

Table of Contents

Section 1 - Operating Manual

Section 2 - Parts Manual

Section 3 - Electrical Schematic.



Streamfeeder Universal Friction Feeder

Mailing Series

Operating Manual

Troubleshooting Manual

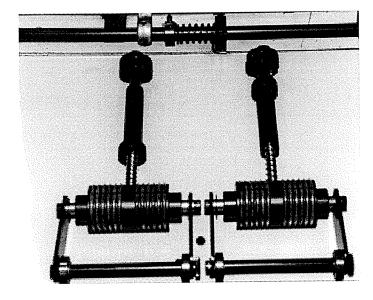
Maintainence Manual

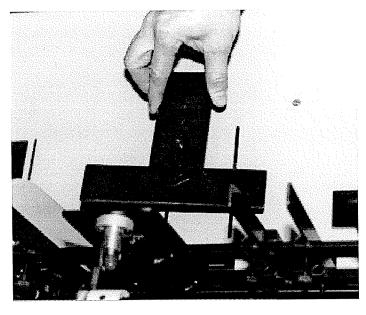
Operating the Streamfeeder Universal Friction Feeder

Thank you for investing in the Streamfeeder® Friction Feeder. You will find installation simple to accomplish. These easy step-by-step instructions will "walk you through" the installation and setup procedures to successfully get your Streamfeeder up and running.

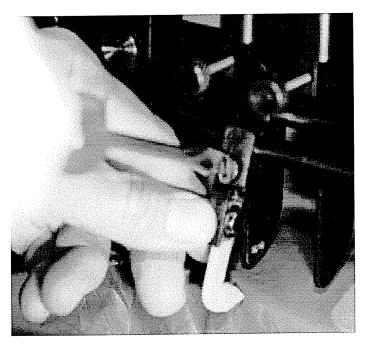
Preparing the inserter for the feeder.

Step 1. Remove the guide assembly rear.

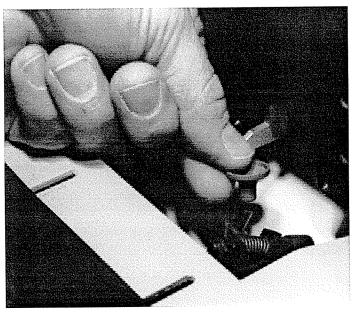




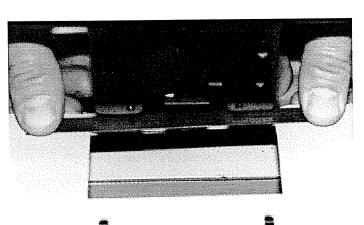
Step 2. Remove the plate insert box feed adjustment ("T" Plate).



Step 3. Loosen the separator foot and tilt it away from the insert station so the foot does not interfere with the material being run.

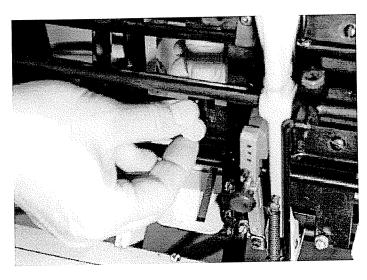


Step 4. Remove the insert suction cup. Lower and tilt the adjustable sucker assembly forward. Plug the sucker hose. The sucker assembly may be moved down and to one side if it interferes with the material being fed.



Step 5. Cycle the inserter until the insert gripper arm jaw is approximately 1/2" from the insert front plate. Locate the two material guide tabs that protrude from the front of the inserter rear table. Pull these guide tabs upward until their top surface is slightly above the bottom of the gripper arm jaw. The material that will be run rests on these guides. The bottom of the gripper arm jaw must pass under the material without making contact with it.

Note: Inserco machines only: Remove the two material guide tabs that protrude from the front of the rear table. Bend these guides approximately 1 3/8" from the tip and reinstall. Place the guide tab approximately 1 3/8" into the rear table



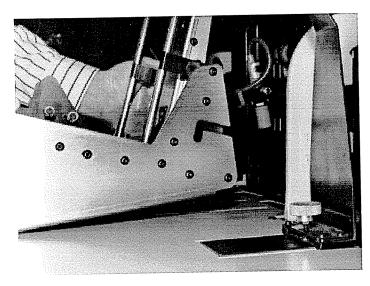
back guide adjusting slot and bend the guide.

Installing the Streamfeeder on the inserter.

