckle Chutes | Y20R |
| Output Rotate | PLM1 |
| Output Rotate with Single Vertical Stacker | PLM2 |
| Output Rotate with Dual Vertical Stacker | PLM3 |
| Output Rotate with Single Vertical Stacker with Meter | PLM4 |
| Output Rotate with Single Vertical Stacker with Print+ Messenger | PLM5 |

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## 1 - Safety



## 2 - Product Overview



## 3 - Operator Setup



## 4 - Running the Job



## 5 - Error Recovery

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## 7 - Operator Maintenance



## 8 - Specifications



## 9 - Fold Specifications

# 1 - Safety

## In this section

# Safety Information

To avoid personal injury or damage to the equipment, familiarize yourself with proper procedures and methods before you operate the system. Read operator information before using this machine. Failure to follow operator instruction could result in serious injury.

Follow all applicable Lockout/Tagout procedures found in the most current version of the *Lockout/Tagout (LOTO) Program and Procedures Guide* (PG-APFS-INSR-080609)

## Battery Handling (California Customers Only)

The battery used in this product contains perchlorate material. California requires perchlorate containing products to be accompanied by the following notice:

Perchlorate Material - special handling may apply. For more information refer to the following website: *https://www.dtsc.ca.gov/hazardouswaste/perchlorate/*.

## Ear Protection/Noise Exposure Guidelines

Ear protection is required if noise exposure exceeds OSHA standards. There are many factors to be taken into consideration in each individual work area when dealing with ear protection. Factors such as floor noise, length of exposure to noise, loss of hearing history in individual employees can all play a role in requirements. Analyze your specific work area environment to ensure safe practices. These are standard OSHA guidelines.

- 85dBA time weighted average over an 8-hour shift requires hearing protection be made available to employees and use is recommended. (European Union standard is 80dBA)
- 90dBA time weighted average over an 8-hour shift mandates hearing protection is used. (European Union standard is 85dBA)

### Note:

Local jurisdictions may have more stringent requirements. Refer to local regulations for standards and requirements in your area.

# Power

## System Power

The inserter receives its power from a customer provided, single drop, external connection.

## General Power Safety

- Use the power cord supplied with the machine chassis at the power entry and plug it into a properly grounded (earthed) and easily accessible wall outlet located near the machine. Failure to properly ground (earth) the machine can result in severe personal injury and/or fire.
- The power cord wall plug is the primary means of disconnecting the machine from the AC power supply for Lock Out/Tag Out (LOTO).
- *Do not* use an adapter plug on the line cord or wall outlet.
- *Do not* route the power cord over sharp edges or trap it between furniture.
- Ensure there is no strain on the power cord where it becomes jammed between the equipment, walls or furniture.
- Be certain the area in front of the wall receptacle into which the machine is plugged is free from obstruction.
- For input and output modules - power is distributed from the chassis. Use the AC connectors supplied with the modules to connect to system power. *Do not* connect external devices to the inserter.

# 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.
- Personnel working on or near this equipment must be instructed about the location and operation of emergency stop buttons (ESTOPs).
- Before starting the machine, check that:
  - All persons are clear of the machine
  - No maintenance work is being performed on the machine
  - All covers and guards are in place
  - The machine is free of scraps, jams, and foreign objects
- Never run the machine when any of the covers or guards are missing.
- Keep loose clothing, jewelry, long hair and neckties away from all moving parts. Make sure that clothing and hair fit closely to your body and remove all jewelry.
- When lifting covers, wait for all parts to stop moving before placing hands near paper path.
- Avoid touching moving parts or materials while the machine is in use. Before clearing a jam, be sure machine mechanisms come to a stop.
- When removing jammed material, avoid using too much force to prevent personal injury and damaging equipment.
- The machine will only be serviced by trained and authorized personnel. The main power source may need to be disconnected before servicing, depending on the type of service activity.
- It is essential that personnel employ safe working practices and observe all related regulations and legal requirements for safety when operating this product.

# Maintenance

- Operators must understand and adhere to safety precautions when working with the equipment.
- Only qualified service personnel should service this equipment per local national requirements.
- Service that requires removal of protective covering is performed by qualified service personnel.
- Only setup maintenance, as described in the information provided, is to be performed by operators.
- A setup tool is supplied for adjustments to accommodate different size paper on the inserter.
- Use only Pitney Bowes approved printer ink and cleaners.
- To prevent overheating, do not cover the vent openings.
- *Do not* store flammable fluids inside this machine.
- *Do not* place any container with liquid on this machine, (i.e. coffee cups, soda, etc.)
- *Do not* use flammable cleaners in this machine.
- *Do not* use aerosol air canisters. It is recommended that a vacuum cleaner be used to remove dust and debris from the machine paper path. If you have to use shop air, turn the system off *before* you begin cleaning. Verify the shop air *does not contain excessive oil or water*.
- *Do not* spray liquid onto or into any part of the machine. Use a cloth to apply cleaning solution.

# 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: Pinch Point Rotating Shaft

Pinch hazard; rotating shaft. Keep hands clear during operation.

## Caution: Pinch Point Rollers

Pinch hazard; moving belts and rollers in this area. Do not operate with cover open.

## Caution: Hand Entanglement

Moving belts; use caution. Keep hands clear during operation.

## Caution: Rotating Roller Hazard

Moving rollers; use caution. Keep hands clear of this area during operation.

## Caution: Hand Crush from Left

Crush hazard; force from the left. Use caution; keep hands clear during operation.

## Caution: Hand Crush from Above

Crush hazard; force from above. Use caution; keep hands clear during operation.

## Caution: Hand Crush

Crush hazard; use caution when working in this area.

## Caution: Hot Surface

Burn hazard; hot surface inside. Allow to cool before servicing.


## Caution: Motor Capacitor Discharge

Allow six minutes for motor capacitors to discharge before servicing motor driver module.

## Warning! Severe Shock Hazard

Only authorized personnel should service this equipment. Turn power OFF before entry.

## Caution: Hand Abrasion

Caution, moving belts. Keep hands clear during operation to avoid hand abrasion.

## Caution: Hair Entanglement

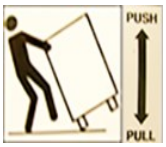
Caution, rotating parts. Keep hair, jewelry, and loose clothing away during operation to prevent potential injury.

## Caution: Cut Hazard

Caution, sharp blades. Keep hands clear during operation.

## Caution: Sharp Point

Caution, sharp points. Use care when working in this area; keep hands clear during operation.




## Caution: Tip Over Hazard

When moving unit, push or pull in direction shown by arrow. Tipping over may cause injury or damage to equipment.

## Caution: Refer to Operator Guide

Read and understand operator information before using this machine. Failure to follow operator instruction could result in serious injury.

## Additional Feeder Safety Risks

Although every effort has been made to reduce the hazards to a minimum, some residual risk remains. The feed station is open to allow for paper loading onto the feed hopper belts. Although these belts travel very slowly, always be aware of the moving belts and use proper caution in this area.

### Caution: Entanglement in Feeder Belts

Feeder belts are moving when material is transported. Keep loose clothing, jewelry, hair away during operation to prevent injury.

### Caution: Pinch Point - Infeed Envelope Conveyor Gripper

To prevent potential injury do not put your hands near the infeed envelope conveyor gripper area.

## Additional Auto Buckle Chute Risks

- Each auto buckle chute has one stepper motor

### Caution:

The stepper motor typically runs at a very warm temperature - about 140° F (60° C). Avoid prolonged contact with the motor

- The motor power is OFF when the interlocked cover is open.
- Disconnect the auto buckle chute connector when removing any chute from the machine.
- The connector *DOES NOT* contain hazardous voltage.
- The auto buckle chutes are heavy, approximately 9 lbs/4.1 kg, and awkward to handle. To reduce risk of injury use caution when installing or removing.

# Safety Features

## Emergency Stop (ESTOP)

The ESTOP is used to stop the machine quickly in an emergency situation. Press down gently on the red ESTOP switch to activate it. Turn the red knob clockwise to deactivate it. If the ESTOP switch is pressed while the machine is running, the entire machine will come to an immediate stop. When the ESTOP is activated, the main DC screen will indicate this, as well as which location on the machine the ESTOP was engaged.

*Only use ESTOPs for emergency situations with the potential of causing injury or machine damage.*


**ESTOP Switch (red)**

There is an ESTOP icon on the Direct Connect main screen that indicates there is an ESTOP or interlock open, prohibiting the machine from starting.

**ESTOP Icon - Main DC Screen (red)**

## Interlock Safety Connections

The interlock safety connection is a built-in safety feature. This system is equipped with covers that have an interlock mechanism to provide protection from injury to operators while the system is running. Each cover that can be opened or enables access to moving equipment while the system is running is connected to an interlock safety connection via a latch magnet.

The purpose of the interlock safety connection is to stop the machine so operators can safely access inside the module. The interlock feature stops potentially hazardous moving parts so operators can safely get inside the module to make adjustments or clear jams. *Breaking the interlock safety connection should never be used as an emergency stop option.*

The covers should not be opened while the machine is running. If an interlock cover is accidentally opened while the inserter is running, the connection is broken (via the latch magnet) and the system will immediately stop in the interlock area, while bringing the rest of the system to a controlled stop. The inserter will not start until that cover is closed and the interlock safety connection is satisfied.

Every operator accessible cover on the inserter that exposes an operator to a potential hazard while the machine is running is equipped with an interlock cover.

### Note:

- Covers that require a tool for access are to be opened by trained Service personnel only.
- If the cover is partially closed, the icon on the main DC screen *will not* change color or indicate an open cover, but the machine will not start. If this occurs, verify the cover is fully closed.

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# 2 - Product Overview

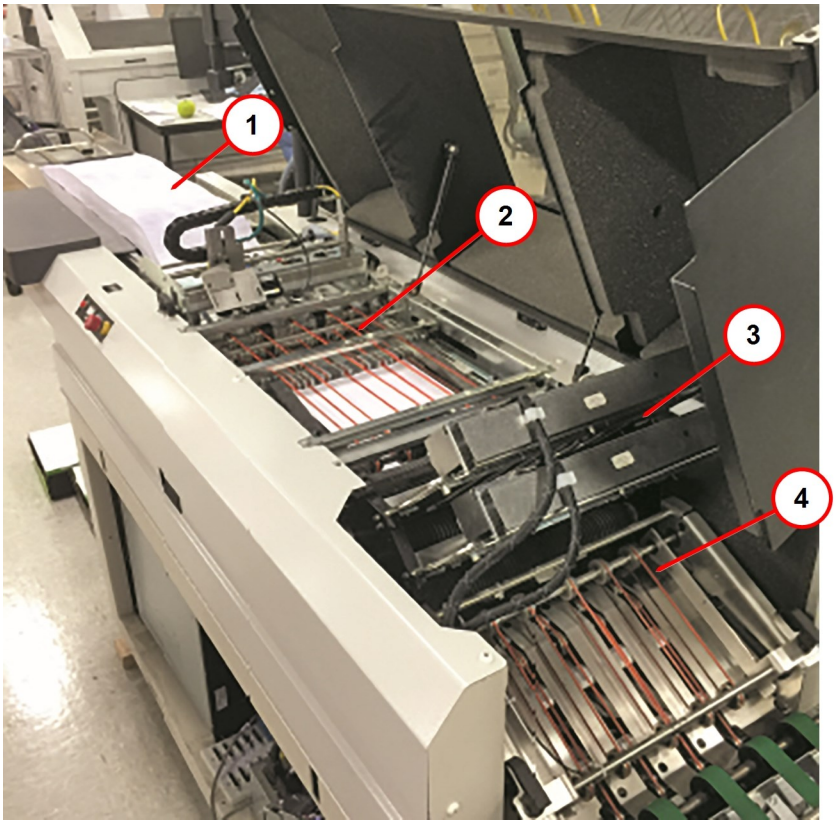
## In this section

# Input Overview

The Pulse input module is designed for processing variable pages of cut sheet material in either a portrait (letter) or landscape (flat) orientation.

The Pulse input consists of these components:

- *Vacuum Sheet Feeder*
- *Single Deck Accumulator*
- *Folder (with auto buckle chutes)*



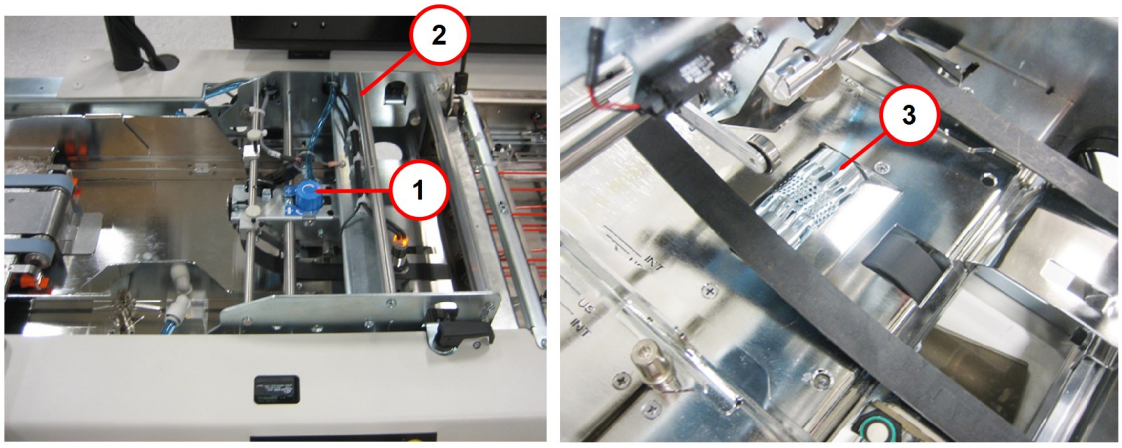

| Item | Description | Item | Description |
|---|---|---|---|
| 1 | Sheet Feeder | 3 | Folder / Auto Buckle Chutes |
| 2 | Single Deck Accumulator | 4 | Transport |

**Pulse Input Components**

# Vacuum Sheet Feeder

The feeder provides continuous material loading at processing speeds of up to 30,000 sheets per hour.

As the stack enters the feeder, single sheets are separated from the stack using an adjustable separator and a vacuum assisted roller nip located under the separator. The separator knob controls an accurate separator gap that allows only one sheet to enter the vacuum drive at a time. To help separate the individual sheets in the feeder stack, air nozzles in the side guide use low pressure air to help separate sheets before they enter the vacuum feed roller nip and separator. Optional scanners or cameras can read any 1D, 2D, OCR or OMR symbols in the read path.




| Item | Description |
|---|---|
| 1 | Separator Adjustment Knob *(controls gap)* |
| 2 | Bridge Assembly *(lift handle to raise assembly)* |
| 3 | Vacuum Nip Roller |

**Vacuum Sheet Feeder Separator**

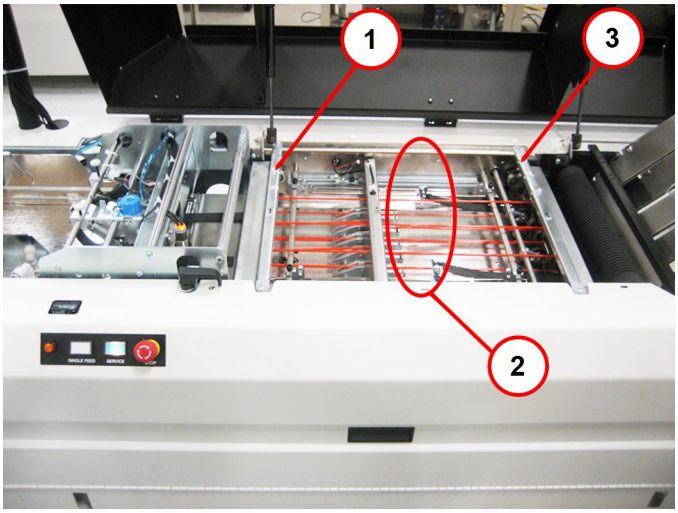
## Optional Features

- Extended Hopper - increases the capacity to 4000 sheets
- Scanning (moving beam and camera) - accomdates barcode, 2D scanning or OCR

# Single Deck Accumulator

The accumulator gathers and collates multiple pages prior to folding and stacks material in a low to high, or high to low page sequence. An optional reverse accumulator kit can reverse the page sequence if material is printed high to low and the pages need to be stacked in a low to high sequence.

Single sheets are fed from the sheet feeder and staged in the accumulator. Sheets exiting the sheet feeder are driven into the accumulator trap. Once in the nip, single sheets are driven using orange O-ring belts to from nip to nip. As the paper is driven by the O-ring belts, it is then driven over a set of ramps. The ramps elevate each sheet so they can be stacked on top of one anther, and vertically align the stack. Side guides position and align the paper horizontally. The sheets are then staged in this position until the collation is complete and ready to be folded.

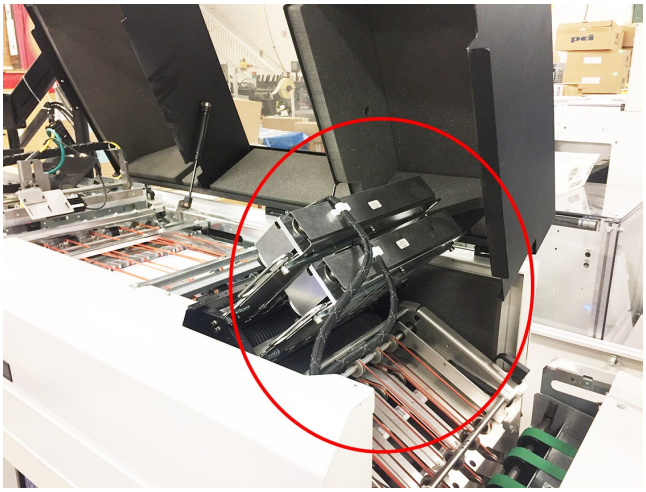



| Item | Description |
|---|---|
| 1 | Accumulator Trap |
| 2 | Orange O-ring Belts |
| 3 | Accumulator Exit Nip |

**Single Deck Accumulator**

# Folder

The Folder can process all standard fold types (C, Z, half, double) as well as no fold at all. The folder module consists of six rollers and a combination of four auto buckle chutes. For more information on fold types, refer to the *Fold Specifications* section.

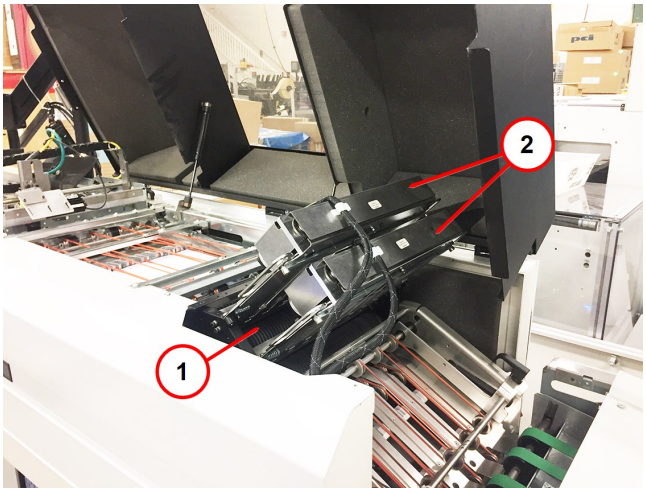


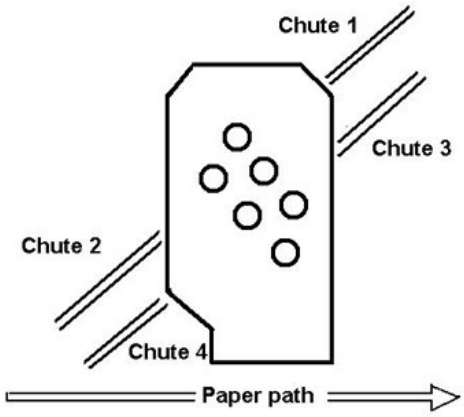
**Folder**

# Auto Buckle Chutes

Auto buckle chutes can be configured to fold or divert using Direct Connect (DC) software interface. You can set fold lengths and types without removing the chutes. This reduces setup time and ensures consistent, accurate folds for each job.

The Fold Wizard provides is easy to use and can help you configure the folder based on specific job requirements. It also allows you to set the appropriate address orientation.




| Item | Description |
|---|---|
| 1 | Rollers (6) |
| 2 | Auto Buckle Chutes (4) |

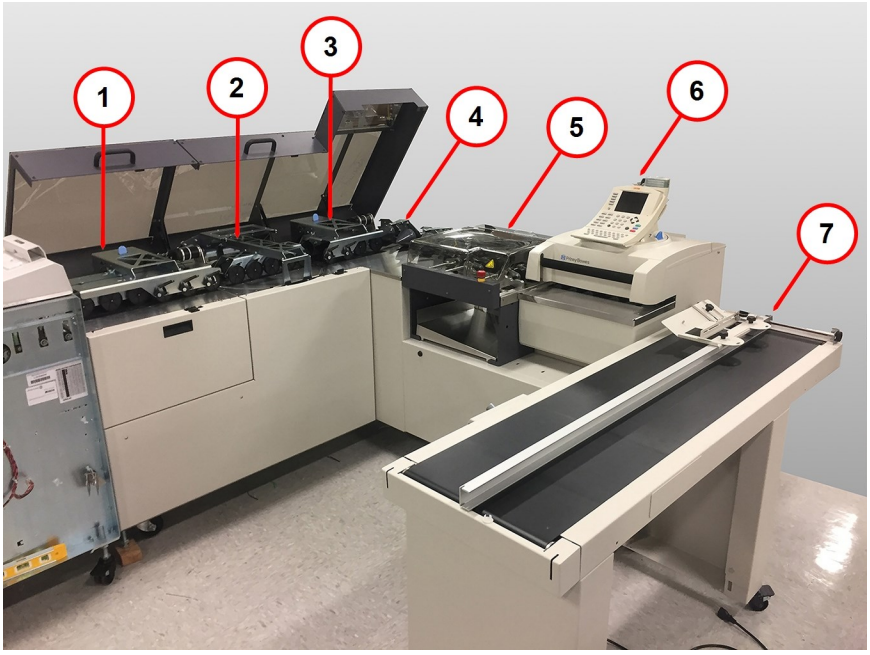
**Folder - Auto Buckle Chutes**

### How They Work

- When you start a job, the auto buckle chutes move to their positions defined in DC.
- If you need to make minor changes to the fold, you can access the Auto Buckle Chute Adjust dialog under the Setup menu to change the fold values.
- To permanently save the changes, you need to save the mode.

# Output Overview

The Pulse output module is designed to transport finished mailpieces to the meter. The standard output configuration consists of these components *(configurations may differ slightly site to site).*




**Pulse Output Components**

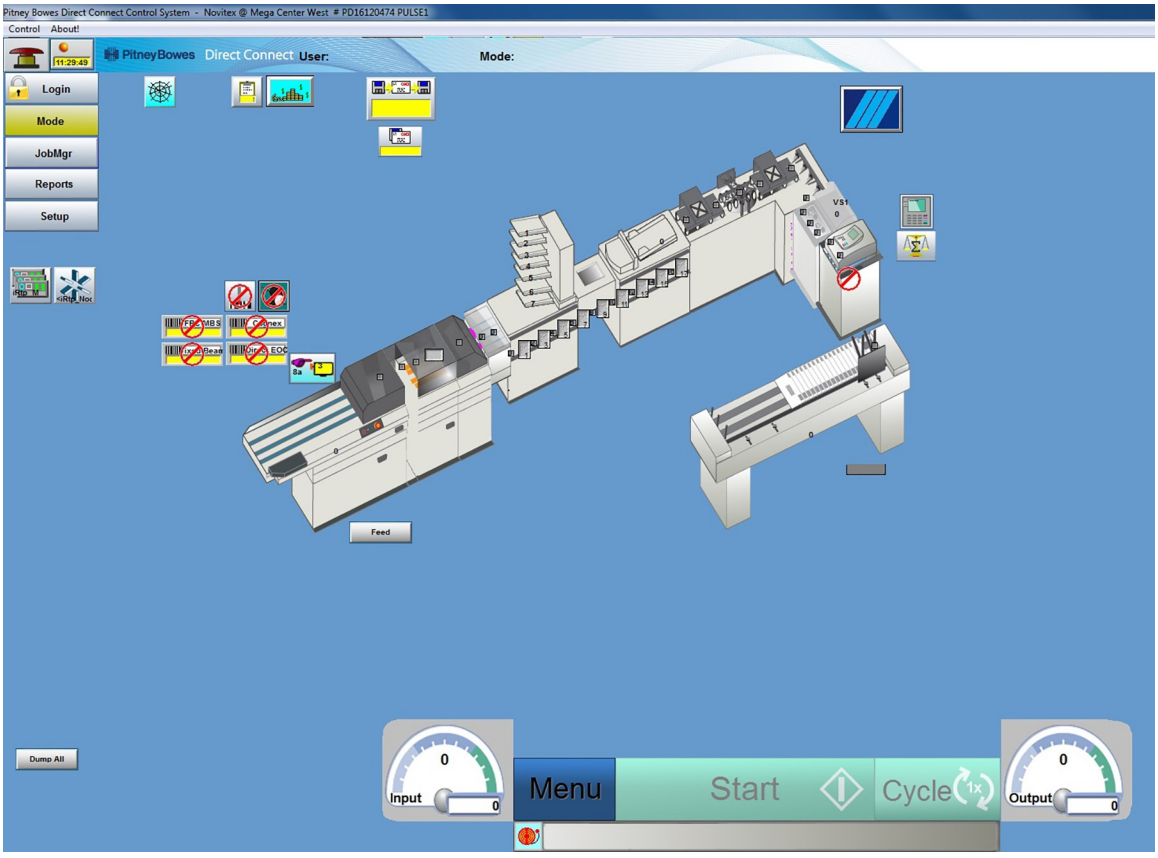
| Item | Component | Description |
|---|---|---|
| 1 | Entrance Transport | Transports the envelope from the inserter to the Output rotate module |
| 2 | Rotate Module | Rotates envelope 180° for the meter and to divert trial pieces into the divert bin |
| 3 | Exit Transport | Transports envelope from rotate module to the Right Angle Transfer |
| 4 | Right Angle Transfer (RAT) | Changes paper path 90° to prepare for metering |
| 5 | Vertical Stacker | Collects optional outsorts or diverts |
| 6 | Infinity Meter | Meters the mail |
| 7 | Power Stacker | Stacks finished mailpieces |

# Direct Connect Software Overview

The Pulse input and output modules are controlled by Direct Connect (DC) software. The software provides centralized control for performing setup activities and adjustments before and during a job. DC also detects inserter and material issues. If there are material jams or inserter problems, the software quickly identifies where they are, which minimizes machine downtime.

## Main Screen

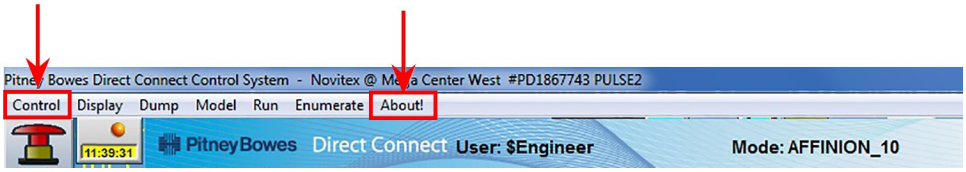
The main screen has operation buttons and objects, tailored to match the module components on your machine. This section provides an overview of the major areas of the screen.



## Main Menu Bar

The main menu bar gives operators access to power up and power down the system, change the display language and get details about the software.

- **Control** - click on this to power up and power down the system or change the language displayed on the screen
- **About!** - click on this to get a software information that includes version, install date and system ID



## Menu Buttons

Located on the left side of the screen:


### Login: Button

Click on the lock icon to log in and out of the system.

### Mode Button

Direct Connect uses operating modes to run applications on the inserter. A mode holds the combination of system settings for processing a specific mail job. When you click the **Mode** button it opens dialog boxes for setting up modes, checking mode status and loading, saving and updating mode parameters.

