KF-250
Knife Folding

Count
MADE IN USA

Serial Number _____

Date _____

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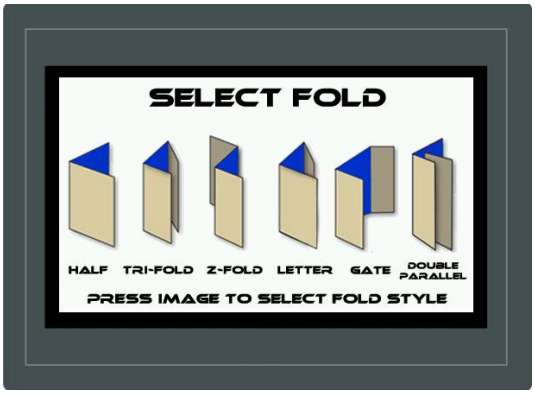
INTRODUCTION

PREFACE

The KF-250 is a precision folding machine. With its intuitive touchscreen design, it can perform 6 different types of automated setup folds of pre-creased paper. It has a manual feature that allows for the fold to be placed virtually anywhere on the sheet. When properly setup and using pre-creased sheets, the knife blade folding mechanism will prevent the cracking of digitally printed material when folded. The independent feeder allows the machine to be a stand alone solution for creased paper coming off any type of creasing machine. It is very important to keep it free of excessive dust, dirt and foreign matter. We recommend that you keep the machine **covered** when not in use.



SPECIFICATIONS

Net Weight:	KF-250	224 lbs
Overall Dimensions:		67”Lx28”Wx47”H
Boxed Dimensions:		49”Lx34.5”Wx52.5”H
Boxed Weight:		395 lbs.
Min. Sheet Size:		4.75”x5.5”
Max. Sheet Size:		14.5”x33”
Paper Weight Range: (gsm)		120-350
Max Speed: (sheets per hour)		4,600

ELECTRICAL SPECIFICATIONS

Power Requirement: 110v/60 HZ or 220v/50 HZ, AC 20 AMP
Circuit Protection: 20/5 AMP Circuit Breaker

NOTE: Older buildings, overloaded lines, and bad grounds can affect the operation of your KF-250. A regulated dedicated line is recommended. Operating the machine through a power strip is not recommended.

SAFETY PROCEDURES

BE ALERT! BE CAREFUL!

BEFORE USE:

- Read through the owner's manual. Follow instructions CAREFULLY.
- Do not install the machine on uneven ground.
- NEVER use in a wet area. Electric shock could occur.
- Use at least a 20 amp power source at 110 vac.
- Use a GROUNDED outlet and a GROUNDED circuit. Do not use ungrounded equipment on the same circuit.
- Always use a dedicated line. DO NOT use with line splitting surge protector.
- Make sure all safety covers are in place. The top cover has an interlock switch which will disable the unit if in the up or open position.
- Open and close the plastic cover slowly.

DURING USE:

- Exercise caution with long hair and loose fitting clothes when near the machine nip in operation.
- Keep fingers and hands away from belts, folding blades, and rubber rollers.
- Keep fingers away from any moving part.
- Keep cords clear of moving parts.
- Do not place any liquid on any surface of machine.
- Do not put heavy matter on machine.

AFTER USE:

- Turn off machine at the side cover, then unplug the main power cord. This will prevent damage to your machine by power/voltage spikes.
- To unplug cords, always grasp the plug body, never pull on cords to disconnect. Wire fatigue and possible shock could result from improper disconnect procedures.
- Disconnect the power before cleaning the inner machine.
- Clean all rollers, belts and moving parts.
- Cover the Machine.

CARE AND MAINTENANCE

The KF-250 is a precision machine. It is very important to keep it free of excessive dust, dirt and foreign matter. We recommend that you keep the machine **covered** when not in use.

BEARINGS/BUSHINGS: The bearings are sealed roller bearings and are designed to be self lubricating. However, dirt and dust can get into them causing clogging and dirt build up. It is recommended to oil them weekly under heavy use or monthly under light use. The bushings for the knife blades are Bronze and require lubrication more frequently. Oil these once a week under heavy use with a light machine oil or 3-1 oil.

SENSOR EYE: Clean the lower reflector tape located on the plate under the infeed register regularly. Clean with water damp rag only. Dust will cause the beam to reflect incorrectly. Clean when necessary.

KEEP THE ROLLERS CLEAN: Excess paper dust will cause slippage of the paper. You must clean the rollers regularly to ensure good registration. To do this, unplug the machine carefully, lift plastic cover, and use a clean wet rag with water only and clean each roller. If you do keep your KF-250 clean and in top condition, it will give you years of service.