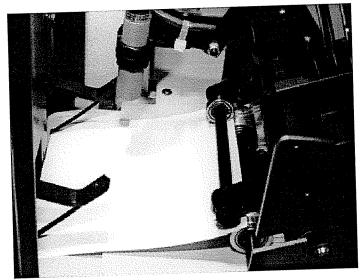
Step 6. Place the Streamfeeder guides on the left and right side of the front insert plate and tighten to the lower support rail.



Check the position of the Streamfeeder spring guides you just installed with a piece of the material you will be running. Adjust the springs to a light tension and locations near the inside edges of the piece. Leave this piece of material in place for further adjustments.



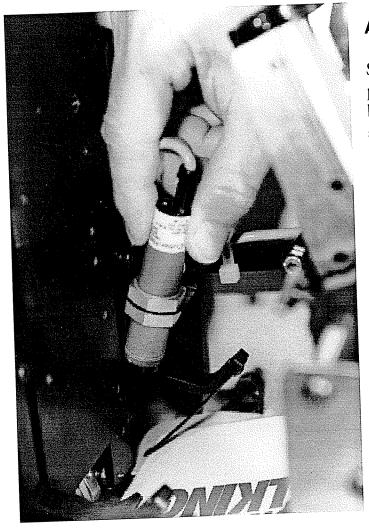
Step 7. Place the feeder on the rear insert table with the two screws that protrude from the bottom of the feeder aligned into the rear guide slots. Secure the feeder with the two "T" Handle nuts provided.



Step 8. Feeder positioning. Place a piece of material to be run under the spring steel guides. Have the front edge of the material aligned with the front of the insert plate. Slide the feeder toward the gripper arm until the trailing edge of the material held by the guides fits between the feeder's exit rollers.

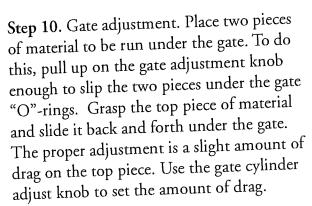


Then tighten the two "T" handle nuts to lock the feeder in place.

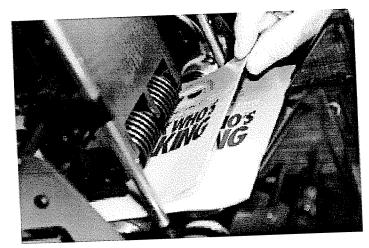




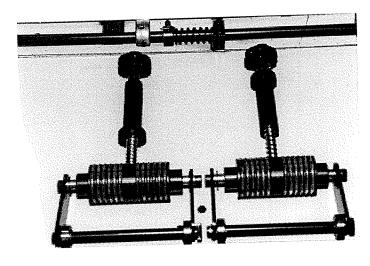
Step 9. Aligning the photocell. Position the photocell by sighting along the tubular barrel. The photocell should "point" exactly at the leading edge of the piece of material that is held under the spring steel guides. The final photocell adjustment will align slightly to the rear of the leading edge. This is because when the photocell signals the feeder's motor to stop, the motor will over travel slightly.



It is desirable to adjust the gate to the maximum opening without feeding doubles. This will allow the maximum tolerance for curled or bent edges, etc. If the feeder feeds doubles after feeding several pieces, you need to close the gate cylinder gap a little. Do this by turning the gate cylinder knob about 1/8 turn counterclockwise. Retest and repeat the adjustment if necessary. If the gate cylinder is too tight, the material will have difficulty pulling through the gate and you will get missed feeds.



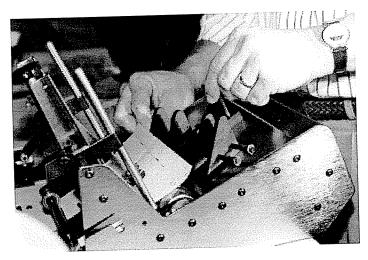
You can also adjust the amount of spring



CAUTION: Before running the feeder, be sure that the gate cylinder is adjusted upwards enough that the "O"-rings are not contacting the feed rollers and belts. If the gate cylinder "O"-rings are in contact with the belts and rollers and the feeder is run with no material in it, you will damage the belts, rollers and "O"-rings.