### JobMgr Button

When you click the **JobMgr** button you get these options:

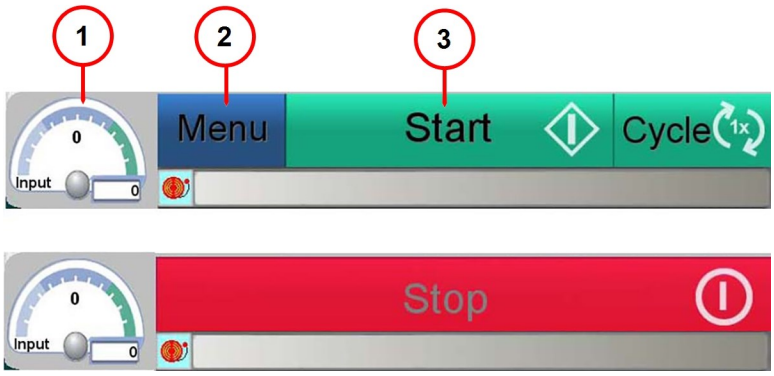
- **Status** - displays a variety of information about the current job; right-click in any of the fields for details about that field.
- **Set Mail Date** - option to enter the date this job will be run.
- **Start/End Job** - option to start and end a job.

### Reports Button

Click on the **Reports** button if your site requires you to print reports after a job.

## Start Bar Area

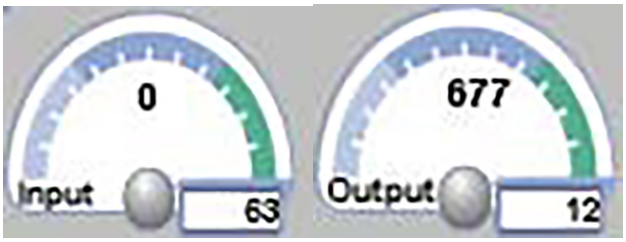
The buttons in the Start Bar area are used to start and stop the machine, complete one machine cycle (one collation) at a time, clear the deck, enable and disable the system, and reset counts.




| Item | Description |
|---|---|
| 1 | Speed Indicator |
| 2 | Menu |
| 3 | Start / Stop |

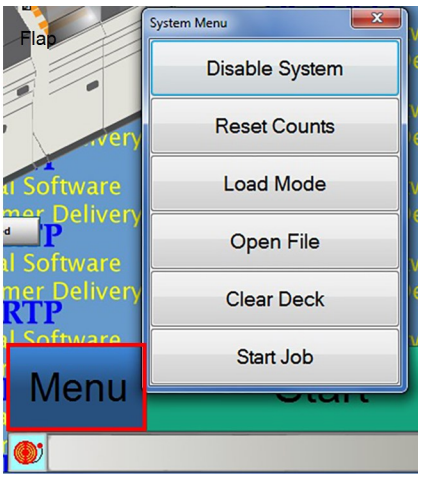
### Speed Indicators

- **Input Speed** indicator - displays the input speed of the mailpieces per hour (shown as 0 here), as well as total number of pages fed (shown as 63 here)
- **Output Speed** indicator - displays the output speed in numbers of mailpieces per hour (shown as 677 here), as well as the total number of mailpieces that reached the output stacker (shown as 12 here).



### Menu Button

When you click on the **Menu** button, you get these options:




- **Enable / Disable system** - allows motors to be turned on. **Enable System** changes the machine state so it can run; **Disable System** changes the state so the machine can't run.
- **Reset Counts** - resets all counters in the system. Use this option at the end of each mail run before logging out.
- **Load Mode** - select a mode to load for the job
- **Open File** - select an MRDF file to open for file based processing
- **Clear Deck** - starts an operating sequence that clears the inserter deck of all mailpieces. You should do this at the end of each mail run or shift. You can also use the *remote control* to do this.

### Start Button

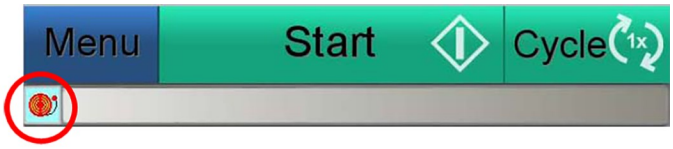
When you press the **Start** button, the system starts running and the Menu, Start and Cycle buttons are replaced by the Stop button. You can also do this with the *remote control*.

### Stop Button

When you press the **Stop** button, the system stops running and the Menu, Start, and Cycle buttons are displayed. You can also do this with the *remote control*.

## Alarm Icon and Alarm Box

Alarms are error messages that provide reasons why the inserter stops running. When the inserter stops because of a problem, the alarm message box opens at the bottom of the DC main screen. Refer to the *Error Recovery* topic for information on alarms.




**Alarm Icon**


**Alarm Box**

## ESTOP Icon

The ESTOP icon flashes on the screen when an ESTOP is activated.

## Remote Control

You can use the remote control to run and perform certain functions:

- Start and stop the machine using the buttons on the remote
- Clear the deck - press **Cycle** and **Stop** at the same time to clear the deck

# 3 - Operator Setup

## In this section

# Setting Up a Job

To set up a job on the Pulse Inserting system:

- *Power up the system*
- *Load a job using the inserter interface*
- *Log into Direct Connect (DC)*
- *Load a Mode*
- *Assign an MRDF file (for file based jobs only)*
- *Set the mail date*
- *System changeover (if change in material orientation or size)*
- *Adjust separator gap (if change in material thickness)*
- *Set Fold Parameters with the Auto Buckle Chute Fold Wizard (if parameters changed)*

# Power Up the Pulse System

The Pulse Inserting system will not run until all the necessary power switches are turned on. Power up the different parts of the system in this order:

- *Input module (also powers up the output module and DC computer)*
- *Inserter (feeder and inserter)*
- *Infinity meter*

## Input Power

To power up the input, press the power switch to the ON position. *(When you power up the input module, the output module and DC computer power up, and DC launches automatically.)*

**Power Switch on the Pulse Input**

## Inserter Power

There are two power switches on the inserter, one by the feeder and one on the inserter. To power up the inserter, press both power switches to the ON position.


| Item | Description |
|---|---|
| 1 | Feeder Switch |
| 2 | Inserter Switch |

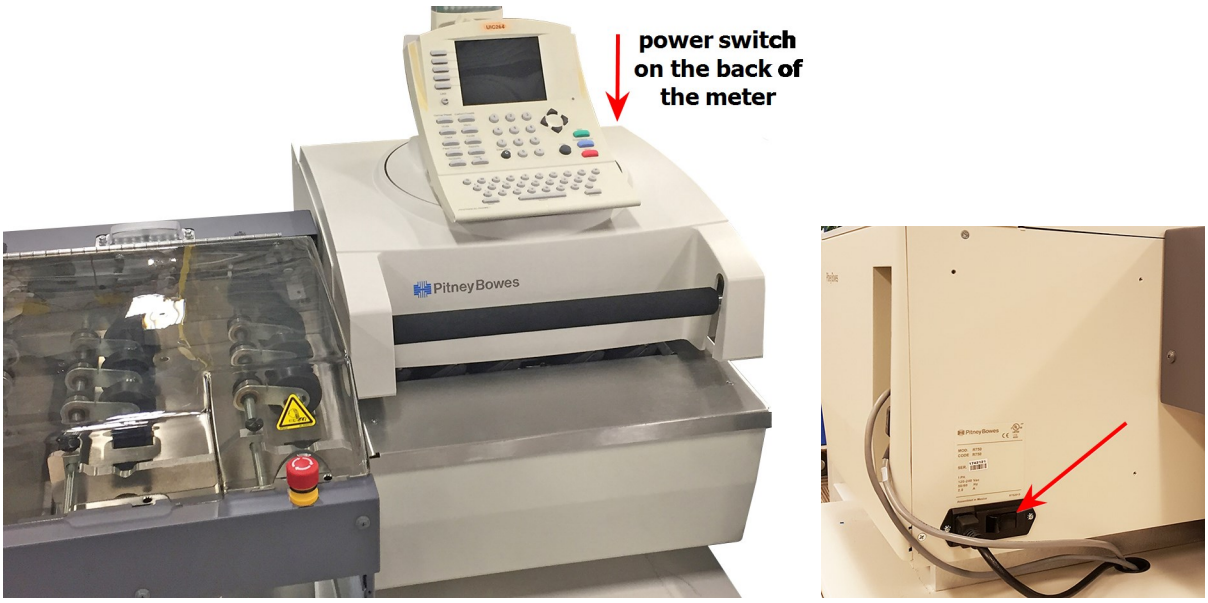
**Power Switches on the Pulse Inserter**

## Note:

The power switch located near the feeder may be on the other side of the inserter, depending on your system configuration.

# Meter Power

To power up the meter, press the power switch located on the back of the meter to the ON position.




**Power Switch on the Infinity Meter**

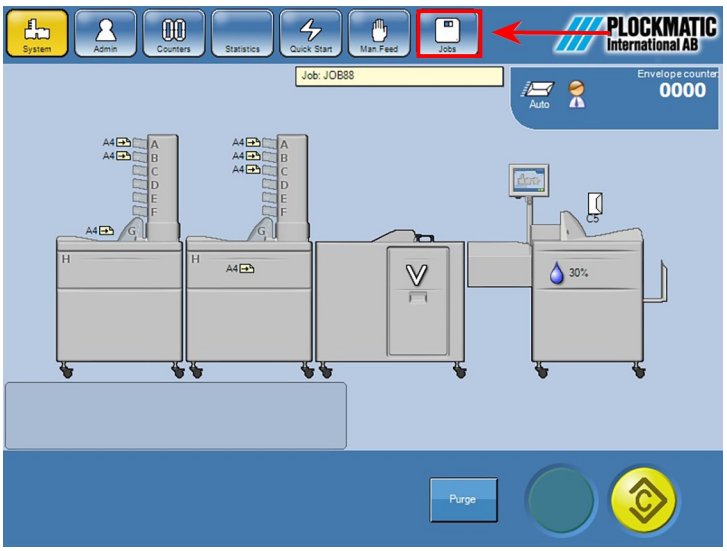
# Loading a Job Using the Inserter Interface

When you are setting up for a job, load the job using the inserter interface.

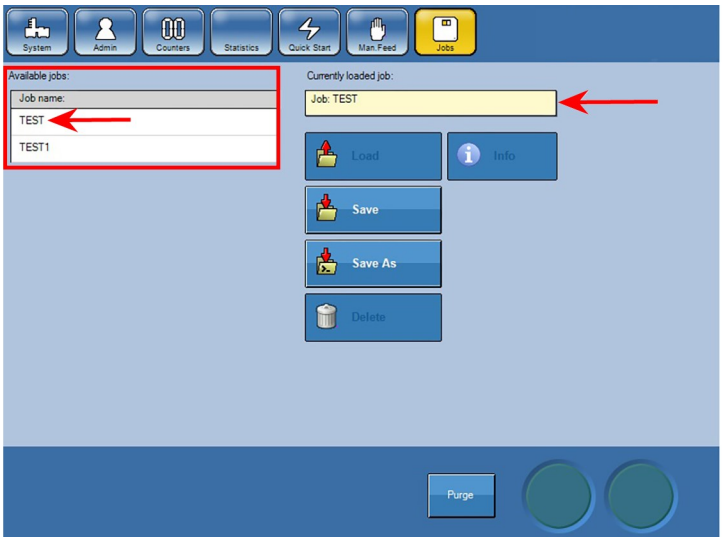
## Note:

Verify the job you are loading on the inserter matches the mode you load in DC.

1. At the inserter interface, tap the **Jobs** button.



2. In the **Available jobs** area, tap the desired job from the **Job name:** list.

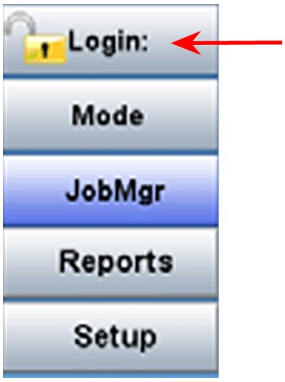



The selected job name shows in the **Currently loaded job:** field.

# Logging into Direct Connect

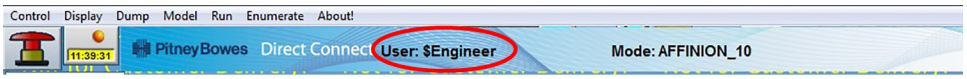
When you are setting up to run a job, log into Direct Connect.

1. From the main DC screen, click the **Login:** button and select **Login** from the drop-down menu.




2. When the User dialog opens, select your login name and click **OK**.
3. When prompted, type your password in the **Enter Password** field and click **OK**.

When you successfully log in, your unique ID displays below the menu bar.

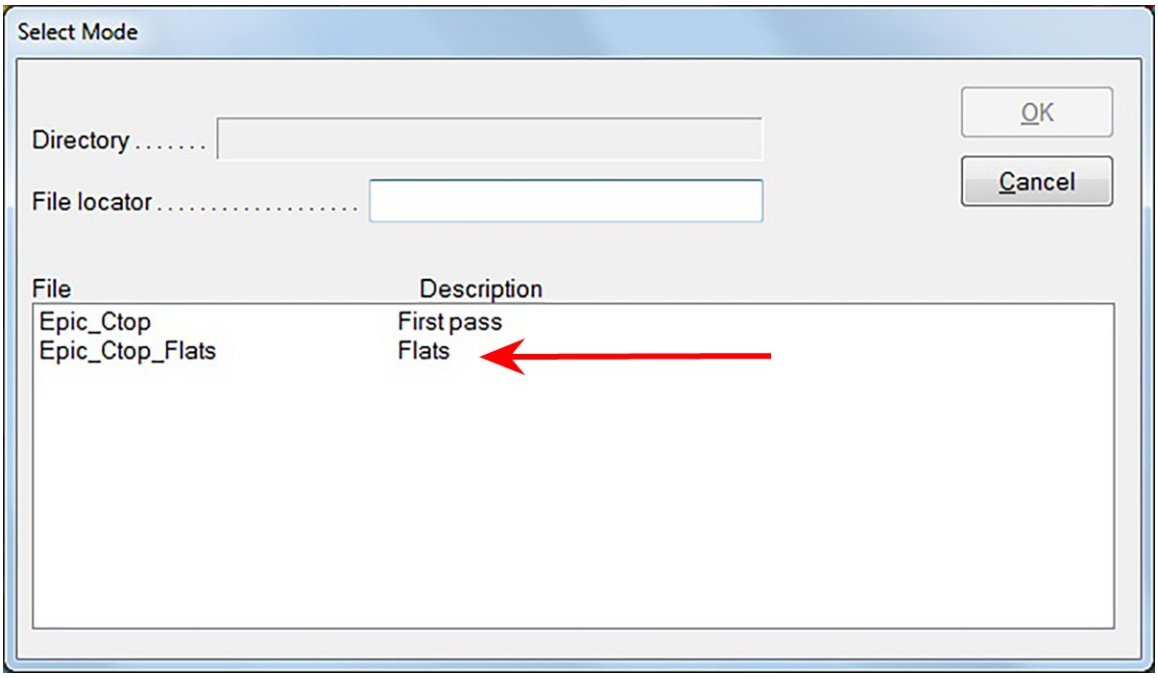


# Loading a Mode

When you are setting up for a job, after you log into DC, you need to load a mode.

1. Log into DC.
2. From the main DC screen click the **Mode** button and select **Load Mode** from the drop-down menu.

3. When the Select Mode dialog opens, select a mode and click **OK**.

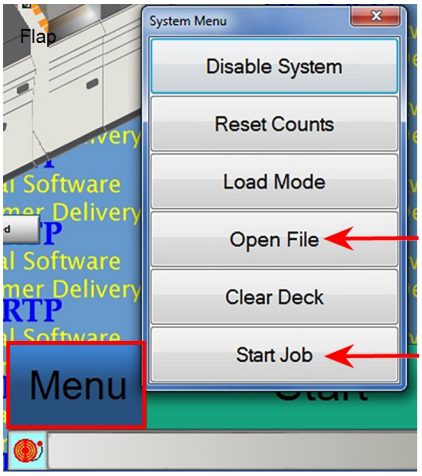



After you select your mode, the mode name displays below the menu bar.

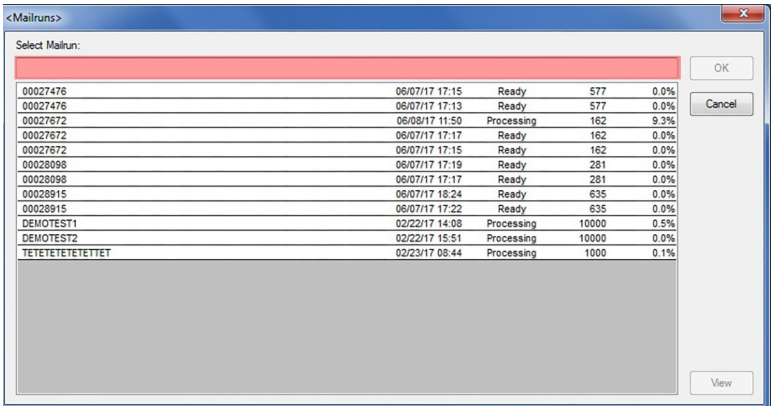
# Assigning an MRDF File (File Based Jobs)

If you are running a file based job, you need to assign an MRDF file to the job. The MRDF is a data file that contains a set of information used for processing the mail (i.e. number of pages, number of collations, etc.). If this is not a file based job, you can skip this step.

1. On the DC main screen, click on the **Menu** button and select **Open File** or **Start Job** from the list.




2. In the **Select Mailrun** field, type in the name of the MRDF file or scan it from the work order.

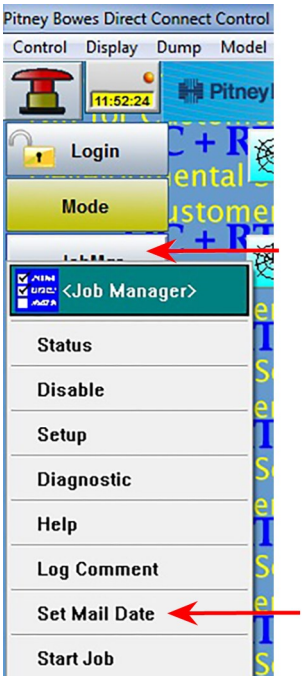



3. When the file name populates the field, click **OK** to open it.

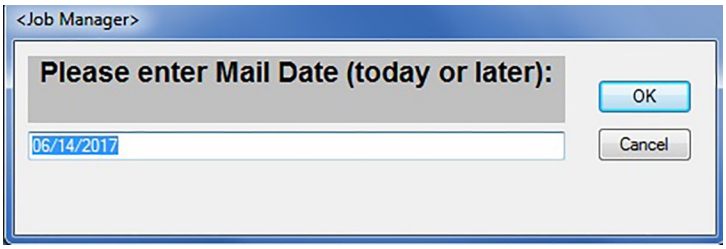
# Setting the Mail Date

Set the mail date before running your job.

1. Click the **JobMgr** button and select **Set Mail Date** from the drop-down menu.




2. When the dialog opens, type in the mail date.




3. Click **OK**.

# About System Changeovers

When you change the paper orientation for a job (portrait to landscape) or if your paper length or width changes, you need to make these adjustments to accommodate the change in paper orientation.

For example, if the previous job ran #10 portraits (letters) and the new job will be running 8.5 x 11 landscape (flats), you need to adjust the system to accommodate the new paper size (length, width or scan location).

## Feeder Changeover Adjustments

- *Prefeed deck side guide for width*
- *Prefeed deck for length*
- *Air ports on prefeed deck side guides*
- *Feeder side guides*
- *Feeder straps*
- *Separator*

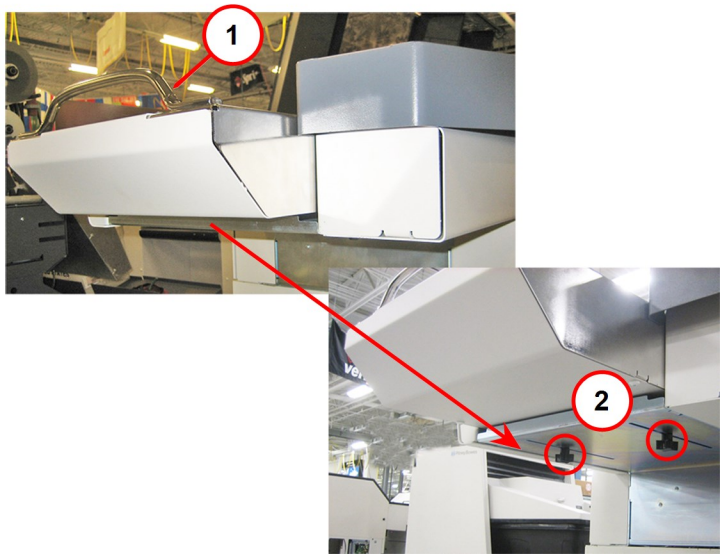
## Accumulator Changeover Adjustments

- *Accumulator side guides*
- *Accumulator ramp*
- *Accumulator straps*

# Adjusting the Prefeed Deck Side Guide for Width

Adjust the prefeed deck side guide (non-operator side) width to accommodate a change in either paper size (8.5 x 11 or A4) or orientation (portrait or landscape).

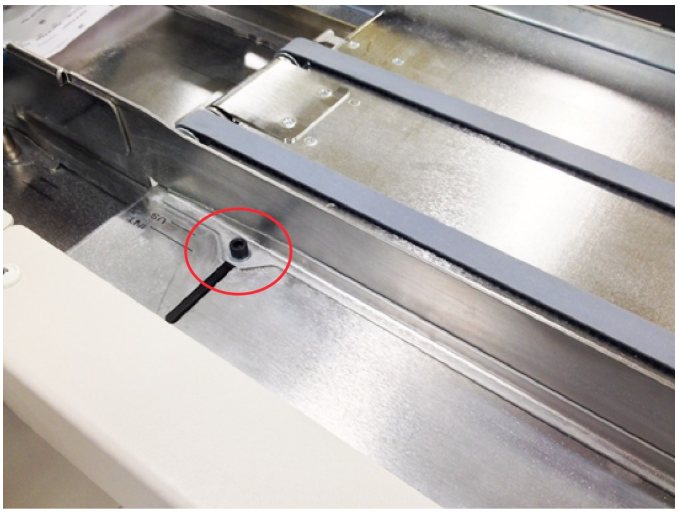
1. Loosen both thumbscrews under the deck.
2. Use the prefeed deck handle to slide the deck all the way to the left.




| Item | Description |
|---|---|
| 1 | Prefeed Deck Handle |
| 2 | Prefeed Deck Adjustment Knobs |

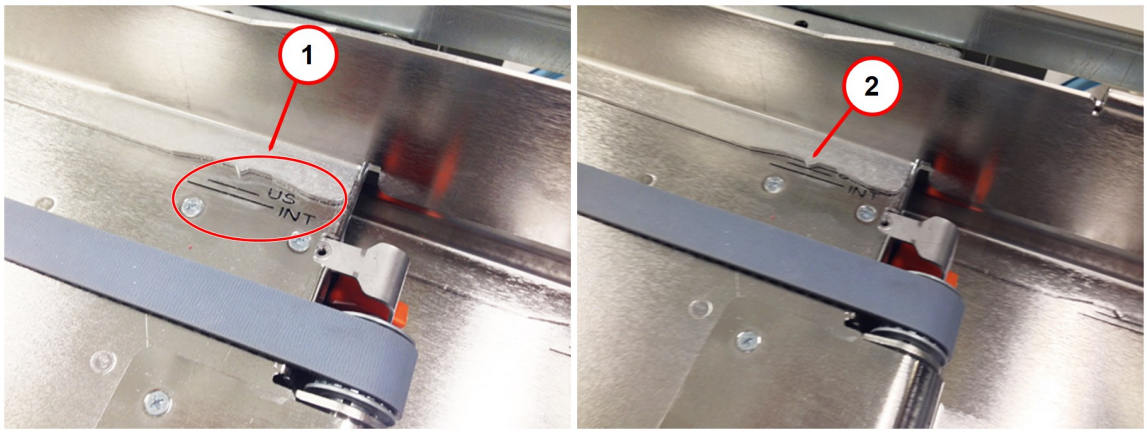
**Slide the Prefeed Deck to the Left**

3. Use the 3/16” operator setup tool to loosen the prefeed deck side guide (non-operator) locking screws.



**Prefeed Deck Side Guide Locking Screws** ***(three in total, one visible in this photo)***

4. Slide the prefeed deck side guide so the indicator points to the desired index mark on the deck, international or domestic paper size.




| Item | Description |
|---|---|
| 1 | Index Markers |
| 2 | Side Guide *(set for domestic job here)* |

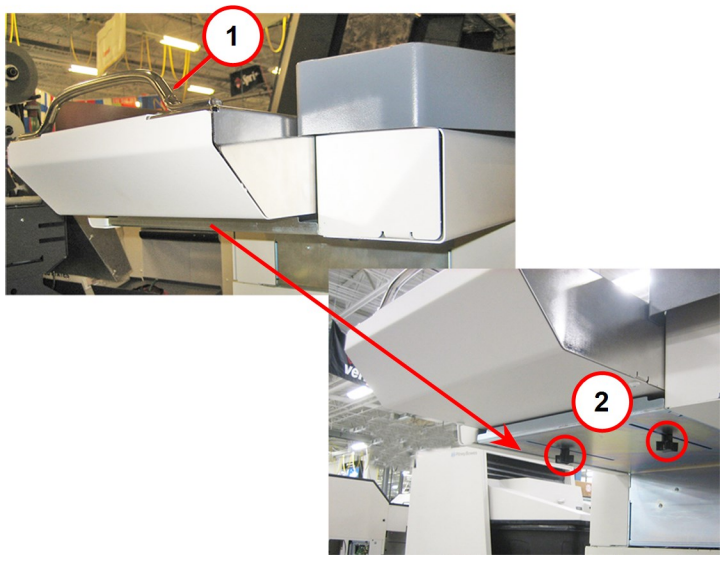
**Index Markers on Prefeed Deck - Move Side Guide**

5. Once aligned, tighten the prefeed deck side guide locking screws.
6. Slide the prefeed deck back in place and tighten both thumbscrews under the deck.

# Adjusting Prefeed Deck Length

Adjust the prefeed deck length to accommodate a change in either paper size (8.5 x 11 or A4) or orientation (portrait or landscape).

