FORMAX®

CT-10
Envelope Feeder for ColorMaxT4 / ColorMaxT5

10/2016

INSTALLATION MANUAL

The CT-10 Envelope Feeder is designed to operate with the ColorMaxT4 / ColorMaxT5 printers. This guide will show the proper way to prepare the printer for the envelope feeder and installation and operation of the feeder.

PREPARING THE LASER PRINTER FOR THE ENVELOPE FEEDER

1. **To prepare the printer** for the CT-10 Feeder, you must first remove the door from the manual feed tray. First, open the manual feed tray door on the right side of the printer.

2. Press inward on the right side hinge of the door to release it from the slot

3. Press inward on the pivot point of the door on the right side to remove it from the printer housing

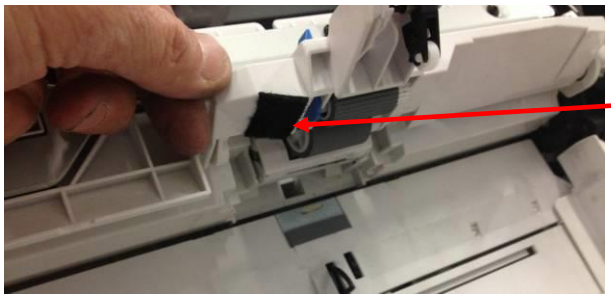
4. Remove the left side of the door in the same fashion and remove the door from the printer.

5. Open the right side cover on the printer by pulling on the latch shown here:

6. With the right side door fully open, lift the feed roller assembly to gain access to the feed roller and sheet separator area.

7. Pinch the two upper corners of the sheet separator assembly (rubber pad) and remove the assembly from the printer

NOTE: The envelope feeder is equipped with a paper sensor that will be positioned just to the left of the printer's manual feed tray feed roller. It is possible for the sensor to detect the white plastic housing just to the left of the feed roller, which can cause erratic feeding. **It is very important to place a piece of black tape or Velcro (included with feeder) on this ledge so the sensor does not detect it.**



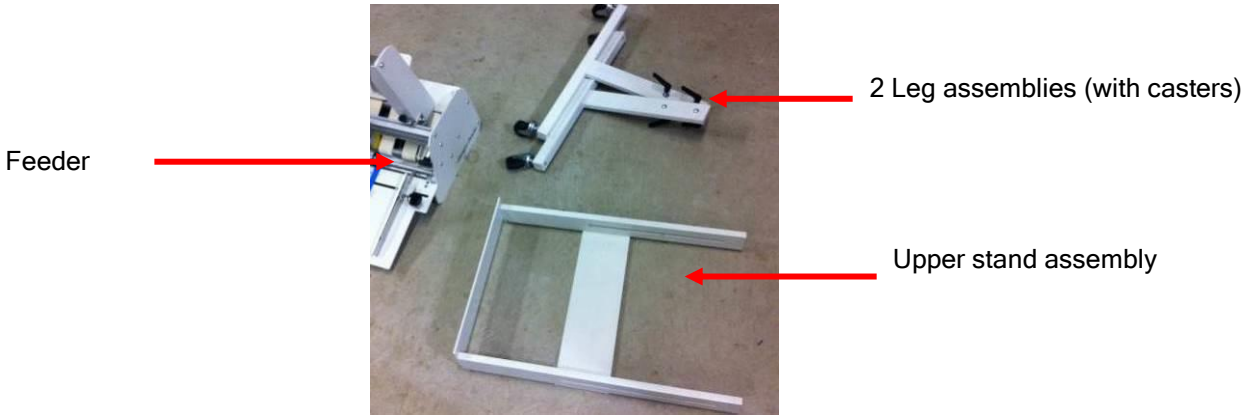
Note: This tape will not affect the printer and can be left in place, even when not using envelope feeder!

ADJUSTABLE HEIGHT STAND ASSEMBLY INSTRUCTIONS

Your new /¢ℼмл 9yØŜf2LJŜ CŜŠŘŜℕ is packaged with the adjustable height floor stand removed and partially disassembled. With a single 1/8" allen wrench, (included with the feeder) the stand can be re-assembled and the feeder can be attached to the stand.

Step 1.

Carefully remove the feeder and the stand components from the box and set them on the floor or a large table.



Step 2.

Remove the locking levers and flat washers from the two leg assemblies

Step 3.

Stand the upper stand assembly on the floor with the slotted bars facing upward as shown below. Then position one of the stand legs on the **outside** of one of the slotted bars with the bolts extending through the slot as shown.

Note: The leg assemblies are identical. There is no left or right

Place leg on *outside* of slotted bar with bolts extending through slot

Step 4.

Raise the leg all the way until the top bolt is at the highest point in the slot. Place a washer on the exposed bolt ends and then thread the locking levers onto the bolts.

Tighten the locking levers to hold leg in this position.

Put flat washer on bolt threads first before locking levers.

Step 5.

Repeat this procedure for the other leg. **Be sure to set both legs at the same height and then lock the levers securely.**

Step 6.

Flip the stand over so it is resting on the casters. Ensure that the locking levers are secure so the stand legs do not slip while installing the feeder!

SETTING THE HEIGHT OF THE STAND TO MATCH YOUR PRINTER

Since printers of this type come with a variety of stand heights and additional paper tray options, the LF Pro comes with an adjustable height stand.

The feeder is shipped detached from the stand. Assemble the stand as per the stand assembly instructions included and set the height of the stand BEFORE attaching the feeder.

After assembling the stand, but BEFORE attaching the feeder, move the stand into position alongside the printer near the manual feed tray.