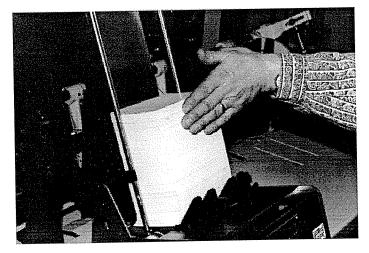
tension holding the gate cylinder in position. The gate can move upwards slightly against the spring while material is being fed. This is useful in feeding irregular materials. The normal setting for the gate cylinder spring tension is with the collar on the barrel in the "down" position. This is shown in the left position in the photograph. This setting will work well for most materials and allows the greatest stack heights. It also gives the best performance in preventing doubles.

The cylinder can be turned to the "up", or low tension position for special feeding requirements. This would be especially useful in feeding irregular thickness materials that requires the gate to "float" more during the feeding process. The low tension setting can be used to minimize marking of the product by the gate cylinder or to prevent peeling back the top sheet of a booklet, for example.



Step 11. Material Support Wedge Adjustment. The trailing edge of the material to be run *must* be supported by the material support wedges.

This adjustment is made by loosening the wedge assembly adjusting knob and sliding the wedge assembly under the trailing edge of the material to be run. Each individual wedge may be moved from side to side on its retaining shaft. This allows an adjustable spacing of the wedges to evenly support the material to be run. It should be understood that this feeder feeds in a shingled manner. As the bottom piece exits the gate area, the following piece of material starts to feed. It overlaps the first piece. The amount of overlap can be adjusted by sliding the

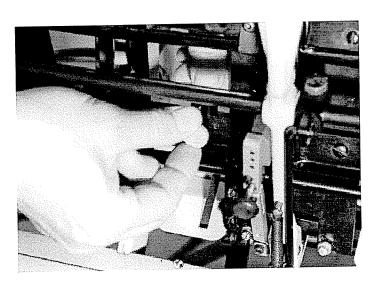


wedge assembly toward the gate for less overlap, or away from the gate for more overlap.

Function of overlap. More overlap allows the feeder to feed a greater amount of paper per revolution. This will serve better in high speed applications. The wedge assembly can be turned to the left or right to help compensate for skewed (twisted) feeding of the material. You can experiment with turning the wedge assembly one way or the other and observing the straightness of the material feeding.

Step 12. Loading the material to be run. The first handful of material should be fanned into a wedge and placed in the feeder to allow the bottom pieces of paper to conform to the curvature of the gate cylinder. By helping the first stack of material to form itself around the gate cylinder, you will help get the separation process started correctly. You only need to do this with the first stack going into the machine. From then on, the feeder will continue to form the material around the gate cylinder for proper feeding automatically.

As you add more material to the stack in the feeder hopper, pat the back edge of the material stack so that all of the material is pushed tightly up to the front plate. This helps to prevent miss feeds.

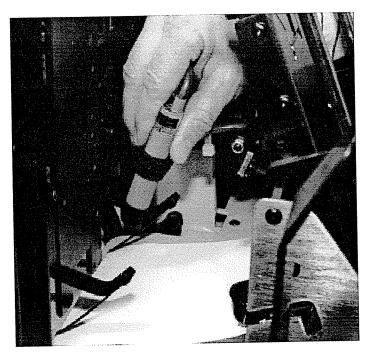


CAUTION: Electrical extension cords should be at least 16 Gauge wire. They MUST be 3 wire grounding type. You MUST use a 3 hole grounded outlet.

Feeder Start-up.

Turn the feeder on and adjust the spring tension of the material guides. This is done by sliding the guide bracket up or down on the support bar and then tightening the set screw. The spring tension on the material guides should not be so great as to distort the material as the gripper jaw of the inserter pulls the material through the springs.

Adjust the insert arm gripper jaw and detector to the material being run. The procedure for this is the same as for regular stations that are not equipped with the Streamfeeder. See your inserter owners manual for instructions about these adjustments.



Adjust the photocell to stop the material in line with the insert station front plate. This is done by aiming the photocell forward or backward to change the stopping point. See step 9 for more information about adjusting the photocell.

Run several pieces of material from the feeder before making your final gate adjustments to the Streamfeeder, if necessary. When adjusting the gate cylinder knob, make the movements in small amounts. Usually it is best to move the outside edge of the knob 1/8" or less with each adjustment.