IMPORTANT NOTES BEFORE OPERATING THE KF-250

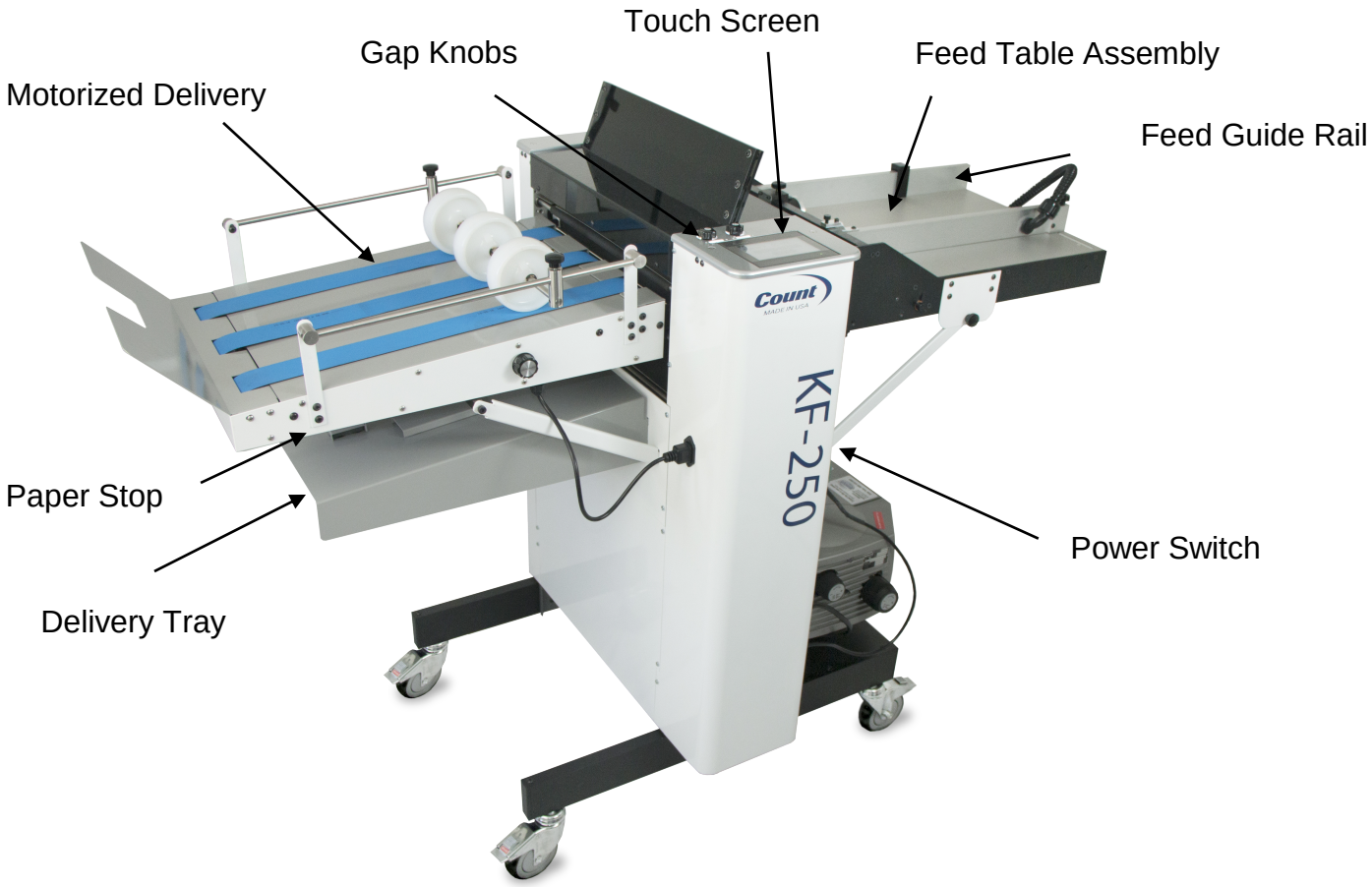
To ensure the smooth operation of this machine please read the following. If you do not understand these sections of how to operate the machine you may cause damage and unintentionally void your warranty.

DOUBLE FEEDING: The KF-250 is designed to run a single sheet. If a double sheet is fed through the machine, it will lock up. If the machine is not turned off immediately, you may cause damage to the motor driver and void the warranty.

KNOB SETTINGS: The knob settings are directly related to how well the machine will run. Please read the section on Knob settings before operation.

START DELAY: When pressing the RUN button there is a 2 second delay for the transport motor to turn as the knife blades preform a homing cycle.

COMPONENT IDENTIFICATION



REFERENCES

Note: We are continuously improving and changing the machine. Specifications and information in this manual are updated as per the change and without any notice.

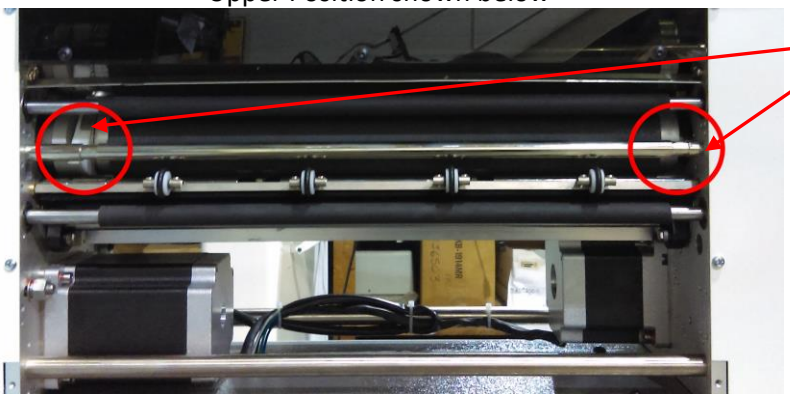
SETTING UP YOUR KF-250

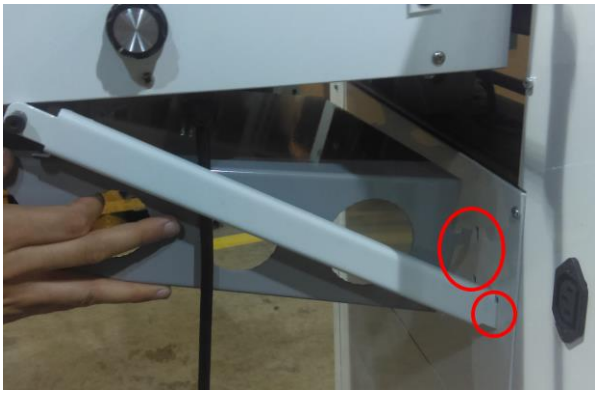
This machine is 90% ready to go when it arrives on your dock. There are only a few items that need to be put into position before it is ready to use. Those items are below:

DELIVERY TRAY INSTALLATION

The motorized delivery is recommended to be installed by two people but can be done with one although it is more difficult. Locate the exit support shaft of the machine. Install the hooks on the delivery tray to the cuts outs show on the shaft below, now support the end of the tray and position the arms into the larger slots on the exit panel.

Upper Position shown below





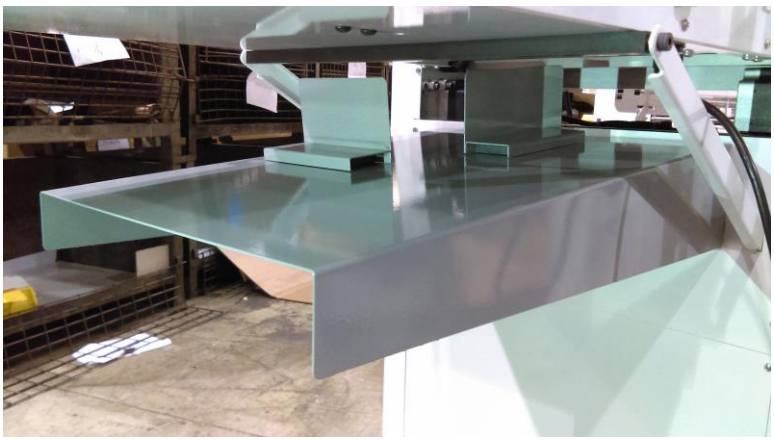
Plug delivery table into matching power receptacle on folder cover. **Warning: Do not plug delivery table to any other power source!**

BI-PASS TRAY INSTALLATION

As shown below, there are hooks that hold the bi-pass tray into position. If the magnetic paper stops have already been placed, you should remove them for easier installation of the tray. First, angle upward and insert the upper hooks into the upper slots and then rotate downward to place the lower hooks into the lower slots.