Step 1. Position the stand so that the top plate of the stand is close to the vents on the printer that cover the cooling fan. (to the right of the manual feed tray)

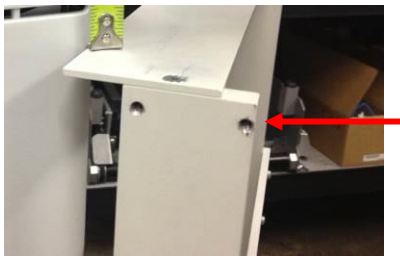
As shown below, set the height of the stand so the top plate is approximately 7/8" below the bottom ledge of the cooling vents.

Step 2.

Move the stand away from the printer for feeder attachment.

Step 3.

Now you will attach the feeder to the stand using four button head screws and the included 1/8” allen wrench. The bolts have been attached to the uprights of the stand for shipping.

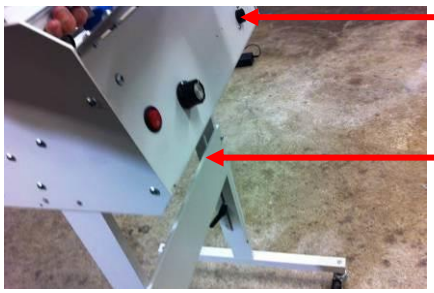


The feeder will be attached to the stand using these threaded holes

Step 4. (It is helpful to have an assistant hold the stand steady while attaching the feeder)

Carefully lift the feeder up and place over the top of the stand with the stand legs near the middle of the feeder side plates

The stand should be oriented so the back plate of the feeder is on the same side as the back plate of the stand!



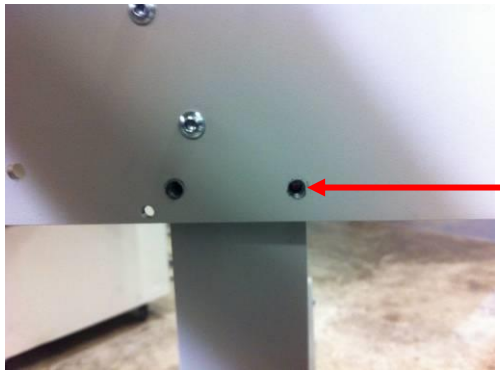
Back plate of feeder

Back plate of stand

These two holes (on each side) will be used to bolt the feeder to the stand with the button head screws

Step 5.

Carefully line up the two holes in the side plate with the two threaded holes in the top of the stand legs. **DO NOT LET GO OF THE FEEDER UNTIL THE SCREWS ARE IN!**



Line up these two holes with the threaded holes on the stand legs

Step 6.

Insert one of the button head screws into one of the holes in the side plate and use the 1/8” allen wrench to tighten the screw. **Ensure that the screw is threaded into the threaded hole in the stand**

Step 7.

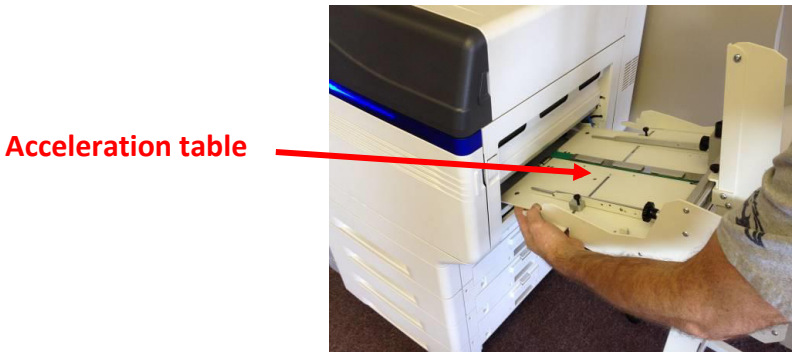
Add the other screw to the other hole and repeat for the other side of the machine
Ensure that all four screws are tight.

Aligning the feeder with the printer and final stand height adjustment

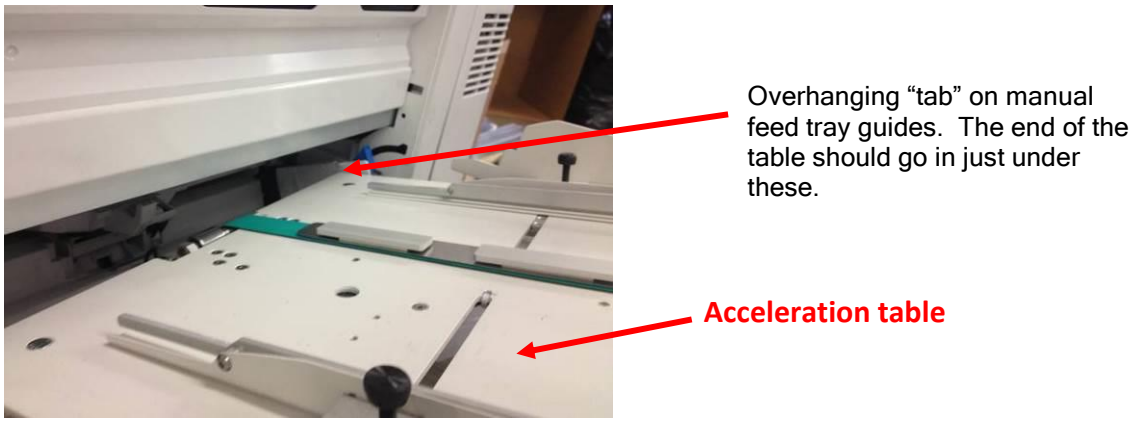
1. After the feeder has been attached to the stand, carefully move the feeder into position near the manual feed tray on the printer.

2. Move the manual feed tray paper guides all the way to their widest position.

3. Lift the acceleration table up as far as it will go with one hand while you push the feeder in towards the printer with the other hand.