Troubleshooting and Maintainence of the Streamfeeder

Problem

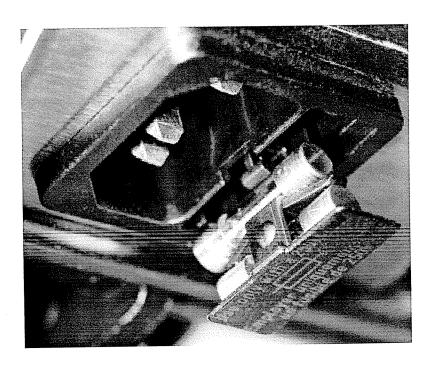
Feeder does not run, switch is turned on.

Cause and Solution

Is the main power switch light on (120 V models only)? If not, check the electrical supply by plugging in another device into the plug you are using to be sure there is power to the outlet.

The photocell may be detecting a background surface and does not turn the motor on. Realign the photocell to be sure it is not detecting a background.

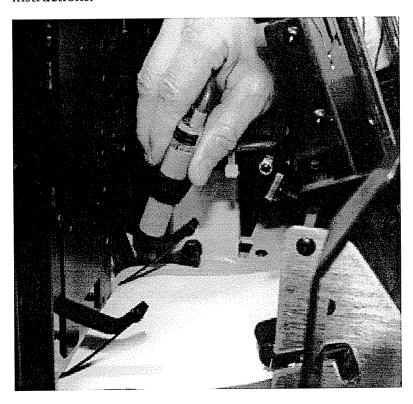
Check to see if the machine fuse is blown. If so, replace the fuse with the spare one in the fuse holder. Use only the proper size and type of fuse.



If the gate cylinder is set too tight, it will jam the machine and stall the motor. Also check for a paper jam in the machine. A stalled motor can blow the fuse.

Feeder will not stop (continuous feeding).

The photocell is not detecting the material being fed. Realign the photocell as discussed in step #9 of the set up instructions.



The photocell used on the Streamfeeder was chosen for its very broad range of sensing capabilities and ease of set-up. Occasionally, when running very black pieces, the standard photocell will not be able to sense the pieces. In this situation, contact Streamfeeder for technical support. Streamfeeder has optional, specialized photocells available for difficult sensing applications.

The material being fed does not advance far enough for the gripper jaw to pick up.

The material overshoots the guide springs and is too deep in the gripper arm jaw.

The photocell is not properly aligned. Realign the photocell to a focal point farther from the feeder. The feeder may not be the proper distance from the gripper jaw. Repeat the adjustment for proper feeder distance from the gripper jaw covered in Step #8 of the set-up instructions.

The photocell is misaligned and/or the feeder is not installed with the correct distance from the gripper jaw. The spring tension on the guide springs may be too low.

Move the photocell toward the feeder. Position the feeder the proper distance from the guide springs. Set the correct spring tension on the guide springs. The feeder runs, but material does not feed. Erratic feeding, roller slip.

CAUTION:

Isopropyl rubbing alcohol is FLAM-MABLE! Unplug the machine before cleaning the rollers. Do NOT use near an open flame, sparks or any other source of ignition. Do NOT smoke in the vicinity of the alcohol fumes. Air dry the cleaning rag. Dispose of used rags properly. Only purchase consumer packaged rubbing alcohol. Only keep small quantities of alcohol on the job site (16 oz., 500 ml or less). Store alcohol properly.

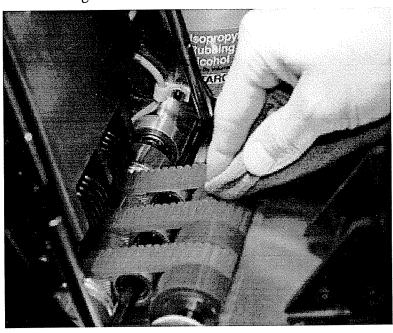
The gate is set too tight. Loosen the gate.

The wedge assembly is too far toward gate. Move the wedge assembly away from the gate to allow more material contact with the drive belts and rollers.

The paper may be jammed. Clear the jam.

Material stack may be too high or heavy. Try removing part of the stack.

Rollers and belts may be dirty and glazed, causing the rollers and belts to slip on the material. Clean the rollers with rubbing alcohol.

