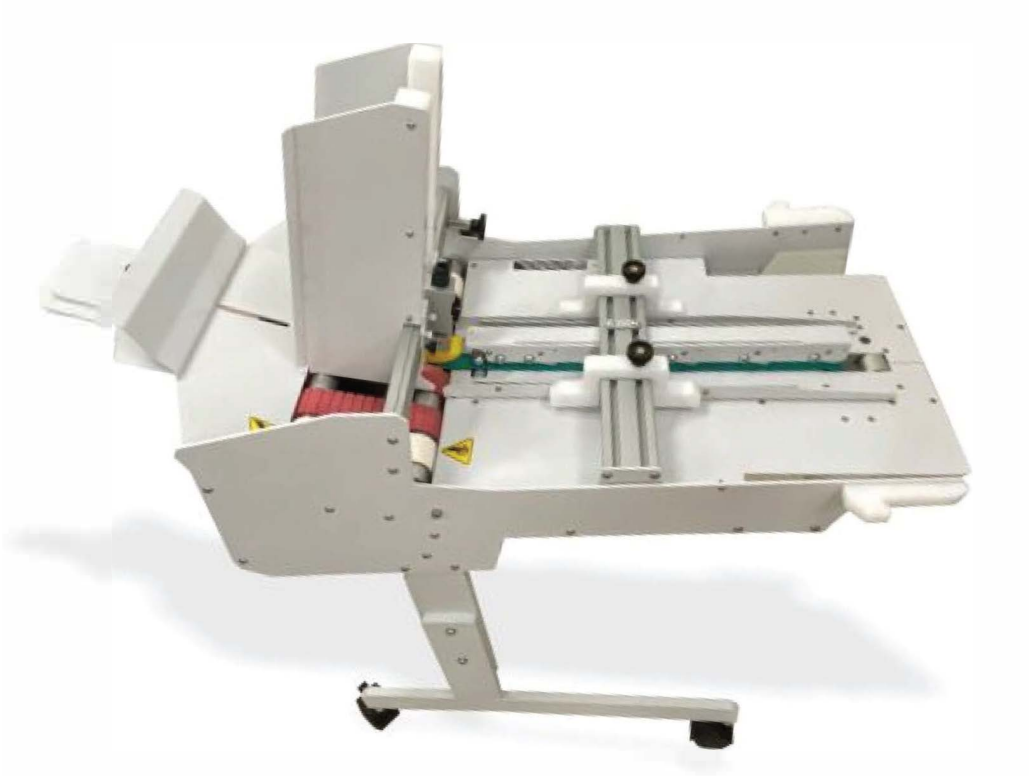
RS-160 High Speed Envelope Feeder

Operations and Parts Manual Rev. 2.2



By:

Straight Shooter Equipment Company

IMPORTANT INFORMATION

This equipment is intended for installation in Restricted Use Areas Only.

SAFETY

Before operating your feeder, read the following safety hints carefully both for your own safety as well as to ensure the reliable operation of the feeder. Be sure to heed all **cautions**and **warnings** in this manual, as well as other information marked or labeled on the feeder. Keep this manual in a safe place so that the information it contains is available to you at all times.

Hazards Associated with this Feeder

The feeder has been constructed in line with state-of-the-art technology and is safe to operate. However, hazards cannot be excluded if it is operated by persons unfamiliar with its use. The same applies if it is used in an inappropriate way or in a manner not in accordance with its intended purpose.

Ignoring the information in this manual exposes the user to the following hazards:
- Electric shock -
- Injury by rotating rollers and belts -
- Damage to the feeder -

WARNING

This international symbol means PINCH POINT HAZARD – "KEEP HANDS AND FINGERS AWAY TO AVOID INJURY"

"KEEP CLEAR OF PINCH POINT"

"MANTENGASE ALEJADO DEL PUNTO DE PELLIZCO"

"SE TENIR A DISTANCE DU POINT DE PINCEMENT"

General Notes on Safety

* The power plug may only be connected to a grounded socket! Make sure that the grounding has not been rendered ineffective using an extension cable without a ground conductor. Any break in the ground conductor inside or outside the feeder is dangerous and is not permissible.
* Run the power lines so that no-one can trip over them. Make sure that no objects are placed onto the power cables.
* Unplug the feeder from the power supply if it is not being used for long periods of time. This avoids any damage in the event of voltage surges.
* Never touch any moving parts of the feeder! Such action can lead to injury from being caught up in the rotating rollers or belts.

General Notes on Safety
(continued)

• Always unplug the feeder before cleaning it.
• Protect the feeder from moisture. If moisture does penetrate it, this may lead to the danger ofelectric shock and damage to the feeder.
• Do not use any cleaning agents other than what is outlined in this manual.
• You must unplug the feeder and have it checked by an authorized service technician in thefollowing circumstances:

- If the power cable or power plug has worn or been damaged.
- If water or other liquid has penetrated the feeder.
- If the feeder does not operate properly even after the operating instructions have been followed.
- If the feeder has been dropped or its housing is damaged.
- If the feeder shows marked discrepancies from normal operation.

• Do not dismantle the feeder beyond the level described in this manual. The housing must notbe opened by unauthorized persons. Repairs may be carried out only by authorized service personnel.
• Prohibition of conversions: any conversions or modifications carried out by unauthorizedpersons are prohibited for reasons of safety.

Table of Contents

INTRODUCTION:

The RS-160 high speed envelope feeder is designed to feed a variety of envelope sizes and styles, one at a time, into high-speed duplicating and printing machines. Although these types of printers have a built-in feeder and tray that can be used for envelopes, they are of a top feed design which limits the number of envelopes the operator can run before stopping to reload.

Standard integrated feed tray on high speed printer

Feed roller pulls top envelope from stack.

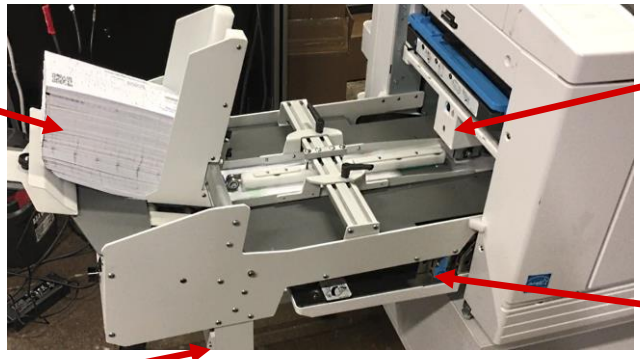
Tray rises as needed to keep top of stack in contact with feed roller

When stack is depleted, printing is stopped and the tray must be lowered to reload more envelopes. This interrupts production.

The RS-160 is a bottom feed, top load design which means that the operator can reload fresh envelopes in the hopper on top of the stack while the machine is running. This dramatically reduces stoppages, resulting in greater production.

RS-160 Feeder in position with printer

Top load design allows operator to load additional envelopes while running



Feeder advances envelope into position under the printers feed roller

Feeder slides into position alongside printer with no integration necessary

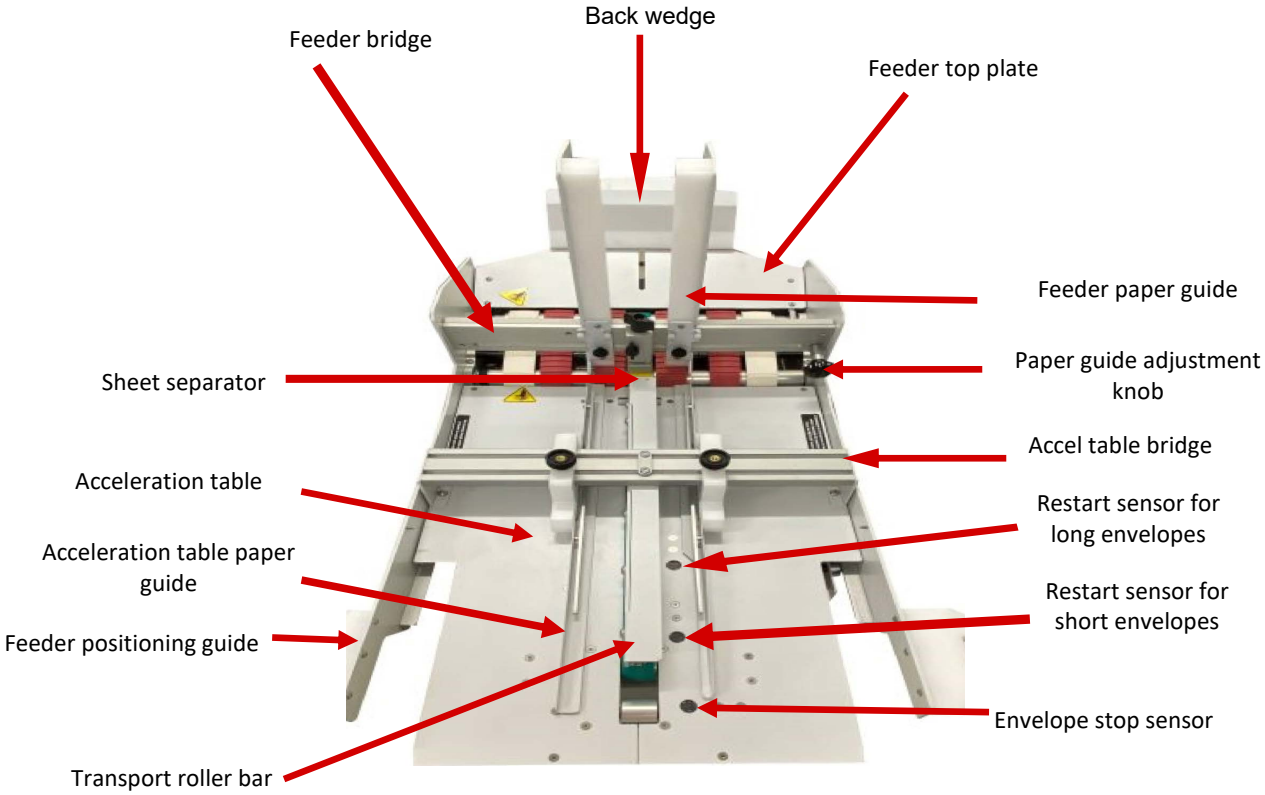
Adjustable height stand with casters. Feeder simply rolls into position

The RS-160 is a stand-alone feeder that requires no electrical or mechanical integration with the printer. The feeder is simply moved into position next to the printer, with the exit end of the feeder positioned underneath the printer's built-in feed roller. When in position, the feeder advances the bottom envelope of the stack forward from the hopper until it is in position under the feed roller. The printer feed roller activates, pulling the envelope into the printer. Once the first envelope is pulled into the printer, the feeder will advance the next envelope to the feed roller and this process is repeated.

Because these printers operate at high speeds and at high repeat rates, it is very important that the RS-160 feeder is setup properly and that proper maintenance of the feeder is performed periodically. This manual outlines the proper steps to setup the feeder.