PAPER STOP ASSEMBLIES

There are two different paper stops. One will have a bend and one will be straight. The straight paper stop is the rear or back paper stop. The bent paper stop is the operator side paper stop. There is no paper stop for the non-operator side. The support arm acts as the stop for that side. They hold their position using a magnet which makes it easy for adjustment. The positions for the paper stops will change for each individual job. If the paper stops are set too close the paper will hit them as it exits the machine and will cause a paper jam. If they are set too loose, the paper will stack in an unorganized manner. Getting the position correct is imperative to smooth operation of the machine.



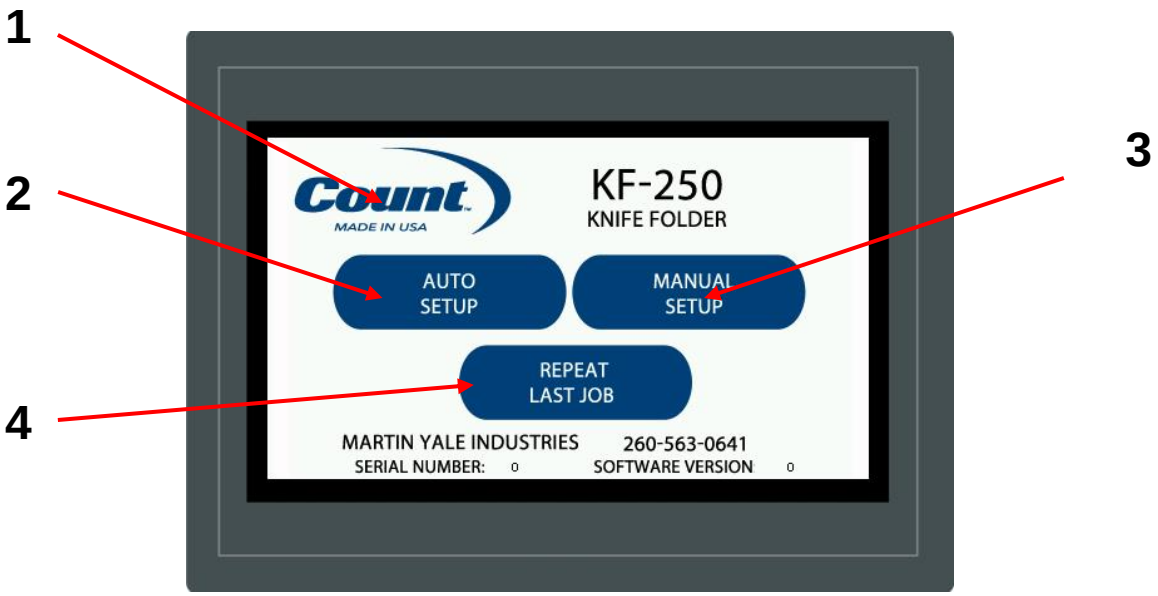
MACHINE OPERATION

There are two power switches on the KF-250 located on the lower portion of the operator side cover. One is the main power (top) and the pump (lower). Everything else is controlled by the Touch Screen. All paper run through the KF-250 folding machine must be creased.

MAIN POWER

On the operator side cover on the right side is the main power switch. This is the on and off power for the machine. When switched on the led lights will illuminate just in front of the knobs. This is how you know the machine is on. **Do not leave the machine on when not in use.**

TOUCH SCREEN CONTROLLER



THE TOUCH SCREEN CONSISTS OF FOUR SECTIONS:

1. Count Logo and Service Access
2. Auto Setup
3. Manual Setup
4. Repeat Last Job

TOUCH SCREEN OPERATION

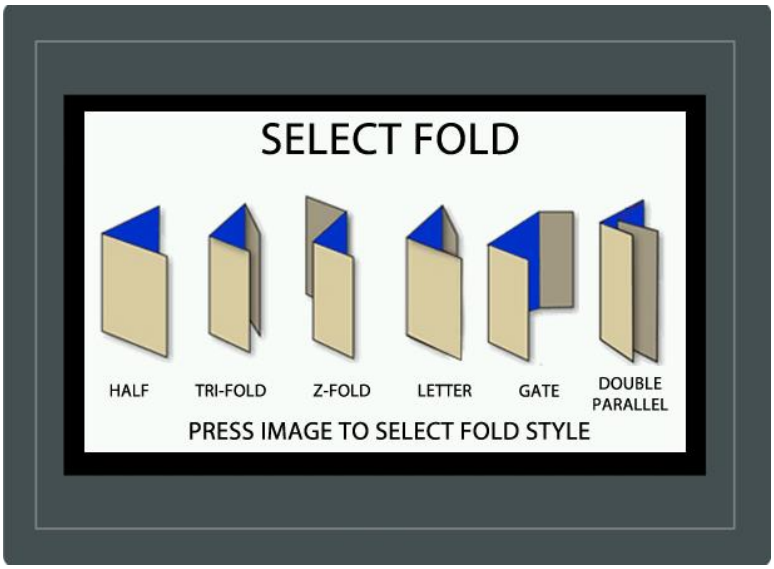
When the machine is turned on, the display may take up to 7 seconds for the home screen to display. There is a screen saver that will turn the display off if the machine is not touched within 30 minutes. The power light will stay illuminated letting you know the machine is still on.

COUNT LOGO AND SERVICE ACCESS

If the logo is pressed a password screen is displayed. This is for factory and service access only. This Screen is for manufacturer use only. The password is not given out.