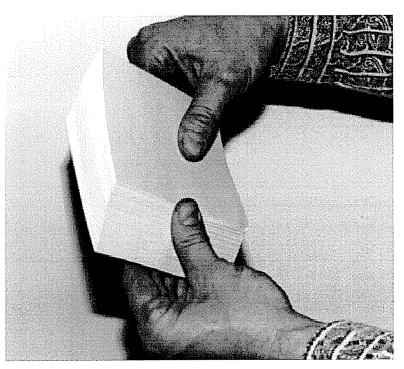


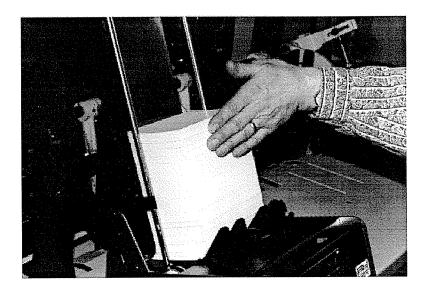
Clean rollers and belts are VERY IMPORTANT to the proper operation and feeding of the Streamfeeder!
Clean the rollers using a clean rag or towel and alcohol.
Use ONLY Isopropyl Rubbing Alcohol, 70% by volume.
This is the type of rubbing alcohol that is sold at drug stores. Do NOT use any other type of cleaners, such as Blanket Wash or other solvents. These may coat the rollers with plasticizers or destroy the rubber compound of the rollers.

DO NOT use any type of abrasive cleaner or cleaning cloth, such as Scotchbrite or sand paper on the rollers. This will destroy the sealed high friction surface and make the rollers useless.

The feeder runs, but material does not feed.
Erratic feeding, roller slip.
(continued)

Material not loaded properly in feeder hopper. Make sure the first stack of material is loaded with a fanned lead edge to conform to the gate cylinder. Make sure material is patted forward until it contacts the front guide.



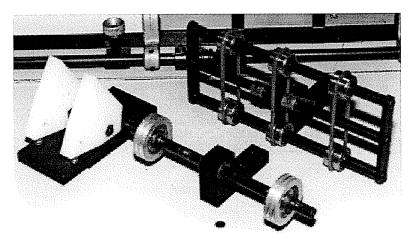


Pieces interlock. Make sure there is no embossing, staples or other physical features of the product that cause the product to interlock one piece to the next. An example of a material with serious interlock would be credit cards with the same data embossed on every card.

The feeder runs, but material does not feed.
Erratic feeding, roller slip.
(continued)

On unusual or irregular material, experiment with different directions of material feed. Some materials will feed better in one direction than the others.

If you are feeding some difficult materials, the standard wedge assembly may not provide sufficient support for the material, or it may cause the material to bind together. Streamfeeder has special, optional wedge assemblies for meeting these special requirements. Contact Streamfeeder for technical assistance. Some of the special wedges are shown in the photograph below.

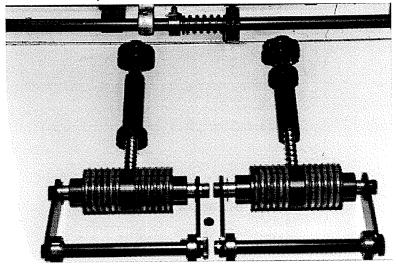


Paper skews when exiting the feeder (does not feed straight).

One side of the material being fed is contacting the feed belts before the other side. Turn the wedge assembly to offer more support under the leading edge of the material. The side of the material that is leaving the feeder first needs more support, or less belt contact. Turn the wedge on this side toward the gate cylinder to hold the material up from the belts. Experiment with different amounts of wedge twist to minimize or eliminate the skewing of the material feed.

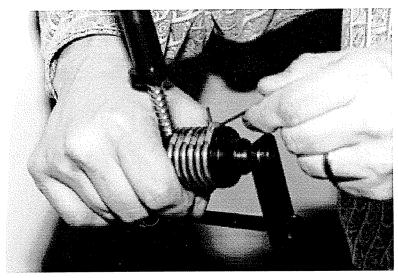
With the feeder hopper full, the feeder cannot control doubles.

The spring tensioning cylinder may be turned for low stack height. Turn the cylinder over for higher spring tension and higher stack heights. In the high tension, the collar on the cylinder is down, or closest to the cylinder.