RS-160 Envelope Feeder Components and Specifications

The items highlighted in the picture below are discussed in the setup instructions. It is helpful to familiarize yourself with the components of the feeder and their functions.



RS-160 SPECIFICATIONS

Power: 24 vdc, 5 amps peak. Fuse protected. External switching adapter included (100-240 VAC)
Speed: Variable Up to 160 envelopes per minute. (Envelope size dependent)
Weight: Approximately 45 lbs with stand.

COMPATIBILITY LIMITATION:
Not compatible with High Capacity Feeder (HCF), High Capacity Stacker (HCS), Additional 2000 Sheet Feeder, and Valezus.
Note: RS-160 is solely designed to feed envelopes and not paper or card stock.

MATERIAL HANDLING

Envelope sizes for RISO IJ Printers:	Width, 3 9/16" Min to 9" Max.
	Length, 5 27/32" Min to 12"
Envelope sizes for RISO Duplicators:	Width, 3 9/16" Min to 9" Max.
	Length, 5 27/32" Min to 12" Max

Envelope weights for RISO IJ Printers: 20lb to 28lb bond which is equivalent to 75gsm to 110gsm.
Envelope weights for RISO Duplicators: 12lb bond to 116lb index which is equivalent to 46gsm to 210gsm.
Hopper capacity: Approximately 400 #10 envelopes max. (top load for continuous run).
Due to weight considerations, larger envelopes require smaller stack sizes.

Description of machine features and function

The RS-160 envelope feeder is designed to enhance production of envelope printing with compatible high-speed duplicators and printers. These printers feature a hopper on the side of the printer where the operator places a stack of paper, card stock or envelopes to be printed. These hoppers include a tray that supports the stack of media, side and rear guides, and a feed roller that contacts the top of the stack and pulls the top sheet or envelope into the printer.

As the feed roller pulls subsequent sheets from the top of the stack, the tray is raised gradually to keep the top sheet of the stack in contact with the feed roller. As the sheets are pulled away, the tray continues to rise until the stack is depleted. Then the operator must lower the feed tray and place a new stack of sheets in the tray. Once the new stack is loaded, a button is pressed, and the printer raises the tray until the top sheet is in contact with the feed roller. This process is time consuming and must be repeated often when running envelopes.

The RS-160 top load continuous feeder offers a more productive solution.

The RS-160 feeder features a hopper that is loaded with envelopes, feed belts to pull the bottom envelope from the stack and an acceleration table that advances the envelope toward the printer.
A sheet separator is included at the front end of the hopper that must be set properly to ensure that only one envelope is pulled from the stack at a time. Once the first envelope is moved forward away from the stack, the second envelope is then pulled away and follows closely behind the first.

At the exit end of the acceleration table is a roller that is positioned underneath the printer's feed roller. This roller helps to "drive" each envelope under the feed roller and presses the envelope upward against the feed roller so the feed roller can pull the envelope away. The exit roller features a one-way bearing design so that it drives the envelope positively while allowing the feed roller to pull the envelope away easily.

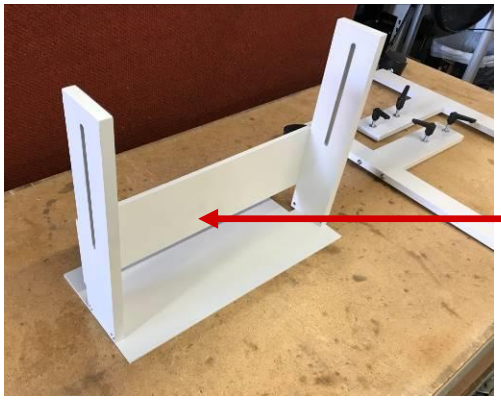
A stop sensor is included at the exit end of the acceleration table to detect the leading edge of each envelope as they advance towards the printer. When the leading edge of the envelope is detected, the feeder motor stops. The printer feed roller pulls the envelope away into the printer. As the envelope is pulled away, the trailing edge of the envelope unblocks a start sensor which starts the feeder motor, advancing the next envelope quickly. By using a separate stop sensor and re-start sensor, the feeder can begin advancing the second envelope forward even before the first envelope is completely in the printer. This gives the feeder a "head start", allowing for high speeds.
The RS-160 includes two different re-start sensors, one in position for running long envelopes and one in a different position for running short envelopes. Only one of these two sensors is used depending on the job and switching between the two is accomplished with a simple switch on the control panel of the feeder.

RS-160 Feeder and adjustable height stand installation instructions

The RS-160 feeder is shipped with the stand detached. The top plate of the feeder has also been removed for shipping.

Step 1. Carefully remove the feeder, the accessories bag, and the stand components from the shipping carton and place them on a flat surface. The only tools necessary to assemble the feeder are a 3/32" Allen wrench (included with manual) to install the top plate on the feeder, and a 1/8" Allen wrench to attach the feeder to the stand.

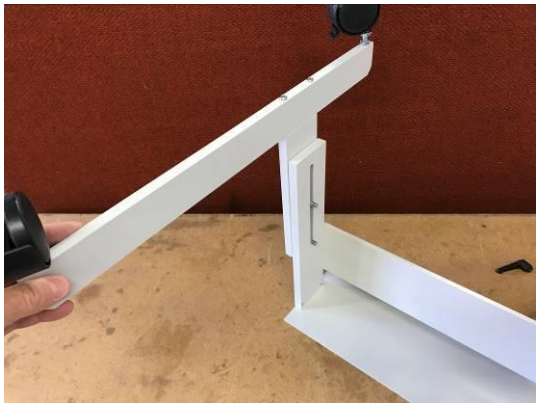
Step 2. STAND ASSEMBLY Place the upper stand assembly (with two slotted legs) upside down on a table with the slotted uprights facing up and the cross bar facing away from you as shown here:



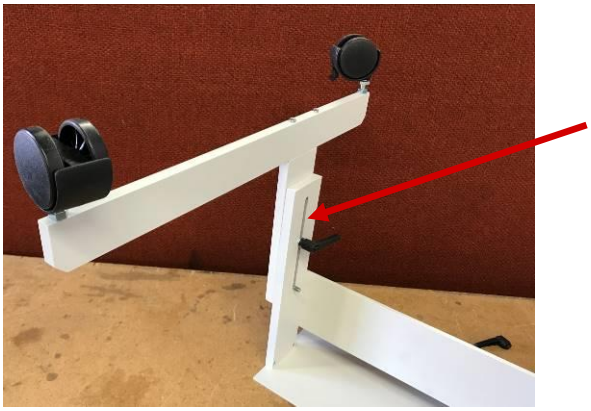
Step 3. Remove the four locking levers and flat washers from the stand legs

NOTE: The stand legs feature two casters each. The casters with the lock will be on the same side of the stand as the stand cross bar

Step 4. Place one of the stand legs alongside the outside of the slotted upright and insert the bolts into the slot as shown. Note the orientation of the leg.



Step 5. Place a flat washer on the top bolt and then thread one of the locking levers on to the bolt



Ensure flat washer is installed first!

Step 6. Raise the leg assembly so the top locking lever screw is all the way up in the slot and then tighten the locking lever. Then install a washer and locking lever on the lower bolt.

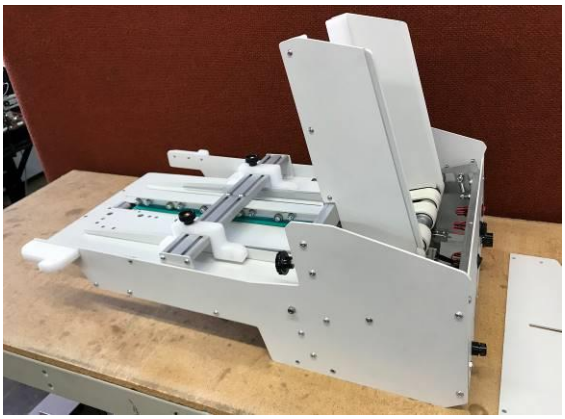
Raising the leg until this bolt is at the top of the slot will ease installation of the lower locking lever.

Step 7. Install the other leg in the same fashion. ENSURE THAT THE LOCKING LEVERS ARE TIGHT.

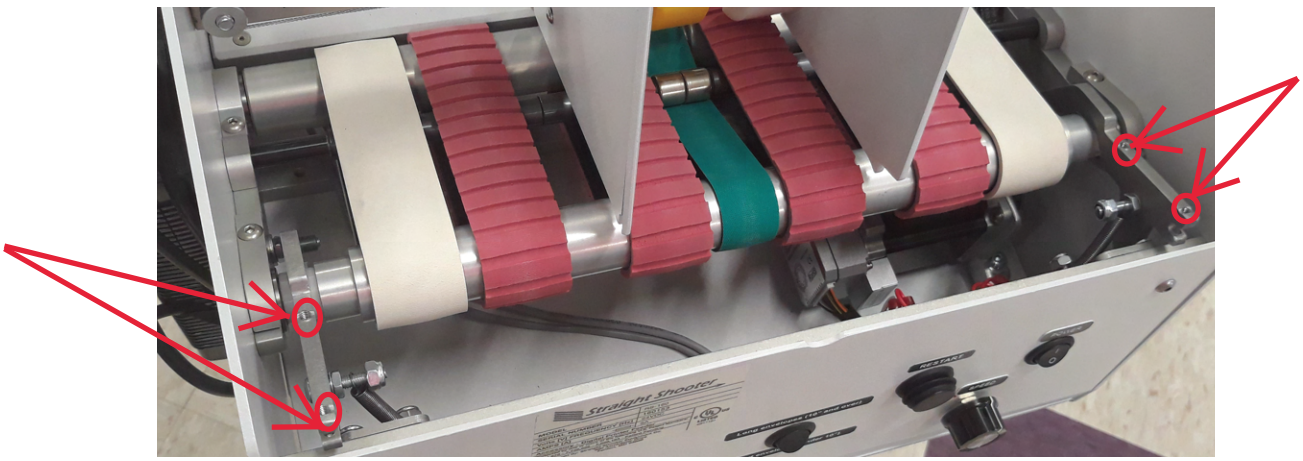
Step 8. Turn the stand over and place on the floor. Check to ensure that the legs are set at the same height and the locking levers are tight.

Towards printer

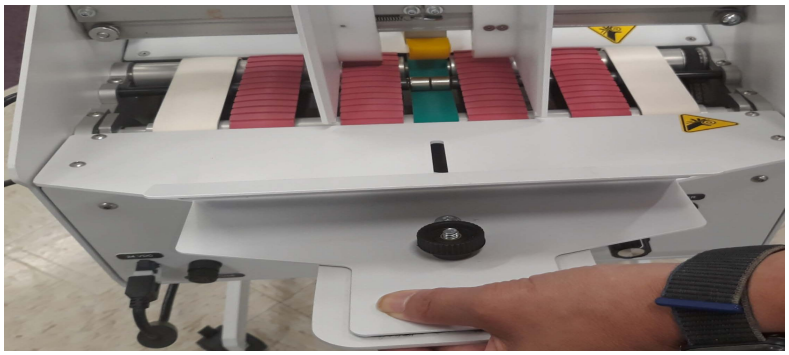
Step 9. PREPARING THE FEEDER Place the feeder on a flat table.