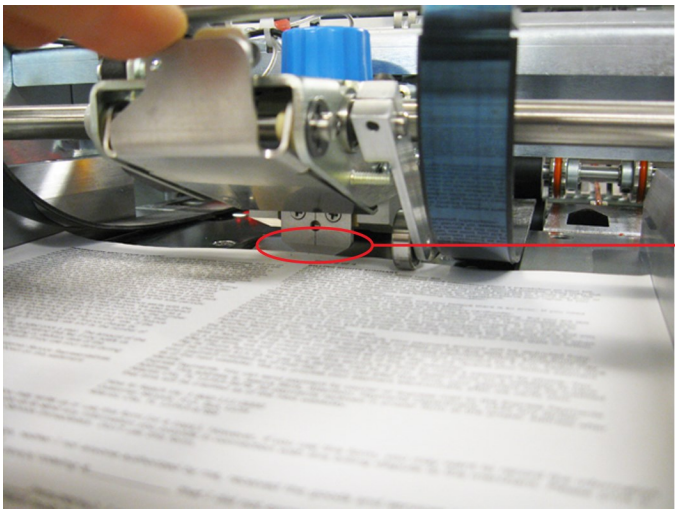
1. Loosen the two thumbscrews under the deck.
2. Using the prefeed deck handle, slide the deck all the way to the left.




| Item | Description |
|---|---|
| 1 | Prefeed Deck Handle |
| 2 | Thumbscrews |

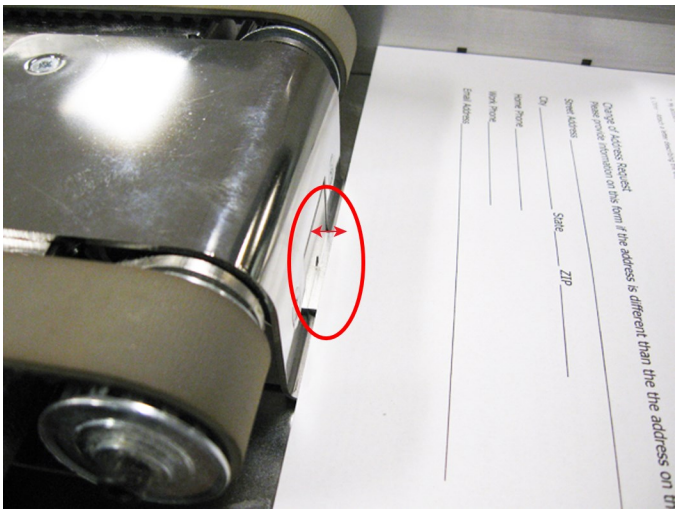
**Slide the Prefeed Deck to the Left**

3. Place a piece of material from the job as far right as it can go under the separator gate and against the separator.



**Paper Against the Separator**

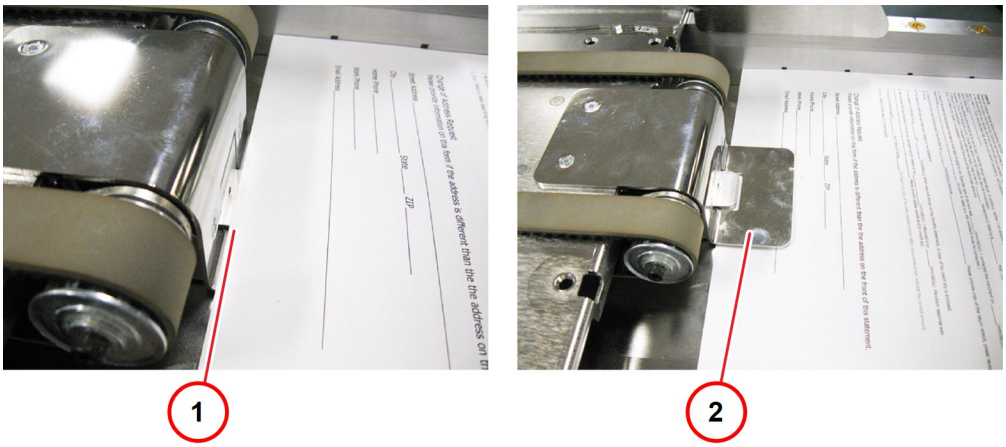
4. While holding the lead edge of the material against the separator, slide the prefeed deck to the right, leaving about a 1.0 to 2 mm gap between the deck and the trail edge of the material.




**1 to 2 mm Gap Between Material and Separator**

## Note:

Be sure the material sits on top of the tongue on the prefeed deck and *not underneath it*.




| Item | Description |
|---|---|
| 1 | Material on top of tongue (correct) |
| 2 | Material under tongue (incorrect) |

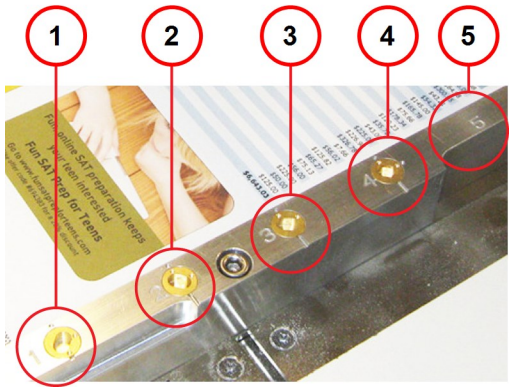
**Place Material On Top of the Tongue**

5. Tighten both thumbscrews under the deck.

# Adjusting the Prefeed Deck Side Guide Air Ports

The airports in the prefeed deck side guides help float the material to allow for proper separation. Ports are either ON (blowing air) or OFF (no air). If all the air ports are off, the feeder will not feed properly.

## Air Port Identification




**Air Ports - 1, 2, 3, 4, 5**

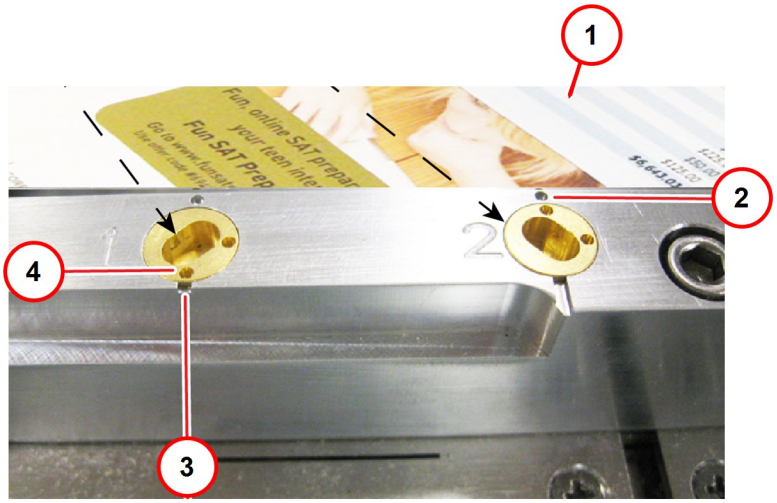
# Setting the Ports

Set the air ports for both the operator and non-operator sides.

1. Determine the length of the material for the job.
2. Insert the operator setup tool into each appropriate air port and turn the port *(according to your paper size)* to the ON or OFF position. *(Refer to the chart here for settings.)*

| Material Size | Ports On | Ports Off |
|---|---|---|
| 8.5" (landscape) x 11" (portrait), A4 | 3, 4, 5 | 1, 2 |
| 14" | 2, 3, 4, 5 | 1 |

- **Port On** - dot on port is facing toward paper (aligned with dot on guide)
- **Port Off** - dot on the port is facing away from paper (aligned with indent on guide)



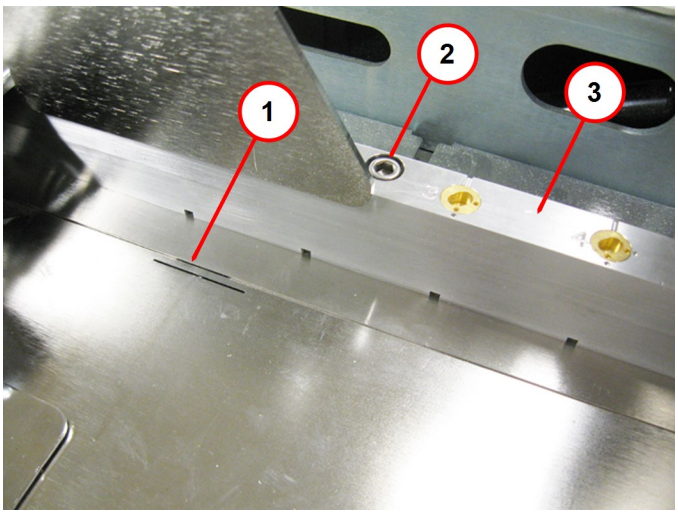

| Item | Description | Item | Description |
|---|---|---|---|
| 1 | Paper | 3 | Indent on Guide |
| 2 | Port ON | 4 | Port OFF |

**Port Settings - ON and OFF**

# Adjusting the Feeder Deck Side Guides

Adjust the feeder deck side guides to accommodate a change in either paper size (8.5 x 11 or A4) or orientation (portrait or landscape).

1. Use the operator setup tool to loosen both locking screws on the non-operator side of the feeder deck guide and align the edge of the side guide with the markings on the deck.
2. Align the deck side guide markings to the same one (first or second) as the prefeed deck.

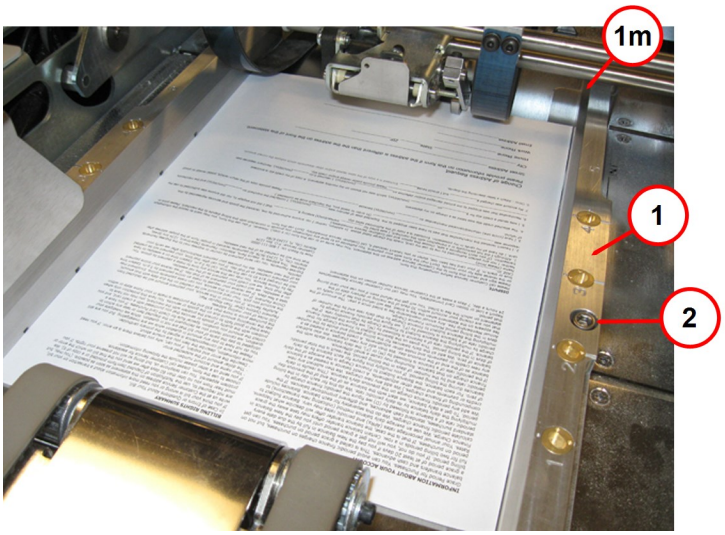



| Item | Description |
|---|---|
| 1 | Deck Markings |
| 2 | Locking Screw *(one not visible)* |
| 3 | Side Guide |

**Align Side Guide with Deck Markings *(non-operator Side)***

3. When the side guides are aligned, tighten the locking knobs.
4. Use the operator setup tool to loosen both locking knobs on the operator side of the feed deck and line up the edge of the side guide with the screws on the deck, *(same as previously done with the non-operator side)*.
5. Slightly tighten and secure the side guides so they stay in place.

6. Place a piece of material from the job between the side guides and *only adjust the operator side guide* in or out as necessary, allowing 1 mm of play between operator and non-operator sides.




| Item | Description |
|---|---|
| 1 | Operator Side Guide |
| 2 | Locking Screws |

**1 mm Total Play between both Side Guides**

## Note:

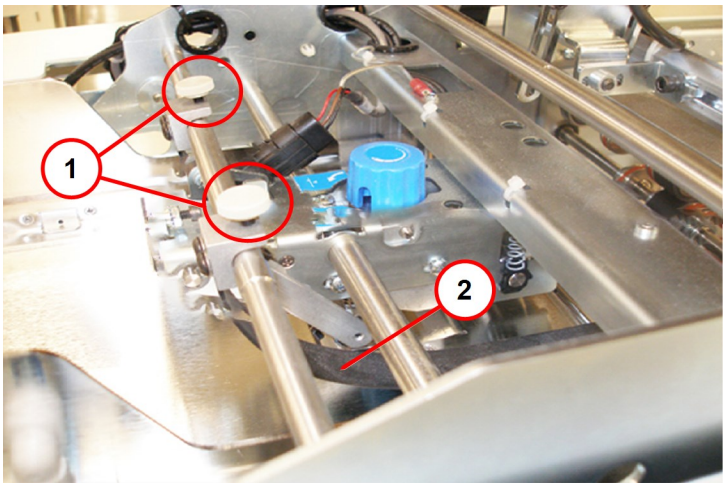
Once the non-operator side guides on the feeder deck have been set, make any adjustments for paper width to the operator side guide only.

# Adjusting Sheet Feeder Straps for Material Width

The sheet feeder straps are used to hold the paper down flat. This helps if you have a change in either paper size (8.5 x 11 or A4) or orientation (portrait or landscape).

To adjust the sheet feeder straps for material width:

1. Loosen the sheet feeder strap adjustment knobs.




| Item | Description |
|---|---|
| 1 | Strap Adjustment Knobs |
| 2 | Strap |

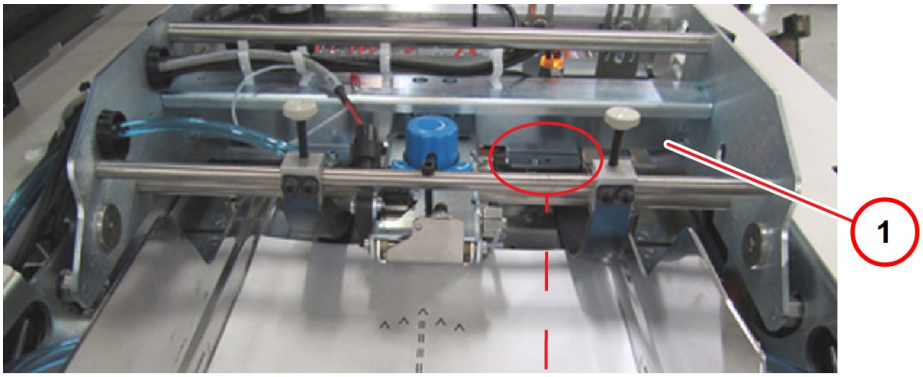
**Feeder Strap and Adjustment Knobs**

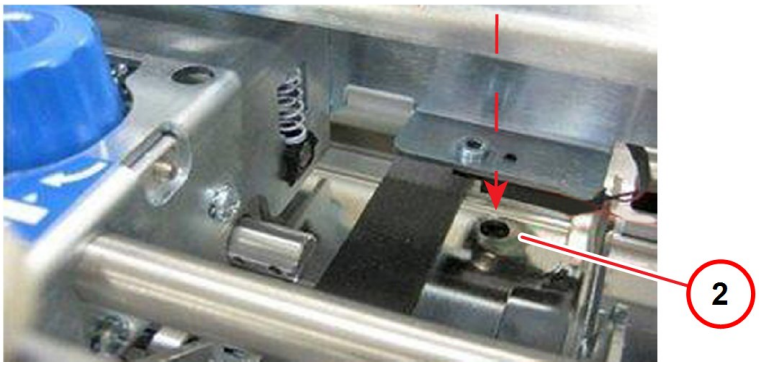
2. If the material width has changed, move the strap towards the outside edge of the paper to accommodate the width.
3. Tighten the strap adjustment knobs.

## IMPORTANT!

If the strap is blocking the photocell hole, *the machine will not run*.

Once you finish adjusting the operator side strap, make sure the photocell and double sheet detector are not blocked.




| Item | Description |
|---|---|
| 1 | Approximate location of photocell *(difficult to see)* |
| 2 | Closeup of Phtoocell |

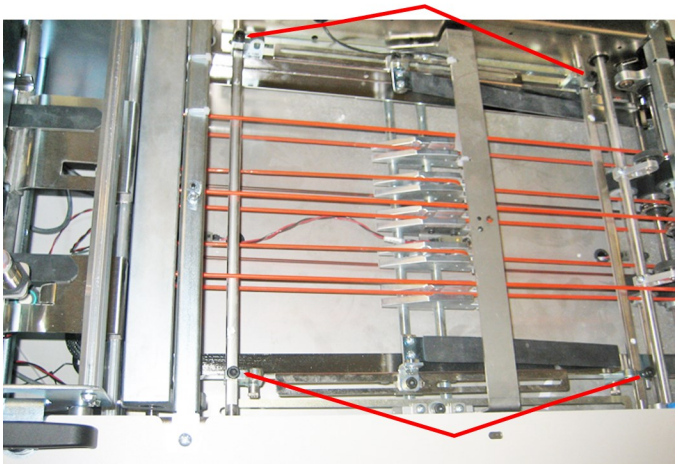
**Photocell Unblocked**

# Adjusting the Accumulator Side Guides

Adjust the accumulator side guides to accommodate a change in either paper size (8.5 x 11 or A4) or orientation (portrait or landscape). This will also help prevent the collation from skewing or shingling.

These steps are for both the operator and non-operator accumulator side guides.

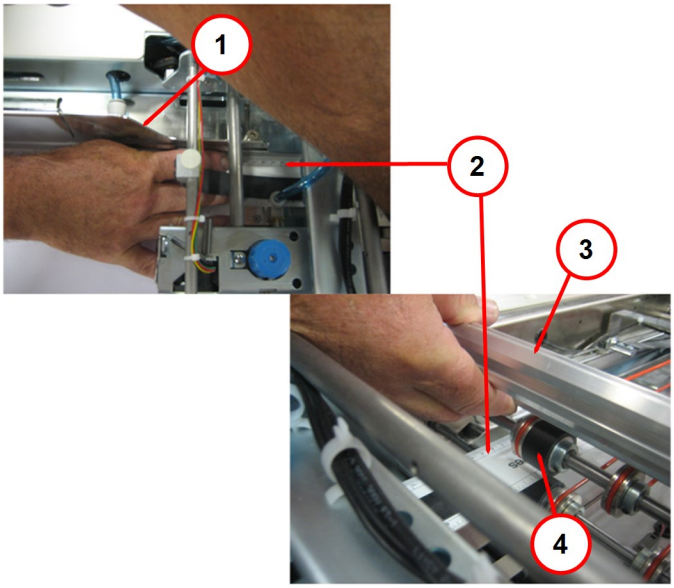
1. Use the 3/16" operator setup tool to loosen the accumulator lock screws on both the operator and non-operator sides.



**Lock Screws on Accumulator Sides**

2. Lift the vacuum feeder bridge to access the accumulator entrance.

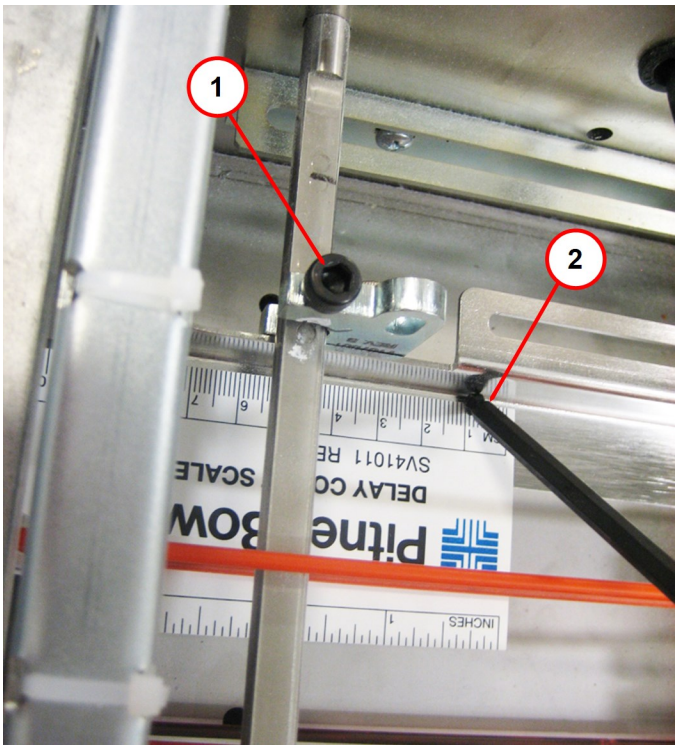
3. Place a straight edge (ruler) against the vacuum feeder side guide (non-operator side), so the straight edge protrudes into the accumulator entrance.




| Item | Description | Item | Description |
|---|---|---|---|
| 1 | Vacuum Feeder Bridge | 3 | Vacuum Feeder Side Guide |
| 2 | Straight Edge (ruler) | 4 | Accumulator Entrance |

**Straight Edge Against Vacuum Feeder Side Guide and Accumulator Entrance**

4. Adjust the accumulator side guide so it's against the straight edge. Leave about 1/16" space between the accumulator side guide and the straight edge.




| Item | Description |
|---|---|
| 1 | Lock Screw *(only one shown here)* |
| 2 | 1/16" between Side Guide and Straight Edge |

**Space Between Accumulator Side Guide and Straight Edge**

5. Repeat these steps on the operator side.
6. After adjusting the accumulator side guides on both the operator and non-operator sides, tighten the lock screws using the 3/16” operator setup tool.

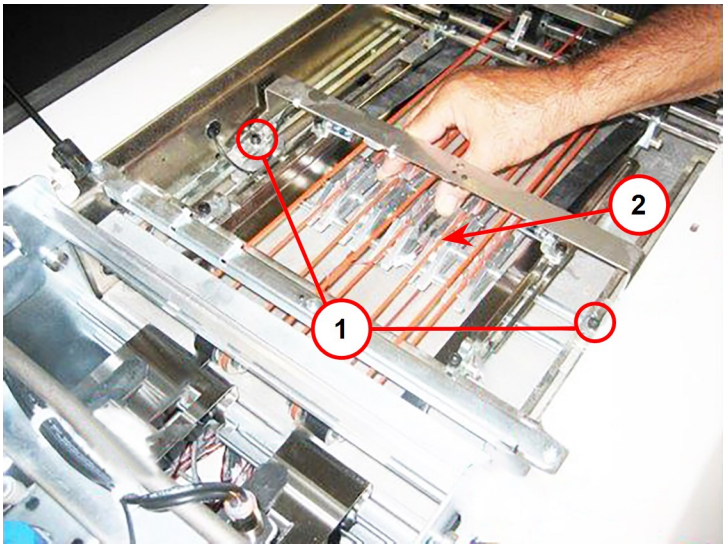
## Note:

If the side guides are too tight, it will cause jams.

# Adjusting the Accumulator Ramp

You can adjust the accumulator ramp to accommodate a change in paper length.

1. Loosen both accumulator ramp lock screws using a 3/16" operator setup tool. *(There are two lock screws, one on each side - operator and non-operator.)*

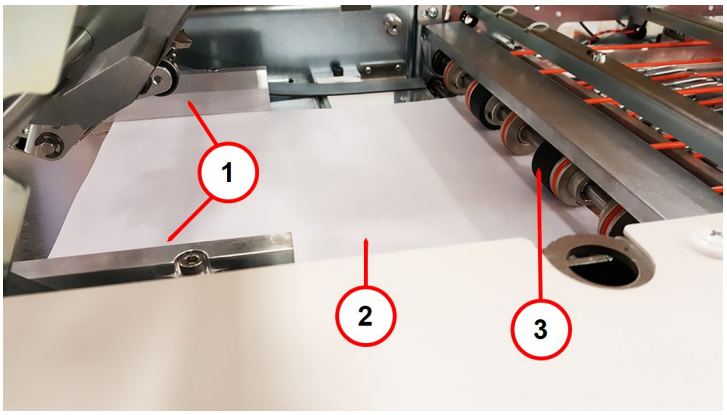



| Item | Description |
|---|---|
| 1 | Accumulator Ramp Lock Screws |
| 2 | Accumulator Ramp |

**Accumulator Ramp and Lock Screws - Operator Side**

2. Lift the vacuum feeder bridge.
3. Insert a sheet of paper into the accumulator. Align the back edge of the paper between the feeder side guides.

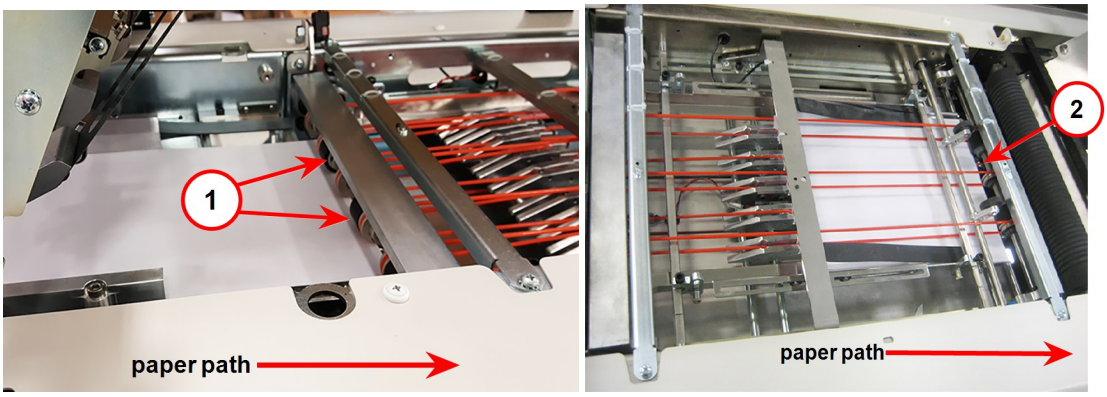
4. Slide the paper forward until the lead edge of the paper hits the accumulator entrance nip rollers.




| Item | Description |
|---|---|
| 1 | Feeder Side Guides |
| 2 | Paper |
| 3 | Accumulator Entrance Nip Rollers |

**Paper between Feeder Side Guides**

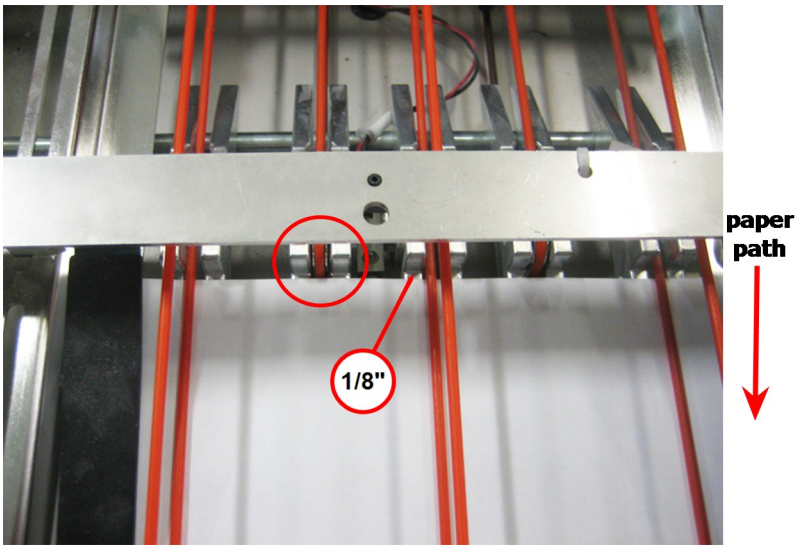
5. Using the entrance nip rollers, hand roll the paper towards the folder, past the accumulator ramp, until the lead edge touches the accumulator exit nip.




| Item | Description |
|---|---|
| 1 | Entrance Nip Rollers |
| 2 | Accumulator Exit Nip |

**Feed Paper Towards the Folder**

6. Slide the ramp until the trail edge of the paper is 1/8" away from the flat edge of the ramp.




**Accumulator Ramp - Trail Edge 1/8"' away from flat edge of ramp**

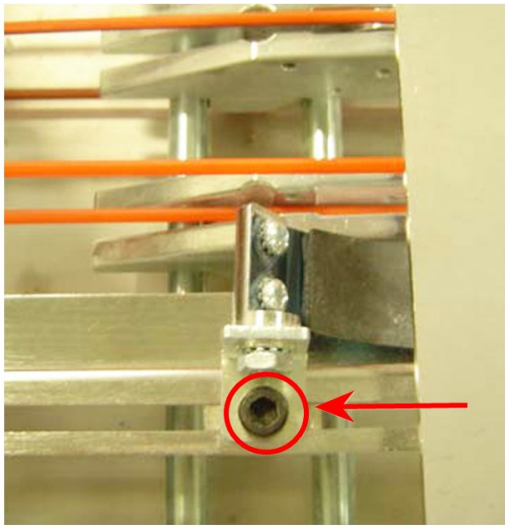
7. Verify that the ramp assembly is straight.
8. Use the 3/16" operator setup tool to tighten the two ramp lock screws.
9. Next you need to adjust the accumulator straps after moving the ramp. Refer to the Adjusting the Accumulator Straps topic.

# Adjusting the Accumulator Strap

The accumulator strap helps keeps the paper straight as it's being fed through the accumulator. You adjust the position of the strap to accommodate a change in material length.

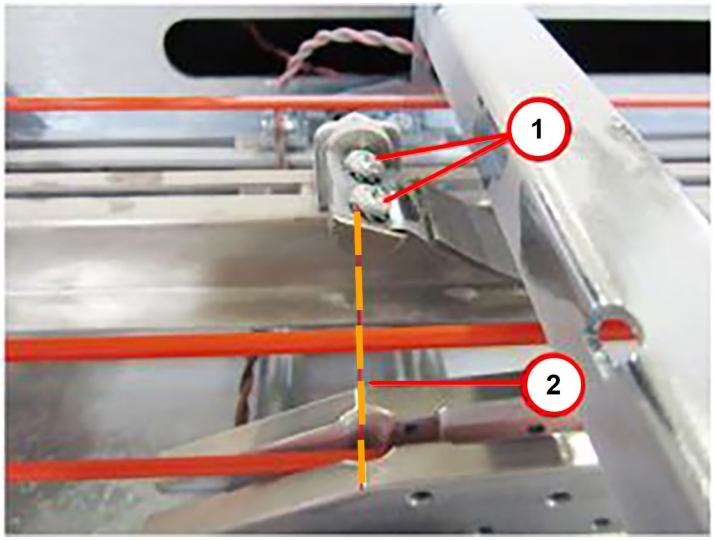
To adjust the strap:

1. Use the 3/16" operator setup tool to loosen the lock screws on the accumulator straps - one on operator and non-operator side.