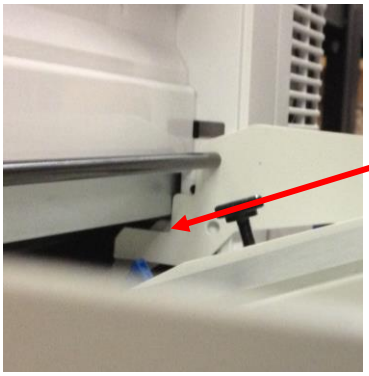
4. As you **slowly** push the feeder in toward the printer, the exit end of the acceleration table should go into the manual feed tray just above the bottom shelf and below the overhanging tabs on the manual feed tray side guides.



NOTE: If the end of the feeder does not slide into the area described above, you may need to adjust the stand height a bit.

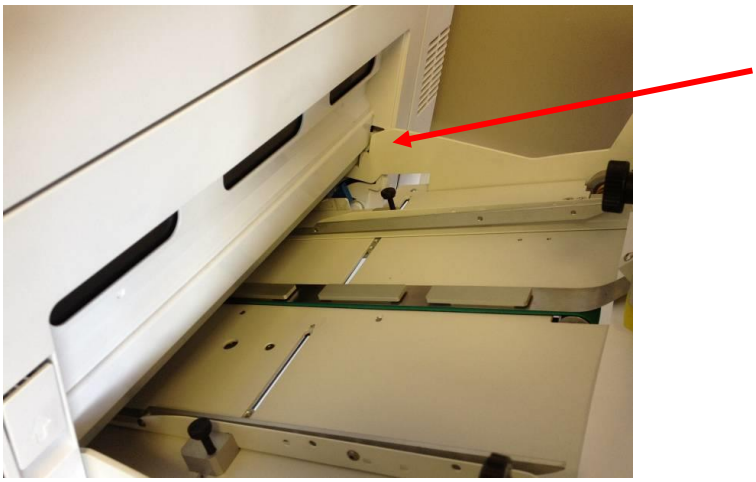
5. Once the feeder has been pushed in far enough to get the end in past the overhanging tabs lower the acceleration table so that it rests on the bottom of the manual feed tray.

6. Continue to push the feeder in toward the printer, ensuring that the feeder side plate extension fingers enter inside the left and right walls of the manual feed tray opening.



When the stand is set at the proper height, the top ledge of the extension "finger" should be approximately ¼" below the bottom of the gray metal plate on the printer.

7. Ensure that the feeder can be pushed in far enough for the side plates to be up against the printer body as shown here:



If you cannot push the feeder in this far, you may need to lower the stand a bit. The extension fingers should enter the manual tray opening just <u>below</u> the gray steel plate

After the feeder has been moved into position and the height adjusted properly, you are now ready to feed envelopes.

IT IS ADVISABLE TO MOVE THE FEEDER AWAY FROM THE PRINTER TO SET IT FOR YOUR ENVELOPES.

The /¢ℼмл envelope feeder can feed a variety of envelope sizes and types into the printer via the printer's manual feed tray. The following instructions illustrate the proper setup of the feeder.

Note: The feeder can be setup for your envelopes away from the printer, and then easily placed in line with the printer after setup is complete.

<u>While familiarizing yourself with the feeder it is recommended that you setup and test the feeder before integrating it with the printer.</u>

SETTING UP THE FEEDER FOR ENVELOPES

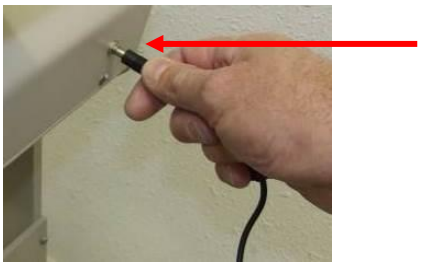
Setting the feeder for your envelopes consists of the following basic steps:

1. **Setting up the hopper paper guides**
2. **Setting up the sheet separator(s)**
3. **Setting the back wedge (envelope stack support)**
4. **Setting the delivery table paper guides**
5. **Testing the feeder**
6. **Setting the speed**
7. **Putting feeder in line with printer**

SETTING THE HOPPER PAPER GUIDES

Step 1:

Ensure that the main power switch on the feeder's control panel is in the OFF position and plug the 24 vdc power supply included with the feeder in the power jack on the control panel.

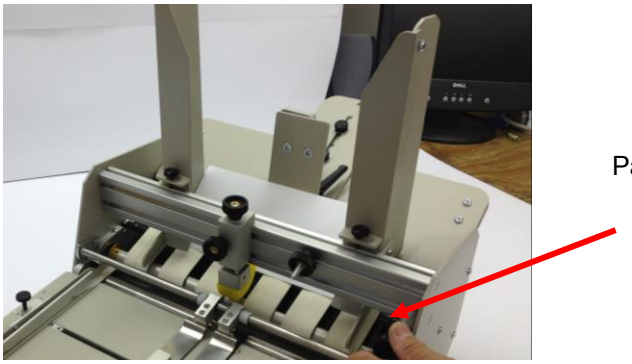


Step 2:

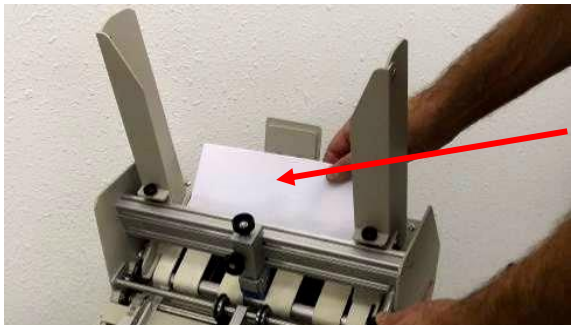
With power to the feeder OFF, loosen the locking knobs for both paper guides on the bridge which will allow repositioning of the paper guides

Step 3:

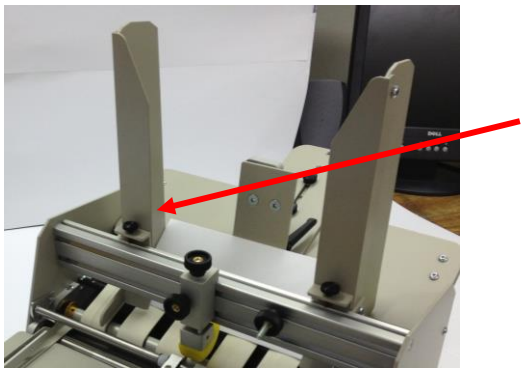
Rotate the paper guide adjusting knob on the bridge to position the paper guides outwards toward the side plates of your feeder.