AUTO SETUP SCREEN

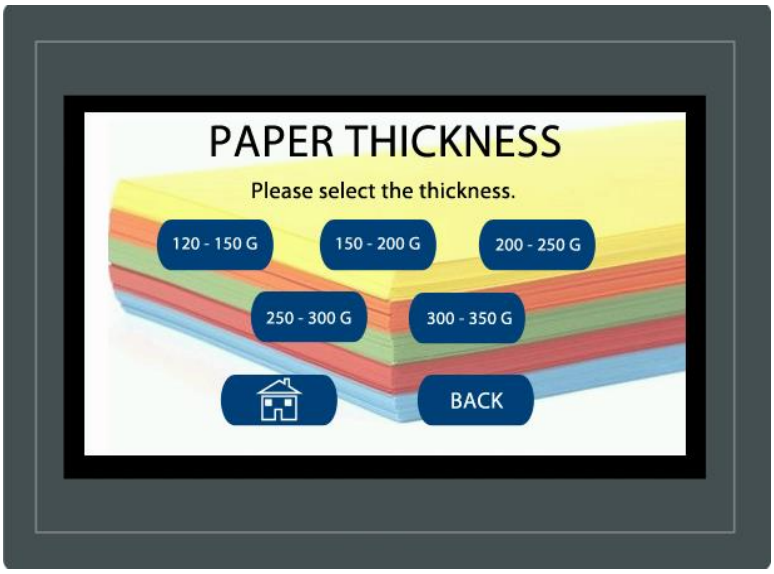
From the home screen press the Auto Setup button. The select fold screen appears. Press the desired image to select that fold.



Select the fold you want by pressing the image.

PAPER THICKNESS

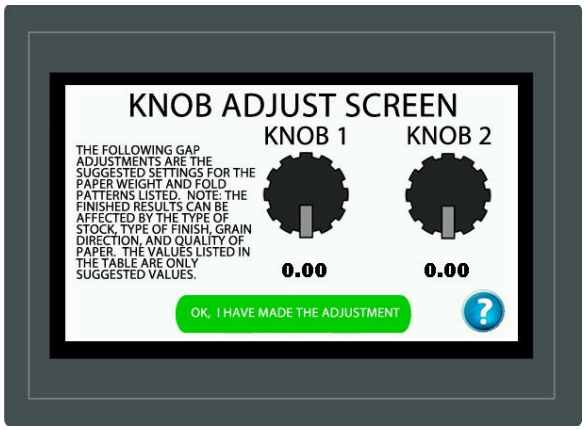
Select the thickness of paper to be folded. This is important as thinner stocks will fold differently than thicker stocks. This allows us to change the offset for the perfect fold.

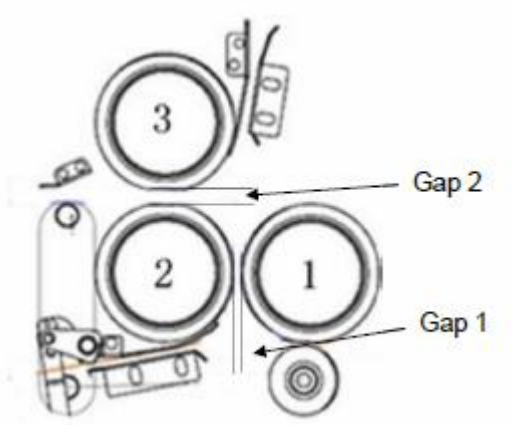


By pressing a thickness, you will be directed to the knob setting screen.

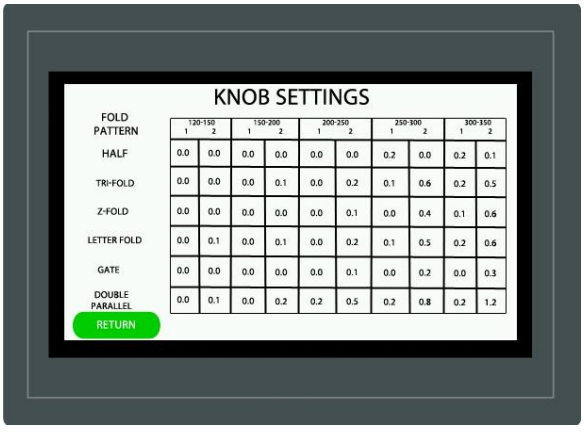
KNOB SETTINGS / GAP ADJUSTMENT

This adjustment is very important and affects the operation of the machine dramatically. The knobs are positioned from left to right. Knob 1 is on the left and knob 2 is on the right. Knob 1 controls gap 1 and knob 2 controls gap 2. The knob setting screen will display the recommended setting below the image. This is a starting point and some adjustment may need to take place once this setting has been made. Example if you are getting motor lock ups or paper jams you will need to increase the gap adjustment on knob 2. If you are getting registration or skewing you may need to adjust the gap lower on knob 1. It is important to read the warning on the side of the knob setting screen. **The following gap adjustments are the suggested for the paper weight and fold patterns listed. Note: the finished results can be affected by the type of stock, type of finish, grain direction, and quality of paper. The values listed in the table are only suggested values.**



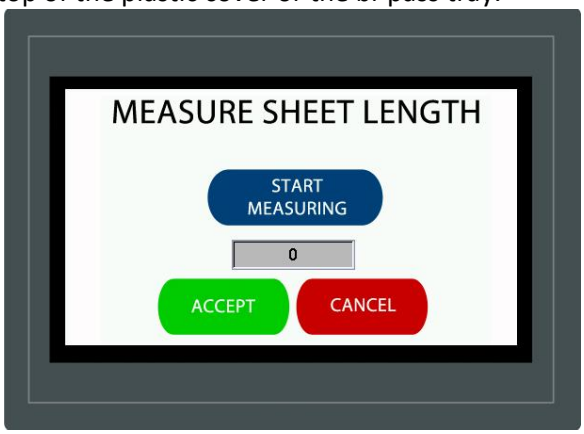


Make sure the setting is correct on the machine before pressing the OK, I HAVE MADE THE ADJUSTMENT Button.



MEASURE SHEET

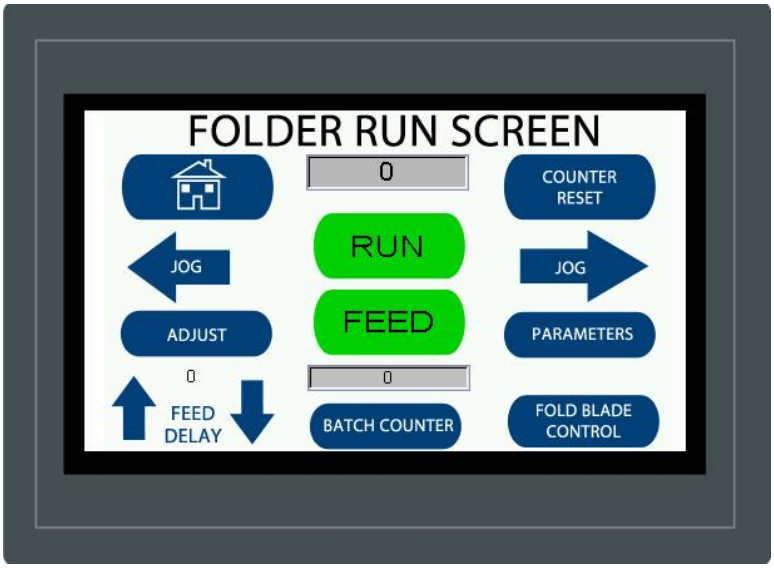
The KF-250 will automatically set the distance of the fold using the smart measure feature. With one sheet on the register guide or ready to feed from the creasing machine press the start measuring button. The knife blades will move into position, then the transport will start to run, feeding in the sheet. Depending on the thickness of stock you selected, the sheet will either feed out the slot in the top of the plastic cover or the bi-pass tray.