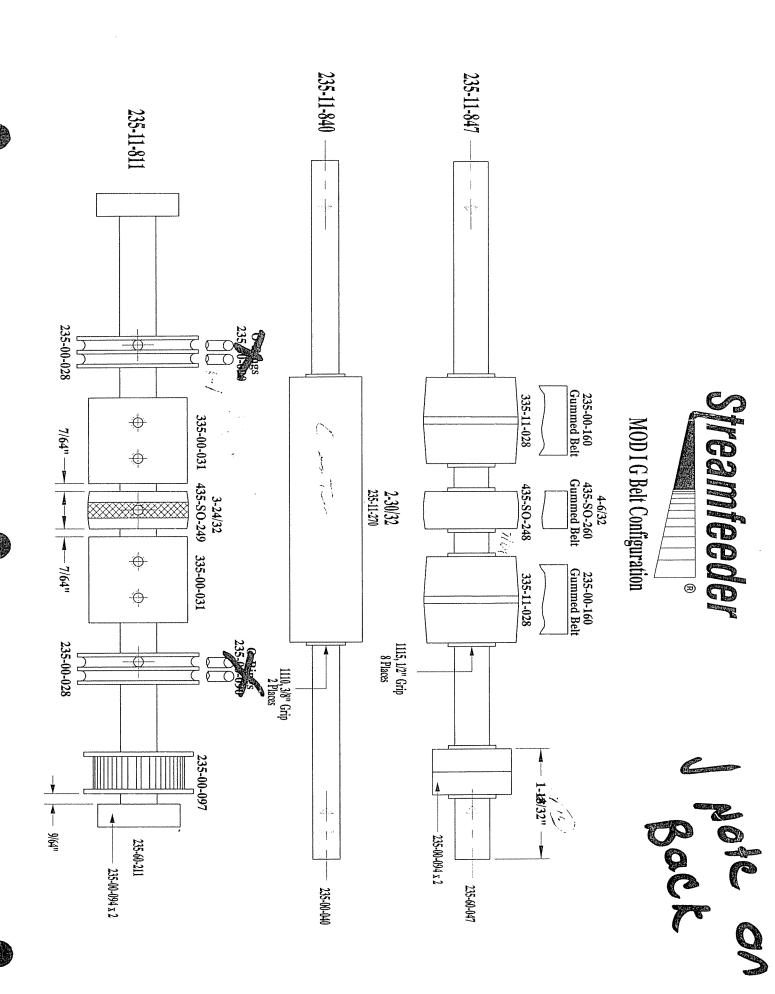
The "O"-rings are worn to the same height as the gate cylinder. Turn or replace all "O"-rings if they are worn.

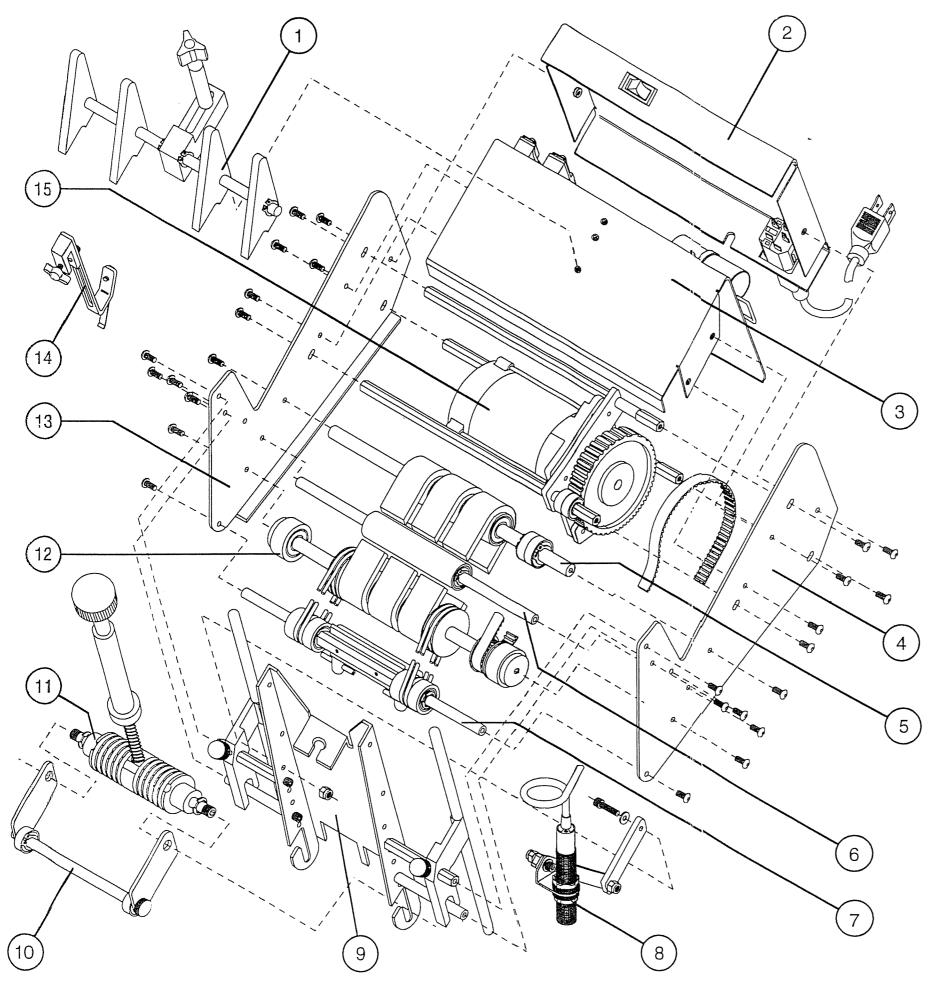
Turning the "O"-rings on the gate retard cylinder may be done by inserting a small, 90° Allen hex wrench in the horizontal groove in the gate cylinder. With the hex wrench in the groove and the "O"-ring in the bend of the wrench, rotate the wrench one complete circle around the "O"-ring groove while pulling the wrench away from the cylinder. This lifts the "O"-ring out of its groove. Turning the wrench one complete turn will rotate the "O"-ring in the groove to a new wear position on the gate cylinder. Rotate all of the "O"-rings the same amount for an even retard surface on the bottom of the cylinder.