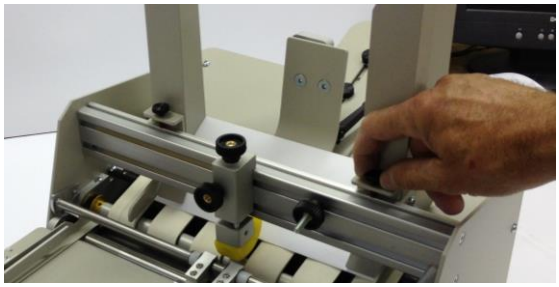
Step 4:
Place one of your envelopes in the feeder between the paper guides and then rotate the paper guide adjusting knob to move the paper guides in toward the edges of the envelope



Step 5:
Position the paper guides alongside the edges of the envelope leaving them loose enough to allow free movement of the envelopes. (do not pinch the envelope)



Step 6:
Tighten the paper guide locking knobs to secure the paper guides in position (optional)



SETTING THE SHEET SEPARATOR(S)

The /¢ℼмл utilizes patented “Buckle Separation” technique for separating the bottom envelope from the stack.

You will notice in the following instructions that the separator(s) are positioned <u>between</u> feed belts, <u>not over them.</u>

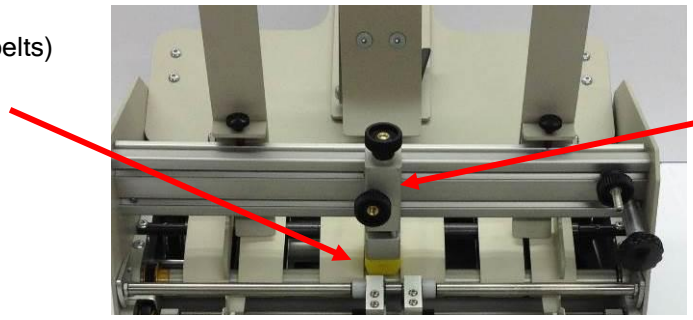
When in this position, the separators push down on the envelope as it is advanced from the bottom of the stack, forming a downward “buckle” in the envelope between feed belts.

This method is simple, effective and easy to set up, and does not require a lot of fine tuning. The downward buckle breaks the friction “bond” between the bottom envelope and the stack, making it easier to pull the bottom envelope away.

This method of separation also reduces jams because with the separators pushing down on the envelope between, rather than on top of, the feed belts, there is not a “pinch point” created.

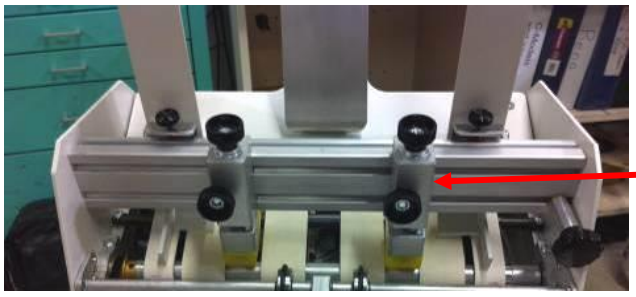
The /¢ℼмл comes with two separator assemblies. Most jobs only require the use of one separator so we recommend trying a single one in the middle first as shown here:

Single separator
(positioned between belts)



Separator locking knob
(loosen to reposition separator(s)

If you are not getting consistent results after some time and adjustments, you may wish to try two separators as shown here

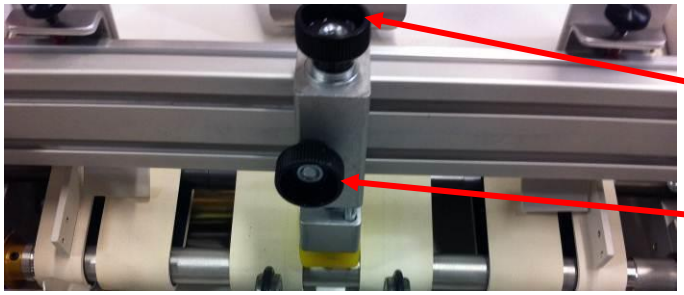


Two separators, each positioned between two feed belts

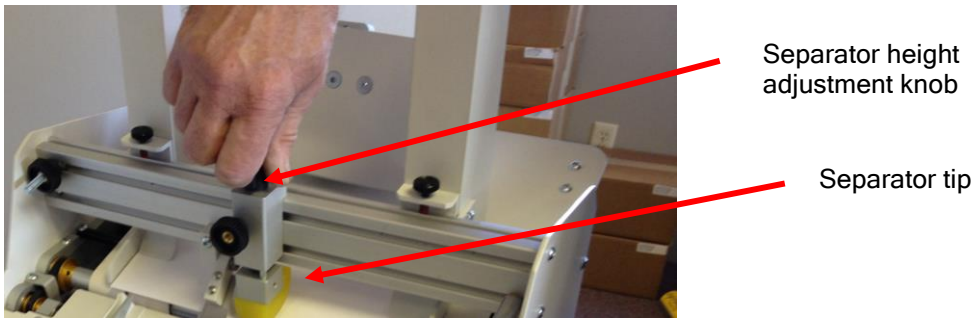
Note that in both examples above, the separators are positioned between belts.