**Accumulator Strap Lock Screw** ***(two screws, only one visible here)***

2. Slide the strap assembly so the screw heads are aligned with the clamp screw hole in the adjacent ramp.




3. Repeat step 2 on the other strap assembly.
4. Tighten the lock screws on both the straps.

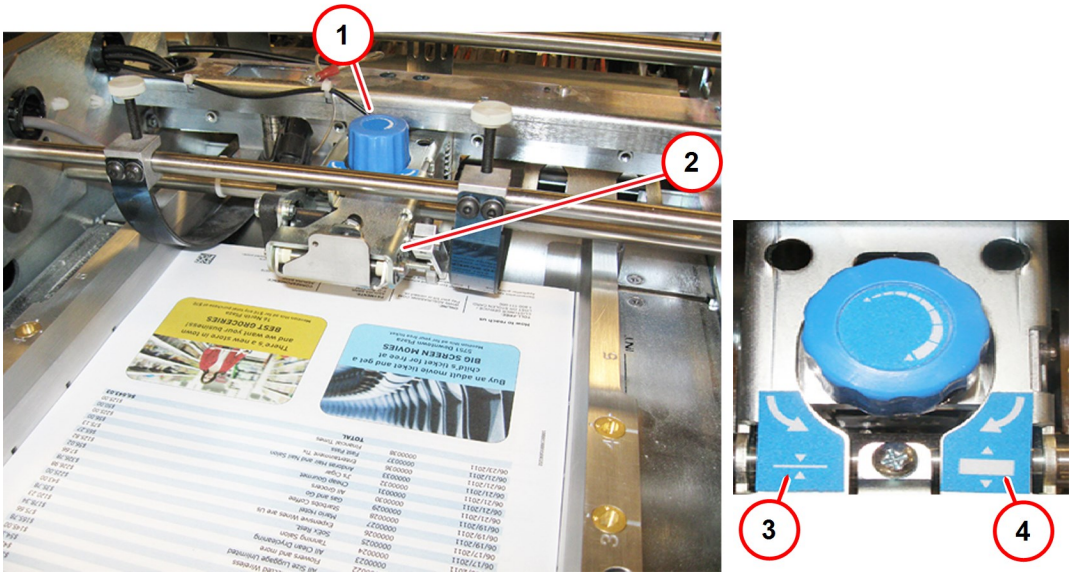
# Adjusting the Separator Gap

The separator enables the feeder to accommodate different paper thicknesses. During setup or, if the sheet feeder is having trouble feeding (i.e. double feeds), you may need to adjust the separator gap.

## Using the Separator Adjustment Knob

The blue separator adjustment knob controls the separator to set the gap.

- Turning the knob *clockwiseopens* the separator with a *wider gap* for *thick material*
- Turning the knob *counterclockwisecloses* the separator to a *narrow gap* for *thin material*

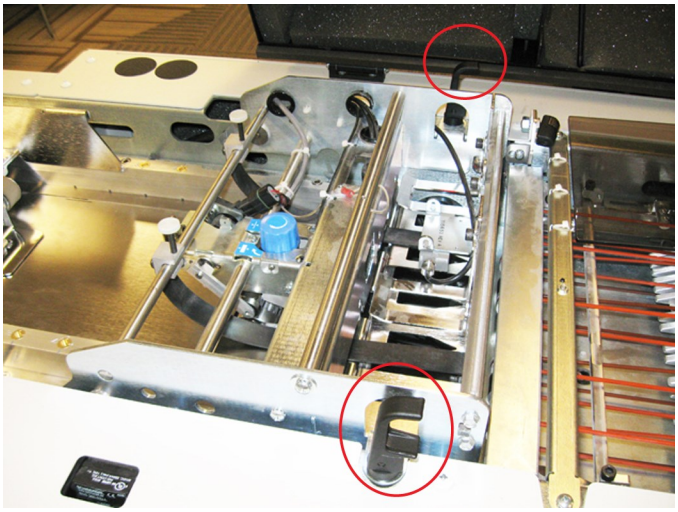



| Item | Description | Item | Description |
|---|---|---|---|
| 1 | Blue Separator Adjustment Knob | 3 | Counterclockwise (closes gap) |
| 2 | Separator Gate (entrance to separator) | 4 | Clockwise (opens gap) |

**Blue Separator Adjustment Knob - *separator is not visible here***

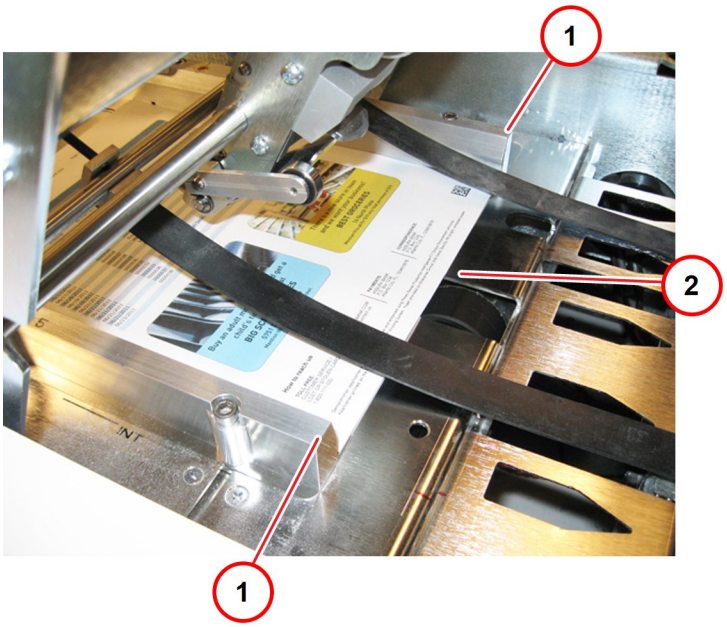
# Adjusting the Separator

1. Raise the sheet feeder top cover.
2. Lift the bridge lockdown levers and open the bridge to the up position.



**Bridge - Black Lockdown Levers**

3. Insert two pieces of material between the feeder deck side guides, making sure the lead edge is even with the front of the side guides.




| Item | Description |
|---|---|
| 1 | Side Guide (front) |
| 2 | Lead Edge (paper) |

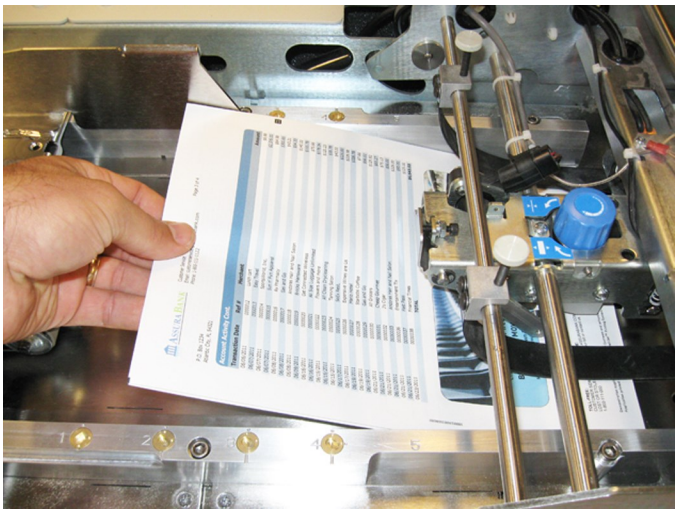
**Paper Lead Edge - Even with Front of Side Guides**

4. Close the bridge and lock it down with the lockdown levers.

## Note:

The desired setting for the separator is when you achieve a slight drag on the material.

5. Test the amount of drag between the separator and the paper. To do this, grasp the material on the trail edge of the paper and lightly tug to feel the amount of drag.



**Adjust Drag**

- If the separator is *too tight* (difficult to slide or tear paper), *loosen* the separator by *turning it clockwise* until a slight drag is achieved.
- If the separator is *too loose* (no drag, paper slides back and forth freely), *tighten* the separator by *turning it counter clockwise* until a slight drag is achieved.

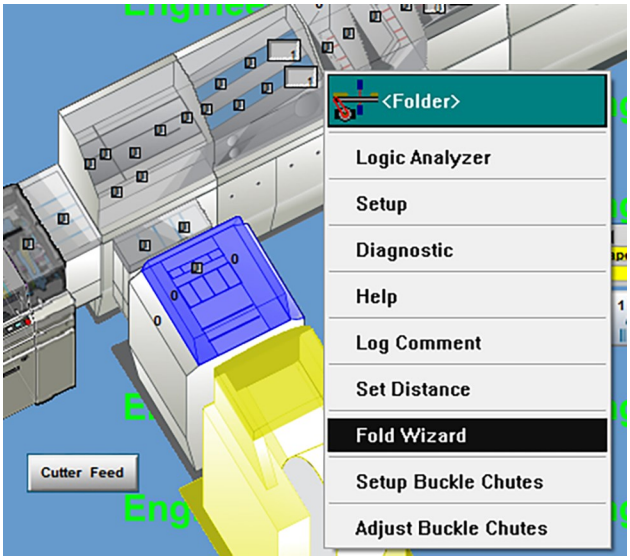
## Note:

- This gives you the approximate proper paper drag. You may still have to fine tune this adjustment once you start running the job. If you experience *doubles*, the separator needs to be *tightened* (turn counter clockwise); if you get *fail to feeds*, the separator needs to be *loosened* (by turning clockwise). Refer to the *Troubleshooting* section for more help.
- These adjustments should be minor, one or two clicks at a time. If the issue continues, try a few more clicks until the problem is resolved.

# Setting Fold Parameters Using the Fold Wizard

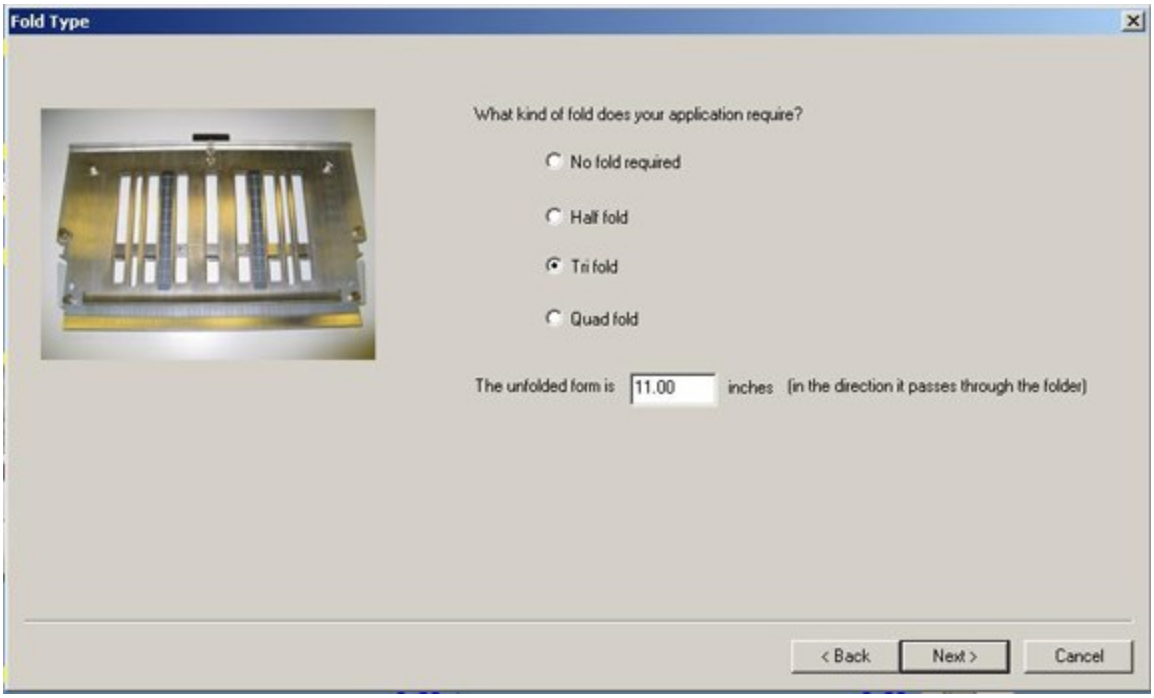
If the fold type changes from the previous job and the new parameters are not in the mode, they have to be changed. Use the Auto Buckle Chute fold wizard and your work order to change the parameters for the new fold type.

1. Click on the Folder object on the main DC screen and select **Fold Wizard** from the drop-down.

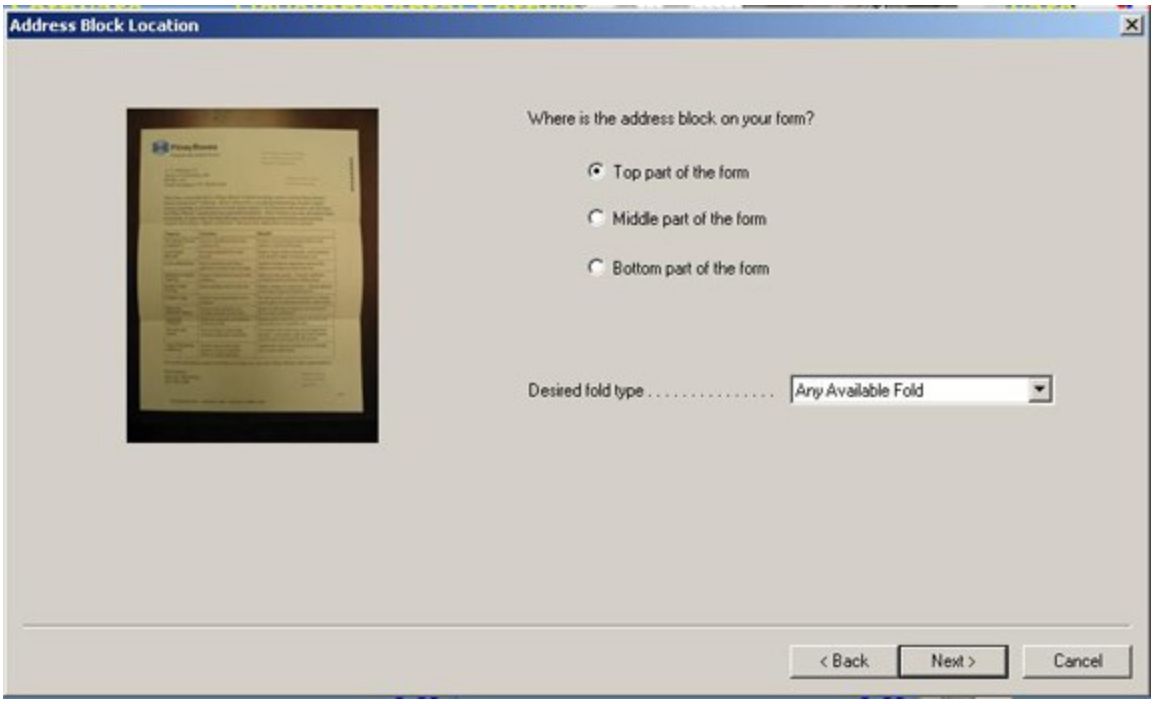



2. When the first Fold Wizard screen opens, click **Next** to continue.

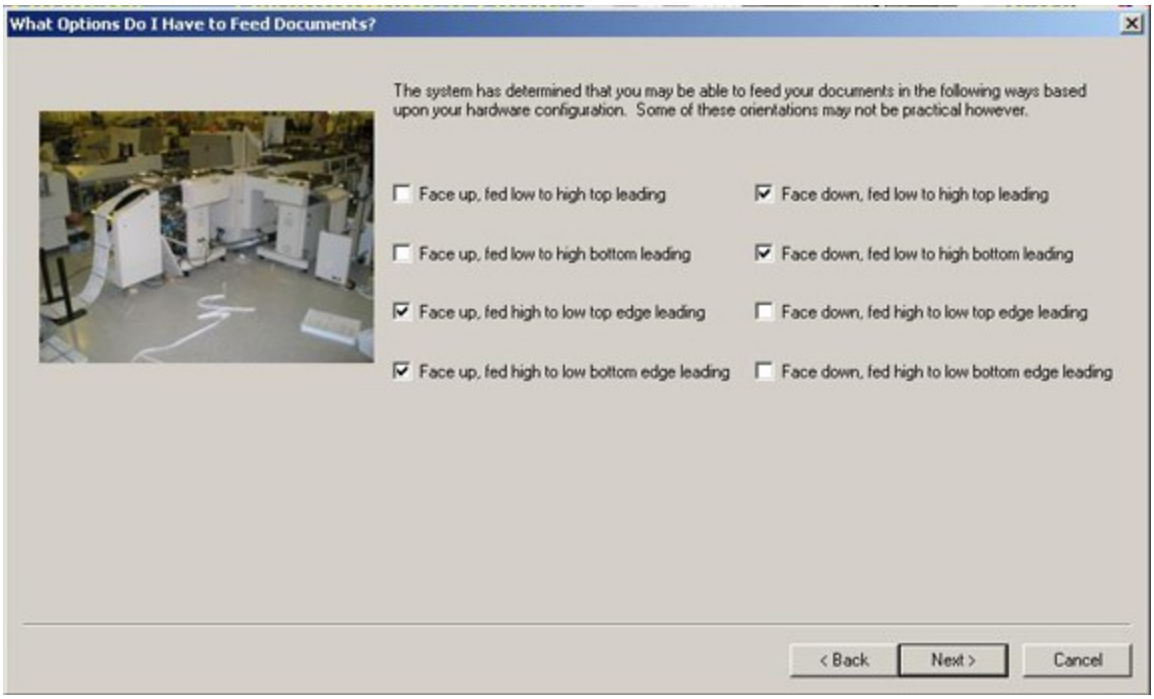
3. When the next screen opens, select your fold type and enter the value for the unfolded material size in the field. Click **Next** to continue.



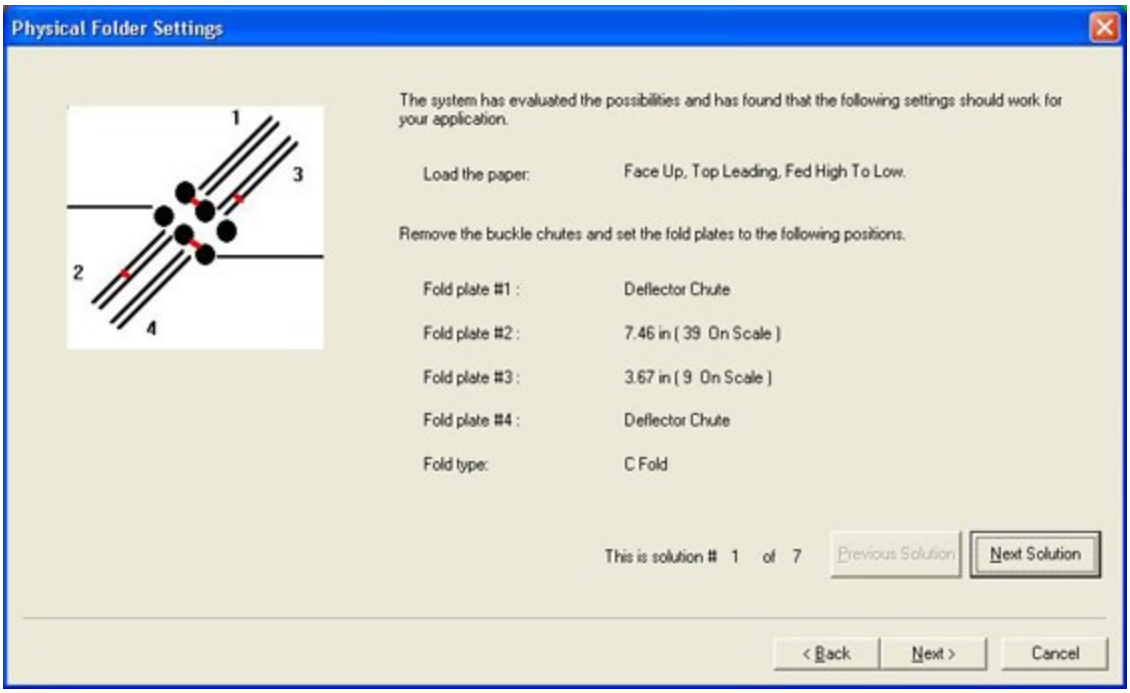
4. When the next screen opens, select the location of the address block. You can also select other fold types here by clicking the arrow to access the options. Click **Next** to continue.



5. Based on the fold type you selected, select the feed orientation (how the sheets are fed into the folder). Click **Next** to continue.

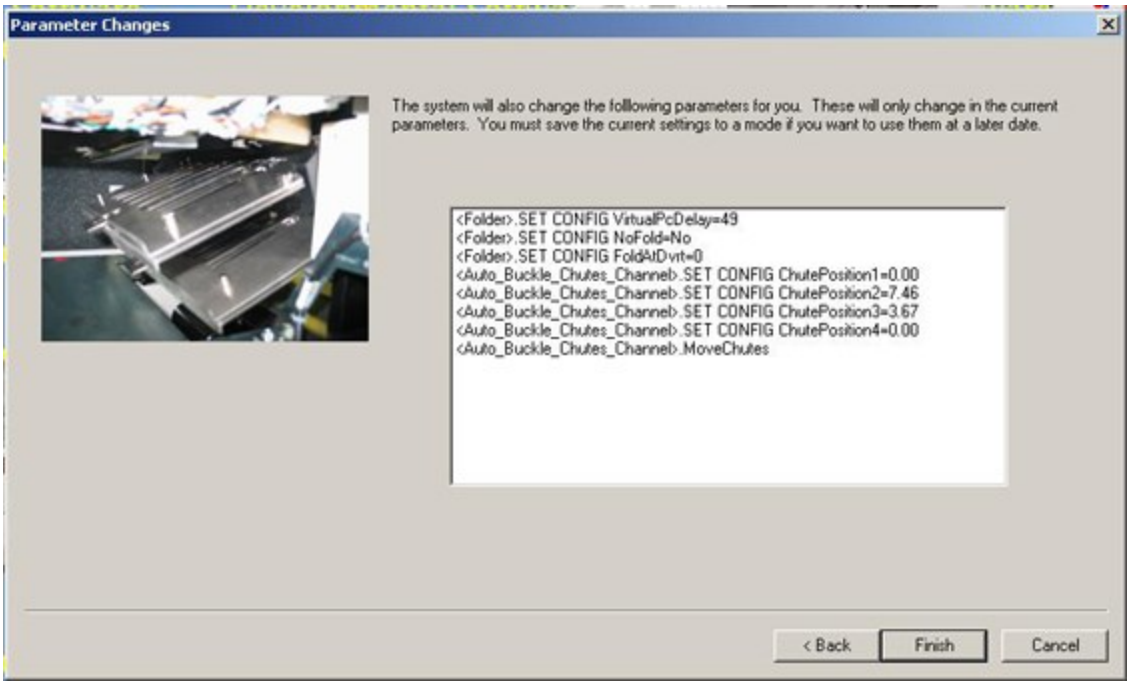


The next screen displays fold panel lengths the system will use based on the fold type and feed orientation you selected.




6. If you want to select a different set of fold lengths, click on **Next Solution**. Select the option you want and click **Next** to continue.

7. The final Fold Wizard screen shows all the parameters you set and their current values. Verify these settings.




8. If you need to make changes, click Back and reset any of the parameters following the same steps in the Wizard you just used.
9. Once your settings are correct, click **Finish** for the parameters to be applied.

# 4 - Running the Job

## In this section

# Running a Job

To run a job on the Pulse Inserting system:

- *Load material*
- *Run a trial piece*
- *Start the job*
- *Monitor the mailpiece icons for mail processing progress*
- *Manage mailpiece outsorts*
- *Clear the deck*
- *End the job*
- *Reset counts (if this is a part of the process at your site)*
- *Power Down the system* (*(if this is a part of the process at your site)*

# Loading Material

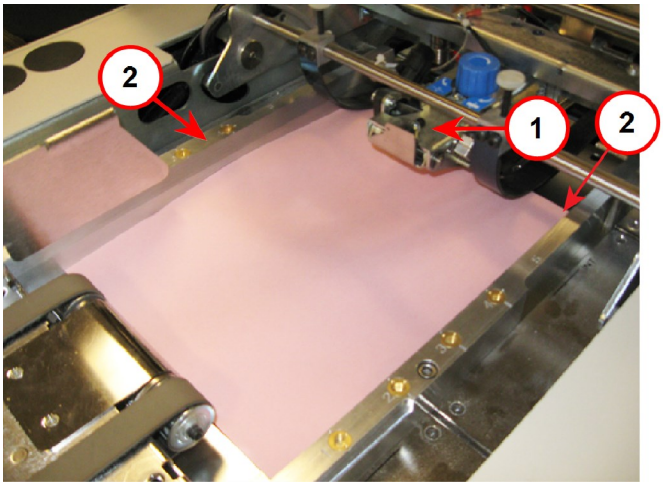
In all cases, material gets loaded into the input module. Some applications may also require you to load inserts into the inserter feeder(s).

## Loading Material into the Input

When you load the material into the input, the height of the material directly affects the performance of the feeder.

To load paper:

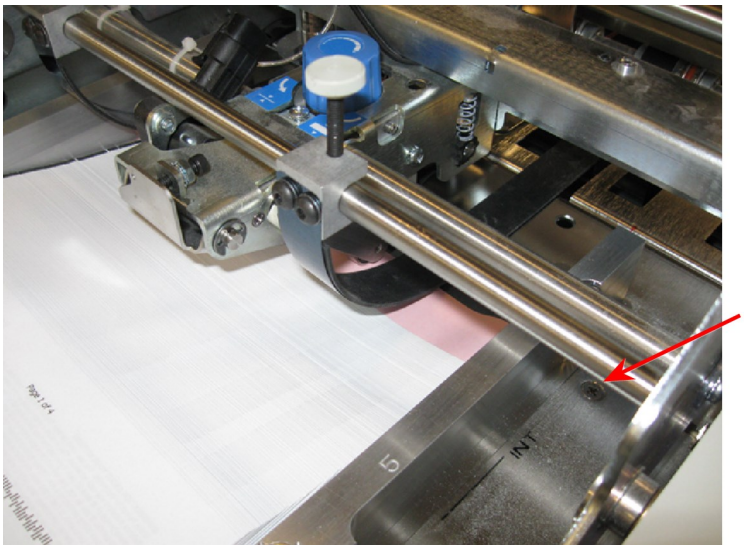
1. Place a single sheet of paper between the feeder deck side guides and underneath the separator gate, up against the separator.




| Item | Description |
|---|---|
| 1 | Separator Gate |
| 2 | Feeder Deck Side Guides |

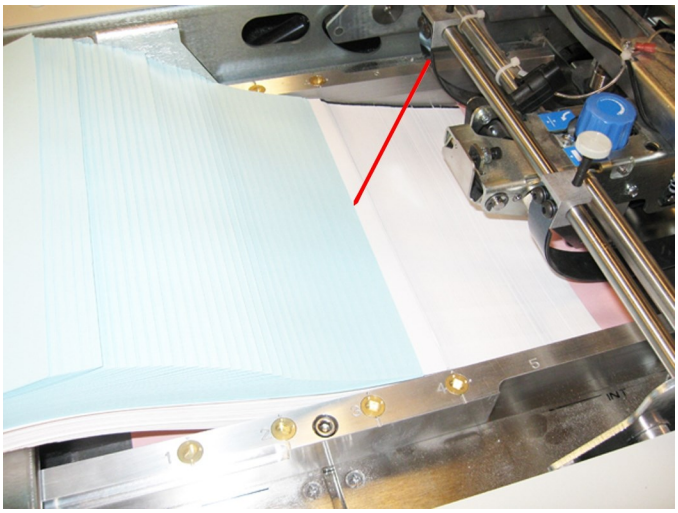
**Material Under the Separator Gate**

2. Place the first stack of material in the feeder so the front edge of the stack is even with the screw on the deck.



**First Paper Stack Even with Deck Screw**

3. Place the lead edge of each additional stack within 1/2” (13 mm) of the top sheet of the prior stack.



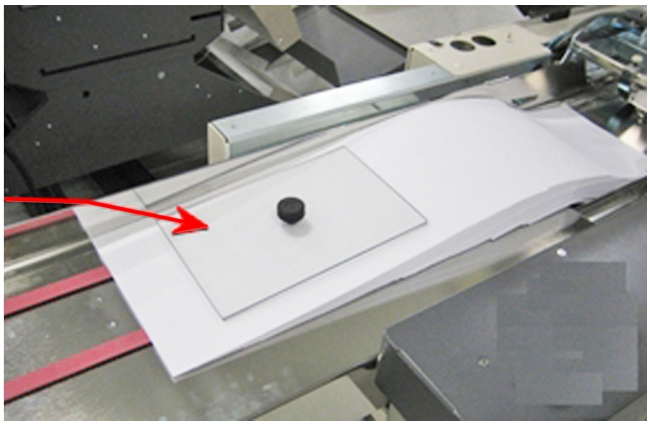
**Adding More Material - 1/2" (13 mm)**

## Note:

Fan and jog each stack of material before you load it on the prefeed deck.