Step 10. Using a 3/32” Allen wrench, remove the four button head screws from the top plate supports as shown. Be careful to avoid dropping these screws into the feeder.



Step 11. Place the top plate over the top plate supports and position the supports and plate to align the holes.



Step 12. Install two of the button head screws in one side of the top plate. Do not tighten these screws yet.

Step 13. Install the two button head screws in the other end of the top plate

Step 14. Center the top plate between the feeder side plates so that it does not rub either side and then tighten all four screws

Step 15. INSTALLING FEEDER ON STAND Using a 1/8” Allen wrench, remove the four button head screws from the tops of the stand uprights. These will be used to attach the feeder to the stand.

Step 16. Carefully lift the feeder by grasping the bridge with one hand and place it over the stand. DO NOT LET GO OF THE FEEDER UNTIL IT IS ATTACHED WITH THE BOLTS!

Note the orientaton of the feeder.

Step 17. Align the holes in the side plate of the feeder with the holes in the top of the stand legs and install the bolts removed earlier. Do not tighten any of the bolts until all four have been installed.

Step 18. After all four bolts are installed, hold the feeder level and tighten the bolts.

Step 19. PREPARING THE FEEDER FOR YOUR PRINTER The feeder is equipped with plastic blocks that will aid is positioning the machine in line with your printer model. The exit end of the feeder will be positioned between the side plates of the printer's Standard feed tray. Two separate sets of blocks are available. Each set contains 2 blocks (front and rear).

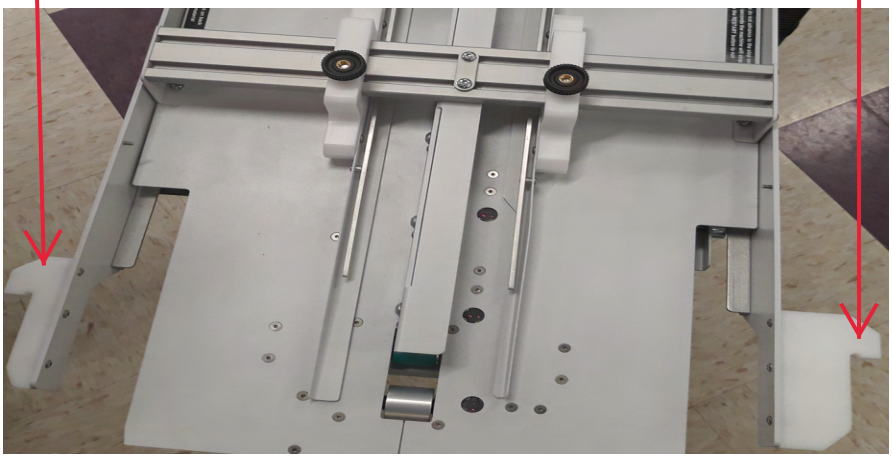
1) A set including a Thick block and a Medium-Thick block.
2) A set including two identical smaller-Thickness blocks.

The appropriate set of blocks must be installed on the exit end of the side plates so that the feeder willfit properly into the printer standard feed tray.

Thick block option for printers with wide feed trays

Medium thickness block installed withthree button

Thick block option installed with three button head screws



NOTE:

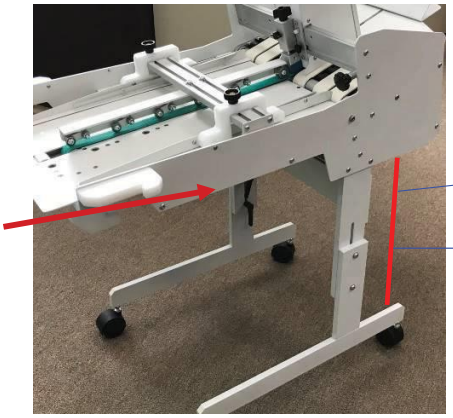
For printers with wide standard feed tray opening such as RISO Inkjet printers and Ledger size duplicators, i.e., MF, SF9490, SF9450, and SFEII9450, install the Thick alignment blocks on both front and rear sided plates of the Envelope Feeder as illustrated in the picture above. The rear block is thicker thanthe front block.

For printers with small standard feed tray (plastic trays) opening such as Letter and Legal-size duplicators, install the Smaller Thickness alignment blocks on both front and rear sides plates of the Envelope Feeder. The front and rear blocks are identical as shown on the picture below.

Using the proper block set for your printer model will ensure that the feeder is positioned correctly with the printer.

Step 20. STAND HEIGHT ADJUSTMENT The feeder stand height is adjustable to accommodate different printer models. The stand height must be adjusted to match your printer model. When set properly, the feeder will easily move into and out of position with the printer, with the accelerator table not lifting- up the scraper area too much.

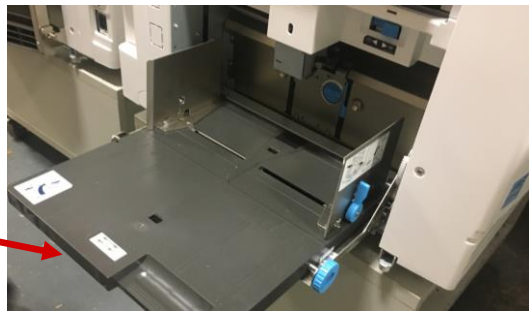
To adjust the stand height, hold the feeder up with one hand and loosen the locking levers on one of the legs to adjust that leg first. Then lock the levers before adjusting the other side.



THE STAND HEIGHT MUST BE SET PROPERLY FOR THE FEEDER TO WORK WITH YOUR PRINTER

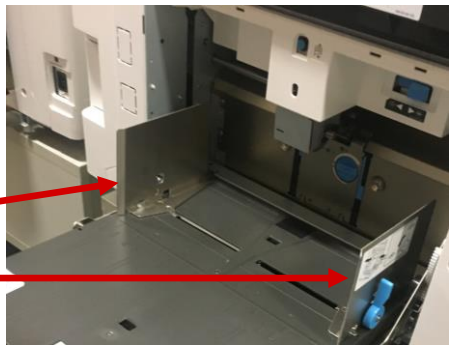
Step 21. POSITIONING THE FEEDER WITH YOUR PRINTER To ensure that the feeder stand is set properly and the correct positioning blocks are installed, power the printer on and lower the feed tray on the printer all the way to its lowest position. (Refer to your printer instructions for this step).

Lower the printer feed tray all the way down.

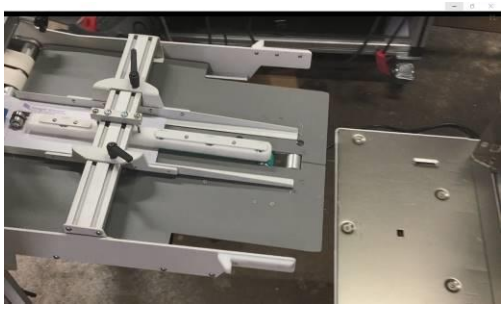


Step 22. Move the feed tray side guides outward as far as they can go.

Guides must be outward to accommodate feeder

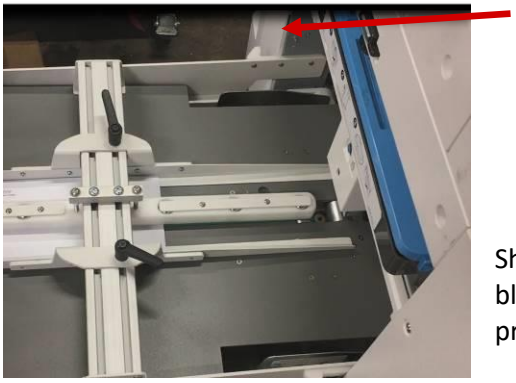


Step 23. Carefully position the feeder in front of the printer feed tray parallel with the tray



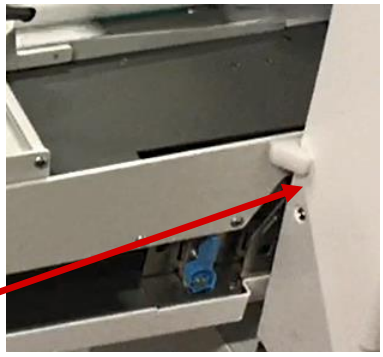
The feeder acceleration table (delivery table) is equipped with supports (shown below) that will rest on the printer feed tray. When the stand height is set correctly, these supports should slide onto the printer's tray as the feeder is moved into position. (With the tray all the way down) During operation, the printer tray will lift the acceleration table of the feeder to the proper height.

Step 24. To check your feeder's stand height and to ensure the proper position blocks are installed on the feeder, carefully move the feeder into place with the printer. The positioning blocks should slide just inside the printer tray side walls to center the feeder properly.



Postion block. Should slide between printer side plates closely

Shoulder of position block rests against printer frame



NOTES:

It is important that the stand height is set properly for the feeder to move into position freely. When the height is correct, the acceleration table support blocks should lift the table slightly as the angled portion of the blocks contact the edge of the printer table. (Do not push the feeder into position aggressively)

When the feeder is pushed all the way into the printer, the position blocks on either side of the feeder should serve to guide the feeder into the printer tray. If there is a large gap between the blocks and the printer side walls, OR the blocks prevent the feeder from moving on the way in, you may have the wrong set of blocks installed. NOTE: The proper set of position blocks must be used to ensure the center of the delivery (acceleration) table is centered under the printer feed roller!

The printer feed tray is equipped with a sensor to detect when the tray is empty. Under normal operation, (without the new feeder) the stack of envelopes blocks this sensor until depleted. The printer will not attempt to operate if this sensor is not covered. The acceleration table on the envelope feeder is equipped with a flat plate that covers the sensor in the printer when the feeder is moved into position.

This plate blocks the printer's envelope sensor when feeder is in position

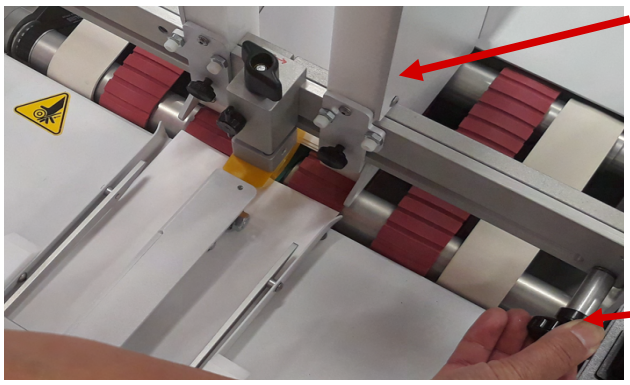
SETTING UP THE FEEDER FOR ENVELOPES

It is best to setup and test the feeder for your envelopes with the feeder away from the printer.
It is also a good idea to ensure that the printer is setup properly to run your envelopes well without the feeder installed.