Setting the sheet separator(s) (continued)

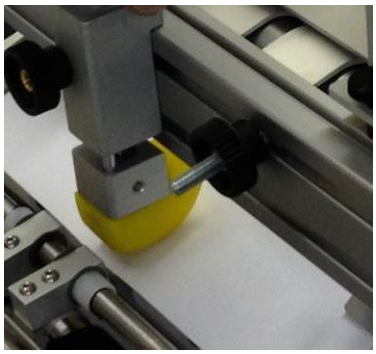
Step 1.
Loosen the locking knob on the front of the separator and slide the separator into the middle of the feeder between the feed belts. (You may need to raise the separator to allow it to slide over the feed belts. Turn the separator height adjustment knob clockwise to raise the separator)



Step 2.
Turn the separator height adjustment knob **clockwise** several turns to raise the separator tip up above the level of the feed belts

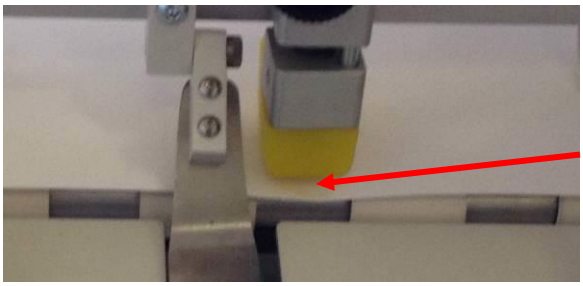


Step 3.
Place the lead edge of your envelope underneath the separator as shown below



Step 4.
Slowly turn the separator height adjustment knob **counter-clockwise** to lower the separator tip onto the envelope.

Step 5.
Continue to slowly lower the separator tip until the envelope is buckled downward between the belts slightly (approx 1/16" to 1/8")



Lower the separator tip to "buckle" the envelope down between belts

NOTE: Ensure that the separator tip is between feed belts so it does not "pinch" the envelope.

Step 6. (optional)
If you are using two separators, repeat the above steps for both.

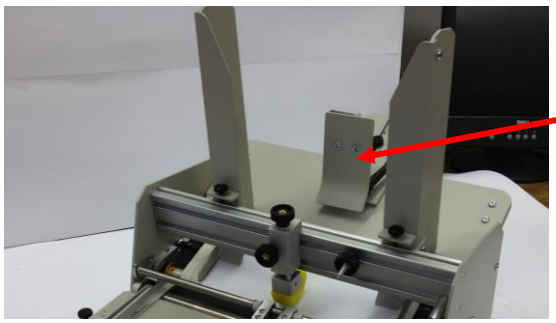
NOTES
The separators do not need a lot of fine tuning, as a small buckle is all that is required. Some experimentation is recommended to get the best results with your materials.

One or both separators can be used as desired, but be sure to position the separators between belts and buckle the envelopes down slightly.

There is no specific configuration that you must use, and this design offers tremendous flexibility. If one setup doesn't work, try moving the separators to different positions across the feeder bridge.

Setting up the back wedge

The back wedge, attached to the rear plate of the feed hopper is a very important tool that must be set properly to obtain the best results

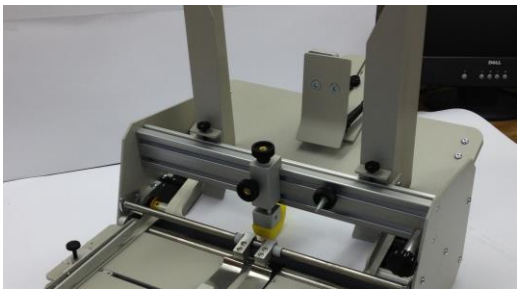


The back wedge

The back wedge performs several important functions:

1. Supports the weight of the stack so that the weight is not all on the belts
2. Tilts the back end of the media stack up so the lead edge presses against the belts
3. (most important) While the bottom envelope is getting pulled away from the stack by the feed belts, the back wedge holds the other envelopes off the belts so they don't advance too closely after the first one.

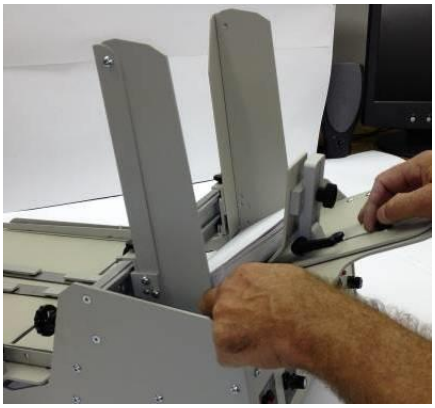
Step 1.
After setting the separator as shown in the previous steps, leave the one envelope in the feeder that you used for the separator setup



Step 2.
Carefully shingle out a small stack of envelopes so that the bottom one will be the foremost envelope in the stack as shown here.

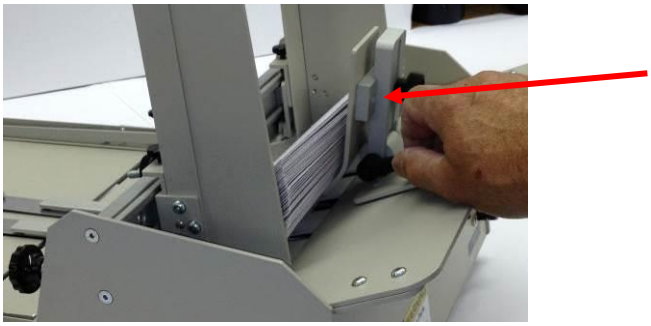
Step 3.
Place the stack in the hopper on top of the envelope left on the belts from the separator setup. Try to "nudge" the envelopes a bit from the back to help the stack conform to the curvature of the paper guides at the bottom.