Once measured press accept to go to the run screen.

RUN SCREEN

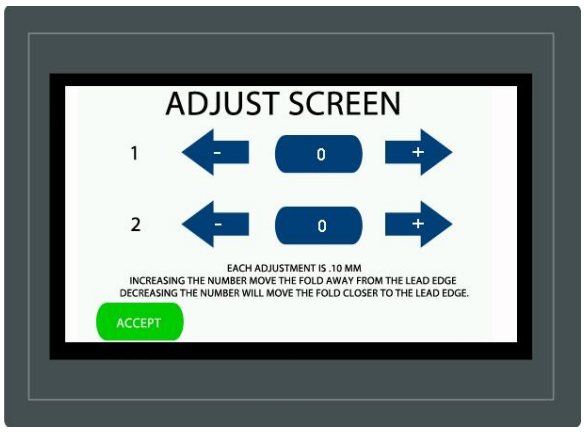
On the Run Screen there is a counter that will count how many sheets are run through the machine. It can be reset by pressing the counter reset. When the run button is not selected you can jog the machine forward and backward using the jog arrows. There is an adjust button that will allow you to micro adjust the distance for each fold. There is a fold blade control button that will allow you to adjust the knifes manually out of the way if necessary to clear a paper jam. There is a parameters button that is used to change the default offsets of the machine. This is a password protected button. If you feel you need to change the default parameters please contact our customer service department for instructions.



MICRO ADJUSTING THE FOLD POSITION

It is very important to understand the relationship of the fold offset versus the crease offset. When folding a creased stock, the nature of the creased paper when folded is to follow the crease. If possible, adjust the crease before micro adjusting the fold.

If you wish to move the position of the fold relative to the lead edge you would need to adjust the position of the crease and not necessarily the position of the fold. If you still feel you need to adjust the fold press the adjust button from the run screen. You can micro adjust each fold by pressing the arrow keys each direction. Each press will adjust by 1/10th of a mm. Each adjustment is relative to the one before it so if you adjust fold 1 by 3 clicks it will also move fold 2 as well in the same direction. To keep the subsequent folds in their same locations you would then need to adjust them each back the number of clicks you adjusted the previous location, in this case 3 clicks.



REPEAT LAST JOB

Press the repeat last job button to go directly to the run screen and repeat the last job fold settings.

TRANSPORT OPERATION

- The Run Button will start the knife home function. Once the blades are in position the transport will start. **This is about a 2 second delay and is normal**. Press it again to stop the transport. Each Mode has a timeout feature to preserve the life of the machine.

- A document may be slowly advanced through the transport by pushing and holding one of these buttons.

  EXAMPLE: 

  The motor should advance transport at slow speed and stop whenever your finger is lifted.

- Controls on-off function of motor.

  EXAMPLE: 

  Machine will run at mode and speed previously selected.

- Machine will stop. 

AUTO FOLD SETUP

HALF FOLD SETUP: Press the Auto Setup Button > Half > Paper Thickness > Adjust the Knob Setting > OK, I have made the Adjustment > Start Measuring > Physically Run a sheet through the machine for the sensor to measure > Accept > Run.

TRI-FOLD SETUP: Press the Auto Setup Button > Tri-Fold > Paper Thickness > Adjust the Knob Setting > OK, I have made the Adjustment > Start Measuring > Physically Run a sheet through the machine for the sensor to measure > Accept > Run.

Z FOLD SETUP: Press the Auto Setup Button > Tri-Fold > Paper Thickness > Adjust the Knob Setting > OK, I have made the Adjustment > Start Measuring > Physically Run a sheet through the machine for the sensor to measure > Accept > Run.

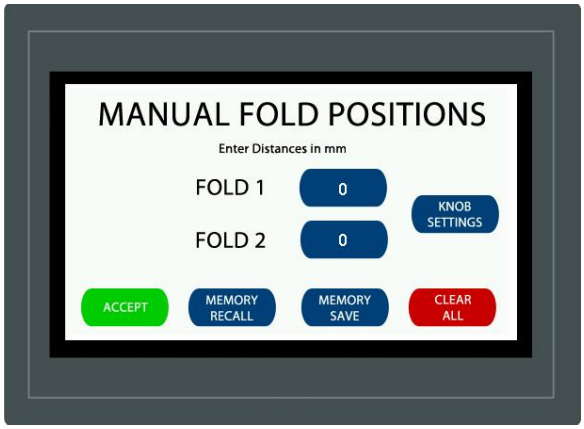
LETTER FOLD SETUP: Press the Auto Setup Button > Tri-Fold > Paper Thickness > Adjust the Knob Setting > OK, I have made the Adjustment > Start Measuring > Physically Run a sheet through the machine for the sensor to measure > Accept > Run.

GATE FOLD SETUP: Press the Auto Setup Button > Tri-Fold > Paper Thickness > Adjust the Knob Setting > OK, I have made the Adjustment > Start Measuring > Physically Run a sheet through the machine for the sensor to measure > Accept > Run.

DOUBLE PARALLEL FOLD SETUP: Press the Auto Setup Button > Tri-Fold > Paper Thickness > Adjust the Knob Setting > OK, I have made the Adjustment > Start Measuring > Physically Run a sheet through the machine for the sensor to measure > Accept > Run.