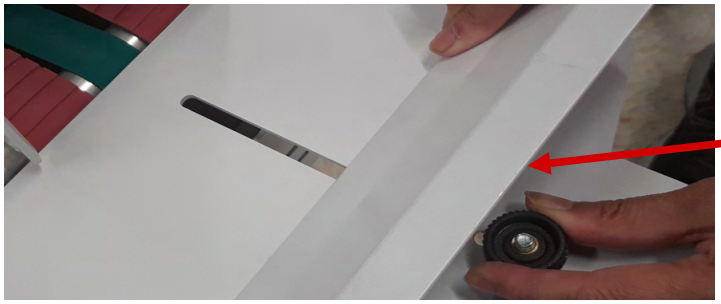
NOTE: Some of the following setup pictures show the feeder resting on a table rather than the stand. The setup steps are the same.

Step 1. Move the feeder away from the printer.

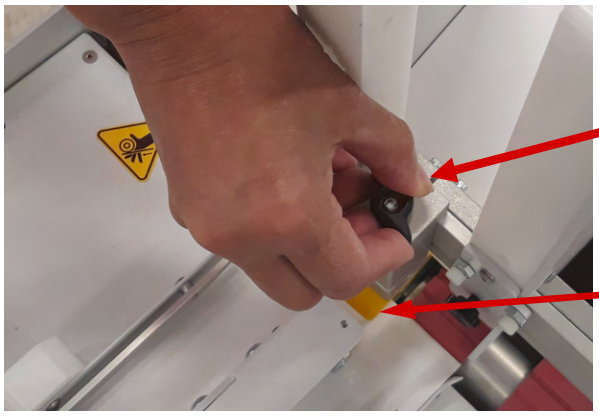
Step 2. Rotate the paper guide adjustment knob on the front of the feeder bridge to move the paper guides outward toward the side plates of the feeder



Step 3. Loosen the back wedge locking knob and slide the back wedge away from the feed belts as far as it will go in the slot.

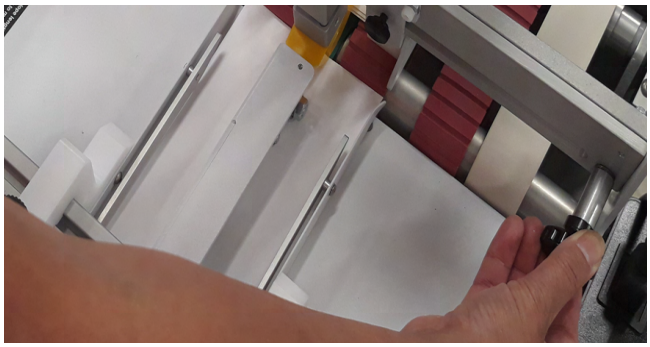


Step 4. Rotate the separator adjustment knob on top of the separator assembly clockwise several turns to raise the separator tip

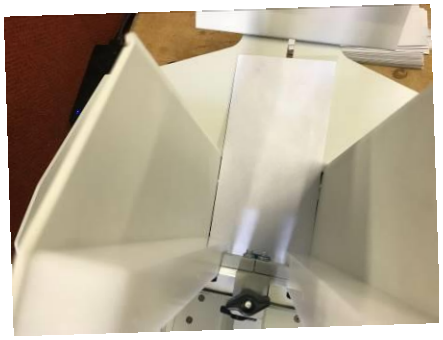


Step 5. Position one of your envelopes in the hopper area between the paper guides as shown below

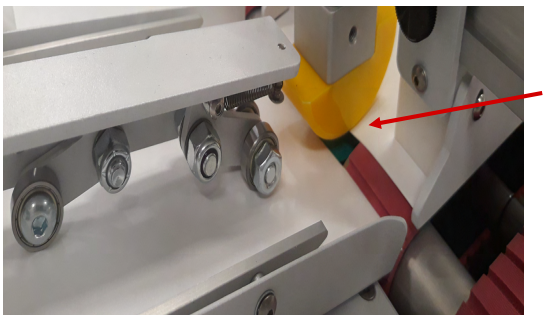
Step 6. Rotate the paper guide adjustment knob to move the paper guides inward towards the envelope.



Step 7. Position the paper guides close to the edges of your envelope. The paper guides are self-centering, so allow them to move the envelope a bit if necessary. Ensure that the guides are not too tight against the envelope. A small gap between the guides and the envelope edges is suitable.

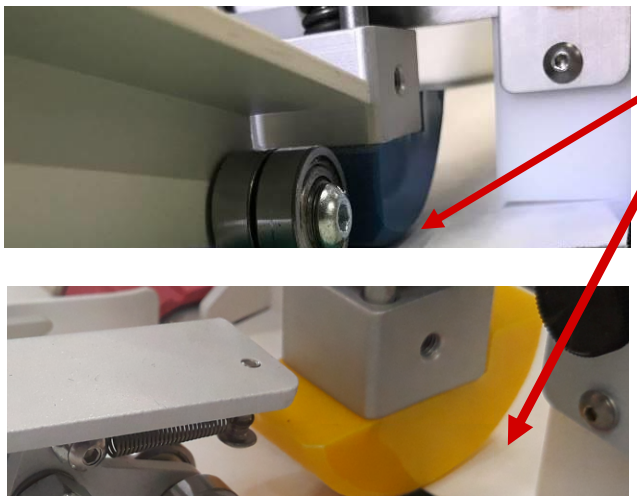


Step 8. Push the envelope forward toward the acceleration table until the leading edge is under the separator tip as shown here:
If envelope cannot move under separator tip, you may need to raise it more as described in step 4



Note that there is the option to use either the blue separator or the yellow one. The yellow separator is more suitable for envelopes.

Step 9. Rotate the separator adjustment knob counter-clockwise until the separator tip contacts the envelope and buckles it downward slightly between the white feed belts.

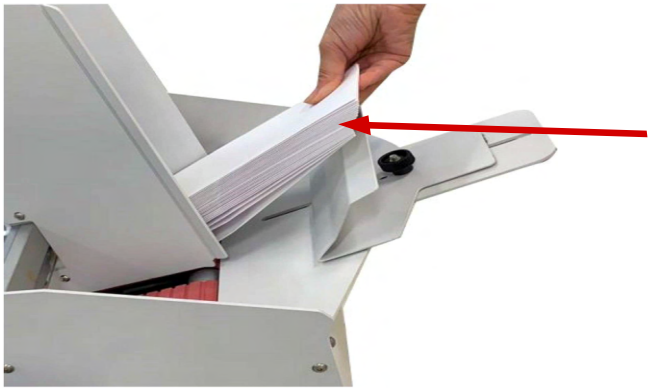


Lead edge of envelope should buckle downward between the white feed belts but not be pinched against the green belt

Do not "pinch" envelope. You should still be able to pull the envelope out relatively easily with a little bit of resistance.

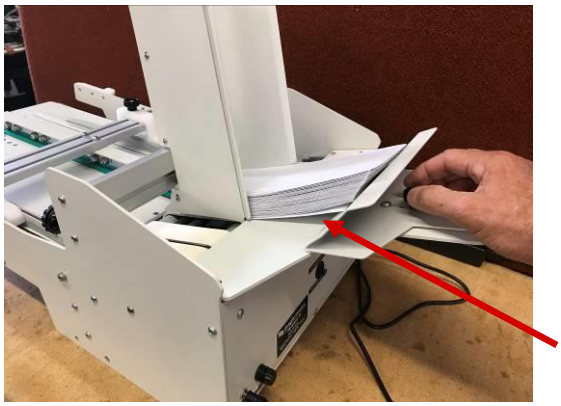
The amount of pressure, (buckle) necessary will vary based on your envelope thickness, size and shape. Some experimenting to get the best results may be necessary.

Step 10. Shingle a small stack of envelopes as shown below so that the bottom envelope is foremost in the stack as shown here. Place this stack on top of your first envelope in the hopper.



"Shingling" the small stack of envelopes before placing them in the hopper will help the lead edge of the stack conform to the curvature of the paper guides and separator tip

Step 11. While holding the trailing edge of the stack up with one hand, slide the back wedge forward under the stack and lock in position as shown here:

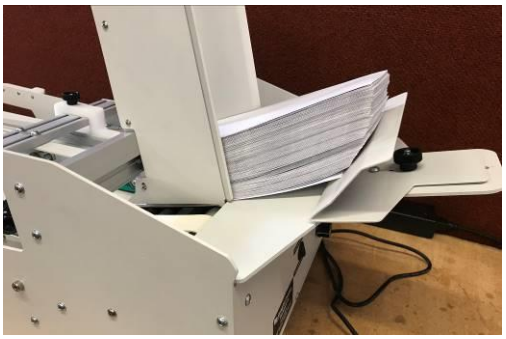


The back wedge should lift the trailing edge of the envelopes off of the top plate and feed belts.

When adjusted properly, the back wedge aids in separating the envelopes by keeping the second envelope from the bottom away from the feed belts until the bottom envelope advances away.

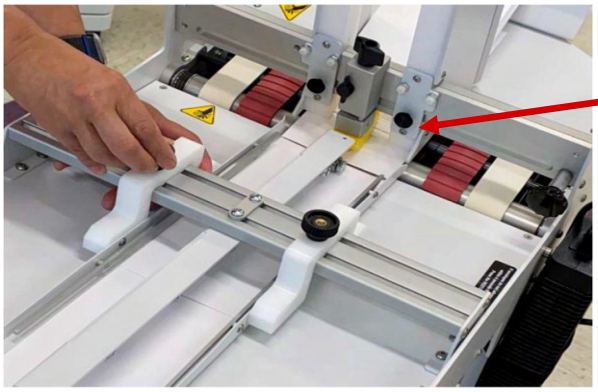
Some experimenting will be necessary to obtain the best results.

Step 12. Place more envelopes on the top of the stack and “jostle” the trailing edge a bit to straighten up the stack.