4. Continue adding material until the prefeed deck is full.

5. Place the paper stabilizer at the end of the last stack.



**Place Paper Stabilizer on End of Last Stack**

Your paper is loaded and ready to run.

## Reloading Material into the Input While the Job is Running

When you reload material while the job is running:

1. Remove the paper stabilizer.
2. Repeat steps 3 - 5 from *loading material in the input*.

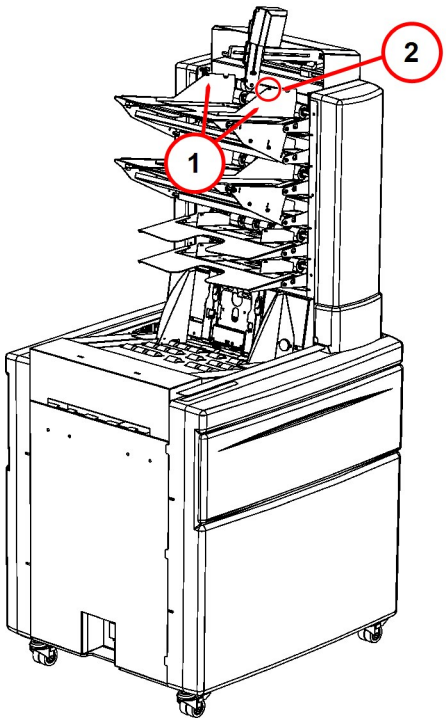
# Loading Material into the Inserter

Some applications may require you to load inserts into the inserter feeder(s).

1. Before loading the feeders, be sure the sheets are fanned and aligned.
2. Load the sheets into the feeder bins.
3. Adjust the side guides so the material is centered in the feeder.

## Note:

*Do not* load paper higher than the mark on the side guides.

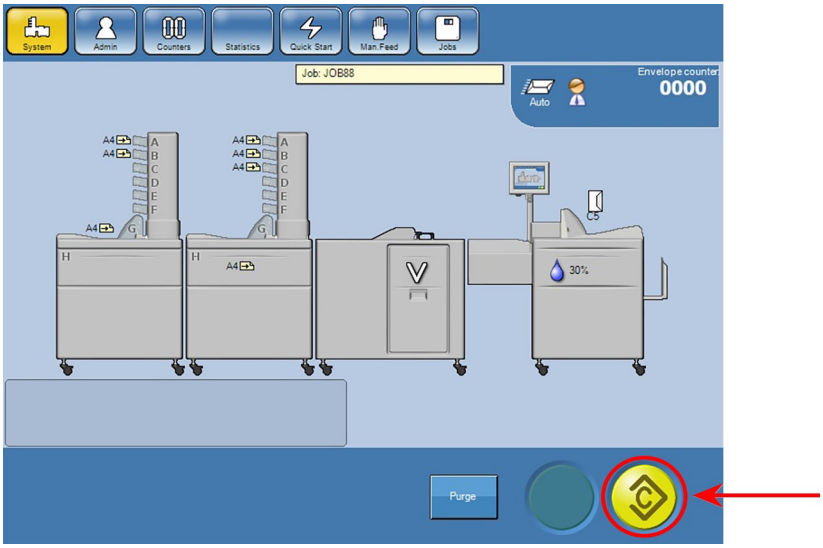



| Item | Description | Item | Description |
|---|---|---|---|
| 1 | Feeder Side Guides | 2 | Material Loading Mark |

# Running a Trial Piece

Before you start the job, using the inserter interface, run a trial piece to test the fold placement and confirm the collation and inserts are correct.

1. Load material into the input.
2. Verify the correct job is loaded (also that it matches the mode loaded in DC).
3. At the inserter interface, click the yellow **Trial Piece** button to run a trial piece before starting a job.



## Check the Trial Piece Before Running the Job

1. Check these items:
   - Fold (address placement is correct)
   - Collation is correctly assembled
   - The correct inserts were fed
2. If the fold is not correct, *adjust the auto buckle chute settings*.
3. When everything is correct, start the job.

# Adjust Auto Buckle Chute Offsets for Address Placement

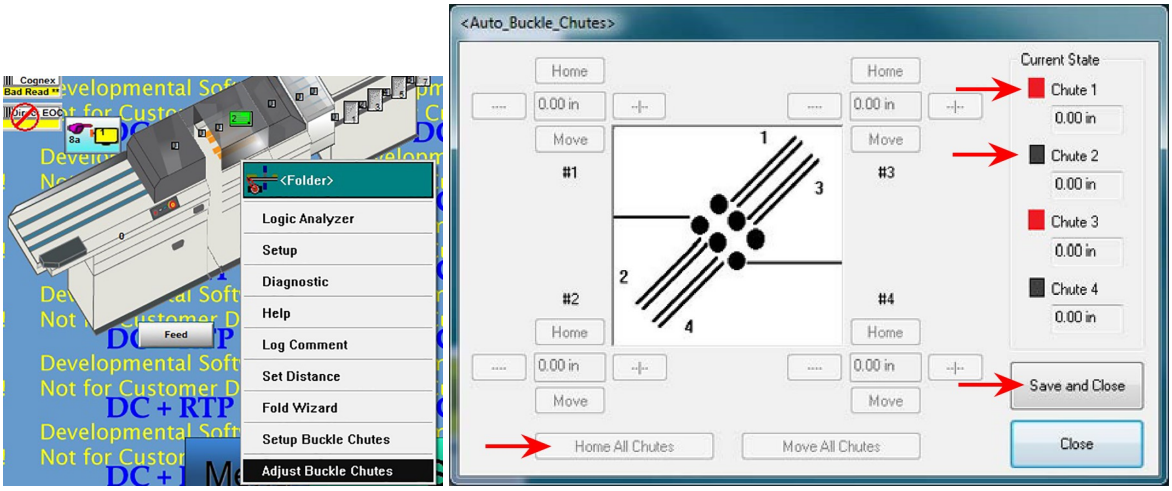
After you run a trial piece, if the address is not in the right place because the fold is off, you need to make some adjustments to the settings.

## Note:

You must be logged in as a Key Operator or higher level to access auto buckle chute offset settings.

To adjust auto buckle chute fold settings:

1. Click on the **Folder** object on the main DC screen and select **Adjust Buckle Chutes** from the drop-down menu. The Auto Buckle Chute Chutes screen opens.




| Item | Description |
|---|---|
| 1 | Red box indicates auto buckle chute is present |
| 2 | Black box indicates auto buckle chute is present |
| 3 | Home All Chutes before modifying values |
| 4 | Save and Close to apply changes |

2. Before you make any changes, click the **Home All Chutes** button.

3. When you decide which chute you need to adjust, click the "+" or "-" sign for that chute. *(The chute moves .05 inches every time you click the "+" or "-" sign. The maximum move value is 8.0 inches for all chutes.)*

> **Note:**
>
> If the "+" and "-" buttons are grayed out, it means the auto buckle chutes are not installed in the folder.

4. When you complete the changes, click on **Move All Chutes** to accept the changes.
5. Click **Save and Close** to apply the changes.
6. Run a trial pece to verify fold is correct and the address is in the right place.
7. Repeat this process until the fold is correct.

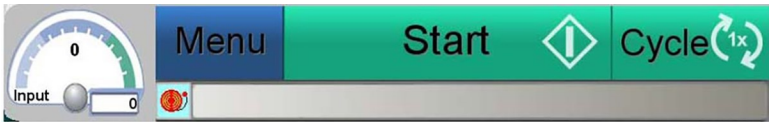
> **Note:**
>
> Auto buckle chutes will not move when an interlock is broken or any door is open.

# Starting a Job

After the material is loaded and the trial piece has been checked, you are ready to start the job. You can start the job from either the DC computer or using the inserter interface.

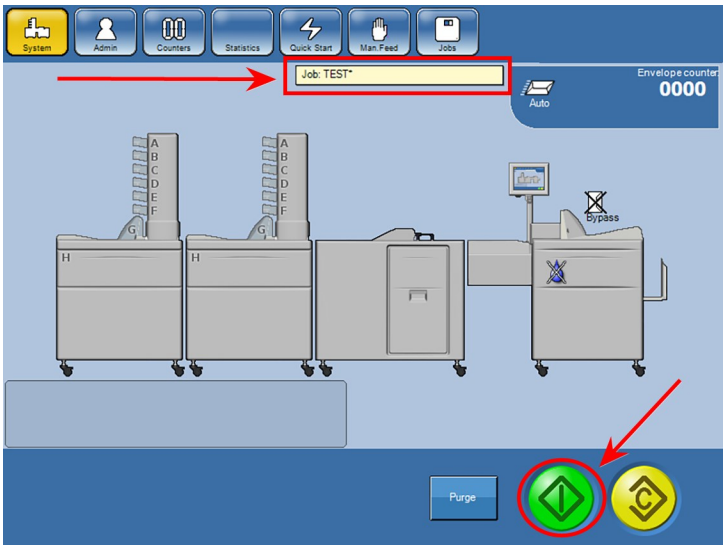
## Starting the Job at the DC Computer

1. Click the **Start** button on the DC main screen to start running the job.



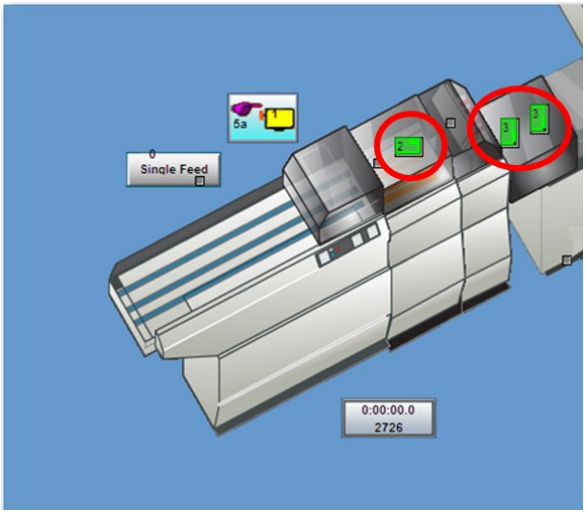

## Starting the Job Using the Inserter Interface

1. Using the inserter interface, verify the job is loaded and matches the mode loaded earlier in DC.
2. On the main inserter interface screen, tap the green **Start** button.



# Monitoring Mailpiece Icons

While you're running the job, monitor the color of the mailpiece icons on the screen to see how the job is processing. The icons are green if the mail is running correctly. If there is a potential issue, the mailpiece icons turn yellow. Sometimes the inserter can auto correct a potential issue and in some cases the machine will stop if it cannot auto correct. In this case, the mailpiece icons turn red.




**Mailpiece Icons**

- **Green** - the mailpiece icons are green when the material is running correctly and the mailpieces are good; no action is required.
- **Yellow** - yellow mailpiece icons indicate there is a potential problem. This typically indicates there is scan data missing. In some cases, DC can correct the issue and the system will continue to run; no action is required.
- **Red** - if DC could not correct an issue the mail piece icons turn red, and the system stops; action must be taken to correct the issue. There could be a variety of reasons the icon turns red.

## Note:

If the machine stops and the mail piece icons are red, DC displays an error to give you more information about the issue and how to possibly resolve it.

# Managing Mailpiece Outsorts

Outsorts are bad or unfinished mailpieces and eventually need to be removed from the system and reprocessed. If a problem occurs with a mailpiece duirng the job, the mailpiece icons will turn yellow or red while the system is running.

The way the system deals with outsorts depends your system configuration, and will differ from site to site.

### No Vertical Stacker - How Outsorted Mailpieces are Processed

If your system *does not* have a vertical stacker, the machine will stop and the unfinished mail pieces will remain in the inserter unsealed with the flap open, until you remove them.

1. Locate the mailpiece (inidcated by the red mailpiece icon on the screen).
2. Remove the mailpiece(s) and set them aside.
3. Restart the job.
4. Prepare the outsorted mailpieces for reprocessing.

### Vertical Stacker on the System - How Outsorted Mailpieces are Processed

If your system *has*a vertical stacker, the machine will not stop and the mail pieces will diverted to the vertical stacker.

1. Remove the mailpieces from the vertical stacker. *(You can do this while the job is running or when the job ends.)*
2. Prepare the outsorted mailpieces for reprocessing.

# Clearing the Deck

Clearing the deck removes all the material from the paper path on the machine. Typically you would use this function at the end of a job or at the end of a shift.

**Non-File Based Jobs**

if you are a running a job that is *not* file based, depending on how your site is configured, the last piece fed from the input may cause a "fail to feed error." In this case, initiate the clear the deck function to finish.

**File Based Jobs**

If you are running a file based job, clearing the deck is an automatic function. If your site's application has "auto clear deck" information in the barcode, the system will automatically clear the deck after the last piece is fed from the input and you *do not* have to initiate the clear deck function.

## Initiating Clear Deck

1. Initiate the clear the deck function using one of these methods:
   - Press the **Cycle** and **Stop** buttons (together) on the remote control. *OR*
   - Click **Menu** on the main DC screen and select **Clear Deck** from the drop-down. *OR*
   - Click on the **Multi Feeder** object on the main DC screen and select **Clear Deck** from the drop-down menu.
2. When the paper path is clear, collect any outsorted mailpieces and prepare them for reprocessing.

## What Happens When Clear Deck is Initaited

When you intiate a clear deck function, the system behaves differently depending on whether or not the system is running.

### When the system is running

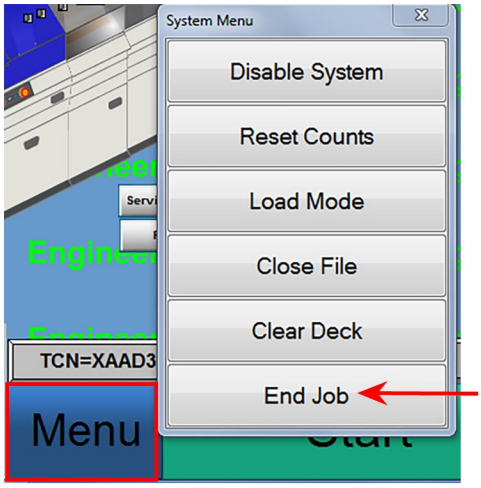
f the system is running when Clear Deck is initiated, all the material in the system's paper path will be processed and cleared from the system. No more pieces are fed from the input.

### When the system is *not* running

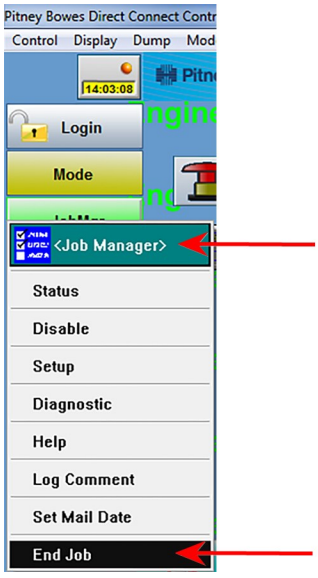
If the system is not running when Clear Deck is initaited, the next time the system is started, all the mail that is currently in process, in the paper path is completed and then the system stops. No more pieces are fed from the input.

# Ending a Job

1. If your site does not have the auto clear deck feature, *clear the deck*.
2. There are two ways to end the job:
   - Click the **Menu** button and select **End Job** from the drop-down. *OR*



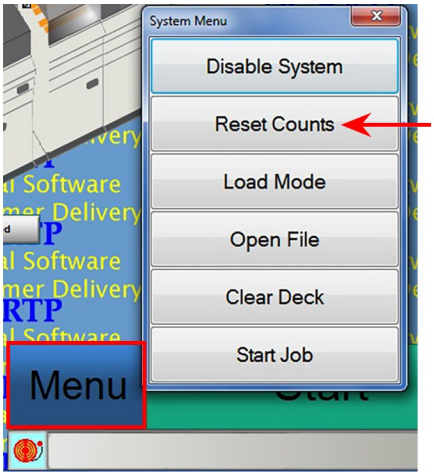

   - Click the **JobMgr** button and select **End Job** from the drop-down list.



# Resetting Counts

At the end of a job or shift it is a best practice to reset the counts before you log out.

1. At the end of a job, click **Menu** on the DC main screen and select **Reset Counts**.




2. Load a new job or log out.

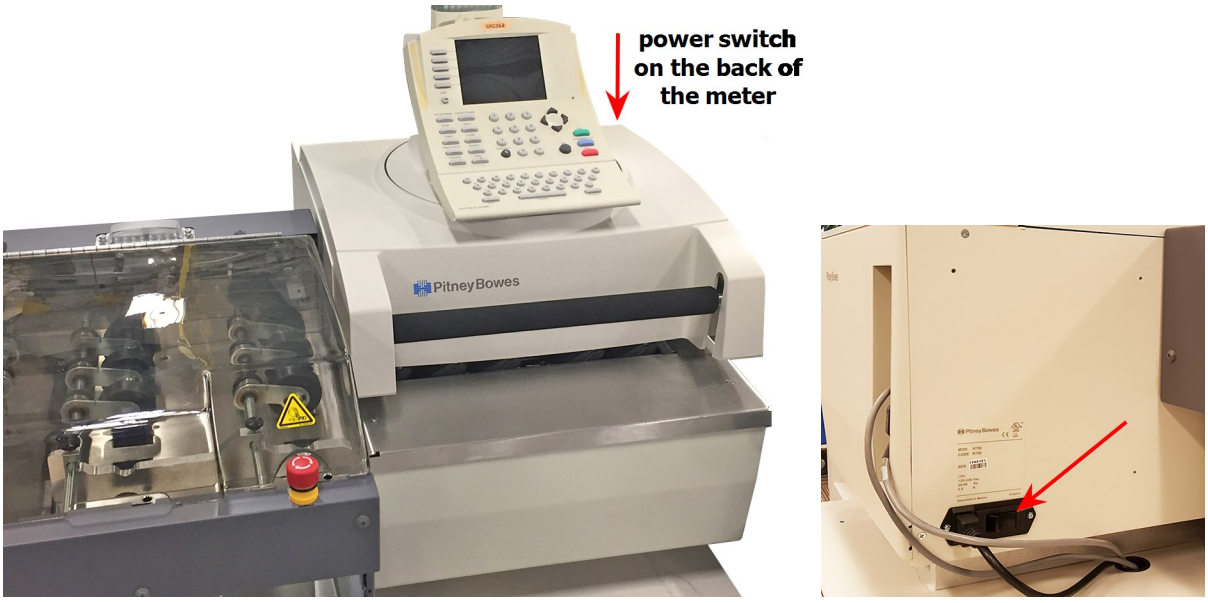
# Power Down the Pulse System

Power down the different Pulse system components in this order:

- *Infinity Meter*
- *Inserter* (feeder and inserter)
- *Direct Connect computer*
- *Input module*

## Meter Power

To power down the meter, press the power switch located on the back of the meter to the OFF position.




**Power Switch on the Infinity Meter**

## Inserter Power

There are two power switches on the inserter, one by the feeder and one on the inserter. To power down the inserter, press both power switches to the OFF position.


| Item | Description |
|---|---|
| 1 | Feeder Switch |
| 2 | Inserter Switch |

**Power Switches on the Pulse Inserter**

## Note:

The power switch located near the feeder may be on the other side of the inserter, depending on your system configuration.

## Direct Connect Computer

To shut down the Direct Connect computer:

1. On the main DC menu click **Control** > **Power Down**. This logs you out of DC and shuts down the computer.

# Input Power

To power down the input, press the power switch to the OFF position. *(When you power down the input module the output module and DC computer power down as well.)*

**Power Switch on the Pulse Input**

# 5 - Error Recovery

## In this section

# Error Recovery

When an error or material jam or error occurs that stops the system while the job is processing, there are indicators on the DC main screen (in the form of alarm messages) telling you what the issue is. The indicator lights mounted on the system can also flash, showing you where the problem is.

In this section, learn how to view and clear alarm messages (errors) and how to access areas of the system to remove material jams.

## Alarm Messages in DC

If you get an alarm message (error) on the bottom of the DC main screen, refer to the *Alarms in Direct Connect* topic for information on how to view, resolve and clear them.

## Clearing Material Jams

Material jams can be caused by blocked photocells, paper dust, worn belts, poor material condition, etc. A DC alarm, flashing object, or the indicator lights on the inserter will help you find the material jam.

Learn how to access and remove material jams from the various areas of the input and output modules.

- Feeder
- Accumulator
- Folder
- Output transport entrance and exit areas
- Vertical Stacker
- Meter

### Note:

Take care when removing jams in any area of the system. Belts and straps can be moved or fall off while you're removing the material. Be sure to check all parts are in the right spot after clearing a jam, to prevent further jamming issues.

# Alarms in Direct Connect

There are several alarms (error messages) that may display on the DC main screen due to material jams, caused by things like blocked photocells, paper dust, worn belts, material condition, etc. **IT'S MORE THAN MATERIAL JAMS? WHAT ELSE SHOULD I PUT HERE?** An alarm causes the machine to stop running.

When an alarm pops up on the DC main screen, you want to see what the problem is and resolve the issue so you can continue running the job.

In this section, learn how to:

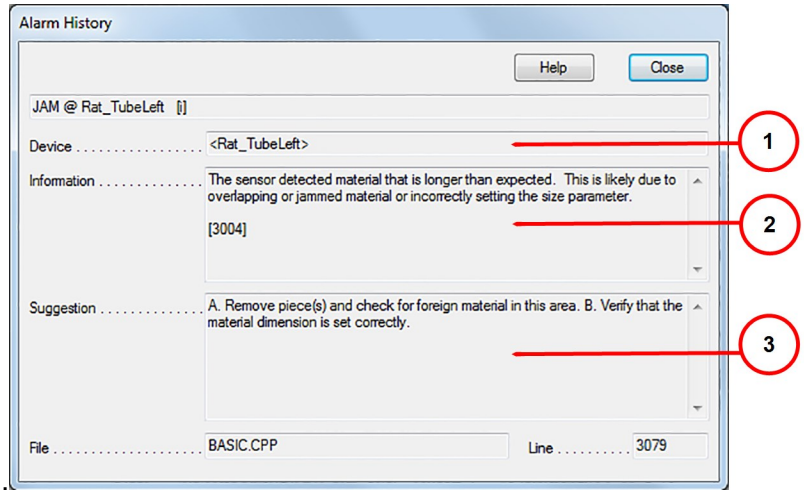
- *View alarm details*
- *Resolve and clear the alarm*
- *View alarm history*

## View Alarm Details

If an alarm displays on the bottom of the DC main screen, follow these steps to get more information on the cause and resolution.

1. When an alarm displays on the bottom of the DC screen, double-click it or click **View**. The Alarm History window opens.


This window has information about *where the error occurred* (Device), *error details* (Information), and a *suggested course of action* (Suggestion)




| Item | Description |
|---|---|
| 1 | Device *(where the error occurred)* |
| 2 | Information *(details about the error)* |
| 3 | Suggestion *(suggested course of action)* |

## Resolve and Clear Alarms

1. After you review the information, click **Close** to close the dialog.
2. Take the appropriate action to resolve the error.
3. Click **Clear** on the Alarm Message box at the bottom of the screen.


4. Click **Start** on the DC main screen.
5. If the error still occurs, repeat the error recovery process.
6. If after repeating the process the error remains, contact Service.

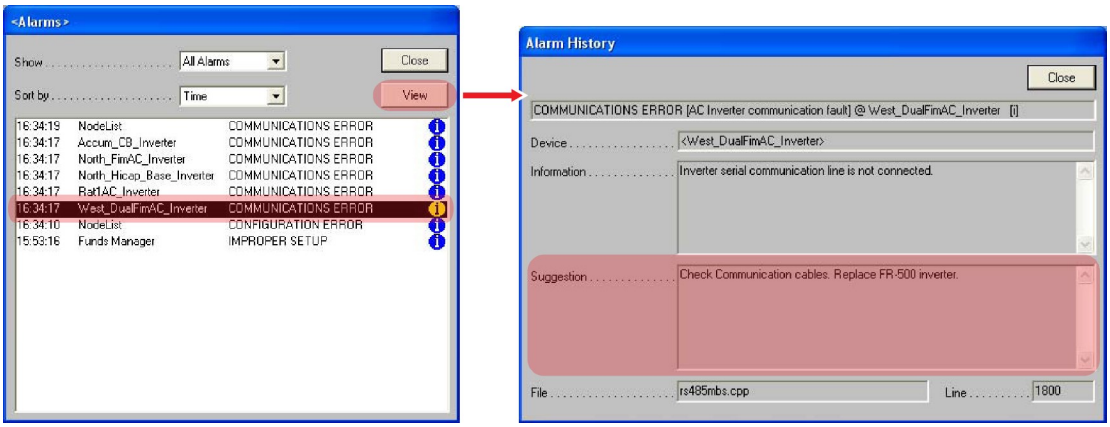
## View Alarm History

It is possible to view the history of alarms that occurred during the current job run. The alarm history can be helpful when troubleshooting persistent problems.

To view the alarm history:

1. Click the Alarms icon and select **History** from the drop-down menu.

2. If you want to view details about a specific alarm, double-click it or highlight it and click **View**.

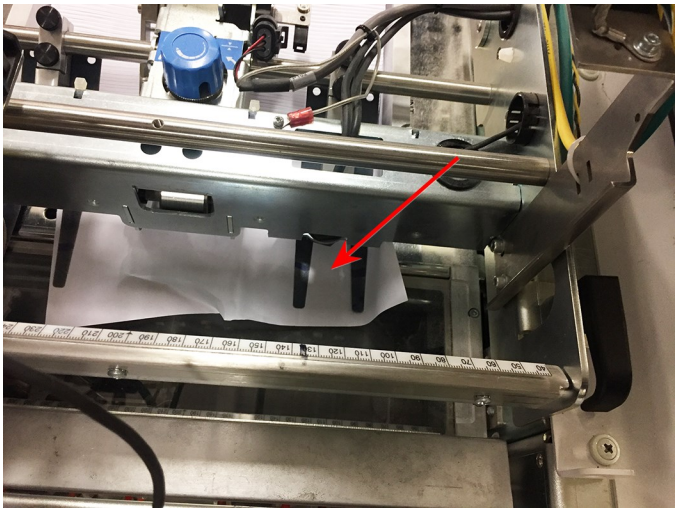



## Note:

Alarms with a "stop sign" next to them indicate an event that stopped the system.