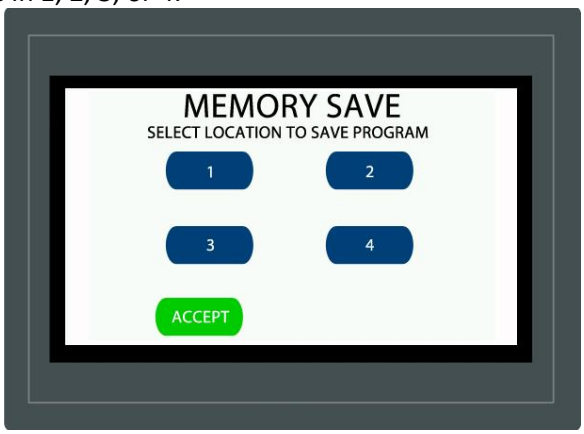
MANUAL SETUP

Manual Setup allows you to type in the distance in MM for the lengths you want the fold locations. This would allow for non-standard folds to be created. It is important to understand the way the machine folds when using the manual fold positions. If running a single fold you would only use the fold 1 position. When doing a tri-fold you would use both but understand that the first fold position is actually creating the second fold and the fold 2 setting is creating the first fold.



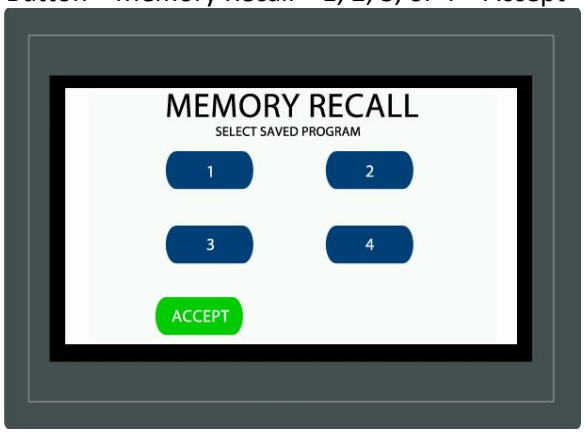
SAVING MANUAL FOLD JOBS

Press the Manual Setup Button > Fold 1 > Enter In Distance For each fold in mm > Memory Save > Select Position to save in 1, 2, 3, or 4.

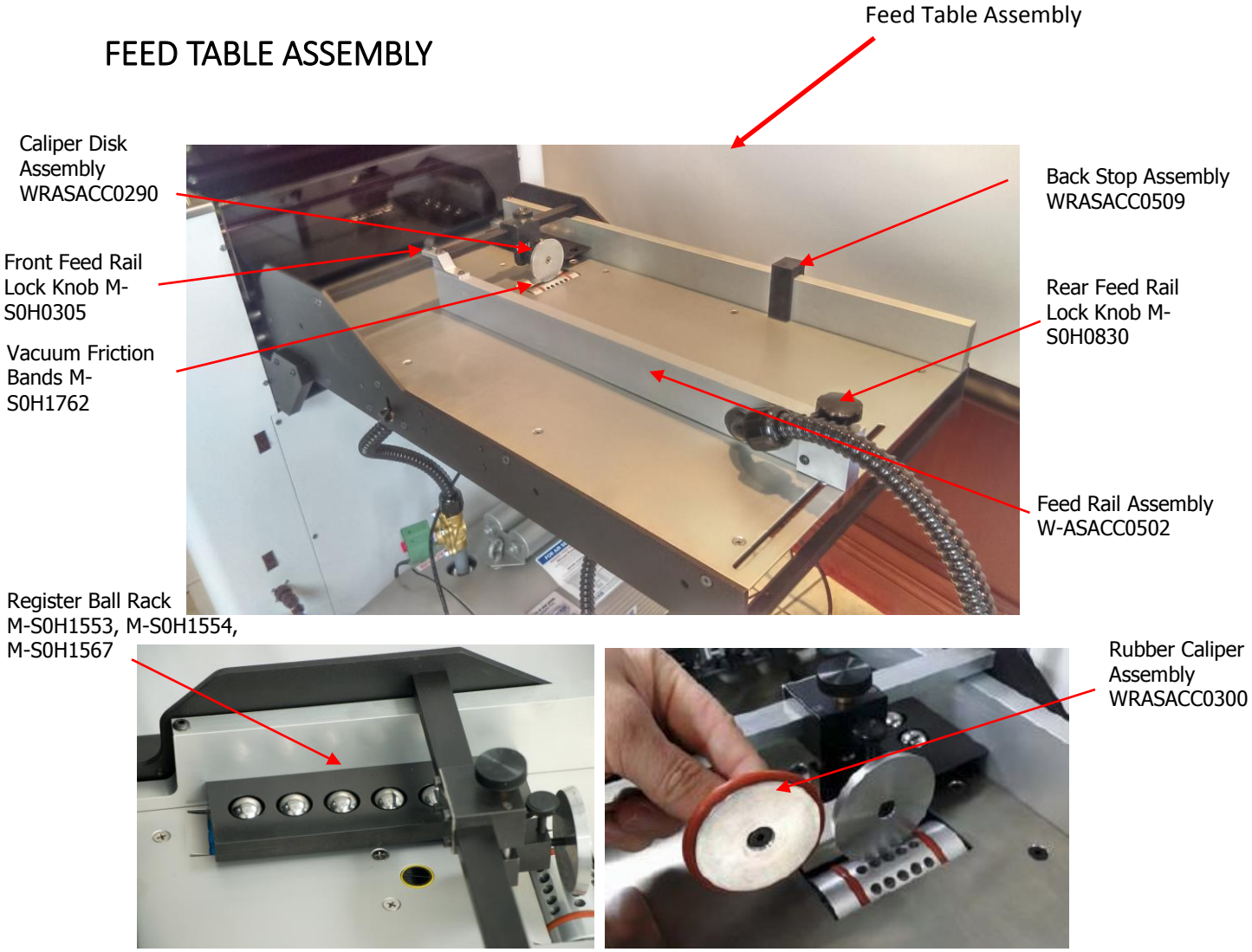


RECALLING MANUAL FOLD JOBS

Press the Manual Setup Button > Memory Recall > 1, 2, 3, or 4 > Accept > Run.