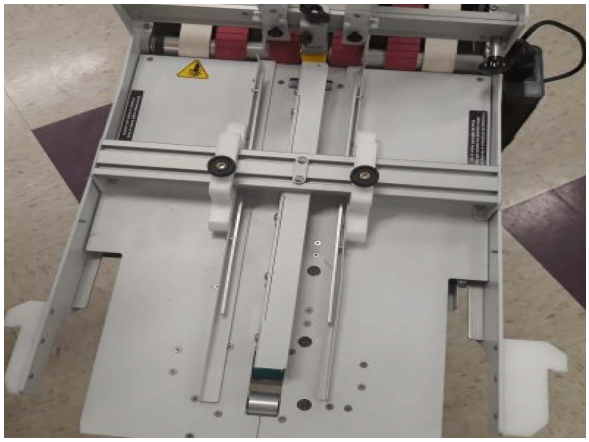


Step 13. Loosen the locking knobs on the acceleration table paper guides and slide them into position so the leading edge of the envelope under the separator will enter the acceleration table between the paper guides

It is a good idea to keep these paper guides a little bit wide for now, so they do not restrict the envelope movement. These can be fine-tuned later once envelopes are advanced into the acceleration table



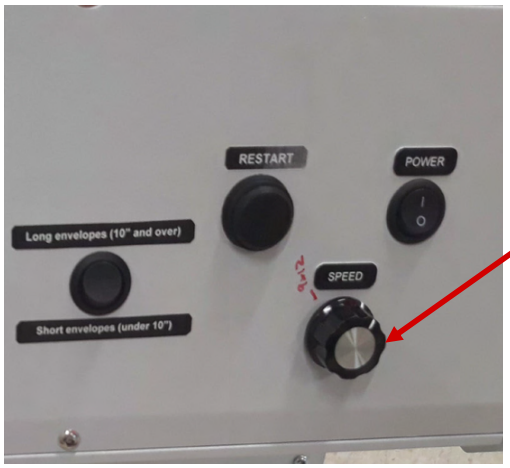
Set guides fairly “loose” for now



Step 14. **Ensure that the feeder power switch is turned OFF** and supply power to the feeder using the included adapter. The adapter supplies 24 vdc to the feeder through the power inlet shown below:

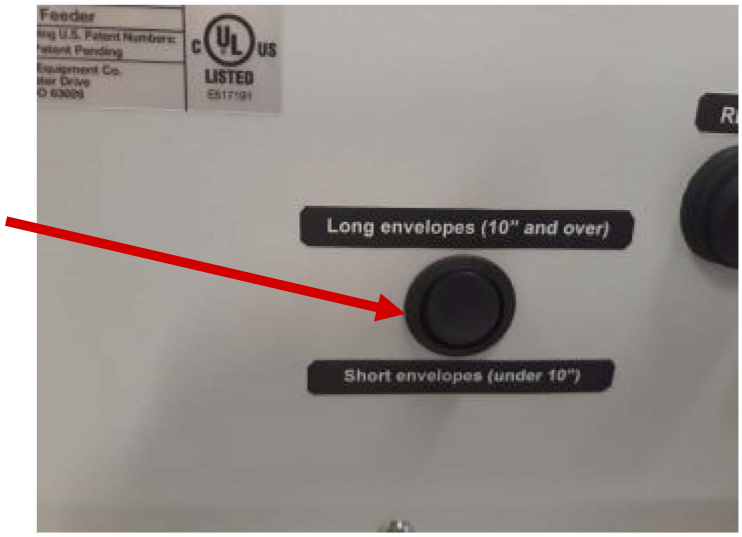
24 vdc power inlet

Step 15. Turn the speed adjust dial counterclockwise to set the feeder at a moderate (slow) speed.

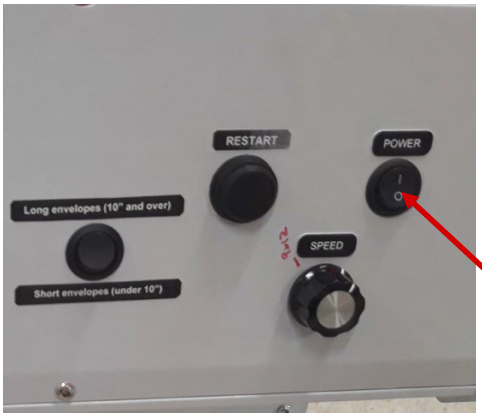


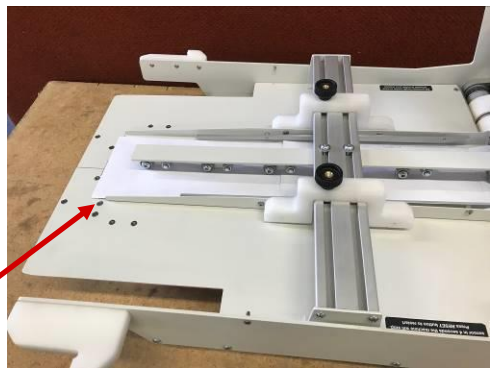
Set speed dial at approximately 9 or 10 o'clock for testing the feeder at a moderate speed.

Step 16. Set the envelope length switch to match your envelope. ***Move the switch to the UP position for envelopes longer than 10" and move to the DOWN position for #10 and shorter envelopes***



Step 17. Turn the power switch to the ON position. This will activate the feeder motor and advance your first envelope to the end of the acceleration table.





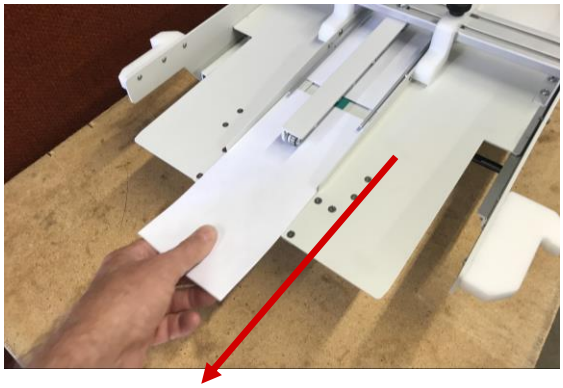
When power is switched on, the bottom envelope should advance to the stop sensor positioned near the end of the acceleration table.

Step 18. <u>Without lifting the envelope up,</u> grab the leading edge of the first envelope, and swiftly pull it away from the end of the acceleration table. ***Move the envelope laterally***, removing it from the feeder without lifting it.

Pull envelope all the way out of the feeder swiftly in the direction of the arrow.

When this envelope is pulled away, the feeder will advance the next envelope to the stop sensor

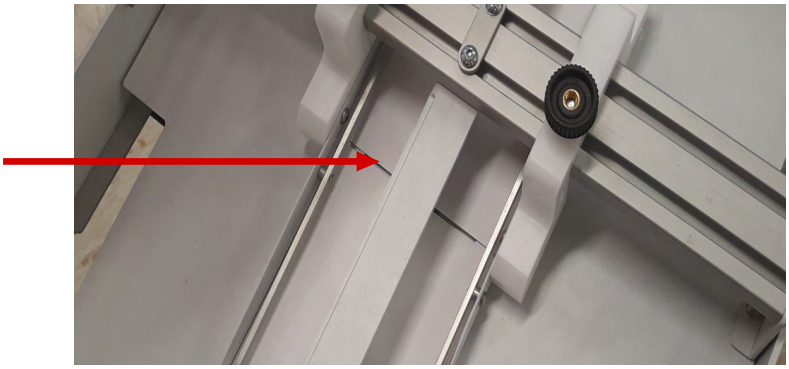
This procedure mimics what the printer will do. The feed roller on the printer will pull envelopes away and the feeder will advance envelopes, one at a time, to replace them.



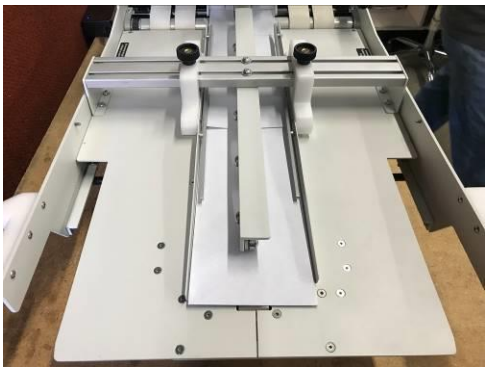
Step 19. Repeat this test to feed and remove envelopes approximately 5 to 10 times. As you pull each envelope away, observe the advance of the subsequent envelopes. Each envelope should follow the prior envelope closely as they advance down the acceleration table.

Envelopes should follow closely with no gap or minimal gap between envelopes. *Even a little overlap is acceptable*

If this is not the case, you may need to adjust the back wedge or separator a bit.



Step 20. With envelopes in the acceleration table as shown below, you can now reposition the acceleration table paper guides to ensure straight envelope feeding. Set the guides alongside the envelope edges to “square up” the envelopes, but DO NOT restrict movement of the envelopes.

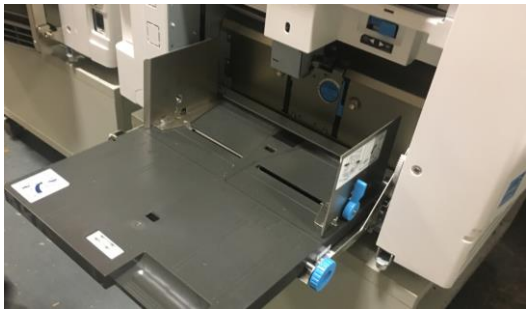


IT IS A GOOD IDEA TO TEST THE FEEDER FOR SEVERAL ENVELOPES AGAIN AFTER TIGHTENING THE GUIDES TO ENSURE CONSISTENT ENVELOPE MOVEMENT.

Step 21. If your envelopes are feeding and traveling down the acceleration table smoothly, switch off power to the feeder.

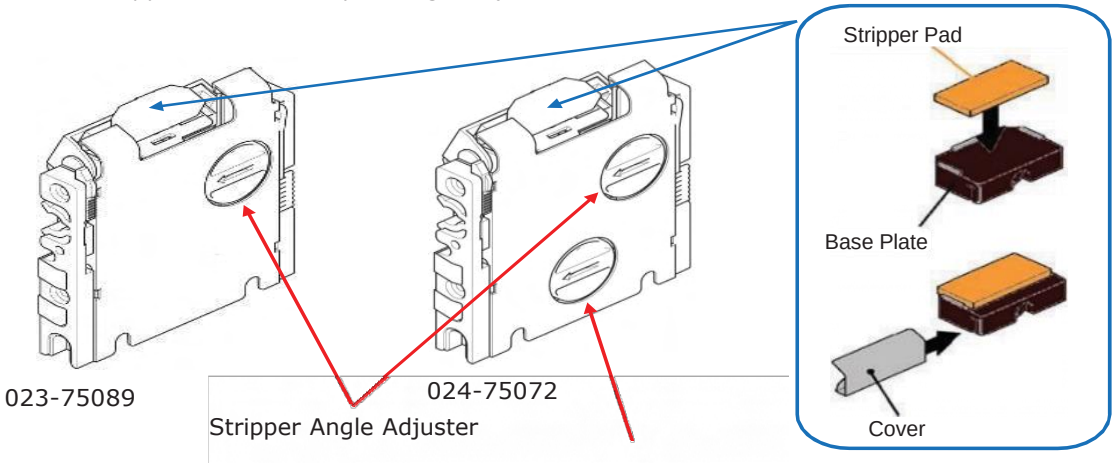
Step 22. With power off, remove the leading envelope from the end of the acceleration table.

Step 23. Remove any envelopes from the printer's feed tray, lower the tray to its lowest position, and move the tray paper guides all the way out as shown earlier in this manual.