Step 4.
With one hand, raise the back end of the envelope stack up and then slide the back wedge into position underneath the back end of the stack. Lock the wedge in place with the locking knobs.

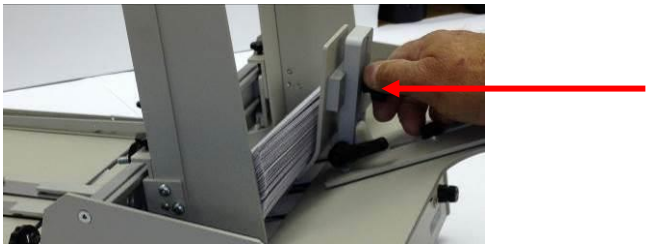


As shown in the pictures above and below, the back wedge should be in just far enough to hold the back edge of the envelope stack up off the belts.

Step 5.
The angle of the back wedge can be adjusted to assist with different kinds of envelopes. To adjust the angle, loosen the locking lever on the side of the back wedge. Generally, for smaller envelopes the back wedge upright should be positioned as shown below

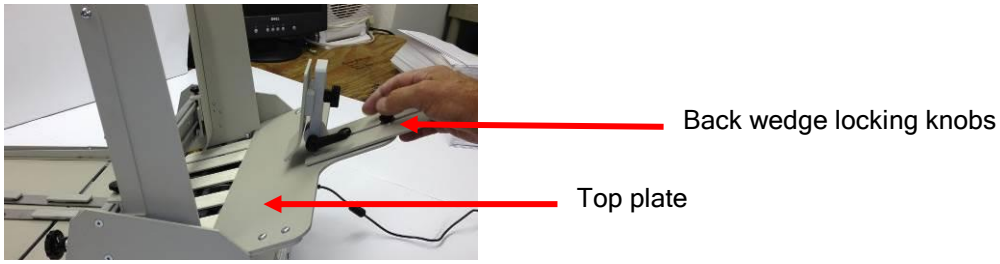


Step 6.
The height of the back wedge ramp can also be adjusted by loosening the round locking knob on the back of the upright as shown here. For smaller envelopes, the top of the ramp should be close to the top of the upright.

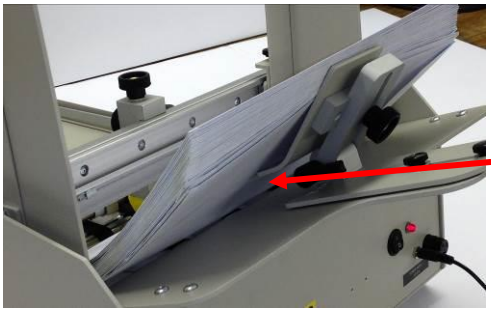


SETTING THE BACK WEDGE FOR LARGE ENVELOPES

In addition to setting the paper guides properly for large envelopes, the back wedge will need to be adjusted. For larger (longer) envelopes, you will need to move the back farther away from the bridge. The top plate of the feeder features multiple threaded holes for securing the back wedge in different positions



Larger (longer) envelopes have a tendency to “sag” downward in the middle, which can cause double feeding or inconsistent gaps between envelopes. This “sagging” can be remedied by lowering the angle of the back wedge and moving it a bit underneath the stack of envelopes as shown below.



The back wedge ramp can be used to lift the middle of the envelopes off the belts

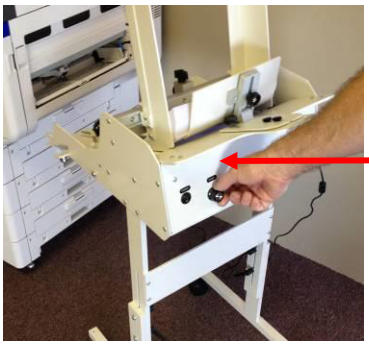
As with the separators, some experimentation would be helpful to obtain the best results

Setting the acceleration table paper guides

The patented “floating” or tilting delivery table on the /¢πмл is designed to advance the envelopes that the feed belts deliver, one at a time, into the printers manual feed tray feed roller.

The acceleration table is equipped with self centering paper guides, an envelope drive belt, and a stop photo sensor at the end, which is used to stop each envelope in position underneath the printer’s feed roller, for take-away by the printer. An additional photo envelope sensor is positioned a few inches back from the stop sensor. This is the restart sensor. When the first envelope is pulled away by the printer, the trail edge of that envelope uncovers the start sensor, which starts the feeder motor. Using the dual sensors allows the /¢πмл to run larger envelopes at higher speeds.

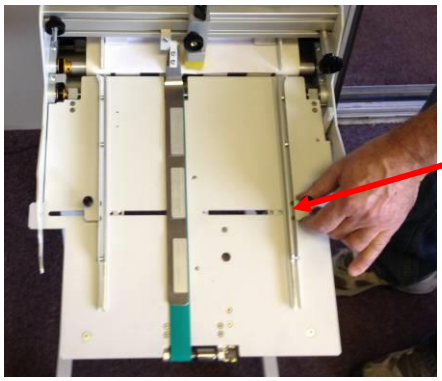
Step 1.
After the feeder portion has been setup properly and a small stack of envelopes is loaded into the hopper, turn the speed control knob completely counter-clockwise to set the feeder speed on zero.