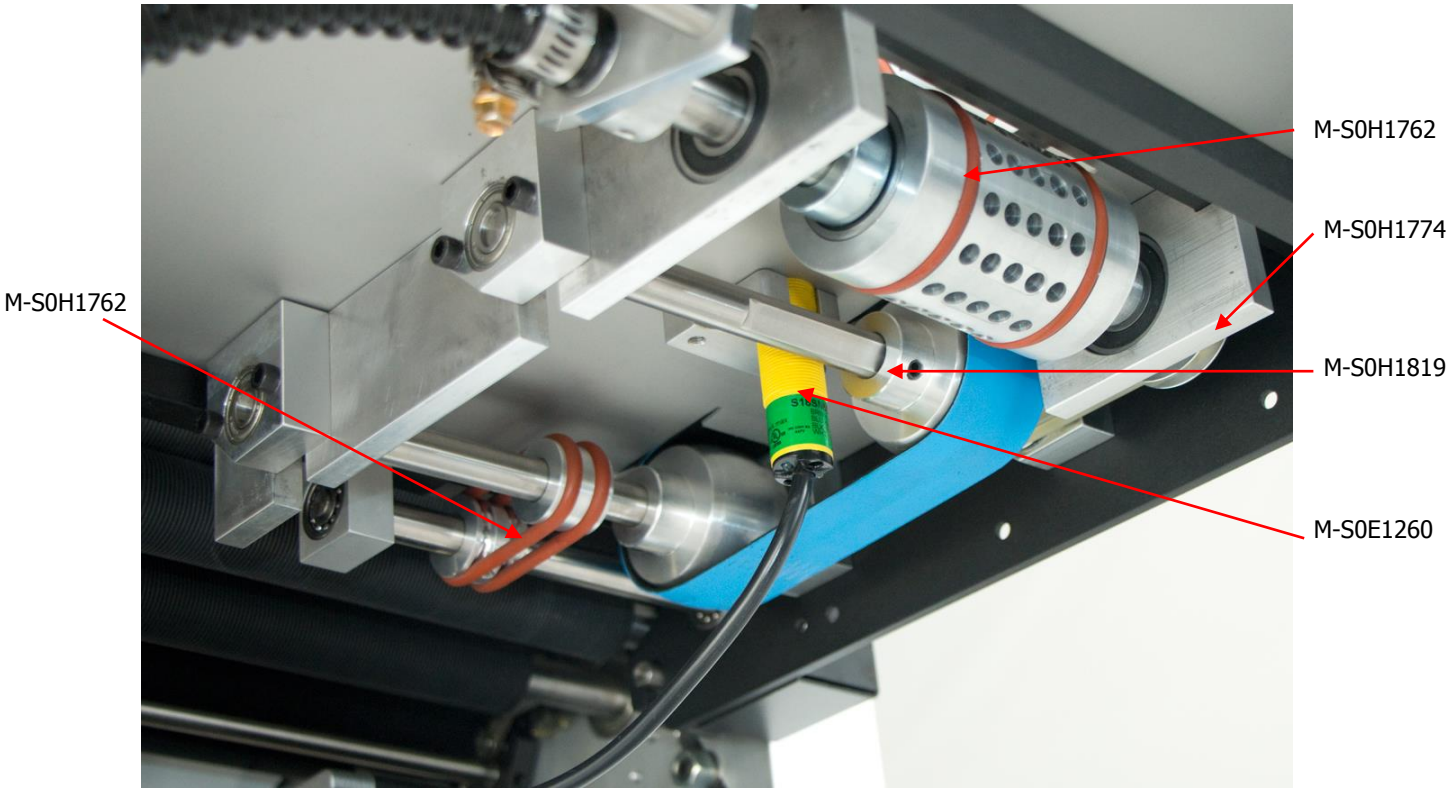


FEED TABLE ASSEMBLY



M-S0H1553- Steel balls for heavy stock	Mix and match balls to find the right combo for the stock you are running
M-S0H1567- Glass balls for medium stock	
M-S0H1554- Plastic balls for light stock	
WRASACC0290- Caliper disk assembly	Used to separate the sheets and prevent double feeding of sheets
WRASACC0300- Rubber Caliper Assembly	Used for light stocks and carbonless
M-S0H1762- Rubber friction band	Replacement rubber for vacuum wheel
WRASACC0509- Back stop assembly	Holds the sheets in position
M-S0H0830- Rail knob rear	Knurled knob for rear feed rail
M-S0H0305- Rail knob front	Knurled knob for front feed rail
W-ASACC0502- Rail assembly	Complete rail assembly right

FEED TABLE ASSEMBLY (bottom)



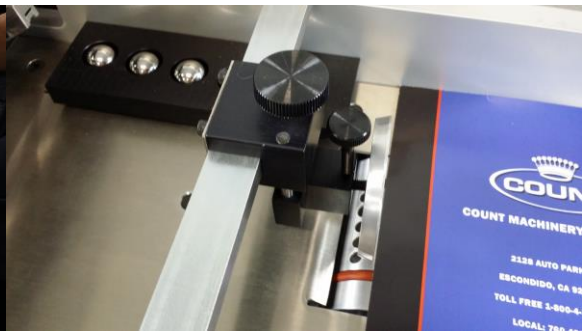
M-S0H1762- Rubber friction band	Replacement rubber for vacuum wheel
M-S0H1774- Rubber drive belts	Drive from the belt hub to the vacuum drive
M-S0H1819- Reg Belt	Blue belt on angle to drive paper into the fixed register rail
M-S0E1260- Sensor	Pulse sensor controls the pulse feeding of paper in a controlled manor

ADJUSTING THE FEED RAIL

The fixed feed rail on your KF-250 is factory set and should not be adjusted. If necessary, it is possible to have slight adjustment to the rail by using the button head screws on the bottom of the feed rail. By making this adjustment the machine may no longer function as desired. Please use caution and speak to a trained Count service technician before making any adjustments to the fixed feed rail. If done improperly this may void your warranty on the machine.

LOADING THE FEEDER

Take one sheet of the stock you are going to run. Place it against the fixed feed rail and the caliper disk.



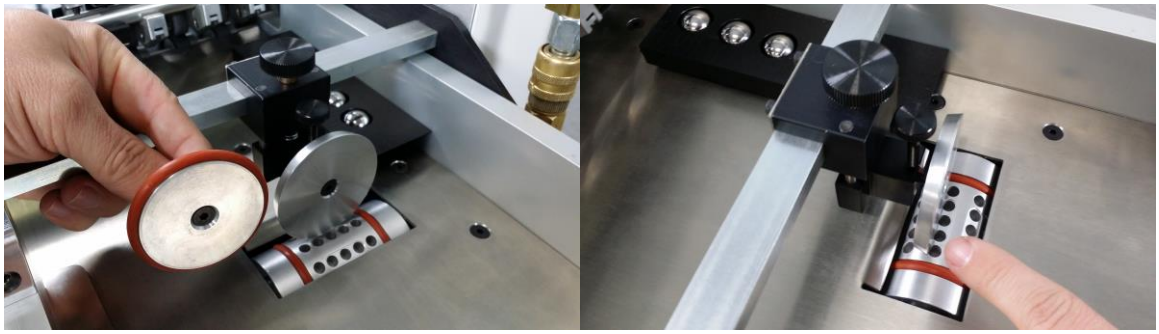
Loosen the lock knob on the back stop assembly and move it to the end of the sheet. DO NOT PINCH THE SHEET! This is to prevent the sheets from moving backward not to push the sheets forward. Loosen the front and rear lock knob on the operator side feed rail and adjust it up to the side of the paper. DO NOT PINCH THE SHEET! This is supposed to be aligned to the side of the sheet but not to pinch. Proper alignment of the rail is imperative to getting consistent feeding of stock.