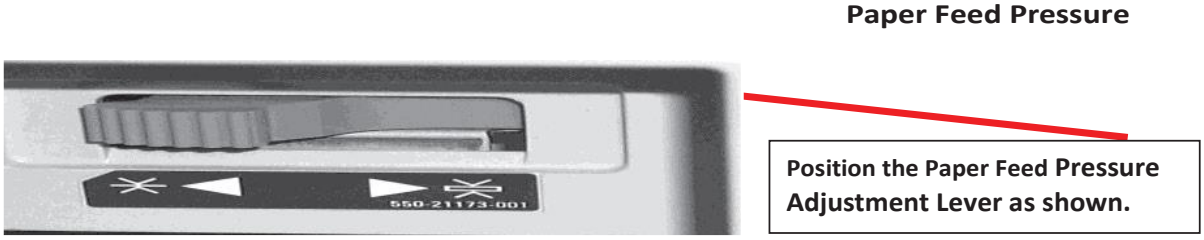


Step 24. RISO Envelop Feed Adjustment Setting (Printer side):

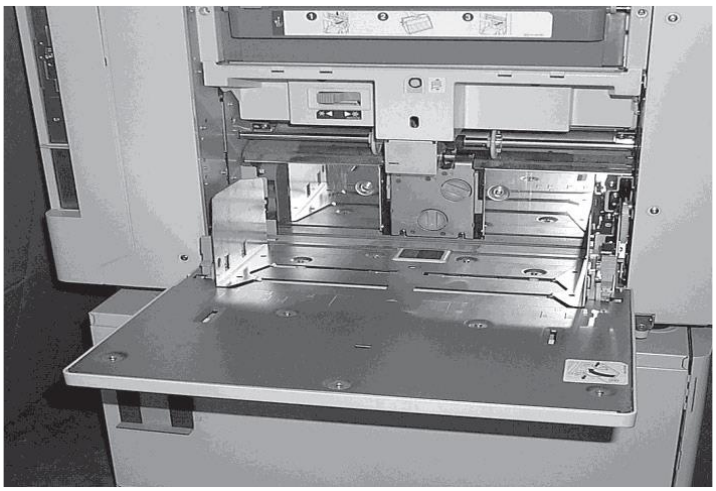
1- There are 2 types of Stripper Units that may be found on RISO machines. They should be adjusted for envelope feeding prior to attaching RS-160:
- Stripper Unit with Angle and Separation Pressure Adjusters.
- Stripper Unit with only an Angle Adjuster.

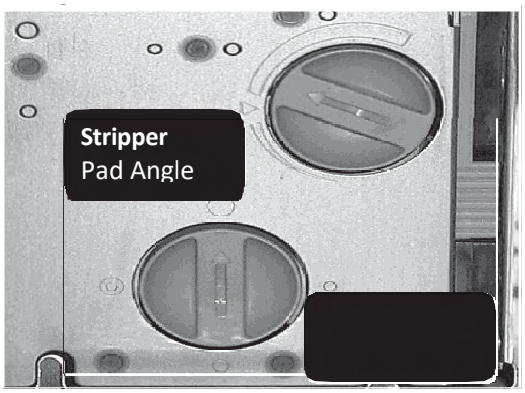


2- Adjust the Paper Feed Pressure as shown below:



3- Adjust Stripper Pad Angle:
Turn the Stripper Pad Angle Adjustment dial as shown below:

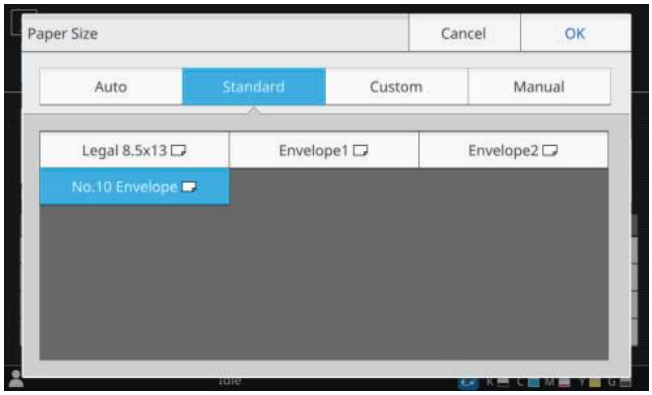


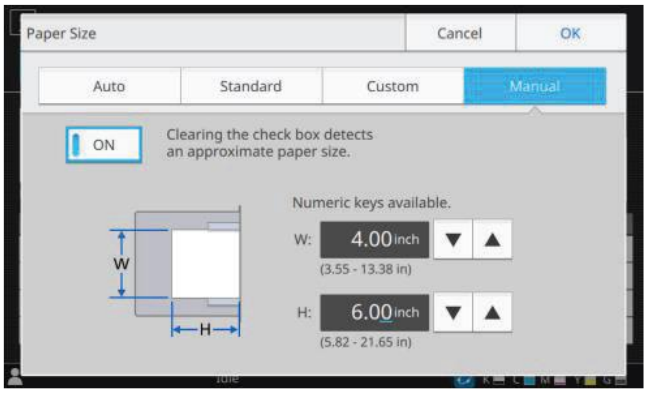


4- Adjust the Stripper Pad Pressure:
Turn the Stripper Pad Pressure Adjustment dial as shown above.

Step 25. Setting Paper Size and Paper Type on Inkjet Printers:

1- Set Paper Size on printer through Inkjet Printer Op-Panel.





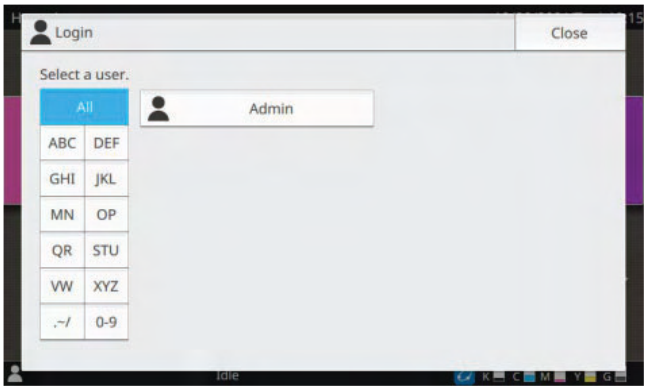
[Auto]: Select this option if you want standard size originals to be detected automatic
[Standard]: Specify the standard size.
[Custom]: Select this option to select from non-standard paper sizes registered by the administrator in advance.
[Manual]: Specify a non-standard paper size that is not registered.

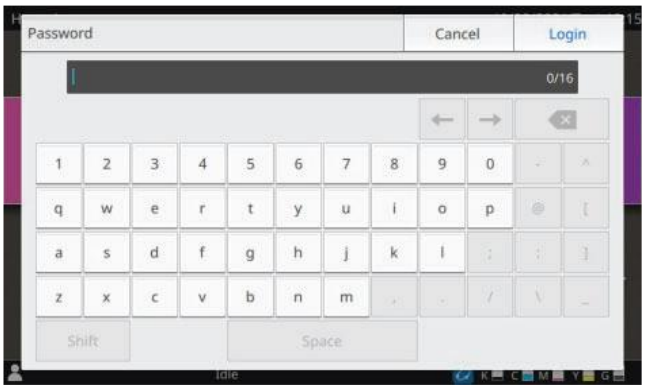
Registering Custom Paper Size

Note: Custom paper size may be entered through Op-Panel, the Printer's Console or the Printer Driver

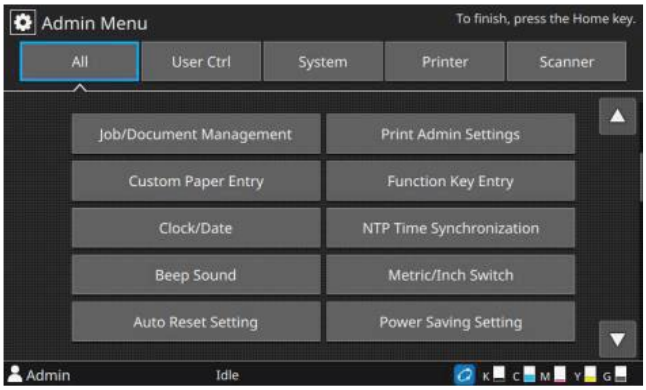
A) Custom Paper Size through Op-Panel (when needed):

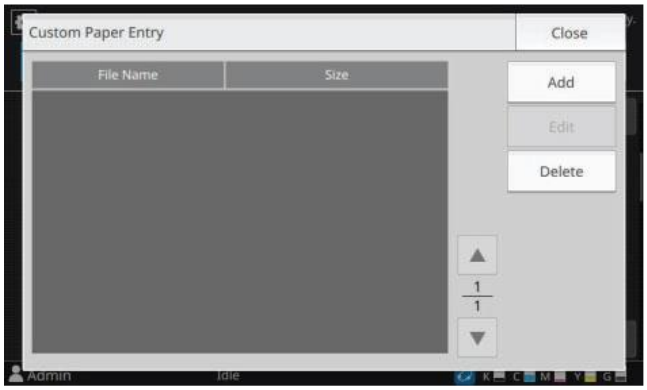
1- Login as Admin, enter password.

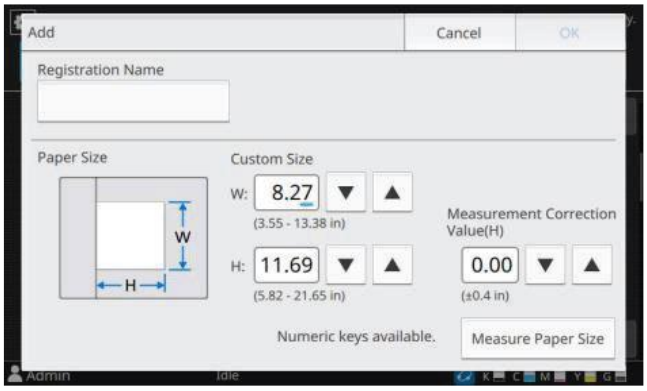




2- Click Custom Paper Entry, add the envelope custom size and press OK.