Speed control knob

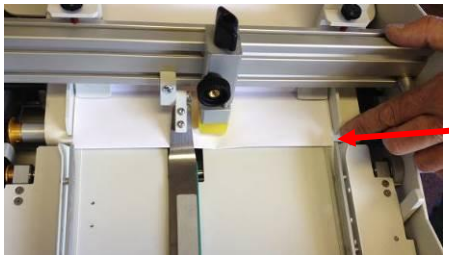
Step 2.
Place the power switch in the ON position.

Step 3.
Grasp one of the acceleration table paper guide adjusting blocks and move the paper guide outward to make room for your envelope. (locking knobs MUST be loose)



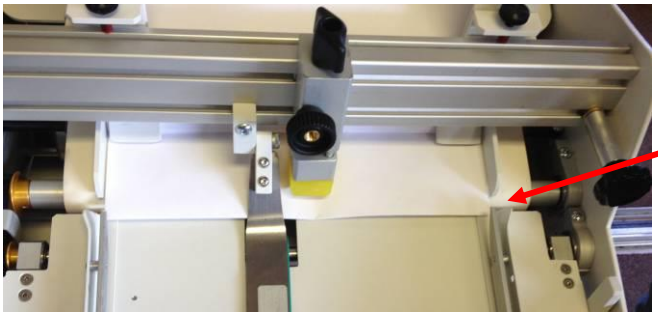
Grab block to move paper guide outward. Opposite paper guide will move outward also.

Step 4.
SLOWLY rotate the speed control knob clockwise until the feeder starts to advance the bottom envelope toward the acceleration table.
STOP the feeder as soon as the lead edge of the envelope is near the acceleration table paper guides as shown here:



Stop the feeder when envelope is in this position.

Step 5.
Move the acceleration table paper guides inward alongside your envelope edges.



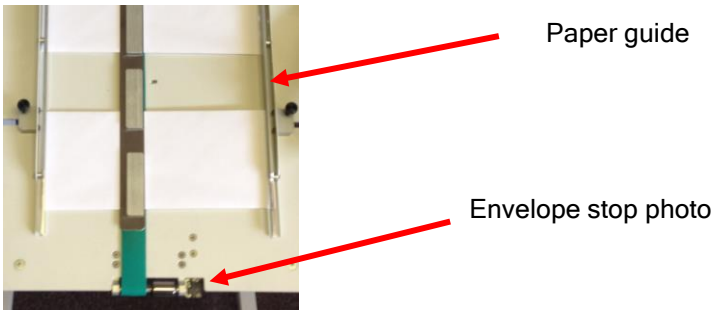
Line up paper guides with envelope edge.

Do not set so tightly as to “pinch” the envelope

Step 7.
Using the speed control knob, SLOWLY advance the envelope to the end of the delivery table and check the paper guides to see if they are close enough to the envelope edges.

<u>When the envelope lead edge blocks the stop photo, the feeder motor will stop.</u>

MAKE SURE THE GUIDES ARE NOT SO TIGHT AS TO RESTRICT THE ENVELOPE'S MOVEMENT



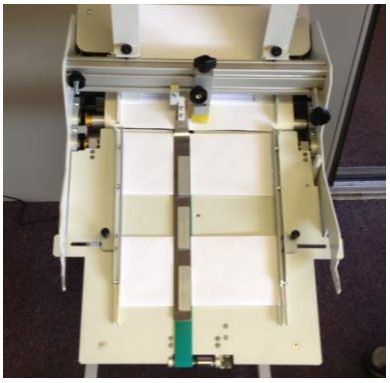
Step 8.
After setting the acceleration table paper guides so that they guide properly without "pinching" the envelopes, tighten the locking knobs to secure the paper guides

Testing the feeder

Step 1.
Set the speed control to approximately 20% and then pull the lead envelope out of the end of the delivery table. The feeder should advance a second envelope to the stop photo.

Repeat this to test the consistency of the feeder. Adjust if necessary to obtain the best results.

While you are testing the feeder, make note of the gaps between the envelopes as they travel down the delivery table. A small gap of 1” to 2” is satisfactory although the gap can vary a bit.



If there is no gap at all, you may need to move your back wedge in underneath the envelope stack a little farther, or lower the separator tip a bit to create a more pronounced buckle for better envelope separation.

If the envelopes do not feed consistently, or the gap between envelopes on the delivery table exceeds 3 or 4 inches, you may need to move the back wedge back a little to let the envelopes contact the feed belts more.

Setting the speed of the feeder

Although there is no exact speed specification for every job, the feeder will work with a wide range of envelope sizes at a wide range of speeds. As a general rule, the feeder will work best with the speed control set at approximately 50% to 70% of maximum.

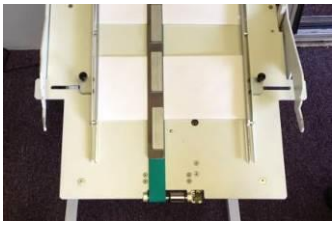
As a general rule, larger envelopes will require a higher speed setting.

Step 2.
Once you have obtained consistent feeding switch the feeder power “OFF”

Running envelopes with your printer

After you have successfully set up and tested the feeder and performed the steps outlined earlier for preparing the printer, you can now feed and print your envelopes.

1. With power to the feeder off, remove the lead envelope from the exit end of the acceleration table.



2. Position the feeder in front of the printer's manual feed tray

3. Carefully lift the acceleration table up as far as it will go and move the feeder in toward the printer. Ensure that the acceleration table enters the manual feed tray opening without resistance.

4. Push the feeder all the way in until the side plates are up against the printer's wall.

5. Set the feeder speed at approximately 50% and turn the power switch ON

The lead envelope should advance into the printer's manual feed tray until the stop sensor signals the feeder motor to stop.

6. Push the "FEEDER READY" lever on the operator side of the acceleration table forward toward the printer. This will trigger the manual feed tray paper present sensor so the printer knows you have envelopes in place.