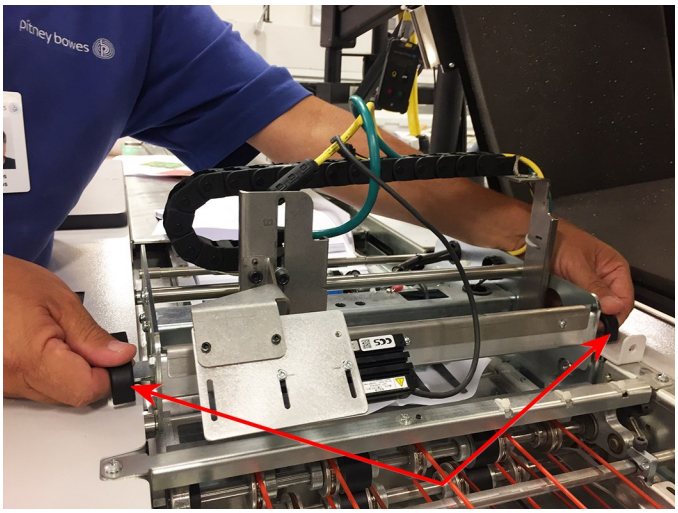
3. When the Alarm History window opens, you can review the information about the alarm you selected.
4. Click **Close** and **Close** to exit out of the alarm history and back to the main DC screen.

# Clearing Jams in the Sheet Feeder



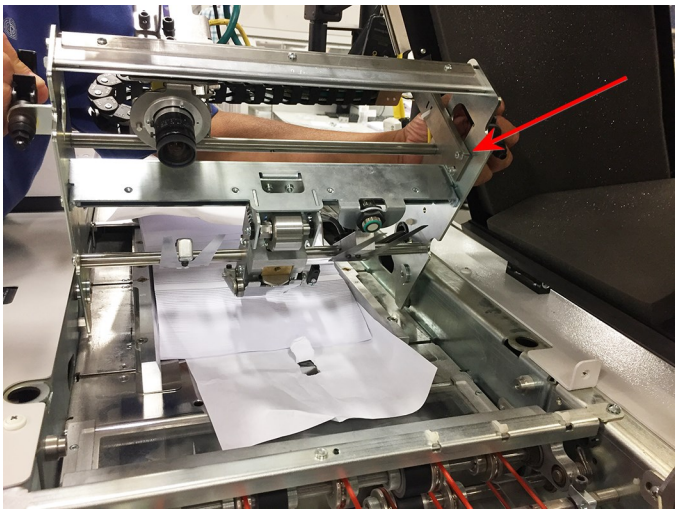
To clear a jam in the sheet feeder:

1. Lift the locking latches on the feeder bridge.

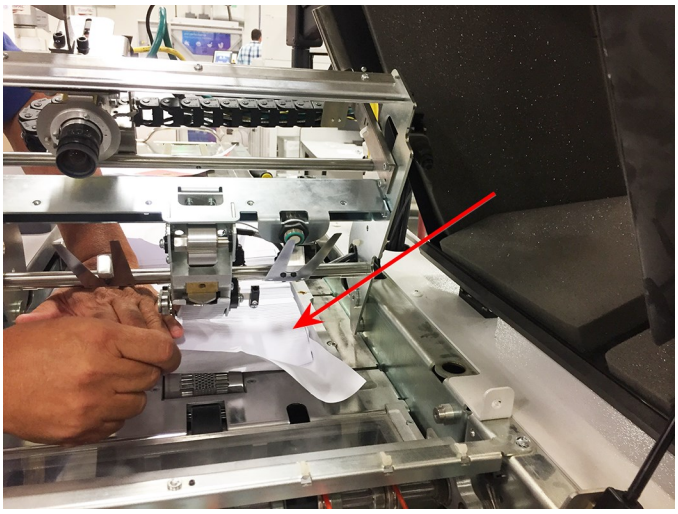



**Feeder Bridge Locking Latches**

2. Lift the bridge.



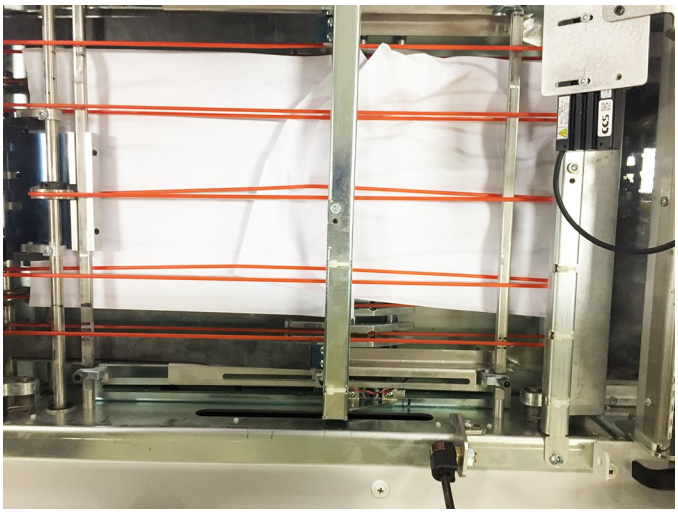
3. Remove the jam.



4. Close the bridge.

# Clearing Jams in the Accumulator

To clear a jam in the accumulator:



1. Gently remove the jammed material.

# Clearing Jams in the Folder

If you get a flashing red icon on the folder object and an error message on the main DC screen, this indicates you have a jam in the folder area.

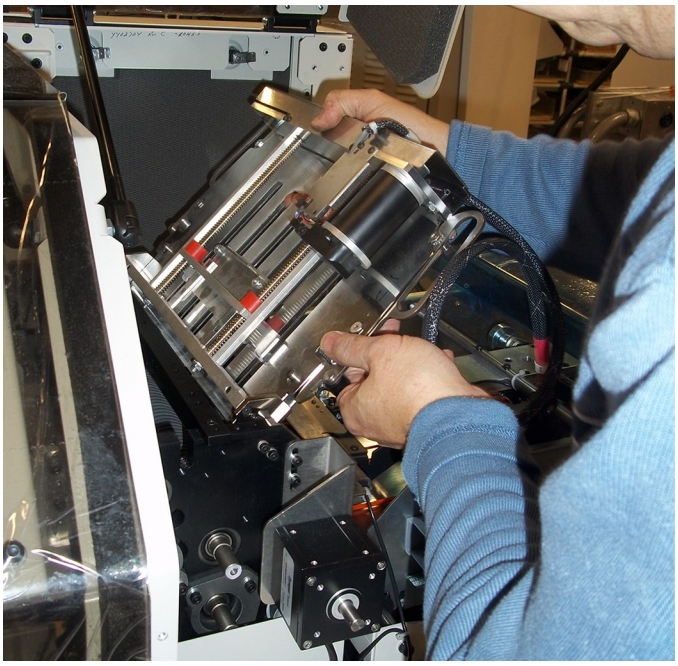
There are two sets of auto buckle chutes, upper and lower. You will need to know how to remove and install the chutes to clear material jams in the folder. For more information on how to remove and reinstall auto buckle chutes, refer to the Remove Upper and Lower Auto Buckle Chutes topic and Reinstall Upper and Lower Buckle Chute topic.

## Caution:

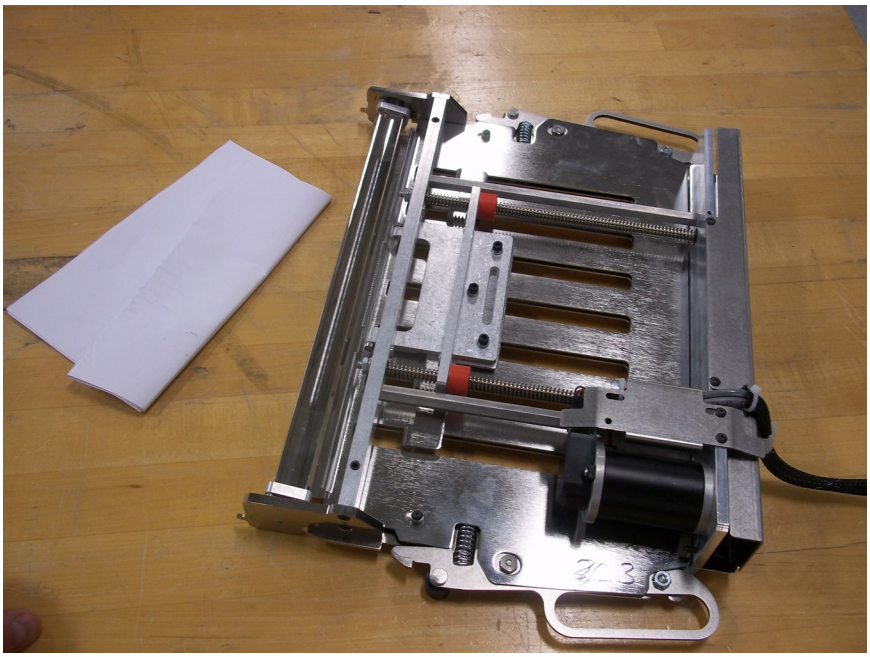
Do not attempt to remove a jam manually by turning the rollers back. This can force the jammed material into the auto buckle chute fingers and damage them.

To clear a jam in the folder:

1. Remove the auto buckle chute(s) from the folder - *upper or lower chute*.

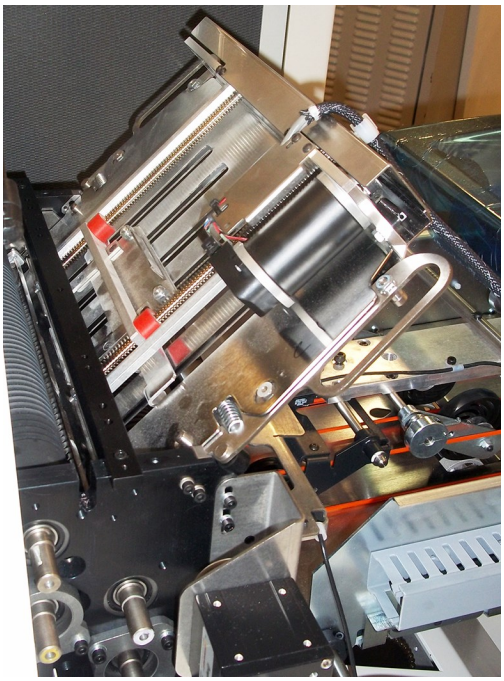


2. Lay the chute down on a flat surface, holding it firmly with one hand while using the other hand to remove the jammed material.



**Lay Auto Buckle Chute on a Flat Surface**

3. Reinstall the auto buckle chutes - *upper or lower chutes*.

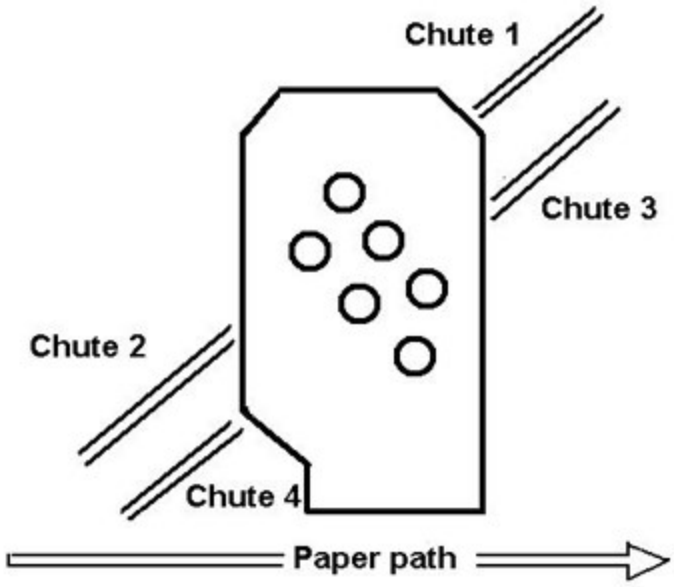


**Auto Buckle Chute Reinstalled**

4. Make sure the auto buckle chute is positioned correctly in the folder side frame; wiggle the chute to verify the locking tabs are engaged.

# Removing Upper and Lower Auto Buckle Chutes

If you get a material jam in the folder, you may have to remove the auto buckle chutes to access it. This diagram shows the paper path and the location of the auto buckle chutes in the folder. Chutes 1 and 3 are the upper auto buckle chutes; chutes 2 and 4 are the lower auto buckle chutes.




You can only access the auto buckle chutes by opening the folder and side access covers. These covers are interlocked, so the machine stops when the covers are open and will not restart until you close them.

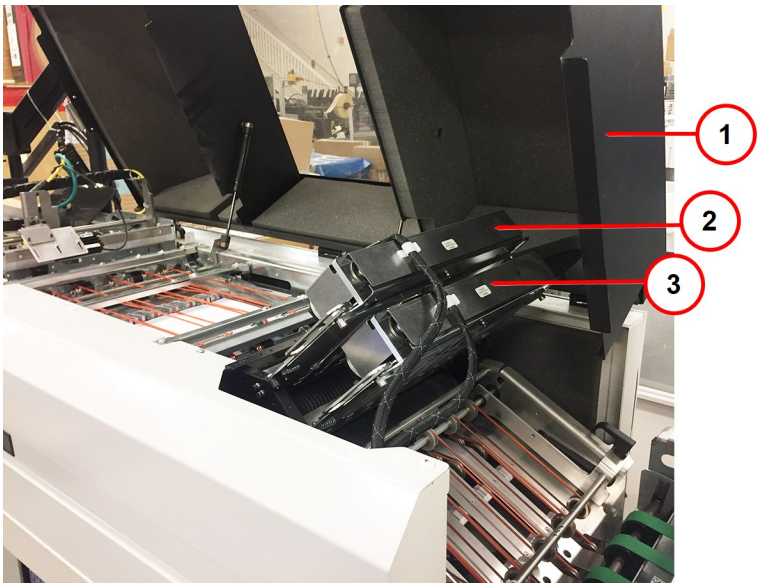
Power to the system can remain on while you are removing and installing auto buckle chutes, but the machine will not restart with the covers open.

## Caution:

Do not attempt to bypass the cover interlocks; this will create a hazardous situation.

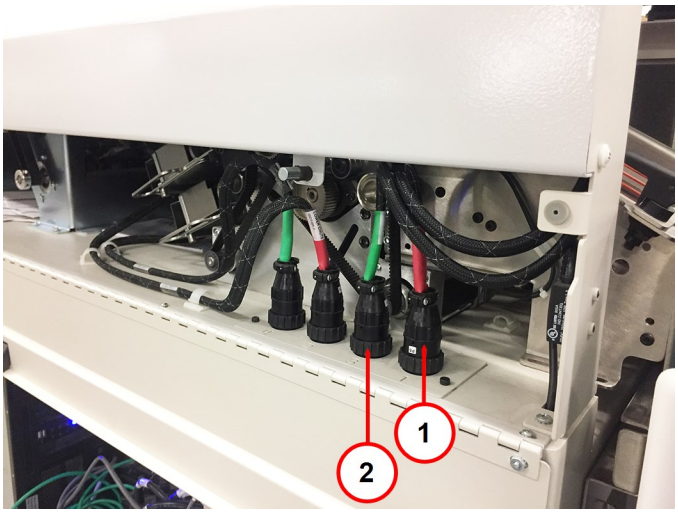
# Removing Upper Auto Buckle Chutes

1. Lift the upper cover on the folder section.




| Item | Description |
|---|---|
| 1 | Upper cover |
| 2 | Auto Buckle Chute #1 |
| 3 | Auto Buckle Chute #3 |

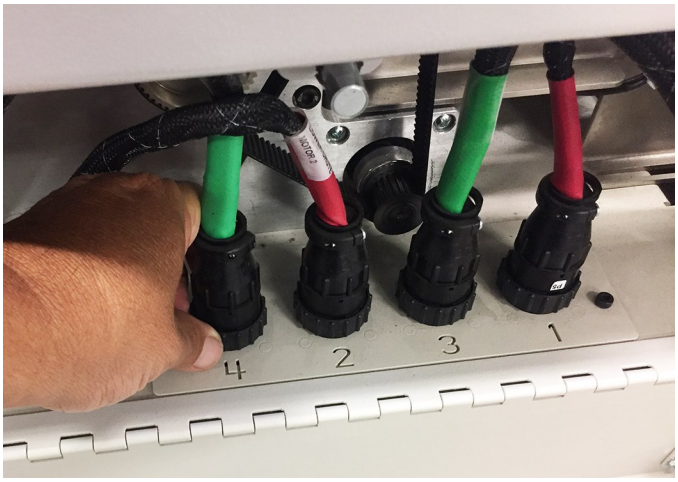
2. Note the numbering and the color code on the auto buckle chutes harness connectors.




| Item | Description |
|---|---|
| 1 | Harness 1 from Auto Buckle Chute #1 |
| 2 | Harness 3 from Auto Buckle Chute #3 |

**Identify the Harness Connections**

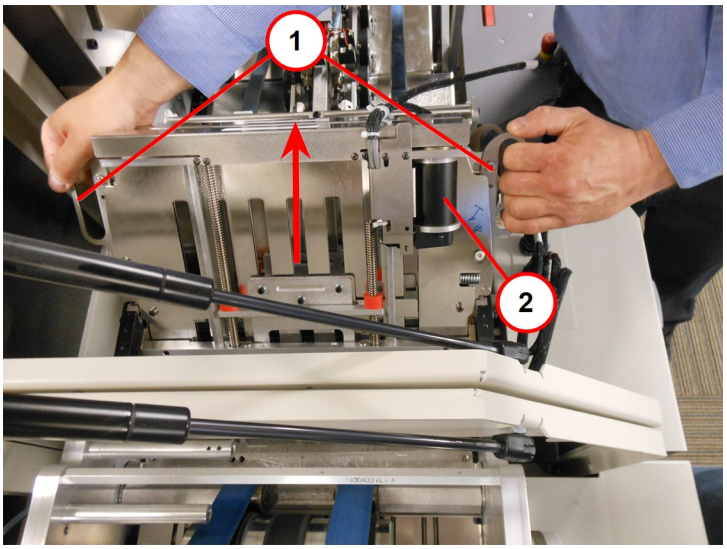
3. Loosen and remove the auto buckle chute harness connector on the deck. Remove the connector by turning the lock down ring counterclockwise.




**Remove the Harness Connector**

4. Move the disconnected chute harness connector out of the way.

5. Pull out on one of the latch handles and pull the chute straight out. *(The chutes are heavy and awkward to handle. To reduce risk of injury use caution when installing or removing.)*




| Item | Description |
|---|---|
| 1 | Latch handles (Auto Buckle Chute #1) |
| 2 | Motor *(AVOID touching)* |

## Caution:

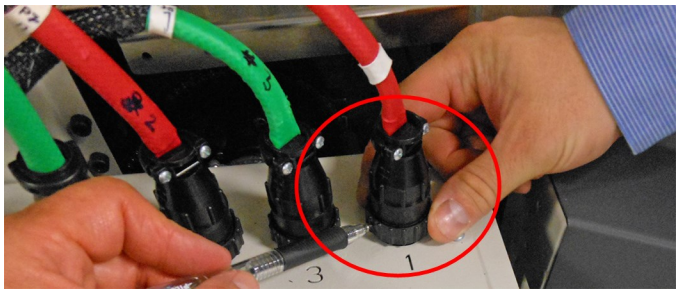
The stepper motor typically runs at a very warm temperature, about 140° F (60°C). Avoid prolonged contact with the motor.

# Removing Lower Auto Buckle Chutes

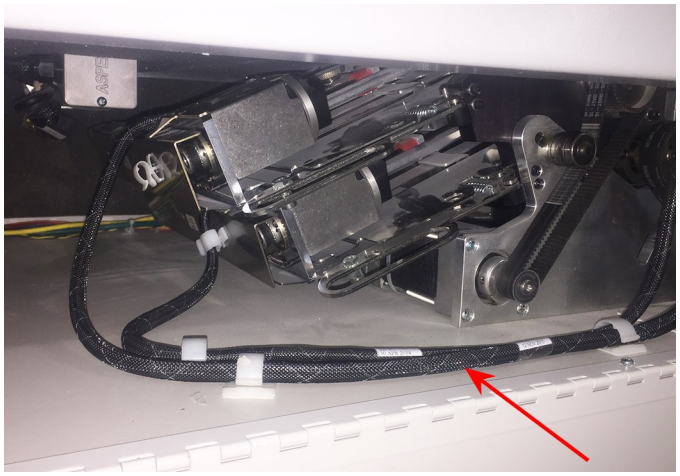
1. Lower the cover below the accumulator to get access to the lower chutes.

**Accessing Lower Chutes - Cover Lowered**

2. Disconnect the harness cable for auto buckle chutes #4 (and 2 if you are removing it also) from the connector on the deck.
   a. Remove the connector by turning the lockdown ring on the end of the harness cable counterclockwise.



   b. Route the disconnected harness cables down below the deck, into the open area under the accumulator.



3. Pull out on the latch handles on auto buckle chute #4 and pull the chute back. *(Wiggle the chute slightly from side to side to disengage the latches on the sides of the chute from the folder; this allows you to pull the chute out.)*

**Chute #4 Handle *(handle on the other side, not visible here)***

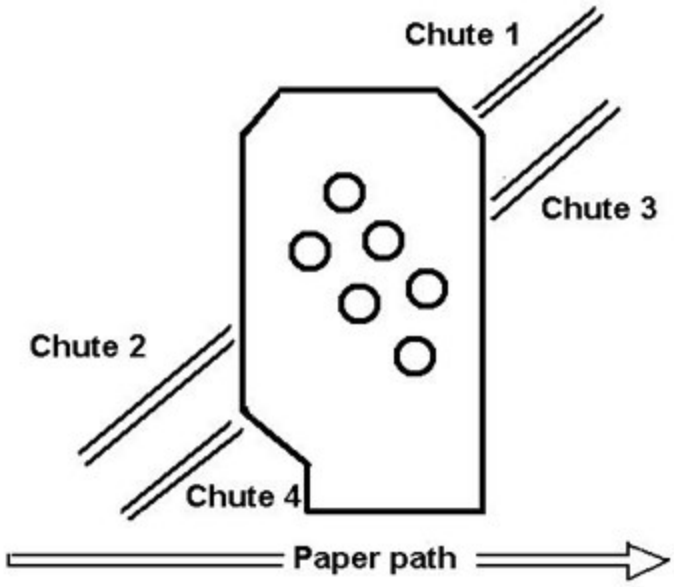
4. Pull the chute out.

## Caution:

The stepper motor typically runs at a very warm temperature, about 140° F (60°C). Avoid prolonged contact with the motor.

# Reinstalling Upper and Lower Auto Buckle Chutes

If you had to remove the auto buckle chutes for access to a jam, this is how you reinstall them. This diagram shows the paper path and the location of the auto buckle chutes in the folder. Chutes 1 and 3 are the upper auto buckle chutes; chutes 2 and 4 are the lower auto buckle chutes.




You can only access the auto buckle chutes by opening the folder and side access covers. These covers are interlocked, so the machine stops when the covers are open and will not restart until you close them.

Power to the system can remain on while you are removing and installing auto buckle chutes, but the machine will not restart with the covers open.

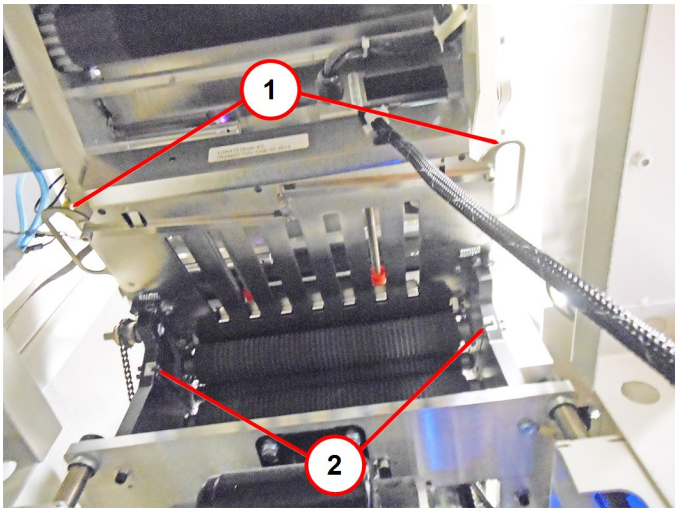
## Caution:

Do not attempt to bypass the cover interlocks; this will create a hazardous situation.

# Orientation

## Caution:

If you install the auto buckle chutes in the wrong position it can damage the fold roller, resulting in costly repairs. You will also get poor folds.

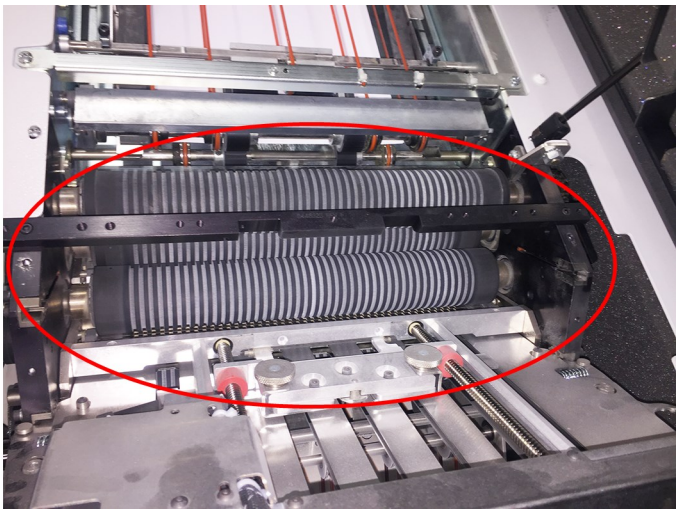



| Item | Description |
|---|---|
| 1 | Upper Chutes installed |
| 2 | Slots to install lower chutes |

**Buckle Chute in Folder Frame** ***(looking up at the folder)***

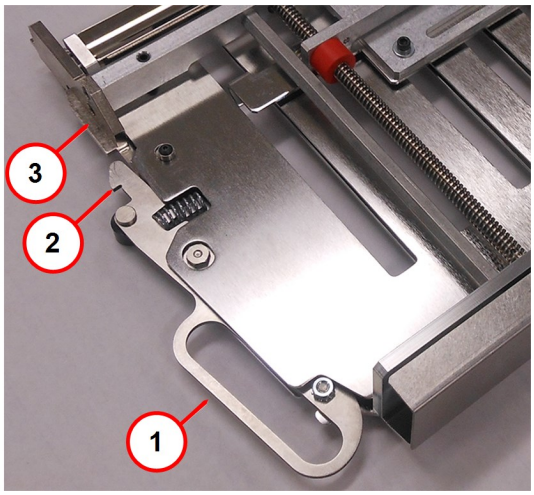
# Reinstalling Upper Auto Buckle Chutes

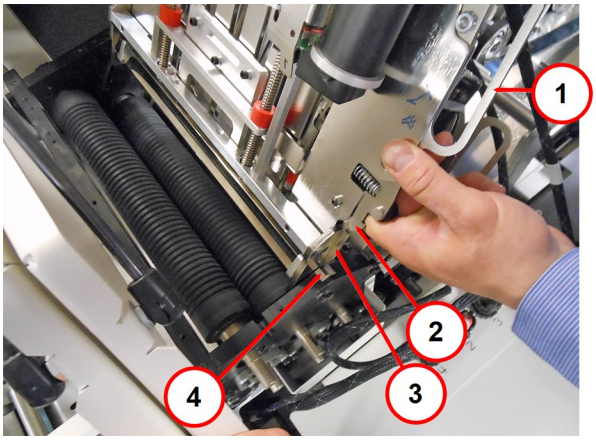
1. Lift the folder cover.



**Cover Open - Area with Slots for Auto Buckle Chute #3**

2. Install the auto buckle chute into the upper slot in the folder - position the chute so the metal tab lines up with the slot in the folder.