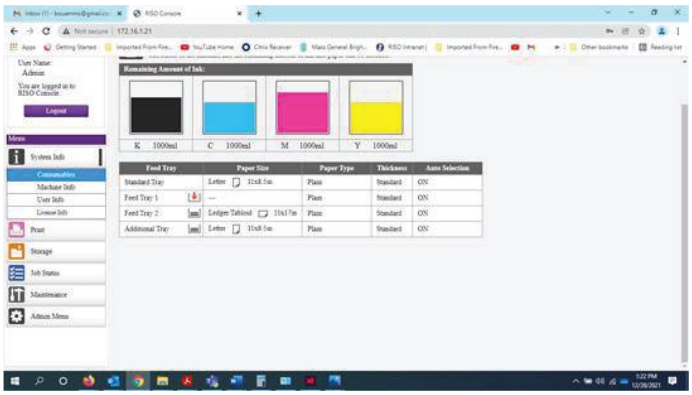


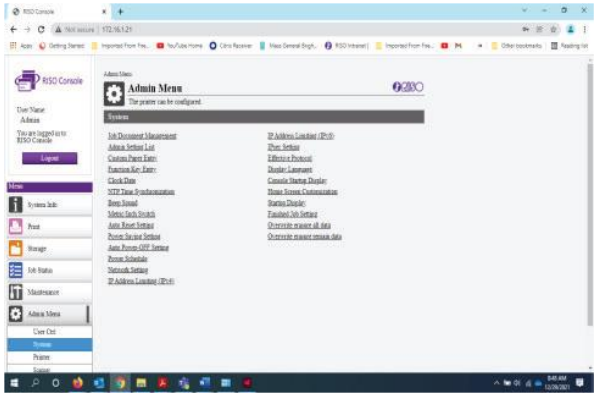




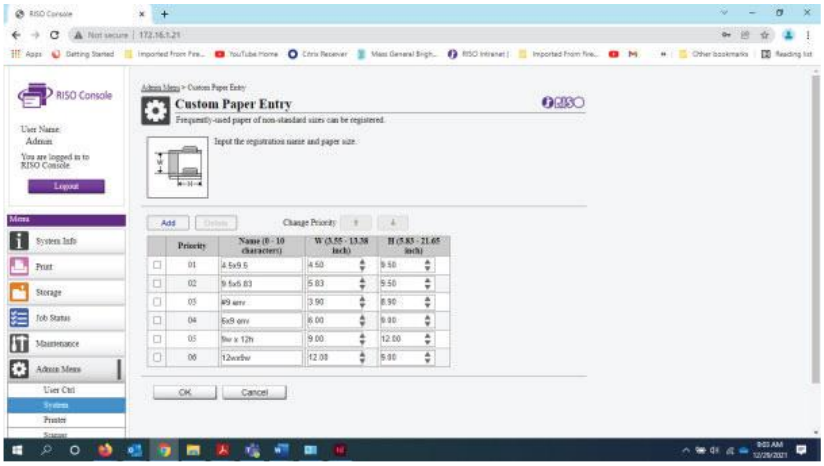
B) Custom Paper Size through Printer's Console (when needed):

1- Login as an Admin, click on System under the Admin Menu and click on Custom Paper Entry.



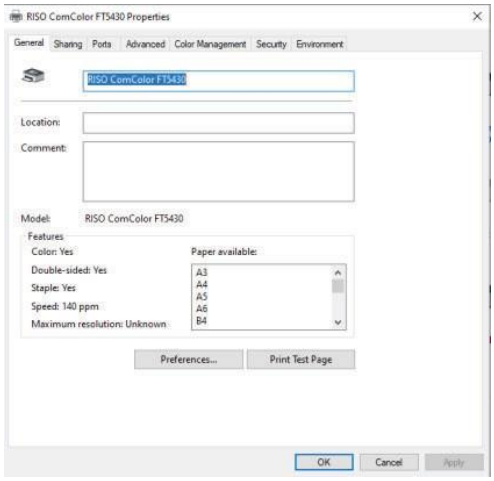


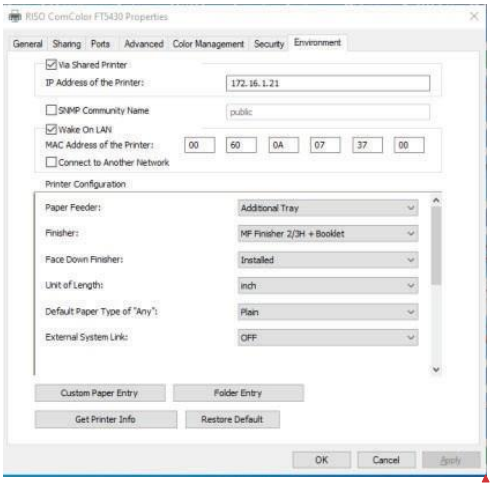
2- Add Custom Paper Entry, set Registration Name and enter W and H dimensions for Custom Size. Click OK.



C) Custom Paper Size through Printer Driver (when needed):

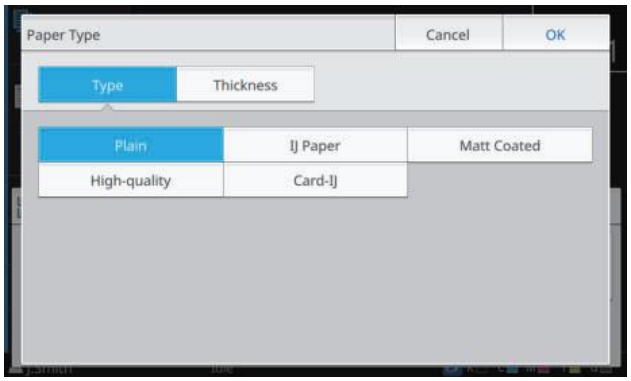
1- On printer's Properties window, Click on Environment, then Custom Paper Entry. Enter the Width and the Height and The Name of the custom size entry. Click on Get Printer info. and close the window.

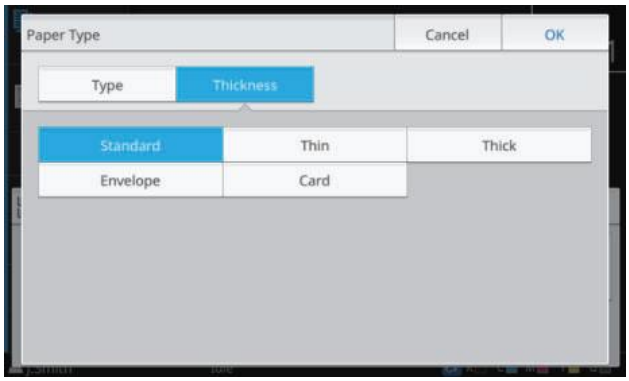




2- Set Paper Type on printer for “Envelope” through Op-Panel.

On Paper Type window, click on the Thickness button and select “Envelope”.

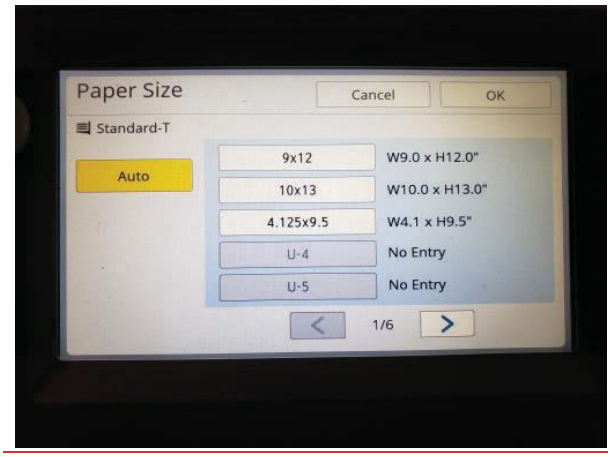




Step 26. Setting Paper Size and Paper Type on Duplicators:

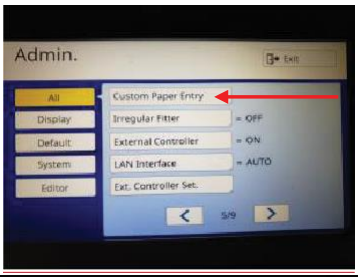
Select paper size through the Op-Panel.

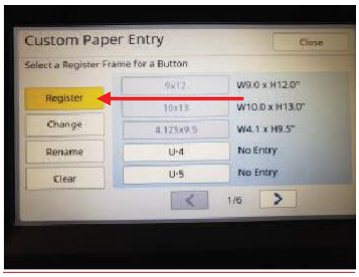
[Auto] will detect standard size envelopes automatically.
Specific registered size envelopes may be selected if [Auto] is OFF, (as shown in picture below).

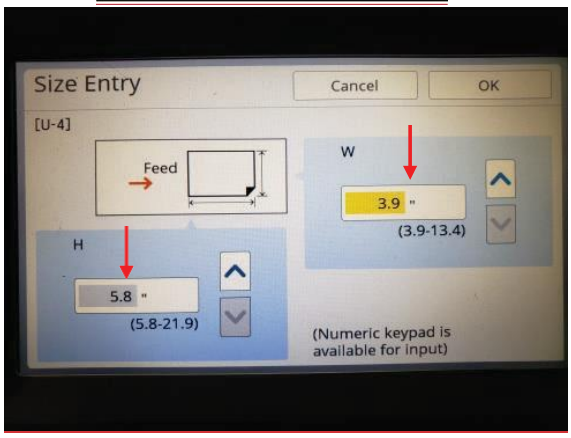


If needed, Custom paper size is entered through the Op-Panel under the Admin menu (as shown on the pictures below).

On Admin window, click Custom Paper Entry, register the desired Custom Paper Size and click OK (as shown on the pictures below).







Step 27. Testing RISO printer and RS-160 Envelope Feeder in a standalone state

1- Test the RISO printer in a standalone state before attaching the RS-160 Envelope Feeder, and make sure that the standalone printer is properly feeding envelopes. If there are issues in feeding envelopes, repeat 3- and 4- until envelope feeding is smooth.

2- Carefully move the feeder into place in line with the printer and push the feeder all the way in until the positioning blocks contact the printer frame as shown here.

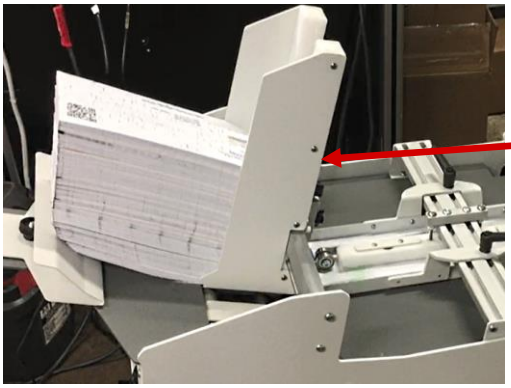
Step 28. Set the feeder speed dial at approximately 50% (12:00) and switch power to the feeder on. The feeder should advance the first envelope up to the printer and under the printer's feed roller.

Step 29. ***Set the printer at a moderate (slow) speed to start printing***. When the printer starts up, the feed tray will rise, lifting the feeder acceleration table up until the envelope contacts the printers feed roller. The tray will stop rising once the feed roller is lifted to the proper height.

Once the printer begins running, ensure that the feeder is running fast enough so that each subsequent envelope is advanced to the stop sensor on the acceleration table and comes to a noticeable stop before being pulled in by the printer. Increase speed on the feeder if necessary.

Envelope in position under feed roller

Step 30. If the feeder and printer are running together consistently, more envelopes can be added to the top of the stack in the hopper while running. It is best to keep a moderate stack size in the hopper and adding smaller stacks frequently, rather than placing large, heavy stacks in the hopper all at once.



Add small stacks while running

NOTE: DO NOT STACK LARGE ENVELOPES THIS HIGH. Due to the weight of large envelopes, stack height is limited to a few inches.

THE FEEDER IS EQUIPPED WITH A TIMEOUT FUNCTION THAT WILL STOP THE MOTOR AFTER A FEW SECONDS IF IT RUNS OUT OF ENVELOPES OR JAMS IN THE HOPPER AREA.