Model IG Mechanical Components





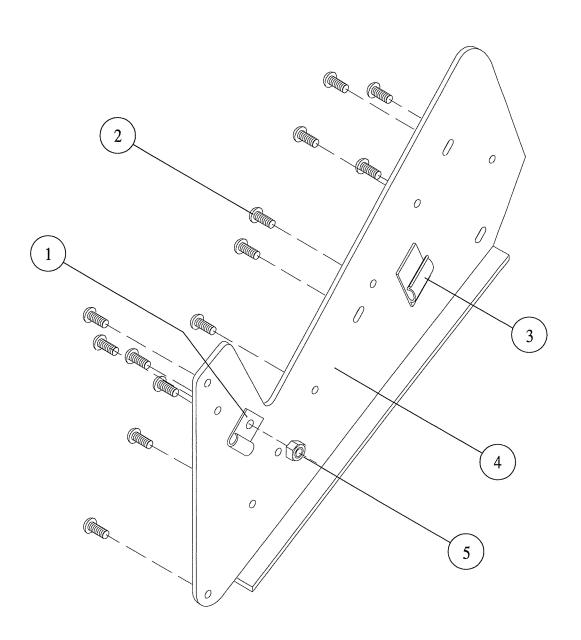


Model IG Mechanical Components

Item#	Page #	Assembl; #	Description
1	2-10	235-11-018	Wedge Guide Assembly
2	2-6	235-11-005	Cover Assembly (110 Volt)
	2-6	235-22-005	Cover Assembly (220 Volt)
3	2-5	235-11-004	Table Top Assembly (110 Volt)
	2-5	235-22-004	Table Top Assembly (220 Volt)
4	2-3	235-00-003	Left-Hand Side Plate
5	2-16	235-11-042	Feed Driven Shaft Assembly
6	2-14	235-11-040	Belt Support Bearing Assembly
7	2-13	235-11-036	O-Ring Discharge Assembly
8	2-8	235-11-007	Sensor Extension
9	2-4	235-11-001	Gate Holder Plate Assembly
10	2-12	235-11-034	Discharge Assist Assembly
11	2-11	235-11-020	Gate Cylinder Assembly
12	2-15	235-11-041	Feed Drive Shaft Assembly
13	2-2	235-00-002	Right-Hand Side Plate
14	2-9	235-11-008	Standard Material Hold Down Assembly
15	2-17	235-11-099	Drive Motor Assembly (110 Volt)
	2-17	235-22-099	Drive Motor Assembly (220 Volt)
16	2-7	235-11-006	*Tall Insert Guide Assembly