FEEDER READY LEVER

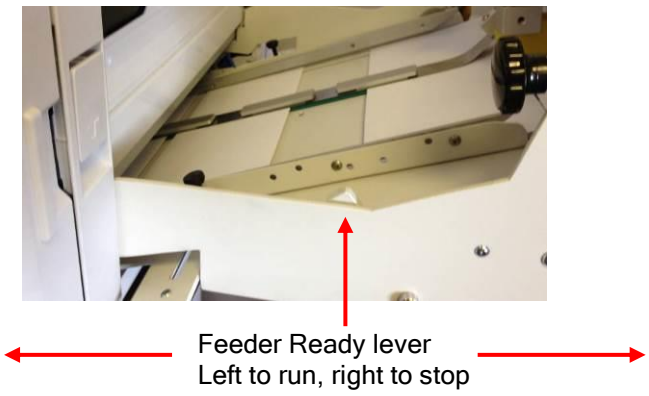
Push this lever forward to begin printing after advancing envelopes.

At this point, you are now ready to send data to the printer. Once data has been sent, the manual feed tray will rise, lifting the patented floating acceleration table up to the printer's feed roller.

IMPORTANT NOTES

The printer will only recognize that the feeder is ready if the envelopes have been advanced down the acceleration table to the stop photo AND the "Feeder Ready" lever has been pushed forward.

If you want to pause printing, simply move the "Feeder Ready" Lever back (right) and the printer will consider this an envelope out condition. The printer display will indicate that you need to "install paper" in the manual (bypass) feed tray. When you are ready to resume printing, simply move the "Feeder Ready" lever back to the left (forward) and the printer will resume operation.



When you lift the acceleration table up to remove the feeder from the printer, or to move the feeder into position with the printer, the Feeder Ready lever will automatically be moved to the right. This gives the operator ample opportunity to advance envelopes properly into the printer before moving the lever forward, indicating a ready state to the printer.

Paper jam or feeder out condition:
If the envelope feeder runs out of envelopes, jams, or is delayed in getting envelopes to the printer in time, the printer will recognize this as a "PAPER JAM" and will indicate this on the display. Since this circumstance may not actually be a paper jam, (i.e., feeder runs out), the printer can easily be reset with minimal effort. The following steps should be taken to reset the printer:

1. If the feeder was simply late in delivering the envelopes to the printer, but envelopes are still in position on the acceleration table, simply open the top left door on the exit end of the printer and then close the door to reset the printer.

2. If the feeder runs out of envelopes, move the "feeder ready" lever to the right or "not ready" position. Load more envelopes into the feeder and advance the first envelope down the acceleration table to the stop sensor. Then move the "feeder ready" lever back to the left (forward) to indicate to the printer that the feeder is ready. You will then need to open and close the top left door on the printer's exit end to reset the printer.

3. If the feeder jams, turn power to the feeder off, then clear the envelope jam. Moving the feeder away from the printer may be necessary to do this. After clearing the jam, reload the feeder, and advance envelopes down the acceleration table to the stop sensor. Then open and close the top left door on the printer's exit side to reset the printer.

REMEMBER: IF THE "FEEDER READY" LEVER IS NOT IN THE FORWARD POSITION, THE PRINTER WILL NOT RUN YOUR ENVELOPES.

Notes on speeds: Testing of various sized envelopes has resulted in the following suggestions for speed settings on the /¢ℼмл:

#10 envelopes, (landscape orientation) - 50% to 60 % speed
6 x 9 envelopes (landscape) - 50% to 75% speed
9 x 12 or 10 x 13 envelopes (either orientation) 75% to 100% speed.
These speed settings are just recommendations. Some experimenting will be very helpful. Envelope types, orientation and feeder setup and condition are all factors that can affect operation.

Clean the white feed belts regularly with isopropyl alcohol to ensure best results.

Note on /2f2ℕal·È¢п к /2f2ℕal·È¢p printers;

The new generation of these printers offers high speeds, excellent print quality and the ability to print envelopes well.

Setting the /¢πмл properly to achieve consistent envelope delivery to the printer is imperative as the printer does not feature a "retry" in the manual feed tray. This means that if the feed roller cycles once and does not feed an envelope into the printer, the printer immediately considers it a jam and stops.

For this reason, it is important to run the /¢πмл at 50% speed or more on most envelopes. It is also important that the feeder is maintained properly to deliver consistent envelope feeding with small gaps between envelopes on the acceleration table.

We strongly recommend setting the feeder up away from the printer to ensure consistent feeding before trying to print envelopes. If inconsistent feeding develops, the printer will stop more frequently. These stoppages result in user intervention as described on the previous page, but also results in the printer recalibrating temperatures more often, which slows printing down considerably.

TROUBLESHOOTING

Problem: Feeder is in position, and envelopes appear to be in position but printer does not start
Resolution: Ensure that the "feeder ready" lever is in the forward position
Ensure that the printer is ONLINE and data has been sent

Problem: Printer stops frequently and displays "paper jam" on the screen
Resolution: Feeder may not be running fast enough to catch each feed cycle. Check the feeder setup and speed control. Try increasing feeder speed.
Resolution: Ensure that the feeder is push all the way in to the manual feed tray and lock the casters
Resolution: Clean the feed belts with alcohol to ensure consistent feeding
Resolution: Loosen envelope separator (clockwise) to allow envelopes to feed closer together

Problem: Feeder feeds inconsistently.
Resolution: Ensure black tape or Velcro has been applied to printer above the envelope feeder's stop sensor.
REFER TO PAGE 4 OF THIS MANUAL
Resolution: Move feed away from printer and reset separator, back wedge and paper guides
Resolution: Ensure that paper guides on feeder and acceleration table are not restricting envelope movement.