If the stop sensor on the end of the acceleration table does not detect an envelope for a few seconds, the machine will stop feeding. (The printer will show an error condition which will need to be reset)

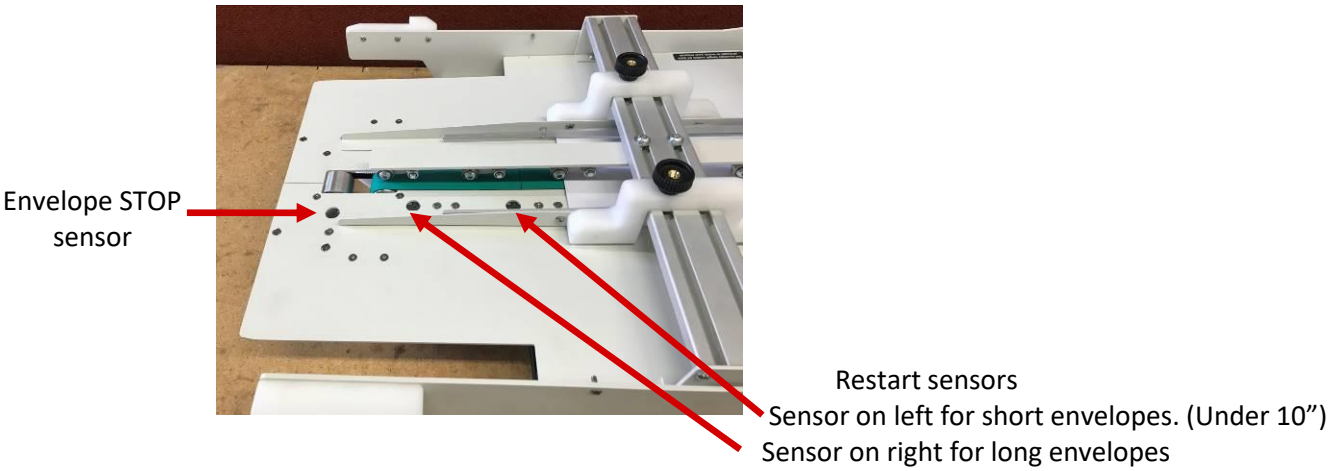
If the machine times out, you will need to reload envelopes (as shown earlier) or, if caused by a jam, clear the jam, and reload envelopes.

ONCE THE ERROR HAS BEEN RECTIFIED AND THE HOPPER RELOADED, PRESS THE RESTART BUTTON ON THE BACK PLATE OF THE FEEDER TO ADVANCE THE FIRST ENVELOPE.

Timeout RESTART push button

The envelope feeder is equipped with a high-speed servo motor that can start and stop the machine quickly. By using envelope sensors to detect the leading edge and trailing edge of each envelope, the feeder will advance one envelope at a time into position for the printer feed roller to take them away.

The envelope stop sensor is positioned at the exit end of the acceleration table. This sensor detects the leading edge of each envelope and stops the motor when the edge is detected, positioning the envelope under the printer's feed roller.



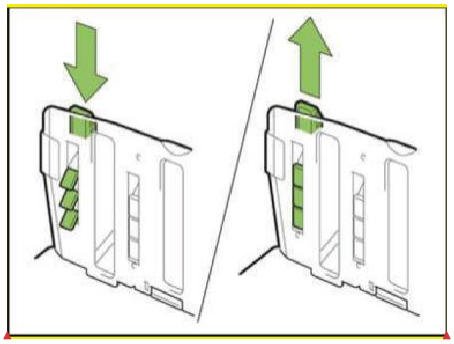
When the envelope advances to cover the stop sensor, it will also be covering at least one of the Restart sensors (shown above).

Due to the high-speed capabilities of the printers, the Restart sensors are utilized to enable the feeder to advance the second envelope very quickly as the first one is pulled into the printer.
Depending on the length of your envelopes one of the two restart sensors will be selected using the Two-position switch on the back of the feeder.

When the printer starts pulling the leading envelope away from the acceleration table, the Restart sensor selected will become unblocked by the trailing edge of the envelope. When this happens, the feeder motor will start, beginning the advance of the second envelope even before the leading envelope has been completely moved away. This gives the feeder a "head start" allowing for high repeat feed rate to keep up with today's high-speed printers.

Adjusting the Auto Control Stacking Tray / Wide Stacking Tray for proper envelope stacking.

Paper Arrangers are set to suit the paper type so that the output paper is neatly aligned.



Normally, the paper arrangers should be extended when printing on paper that is B4 (10x14-inch) size or smaller. How paper is stacked after printing varies depending on stiffness and other factors. Adjust the paper arrangers as needed.

- With the auto-control stacking tray, the paper guides adjust automatically to fit the paper size.
- With the wide stacking tray, move the paper guides (side and end) to match the paper size.

MAINTENANCE

The RS-160 requires very little maintenance, consisting primarily of cleaning the feed belts and removing dust and paper debris away from the envelope sensors.

CAUTION: ALWAYS UNPLUG THE SYSTEM BEFORE ATTEMPTING TO CLEAN.

FEED BELTS. With power to the feeder DISCONNECTED, clean the feed belts frequently using a lint free cloth and isopropyl alcohol. Frequent cleaning to keep paper dust and other dirt from building up on the feed belts will minimize slippage and result in consistent envelope feeding. Slippage (belts against envelopes) not only causes miss-feeds and lost production, but also increases belt wear. Frequent cleaning of the feed belts will extend their useful life.

ENVELOPE SENSORS. Dust or paper debris build-up on the envelope sensors can cause performance problems that may appear to be feed belt slippage or improper setup. Clean these sensors off with compressed air periodically. If glue from envelope flaps builds up on a sensor, it can be cleaned with isopropyl alcohol.

ENVELOPE HOPPER. Envelopes have flaps, folds, variable thicknesses, and glue which are all potential causes of feeding issues. It is very important that the feed belts and acceleration table belts are able to move envelopes quickly, smoothly, and efficiently through the machine for high-speed operation. Resistance to this free movement can be caused by dirt or glue build-up on the paper guides, back wedge of acceleration table components.

One of the most common issues with feeding envelopes is that they do not descend in the feed hopper due to corners or edges "hanging up" on the hopper components.

It can be very beneficial to apply furniture polish to the inside surface of the paper guides, the back wedge and the acceleration table and paper guides. This will reduce friction, allowing for smooth envelope movement.

CAUTION: BE SURE TO AVOID GETTING POLISH ON FEED BELTS OR ACCELERATION TABLE BELT!

CAUTION: ALWAYS UNPLUG THE SYSTEM BEFORE ATTEMPTING TO CLEAN.

Symptom #1. Feeder not feeding consistently.

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H✆ CŜŜŘ ōŜtűă Řλℕűè✆ /fŜI·yˇōŜtűă ØλűK I·tŎ2K2f

O✆ CŜŜŘ ōŜtűă Ø2ℕy✆ wŜLJfI·ŎŜ ŦŜŜŘ ōŜtűă

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Symptom #2. Printer stops frequently due to feeder inconsistencies

t2ăăλōfŜ ŎI·dzăŜă I·yŘ ℕŜYˇŜŘλŜăY

M✆ CŜŜŘŜℕ ăLJŜŜŘ ăŜű ű22 f2Ø✆ LyŎℕŜI·ăŜ ŦŜŜŘŜℕ ăLJŜŜŘ

H✆ CŜŜŘŜℕ y2ű ŦŜŜŘλyƎ Ŏ2yãλăűŜyűfè✆ {ŜŜ I·ō2ØŜ✆ a2ØŜ ŦŜŜŘŜℕ I·ØI·è ŦℕØ2Yˇ LJℕλyűŜℕ ű2 ăŜűdzLJ I·yŘ ű̂Săű

O✆ {űI·Ŏ] ű22 KλƎK ŎI·dzăλyƎ ătλLJLJI·ƎŜ✆ wŜŘdzŎŜ ăűI·Ŏ] ăλÎŜ λyˇŦŜŜŘ K2LJLJŜℕ✆

Π✆ ² ℕ2yƎ wŜăűI·ℕű ăŜyã2ℕ ăŜfŜŎűŜŘ 2yˇŦŜŜŘŜℕ✆ /KŜŎ] ű2 ăŜŜ λŦ ăŜfŜŎűλ2yˇYˇI·ŭŎKŜă ŜyØŜf2LJŜ

P✆ tℕλyűŜℕ ăŜű ű22 ŦI·ăű✆ wŜŘdzŎŜ LJℕλyűŜℕ ăLJŜŜŘ✆

Symptom #5. Feeder jams

t2ăăλōfŜ ŎI·dzăŜă I·yŘ ℕŜYˇŜŘλŜăY

M✆ {ŜLJI·ℕI·ű2ℕ ăŜű ű22 ûλ∃Kű✆ wŜăŜű ăŜLJI·ℕI·ű2ℕ I·ă ăK2ØyˇλyˇλyãűℕdzŎűλ2yã✆ [22ăŜyˇăŜLJI·ℕI·ű2ℕ

H✆ CŜŜŘ ōŜtűă Řλℕűè 2ℕ Ø2ℕy✆ /fŜI·yˇ2ℕ ℕŜLJfI·ŎŜ

O✆ !ŎŎŜfŜℕI·ûλ2yˇűI·ōfŜ LJI·LJŜℕ ∃dzλŘŜă ű22 ûλ∃Kű✆ [22ăŜyˇ∃dzλŘŜă

Π✆ .I·Ŏ] ØŜŘƎŜ ű22 ŦI·ℕ ōI·Ŏ]✆ !Řƨdzăű̂ ōI·Ŏ] ØŜŘƎŜ✆

P✆ .I·Ř 2ℕ ŎdzℕfŜŘ ŜyØŜf2LJŜă✆ ¢ℕè ŘλŦŦŜℕŜyű ăű̂2Ŏ]

C✆ {ŜLJI·ℕI·ű2ℕ ûλLJ Ø2ℕyˇ2dzű̂ óŦfI·ûú✆ wŜLJfI·ŎŜ

Symptom #4. Feeder does not power up.

t2ăăλōfŜ ŎI·dzăŜă I·yŘ ℕŜYˇŜŘλŜăY

M✆ Cdzăŝ ōf2øy✆ wŜLJfI·ŎŜ ŦdzăŜ✆ óp I·YˇLJú

H✆ t2øŜℕ ădzLJLJfè ŘŜŦŜŎűλØŜ✆ wŜLJfI·ŎŜ LJ2øŜℕ ădzLJLJfè

O✆ t2øŜℕ ăøλűŎK ŘŜŦŜŎűλØŜ✆ wŜLJfI·ŎŜ ăøλűŎK

Π✆ t2øŜℕ λyˇLJdzű̂ ŎI·ōfŜ LJdzffŜŘ 2dzű̂ 2Ŧ LJ2øŜℕ λyfŜű✆ /KŜŎ] Ŏ2yˇyŜŎűλ2yˇ

P✆ {LJŜŜŘ LJ2ű̂Syˇûλ2YˇŜűŜℕ ăŜű ű22 f2ø 2ℕ ŘŜŦŜŎűλØŜ✆ /KŜŎ] LJ2ű̂Syˇûλ2YˇŜűŜℕ ăŜűûλyƎ✆ wŜLJfI·ŎŜ λŦ ŘŜŦŜŎűλØŜ