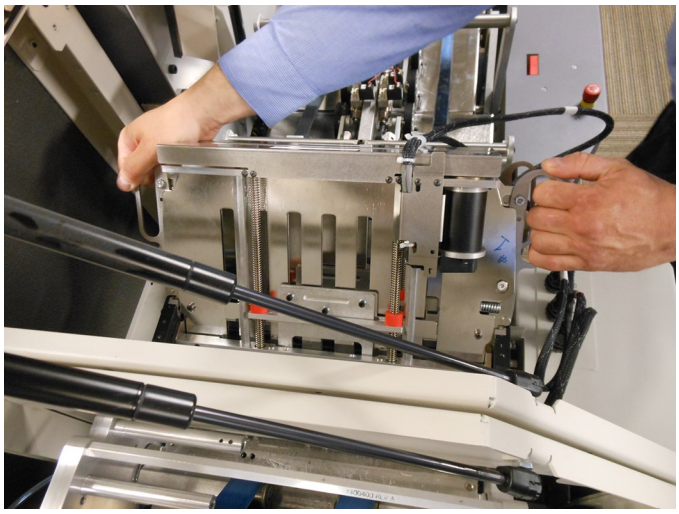


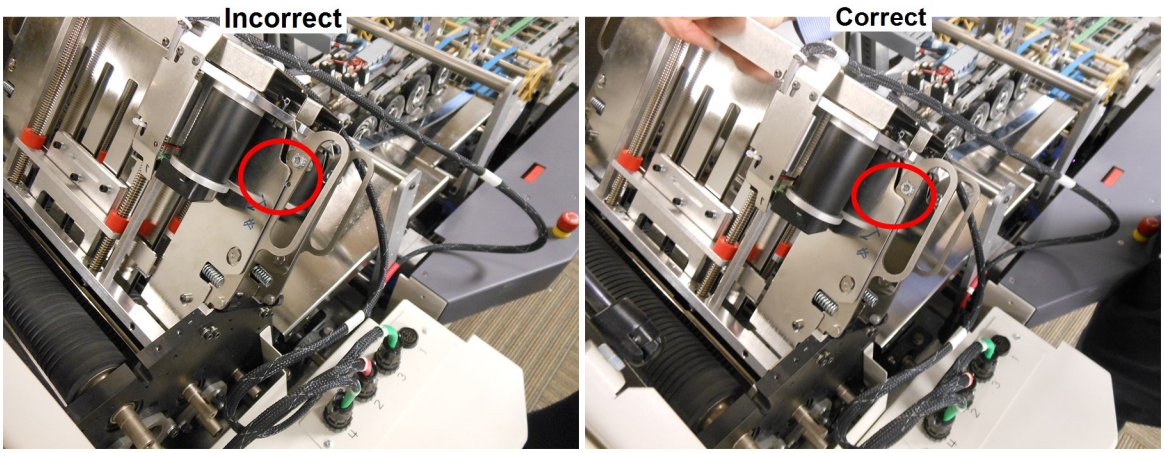

| Item | Description |
|---|---|
| 1 | Latch handle |
| 2 | Latch |
| 3 | Metal Tab |
| 4 | Slot in Folder |

**Align the Auto Buckle Chute with the Slots in the Folder**

3. Slide the metal tabs into the slots on the folder until the chute clicks into place.

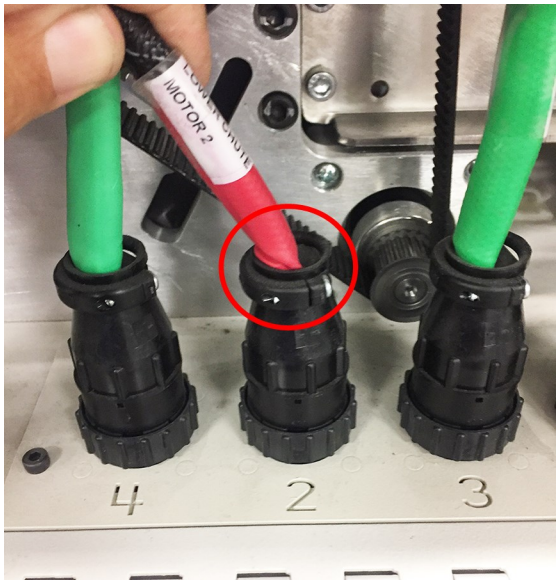


4. Move the chute from side to side to be sure it's securely in place. If the hole on the side of the latch handle is showing, the chute is not fully engaged (like in first image here). When the chute is installed right, it should look like the second image.




**Latch NOT Engaged *(incorrect)* and Latch FULLY Engaged *(correct)***

5. Insert the auto buckle chute harness connector into the matching harness connector on the deck.
   - Make sure the numbering and color code on each chute harness matches the corresponding harness connector on the tamping deck.
   - Route the harness cable away from any moving parts. All the wire harness cables should be in front of the wire guard.



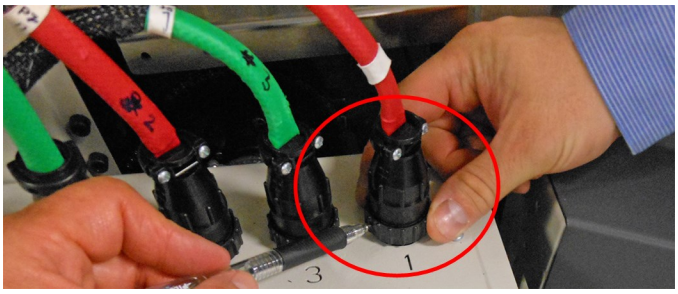

**Connector into the Harness**

## Note:

The power to the system can remain on while installing the chutes.

6. Align the pins in the end of the wire harness connector with the holes in the matching connector on the deck.

7. Push down on the connector and turn the lockdown ring clockwise (toward the downstream module) to lock it in place.



**Turn Lockdown Ring Counterclockwise**

8. Recheck these items before you start the system:
   - Auto buckle chute is installed in the correct position on the folder
   - Auto buckle chute is fully inserted in the folder and fully engaged
   - Each chute harness is connected to correct harness connector on the deck
   - Verify the wire harness is not resting on moving parts once the chute is fully installed
9. Close the folder cover.

# Reinstalling Lower Auto Buckle Chutes

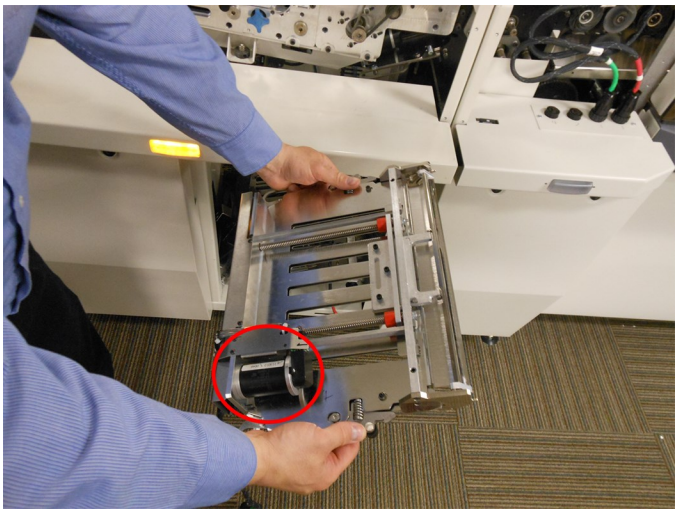
## Note:

The steps for installing chutes #2 and 4 are the same. You need to install #2 first because of the way the folder is shaped. In this procedure we're installing #4.

1. Lower the cover below the accumulator to access the lower chutes.

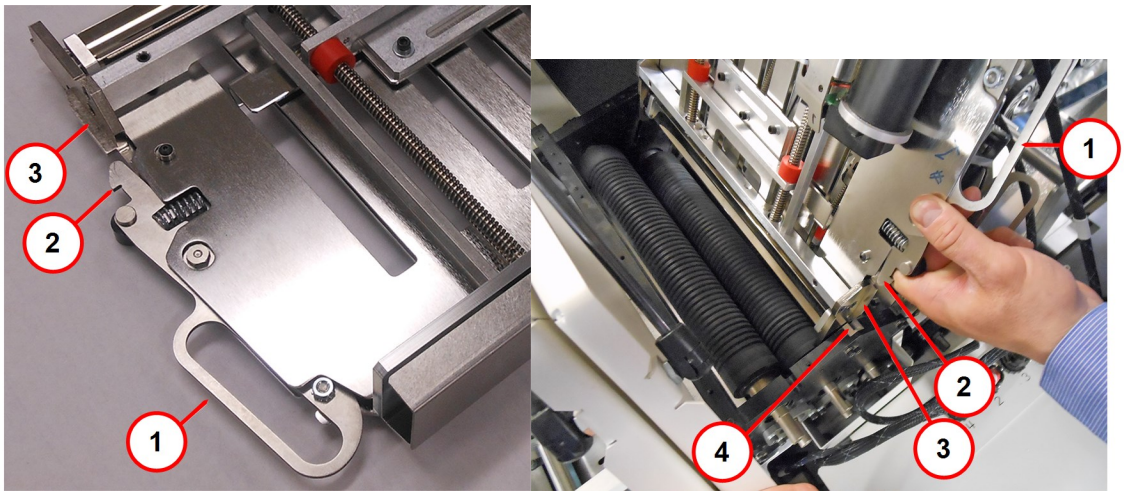
**Cover Lowered - Access to Lower Chutes**

2. Install the lower chutes so the motor is facing you, as shown here.



**Motor Facing You**

3. Install the auto buckle chute into the upper slot in the folder - position the chute so the metal tab lines up with the slot in the folder.




| Item | Description | Item | Description |
|---|---|---|---|
| 1 | Latch handle | 3 | Metal Tab |
| 2 | Latch | 4 | Slot in Folder |

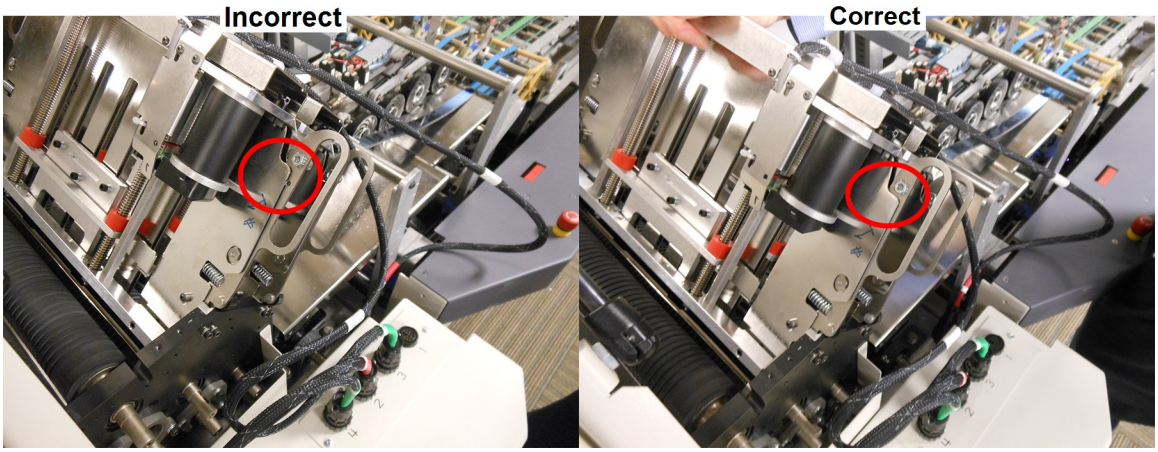
**Align the Auto Buckle Chute with the Slots in the Folder**

## Note:

The power to the system can remain on while installing the chutes.

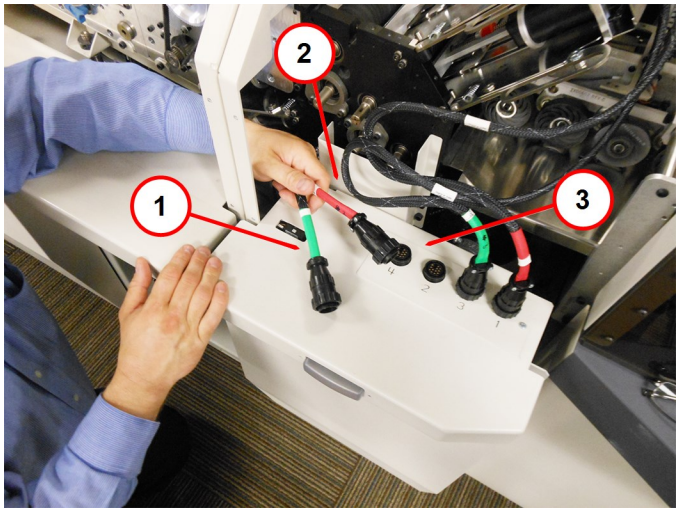
4. Slide the metal tabs into the slots on the folder until the chute clicks into place.

5. Move the chute from side to side to be sure it's securely in place. If the hole on the side of the latch handle is showing, the chute is not fully engaged (like in first image here). When the chute is installed right, it should look like the second image. *(These images show upper chutes, but it's the same concept for lower chutes.)*




**Latch NOT Engaged (incorrect) and Latch FULLY Engaged (correct)**

6. Route the cable harnesses up through to the deck.
   - Make sure to keep the cable harness away from any moving parts.
   - In this install all the wire harness cables should be in front of the wire guard.

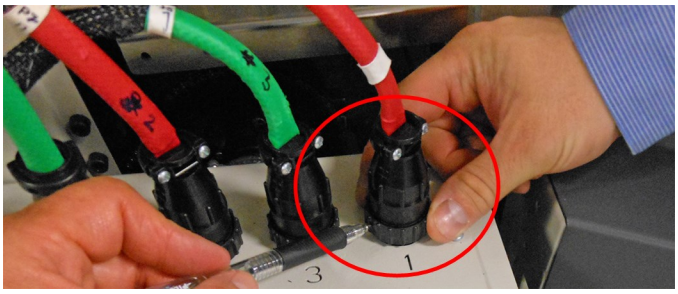



| Item | Description |
|---|---|
| 1 | Harness Connector from Chute |
| 2 | Wire Guard |
| 3 | Deck |

**Routing the Chute Harness Wire**

7. Align the pins in the end of the wire harness connector with the holes in the matching connector on the deck.

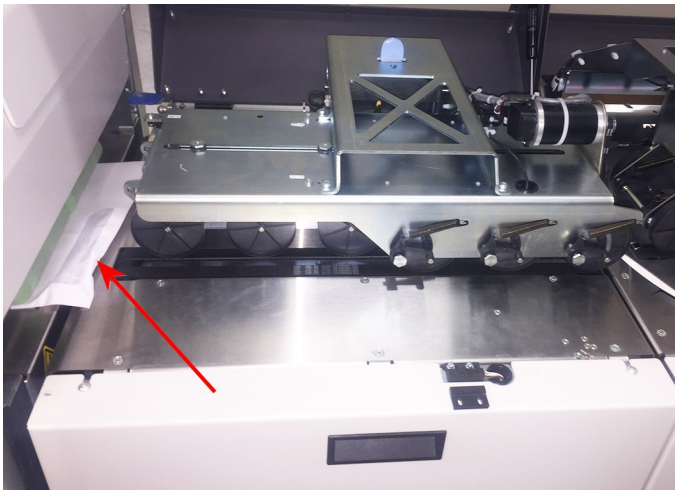
8. Push down on the connector and turn the lockdown ring clockwise (toward the downstream module) to lock it in place.



**Turn Lockdown Ring Counterclockwise**

9. Recheck these items before you start the system:
   - Auto buckle chute is installed in the correct position on the folder
   - Auto buckle chute is fully inserted in the folder and fully engaged
   - Each chute harness is connected to correct harness connector on the deck
   - Verify the wire harness is not resting on moving parts once the chute is installed
10. Close the lower access door.

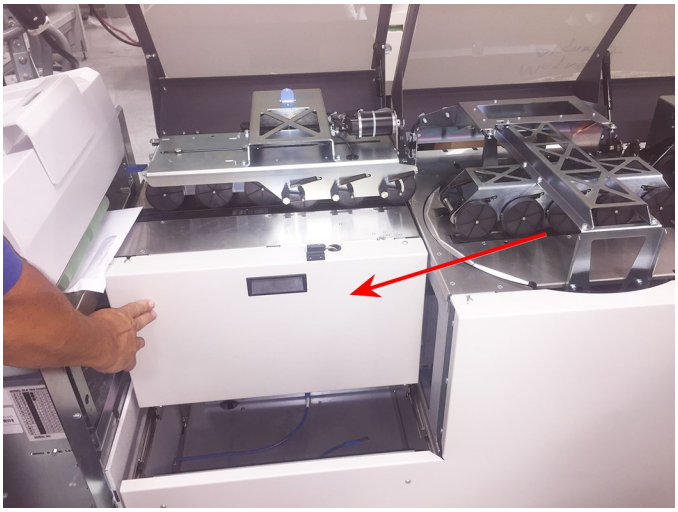
# Clearing Jams in the Exit Area of the Inserter



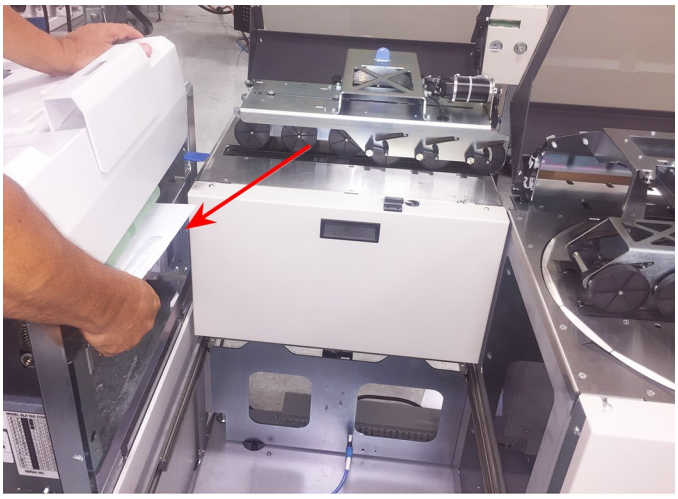
**Jam in Exit of Inserter**

To clear a jam in the exit area of the inserter:

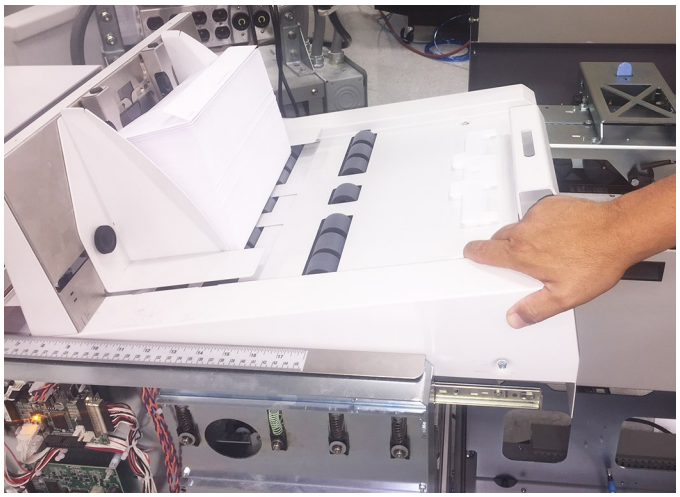
1. Lift the output module cover.
2. Push back the transport entrance component.



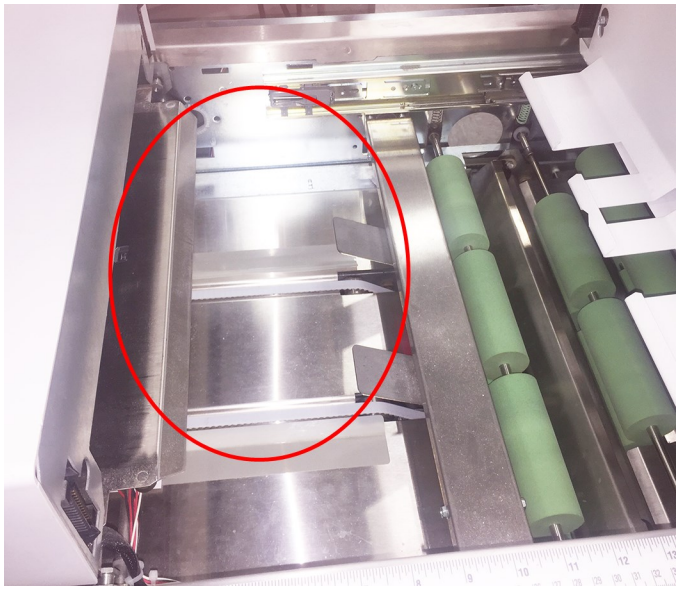
3. Remove the jam.



4. If the jam is inside the inserter:
   a. Push back the envelope feeder module for access inside the inserter.



   b. Remove the jam.
   c. Push the envelope feeder module back in place.



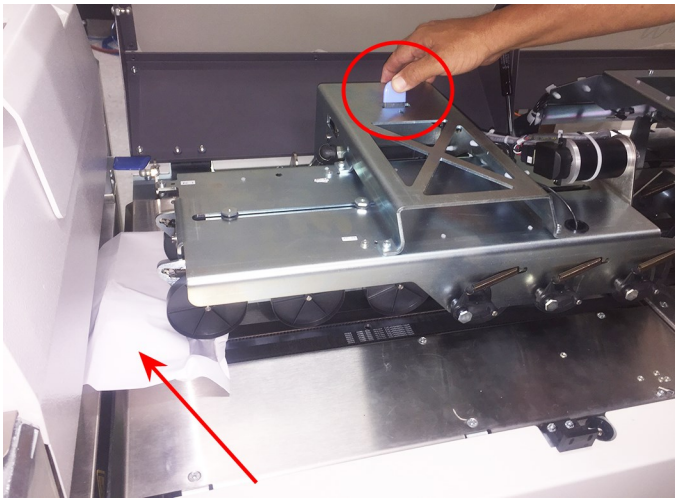
**Area Where Jam Would Be**

5. Pull the transport entrance module back in place.

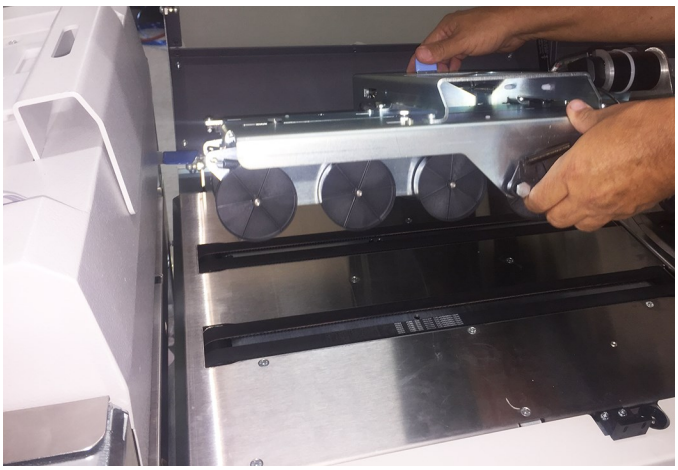
# Clearing Jams in the Output Transport Entrance

To clear a jam in the output transport entrance area:

1. Lift the output module cover.
2. Push back on the blue tab on the transport entrance.



3. Raise the transport entrance up.

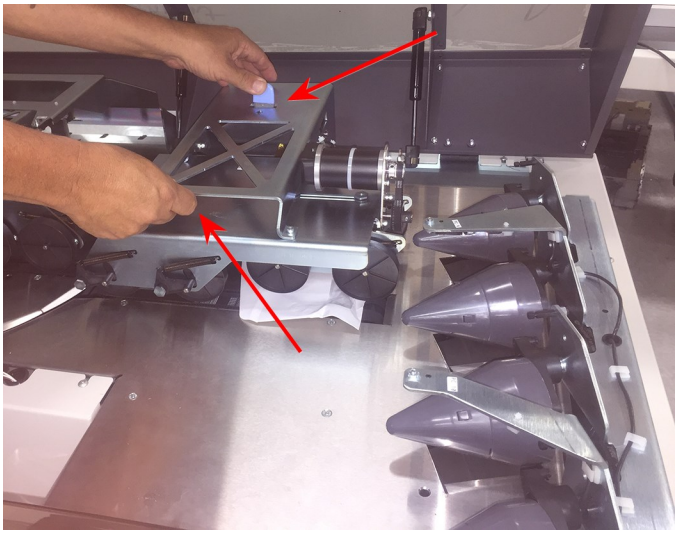


4. Remove the jam.
5. Hold the raised transport entrance and press the blue tab while lowering.

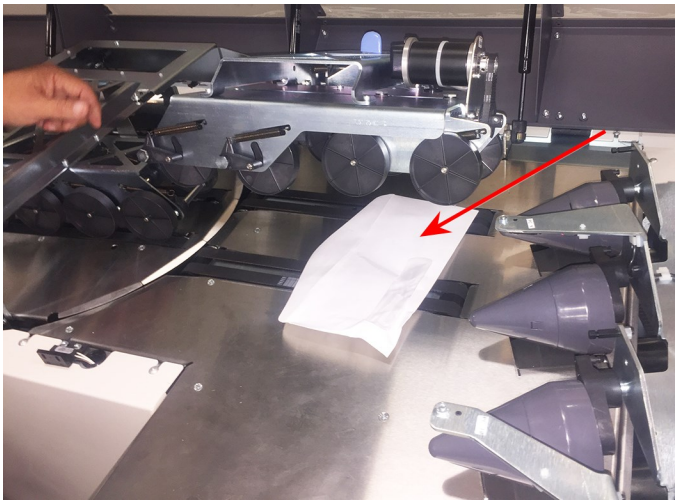
# Clearing Jams in the Output Transport Exit

To clear a jam in the output transport exit area:

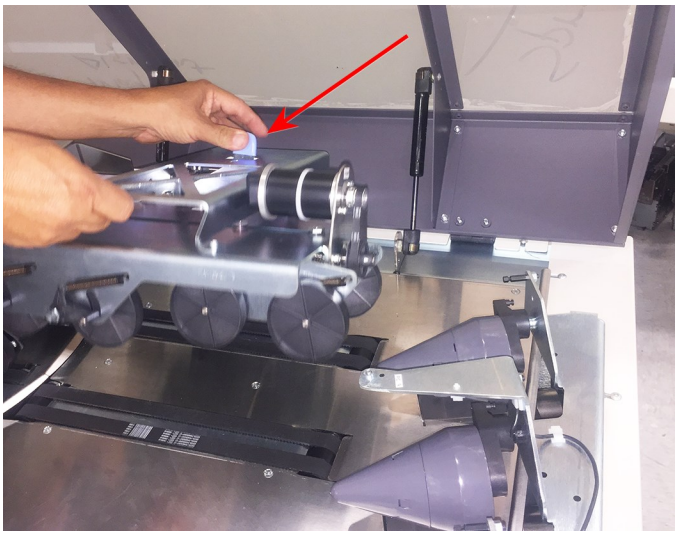
1. Lift the output module cover.
2. Hold the transport exit and push the blue tab back.