SETTING THE AUTOMATIC FEEDER

For efficient Auto-feeding, the setting of the Paper Caliper is very important.
Make sure the pump is off while adjusting the caliper. Use a piece of the stock to be run as a "feeler gauge". Place one sheet under the caliper and place another sheet on top of that sheet. Now move it back and forth under the caliper while adjusting the caliper down (counterclockwise to lower, clockwise to raise) until the second sheet is not able to go under the caliper.

Caliper disk Vs. Rubber caliper

For most jobs you will use the caliper disk. If you are struggling with feeding on light stocks or carbonless forms you may want to switch to the rubber caliper assembly. It is design to give added grip to the second sheet to prevent double sheets. As you use the rubber caliper it will create a flat spot on the rubber and will need to be rotated periodically.



Steel vs. Plastic vs. Glass Balls

The type and combination of balls is dependent on the weight of the stock and the amount of curl on the paper. If you are experiencing skewing or the machine is not registering you may need to change the balls. The lighter the stock, the light the ball combo needs to be. To remove the steel balls use a magnet. To remove the plastic or glass use a piece of tape.

CONTINUOUS FEEDING

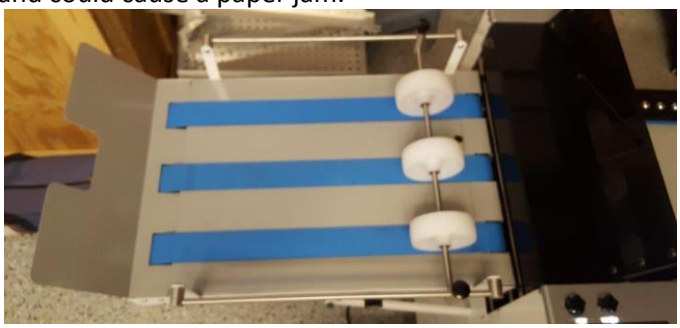
Once your job is in progress, you can continually add paper to the feeder hopper without stopping the transport. The amount of stock that can be loaded will vary as paper weights and stocks will vary. For most stocks you will be able to load 1" to 1 1/2" of stock at a time. As you increase the amount of stock you may need to increase the pressure flow from the pump. Also when the stock mount decreases you may need to decrease the amount of pressure flow.

FEEDING NOTES

- When set properly, the feed is very efficient and flexible. When neglected it can become very frustrating to run even the simplest job. The adjustments previously discussed are very important.
- The KF-250 is capable of running 120 -350 gsm stocks. It is also very capable of handling gloss, coated, and even laminated stocks. Its flexibility is directly related to the operator's experience.
- To clean the vacuum rubber friction bands , use only water on a clean cloth. Wipe the rubber use the jog button to rotate the vacuum wheel then wipe again. Repeat until both are wiped down completely.
- As you increase the amount of stock you may need to increase the pressure flow from the pump. Also when the stock mount decreases you may need to decrease the amount of pressure flow.
- The lighter the stock, the lighter the ball combo needs to be.

DELIVERY TABLE

The delivery table for the KF-250 is a motorized delivery that has a variable speed knob that is used to adjust the speed. It also has a smart sensor that ensures the paper only travels a short distance to ensure continued shingling. The speed of the conveyor is directly related to how tight the shingle of the sheets is. If the feed table is set too slow it will cause the paper to build up and could cause a paper jam.



CHECKING THE SENSORS

1. Turn machine power on and allow screen to turn on
2. There should be 2 lights on the sensor; a green indicating power is getting to the sensor and orange that is the reflecting signal. If both lights are not on, there is a problem and must be fixed before you are able to run.
3. Make sure the sensor reflector tape is located on the base plate and the red beam from the sensor is hitting the tape. If not, loosen the screws on the sensor and adjust the beam until it is on the tape.
4. If all above steps work correctly, the sensor is working properly, if not, contact the service department.

ROTATING PLASTIC COVER

This cover is not only a safety cover it also provides paper support for folding longer sheets in half. There is a safety switch that the cover engages and must be pressed or the machine will not function. Be very careful when opening this cover. Open it slowly and close it slowly as to make sure it does not break.

TROUBLE SHOOTING

- **POWER DOES NOT TURN ON**
    1. Check circuit breaker in electrical cabinet.
    2. Make sure the power switch is being controlled and not the pump switch.
    3. Check outlet for power.
- **TRANSPORT "LOCKS UP" AFTER OR WHILE FOLDING**
    1. Check the knob setting. Increase gap.
    2. Check the belts to ensure they are still tight.
    3. Check pulleys to make sure they are securely tightened on shafts.
- **FEEDER NOT FEEDING CORRECTLY**
    1. Clean rollers.
    2. Clean belt.
    3. Make sure the paper caliper is set correctly.
- **FOLD IS NOT STRAIGHT**
    1. Check that the crease is square.
    2. Check In-feed register that the sheet is registering all the way over. If necessary adjust the skew or tighten the operator side feed rail.
- **NOT FOLDING IN THE CORRECT LOCATION**
    1. Not enough pressure on rollers. Check the knob setting. Decrease Gap.
    2. Make sure there is no paper stuck in the machine. Restricting the paper travel.
    3. Check for paper curl. Flatten sheet before feeding.
- **FOLD APPEARS WEAK**
    1. Check the knob setting. Decrease Gap.
    2. Micro adjust the crease location.
- **TRANSPORT DOES NOT RUN AFTER PAPER JAM**
    1. Clear paper jam.
    2. Motor driver possibly damaged.
    3. Contact Customer Service.
- **COUNTER NOT WORKING**
    1. Check the sensor.
    2. Make sure the sensor is not blocked.
- **TONER CRACKING AFTER FOLDED**
    1. Check the knob setting. Increase Gap.
    2. Make sure the fold position is in alignment to the crease.
- **PAPER JAM AT MOTORIZED DELIVERY**
    1. Check the position of the exit wheels.
    2. Check delivery speed. Increase if necessary.

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