3. Raise the transport exit.
4. Remove the jam..



5. Push the blue tab and lower the transport exit.

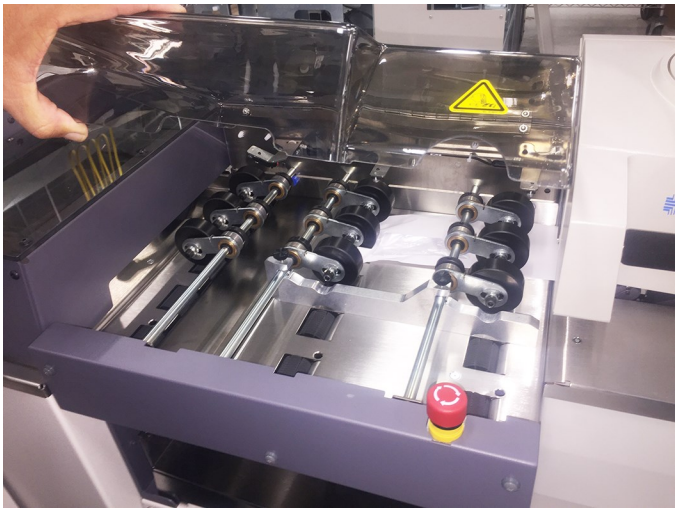


6. Close the cover.

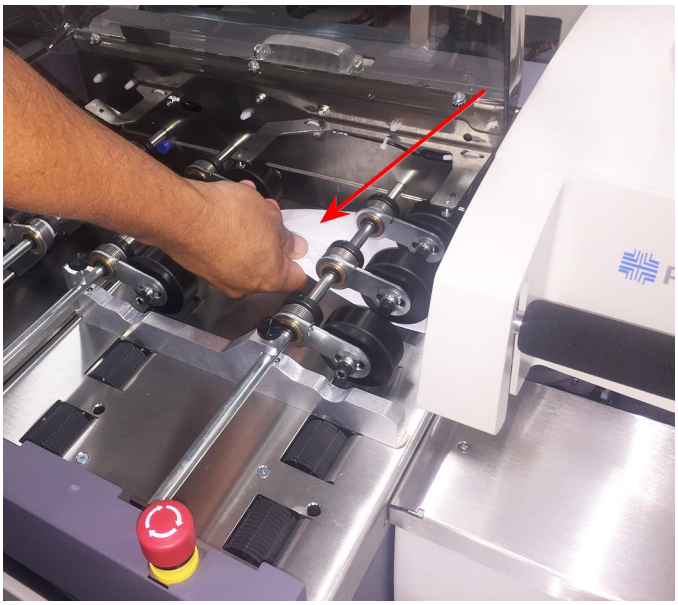
# Clearing Jams in the Vertical Stacker

To clear a jam in the vertical stacker:

1. Lift the stacker cover.



2. Remove the jam.



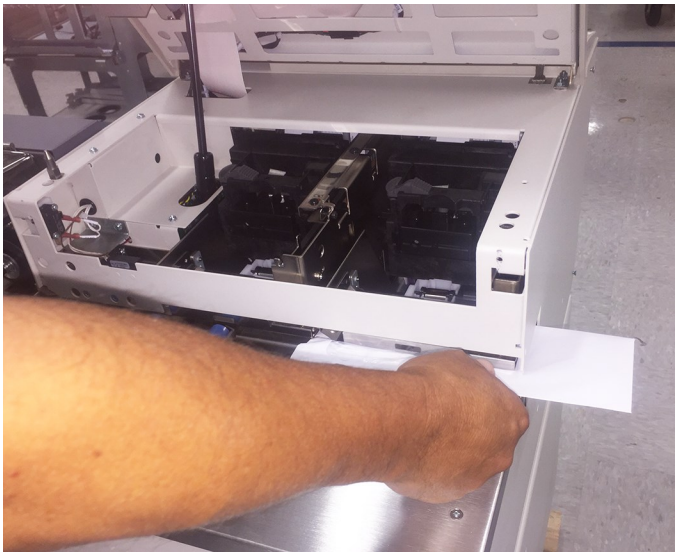
3. Close the stacker cover.

# Clearing Jams in the Meter

To clear a jam in the meter:

1. Lift the meter cover.

2. Remove the jam.



3. Close the meter cover.

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# 6 - Troubleshooting

## In this section

# Vacuum Sheet Feeder Troubleshooting

This topic covers some of the most common issues operators might experience in the sheet feeder, and provides possible solutions.

## Vacuum Sheet Feeder

| Issue | Possible Cause | Solutions |
|---|---|---|
| Fold back or nick mark in lead edge of document fed from vacuum feeder. | Separator too tight | Open (turn clockwise) the separator a few clicks. See *Adjusting the Separator Gap*. |
| Fail to feed | Separator too tight | Open (turn clockwise) the separator a few clicks. See *Adjusting the Separator Gap*. |
| | Incorrect side guide setup (too wide) | Tighten the sheet feeder side guides to material clearance. See *Adjusting Feeder Deck Side Guides*. |
| | Side guide air not fluffing material | Adjust the side guide airports. See *Adjusting the Air Ports* |
| | Vacuum filter clogged | Clean the filter, change if necessary |
| | Material unable to separate from stack | • Adjust the separator if necessary. See *Adjusting the Separator Gap*.<br>• Reduce stack height of insert material to sit about 3/4" below prefeed deck side guide<br>• Jog the material prior to loading<br>• Adjust the side guide airports. See *Adjusting the Air Ports* |
| | Stack not shingled out sufficiently or possible reverse shingle | • Load a thinner stack<br>• Avoid reverse shingle where the lead edge of the top sheet gets in front of the lead edge of the sheet below it |
| Double feed | Separator too loose | Close the separator. See *Adjusting the Separator*. |

| Issue | Possible Cause | Solutions |
|---|---|---|
| | Stack not shingled out sufficiently or possible reverse shingle | • Load a thinner stack<br>• Avoid reverse shingle where the lead edge of the top sheet gets in front of the lead edge of the sheet below it |
| | Prefeed deck is not properly adjusted | Adjust the prefeed deck to get a 1 - 2 mm clearance . See *Adjusting Prefeed Deck for Length*. |
| | Material not loaded properly | Reload the prefeed deck, make sure reverse shingle doesn't occur |
| Excessive paper curl | Not enough pressure on the paper | Adjust the feeder straps to add more pressure; see *Adjusting Feeder Straps for Paper Curl*. |
| Unable to get separator gap small enough to prevent double feeds | Gate hard stop adjustment not set correctly | Contact Service |
| Separator is hitting the drum | Gate hard stop adjustment not set correctly | Contact Service |

# Accumulator Troubleshooting

This topic covers some of the most common issues operators might experience in the accumulator, and provides possible solutions.

## Accumulator

| Issue | Possible Cause | Solutions |
|---|---|---|
| Jamming | O-ring belt came off the pulley | Reinstall the orange O-ring belt on the pulley; make sure the pulleys are aligned. If this continues, contact PB Service to replace. |

# Folder Troubleshooting

This topic covers some of the most common issues operators might experience with the folder or auto buckle chutes, and provides possible solutions.

## Folder

| Issue | Possible Cause | Solutions |
|---|---|---|
| After being folded, the collation has excessive shingling | Accumulator ramp is not properly adjusted | Adjust the accumulator ramps to 1/8" of trail edge of statement. See *Adjusting Accumulator Ramp*. |
| After being folded, the collation has excessive shingle on the width | Accumulator side guides are not properly adjusted | Adjust the accumulator side guides so there is about 1/16" spacing for each guide. See *Adjusting Accumulator Side Guides* |

# Auto Buckle Chutes

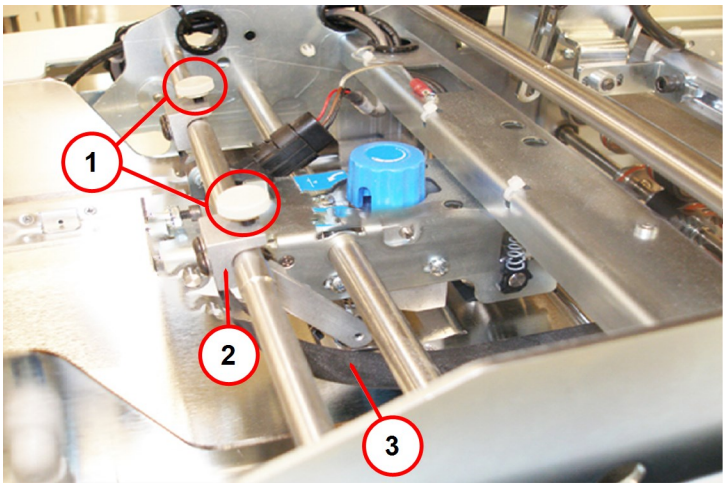
| Issue | Possible Solutions |
|---|---|
| Incorrect fold length | • Verify chutes 1+3 and 2 + 4 are not physically swapped. Make sure the harnesses from all the chutes are plugged into the right jacks on the folder.<br>• Verify that the fold chutes are fully inserted into the folder frame and that the chute latches are engaged.<br>• Verify you entered the correct material length when using the *Fold Wizard* menus.<br>• If fold lengths are correct, contact Service to make sure the correct folder offset values are set. |
| Chutes fail to return to home position | • Make sure the chutes are plugged into the correct jack on the folder.<br>• All operator doors must be closed; all ESTOPS and safety interlocks satisfied.<br>• Verify there is no material jammed in the chutes. See *Removing Upper and Lower Auto Buckle Chutes*.<br>• Verify the chutes move freely without binding, contact Service if needed. |
| Material jams in chutes (poor folds) | • Verify how the material is fed upstream from the chutes. Make sure paper is not skewed in the accumulator etc. The paper path must be straight without any skewing.<br>• Verify that the input modules are properly docked , leveled and aligned.<br>• Verify that the chutes are installed in the correct position and that the chute latches are fully engaged.<br>• Verify that there are no pieces of material from earlier jams left in the folder and blocking the photo-sensors. Remove any material and blow dust from emitters and photo sensors. |
| Late material errors | • Verify photo sensors and emitters are free of debris; blow them down using compressed air if necessary.<br>• Check the accumulator and exit rollers to make sure that there is no toner build up or belt slippage. Verify there is not excessive wear on the belts or rollers.<br>• Have Service check the folder rollers are correctly set for the material.<br>• Have Service verify the accumulator and folder are set to run at the correct speeds. |

# Adjusting the Sheet Feeder Straps for Paper Curl

The sheet feeder straps are used to hold the paper down flat. This helps if you experience excessive paper curl while running a job.

To adjust the sheet feeder straps for paper curl:

1. Loosen the sheet feeder strap adjustment knobs.




| Item | Description |
|---|---|
| 1 | Feeder Strap Adjustment Knobs |
| 2 | Feeder Strap Assembly |
| 3 | Feeder Strap |

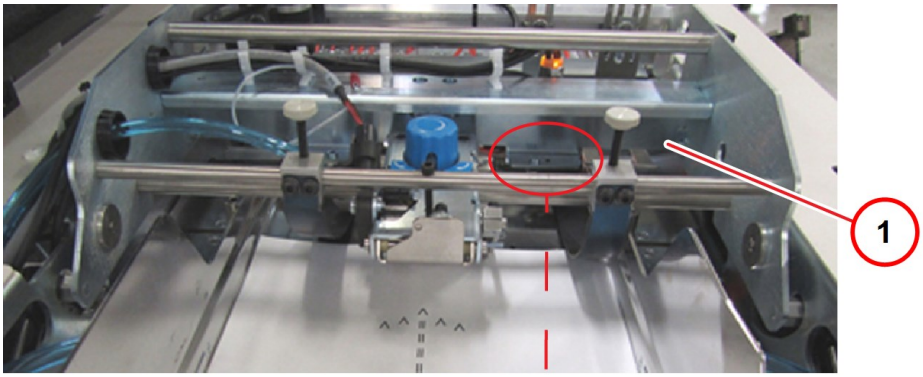
**Feeder Straps**

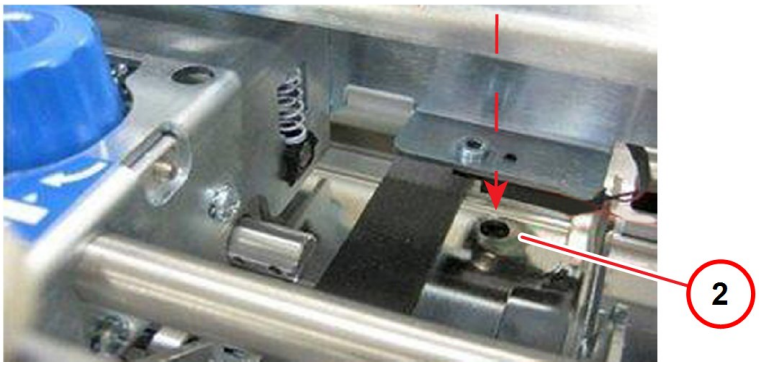
2. Pivot the strap assembly to the right for more pressure, to keep the paper flat.
3. Tighten the strap adjustment knobs.

## IMPORTANT!

If the strap is blocking the photocell hole, *the machine will not run*.

Once you finish adjusting the operator side strap, make sure the photocell and double sheet detector are not blocked.




| Item | Description |
|---|---|
| 1 | Approximate location of photocell *(difficult to see)* |
| 2 | Photocell (close-up) |

**Photocell Unblocked**

# 7 - Operator Maintenance

## In this section

# Operator Maintenance

Here are some guidelines for daily operator maintenance activities to be performed daily on the input components. These are just guidelines, check with your supervisor or Pitney Bowes Service person for a complete list of maintenance activities for your site specific applications and conditions.

## Daily Maintenance Guidelines

- Remove dust from the entire machine, either with vacuum (preferred) or shop air. *(The vacuum tip must be non-metallic. )*
- Clean the sealer brush and reservoir; refill if necessary
- Inspect suction cups and replace if necessary
- Clean and ink the edge markers and DM Infinity Meter
- Clean toner from folder deflector plates
- Clean top, plexiglass system covers with approved cleaners:
  - 902-F Pitney Bowes Polycarbonate cleaner (available from PB Supply Line OR
  - Water

> **Note:**
>
> Do not use any abrasive material or cleaners.

## Maintenance Safety

When performing any maintenance on the system, be aware of these safety guidelines:

- Always turn off power to the entire system before performing any maintenance
- Always remove all material and envelopes from the system before performing any maintenance
- Always use an industrial vacuum cleaner equipped with a non-metallic tip to remove paper dust and fragments from the system

# 8 - Specifications

## In this section

# Pulse Input (PLTA) Specifications

The Pulse input module includes a vacuum sheet feeder, a single accumulator and a 6-roller folder that gather individual sheets into a set and transfer the set to the inserter for processing.

## Standard Features

- Average 1,200 sheet capacity depending on the material - how well it separates and its sensitivity to stack pressure
- Continuous loading
- Bottom vacuum sheet feeding accommodates low to high sequence
- Throughput up to 30,000 sheets per hour (CTOP)
- Vacuum page separator and ultrasonic double detector
- Forward accumulation
- Accumulates and group folds up to these maximum quantities, based on 20# (80 gsm) bond:

| Fold Type | Maximum Sheets |
|---|---|
| Half | 89 sheets |
| No fold | 89 sheets |
| Standard | 57 sheets |
| Accordion | 57 sheets |
| Double | 4 sheets |

## Physical Characteristics

- **Length**: 84.5” (2146 mm)
- **Width**: 27” (686 mm)
- **Height**: 48” (1219 mm)
- **Power Consumption**: 15A, 360W

## Air Requirements

- **Pressure**: 70PSI
- **SCFM**: 0.5

# Pulse Output (PLM1) Specifications

The Pulse output module is located at the exit of the Pulse inserter. It includes a standard divert tray for calibration pieces or select diverting applications. Envelopes are rotated 180° for operator handling.

A standard configuration may include the output rotate module, divert tray, Infinity meter and a power stacker. Configurations are customizable.

## Standard Features

- Automatic envelope adjustment
- Positions mails for enhanced operator workflow
- Divert tray or optional power stacker - dedicated location for calibration, errors or empty envelopes
- Stoppage free error handling
- High seal verification check and divert
- Aligner station
- Positions mail for output module from 4" to 10" (wallet style envelopes diverted at output rotate module)

## Physical Characteristics

- **Length**: 60" (1524 mm)
- **Width**: 30" (762 mm) (more if diverts are used)
- **Height**: 30" (762 mm)
- **Power Consumption**: provided by the input

# Material Specifications

## Sheet Material Specifications

*Weight*

| Specification | |
|---|---|
| Weight minimum | 18# (70 gsm) |
| Weight maximum | 24# (90 gsm) |

*Length and Width - Before Folding*

| Specification | Minimum | Maximum |
|---|---|---|
| Length | 7" (178 mm) | 14" (356 mm) |
| Width: | 7" (178 mm) | 12" (305 mm) |

*Length and Width - After Folding*

| Specification | Minimum | Maximum |
|---|---|---|
| Length | 3 1/2” (89 mm) | 9" (229 mm) |
| Width | 7" (178 mm) | 12" (305 mm) |

## Page Folding Capacity

| Fold Type | Capacity (maximum) |
|---|---|
| No fold (pass through) | 12 |
| Hal- fold | 12 |
| Tri-fold | 7 |
| Double-fold | 5 |

| Fold Length | Minimum | Maximum |
|---|---|---|
| Upper fold plate (1, 3) | 2.8" (71 mm) | 8.2" (208 mm) |
| Lower fold plate (2.4) | 3.2" (81 mm) | 8.2" (208 mm) |

## Fold Skew

Typical fold skew using a roller type folder is 1°, or 0.0175 (0.44 mm) for every inch (25.4 mm) or paper travel. This table is the allowable skew for typical folds.

| Fold Length | Allowable skew at open end (TE) |
|---|---|
| 3.5” (88.9 mm) | 0.061” (1.55 mm) |
| 4.0” (101.6 mm) | 0.070” (1.75 mm) |
| 5.5” (139.7 mm) | 0.096” (2.44 mm) |
| 6” (152.4 mm) | 0.105” (2.67 mm) |
| 7” (177.8 mm) | 0.123” (3.12 mm) |
| 8” (203.2 mm) | 0.140” (3.5 6 mm) |

*Skew measurement is measured at open end, left or right, side to side*

# Envelope Specifications

*Landscape Insertion*

| Envelope Size | Document Height | Document Length | MOS/Divert |
|---|---|---|---|
| #10, DL | 4.13 | 8.8 | *Divert or MOS |
| Half-fold | 6.5 | 9 | *Divert or MOS |
| C5 | 6.5 | 9.5 | Divert or MOS |
| Flat | 9 | 12 | Divert or MOS |
| Ovsrsize flat | 10 | 13 | Divert or MOS |
| B4 | 10 | 14 | Divert or MOS |

*Portrait Insertion*

| Envelope Size | Document Height | Document Length | MOS/Divert |
|---|---|---|---|
| #10, DL | 8.8 | 4.13 | N/A |
| Half-fold | 9 | 6.5 | Divert or MOS |
| C5 | 9.5 | 6.5 | Divert or MOS |
| Flat | 12 | 9 | Divert |
| Ovsrsize flat | 13 | 10 | Divert |
| B4 | 14 | 10 | Divert |

***Envelope Conditions**

- Open flap envelopes: must divert
- Landscape inserted envelopes: divert or MOS processing
- Portrait inserted #10, DL, C5, Half-fold: divert or MOS processing
- Portrait inserted flats: must divert

# Options and Attachments

- Y235 Fixed beam OMR/BCR Combo
- Y236A Moving Beam Scanner
- Y236B MBS Raster
- Y237 Camera scanner (Cognex)
- Y239 Additional Monitor; Y234 Mount
- Y23D OMR Scanning
- Y23E 2D Camera
- Y23H Additional F40 Ch for Y23D/235

# Electrical Requirements

## Domestic

- 208VAC (+10% / -10%), Single Phase, 30 Amp a 4 wire connection (L1, L2, L3, Earth) 60 Hz
- System electrical requirements will vary, based on the application. Peripheral equipment requires additional receptacles at the installation site (120 V, 60 Hz, 20A).
- Client supplying main circuit breaker should have surge protection rated for motor loads and typically at least 10 times the rated current of the machine (30 amps).
- Client is responsible to provide the necessary power receptacles at the machine location in accordance with local electrical regulations. Requires a single phase 30 amp dedicated line and plugs. The system uses a NEMA L630P plug to connect to the customer supplied single phase power receptacle drop rated at 30 amps. Earth connection is mandatory for safety.

## Power Consumption

- 3,850 W

## Heat Ouput

- 6500 BTU/Hr

# Compliance RoHS and WEEE Directive

## Document Messaging Technologies

**Position Statement Regarding the Application of EU directives:**
**RoHS Directive 2002/95/EC**
**WEEE Directive 2002/96/EC**

Pitney Bowes Document Messaging Technologies supports the overall objective of improving the protection of human health and environment through the identification and elimination of banned chemicals in our products. We are giving the new approach directives a very high priority and it is our policy to meet the levels of the Directives for our Mailstream Evolution and APS/MPS inserter product lines manufactured by Pitney Bowes.

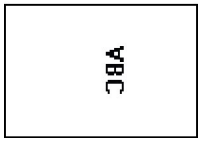
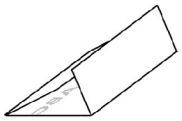
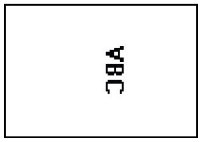
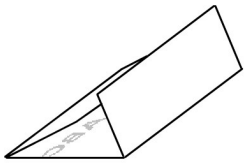
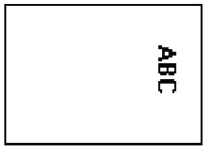
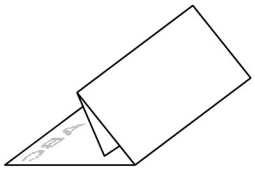
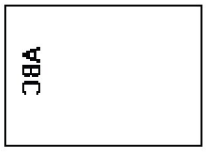
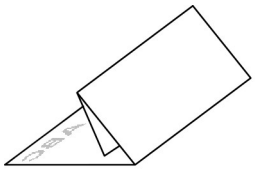
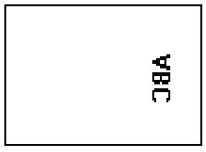
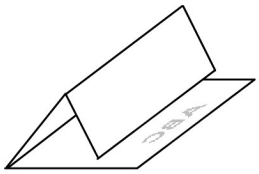
Pitney Bowes has established a RoHS Compliance Assurance System to create internal controls and effective communication with our suppliers to ensure they provide RoHS compliant parts of our products.

Pitney Bowes works with recyclers of equipment to assure the proper disassembly and recycle ability of the inserter machines in support of the WEEE Directive.

# 9 - Fold Specifications

## In this section

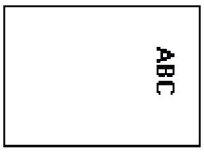
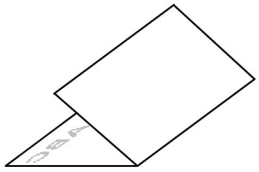
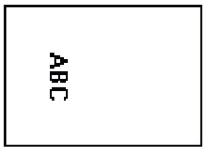
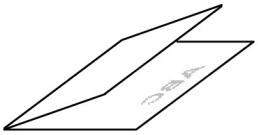
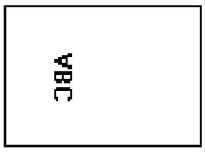
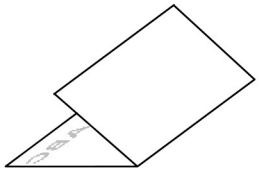
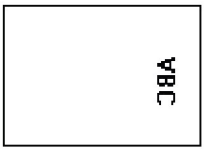
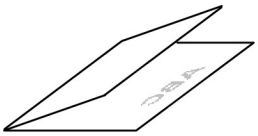
# Standard Fold

| Standard Fold | Paper Orientation | Fold Orientation | Chutes and Deflectors |
|---|---|---|---|
| Standard Fold<br>Face Up<br>Address Center Third<br>Hi to Low |  |  | 1 Upper Deflector<br>1 Lower Chute(1/3)<br>1 Upper Deflector<br>1 Lower Chute(1/3) |
| Standard Fold<br>Face Down<br>Address Central Third |  |  | 1 Upper Chute(2/3)<br>1 Lower Deflector<br>1 Upper Chute(1/3)<br>1 Lower Deflector |
| Standard Fold<br>Face Up<br>Address Upper Third<br>Hi to Low |  |  | 1 Upper Deflector<br>1 Lower Chute(2/3)<br>1 Upper Chute(1/3)<br>1 Lower Deflector |
| Standard Fold<br>Face Down<br>Address Upper Third<br>Low to High Seq |  |  | 1 Upper Chute(1/3)<br>1 Lower Deflector<br>1 Upper Chute(1/3)<br>1 Lower Deflector |
| Standard Fold<br>Face Down<br>Address Lower Third<br>Low to High |  |  | 1 Upper Chute (2/3)<br>1 Lower Chute (1/3)<br>1 Upper Deflector<br>1 Bouncing Chute |

***Direction of Feed*** 

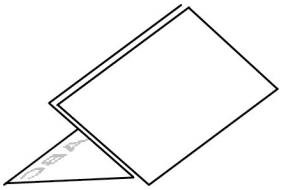
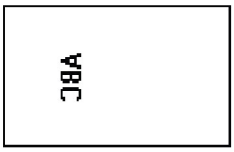
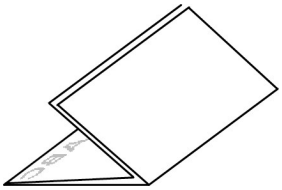
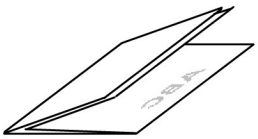
# 4 and 6 Roller Feed Capability

## Single/Half Fold

| Single/Half Fold | Paper Orientation | Fold Orientation | Chutes and Deflectors |
|---|---|---|---|
| Single/Half Fold<br>Face Up<br>Address Upper Half<br>High to Low |  |  | 1 Upper Deflector<br>1 Lower Chute (1/2) |
| Single/Half Fold<br>Face Up<br>Address Lower Half<br>High to Low |  |  | 1 Upper Deflector<br>1 Lower Chute (1/2)<br>1 Upper Deflector<br>1 Bouncing Chute |
| Single Fold<br>Face Down<br>Address Upper Half<br>Low to High |  |  | 1 Upper Chute (1/2)<br>1 Lower Deflector |
| Single Fold<br>Face Down<br>Address Lower Half<br>Low to High |  |  | 1 Upper Chute (1/2)<br>1 Bouncing Chute |

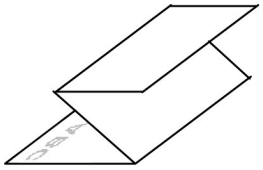
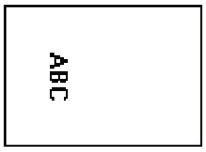
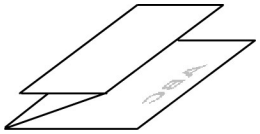
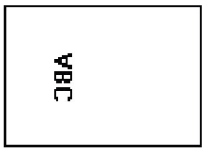
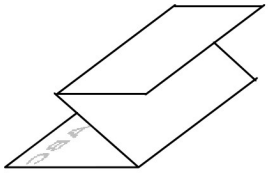
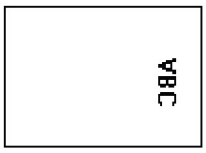
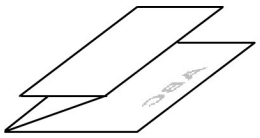
***Direction of Feed*** 

# Double Fold

| Double Fold | Paper Orientation | Fold Orientation | Chutes and Deflectors |
|---|---|---|---|
| Double Fold<br>Face Up<br>Address Upper Quarter<br>High to Low |  |  | 1 Upper Deflector<br>1 Lower Chute (1/2)<br>1 Upper Chute (1/4)<br>1 Lower Deflector |
| Double Fold<br>Face Down<br>Address Upper Quarter<br>Low to High |  |  | 1 Upper Chute (1/2)<br>1 Lower Deflector<br>1 Upper Chute (1/4)<br>1 Lower Deflector |
| Double Fold<br>Face Down<br>Address Lower Quarter<br>Low to High |  |  | 1 Upper Chute (1/2)<br>1 Lower Chute (1/4)<br>1 Upper Deflector<br>1 Bouncing Chute |

***Direction of Feed*** 

# Z Fold

| Z Fold | Paper Orientation | Fold Orientation | Chutes and Deflectors |
|---|---|---|---|
| Z Fold<br>Face Up<br>Address Upper Third<br>High to Low |  |  | 1 Upper Chute (2/3)<br>1 Lower Deflector<br>1 Upper Chute (1/3)<br>1 Lower Deflector |
| Z Fold<br>Face Up<br>Address Lower Third<br>High to Low |  |  | 1 Upper Deflector<br>1 Lower Chute (2/3)<br>1 Upper Deflector<br>1 Lower Chute (1/3) |
| Z Fold<br>Face Down<br>Address Upper Third<br>Low to High |  |  | 1 Upper Deflector<br>1 Lower Chute(1/3)<br>1 Upper Chute(1/3)<br>1 Lower Deflector |
| Z Fold<br>Face Down<br>Address Lower Third<br>Low to High |  |  | 1 Upper Chute (1/3)<br>1 Lower Chute(1/3) |

Optional Chutes include:

- Y15J Bouncing Buckle Chute
- Y15K C or Mini Chute

Contact your salesperson if you wish to obtain these optional chutes.

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