*Not Shown on this Drawing Refer to page 2-7

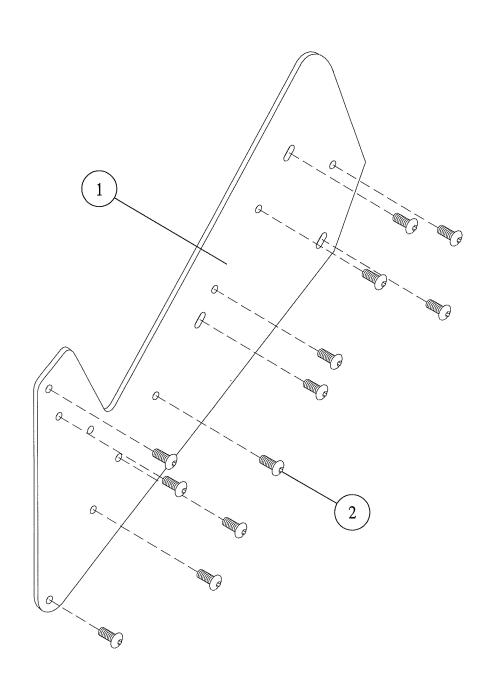




Model 1G Right Hand Side Plate

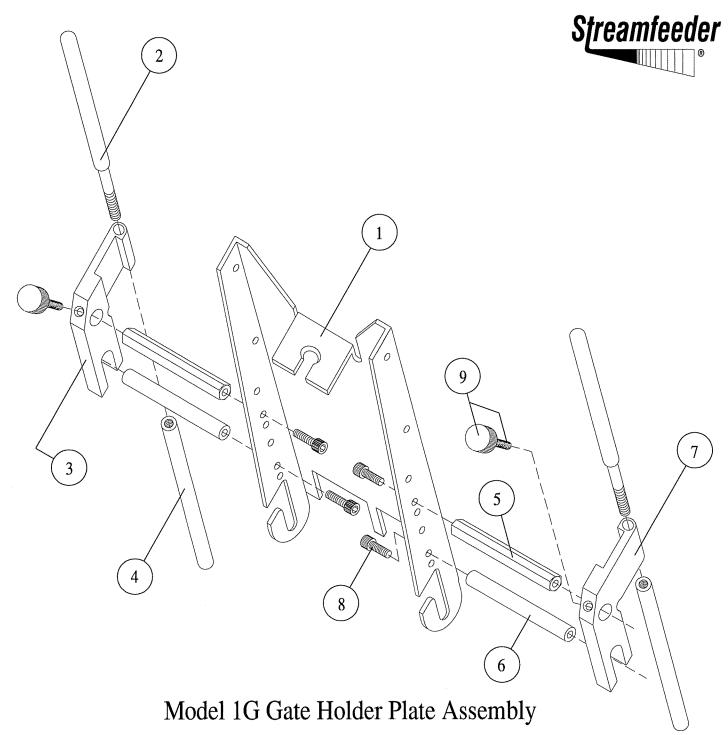
		`	
Item#	Qty.	Part#	Description
1	1	235-00-078	Wire Clamp
2	13	2305	BHCS 10-32 x 3/8"
3	1	235-00-079	Wire Holder
4	1	235-00-002	Right Hand Side Plate
5	1	2106	Hex Nut 10-32



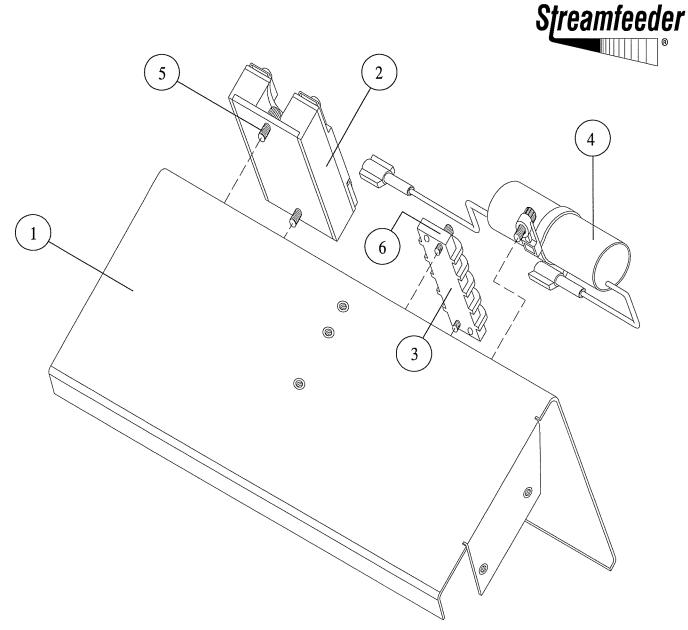


Model 1 Left Hand Side Plate

Item#	Qty.	Part#	Description
1	1	235-00-003	Left Hand Side Plate
2	12	2305	BHCS 10-32 x 3/8"

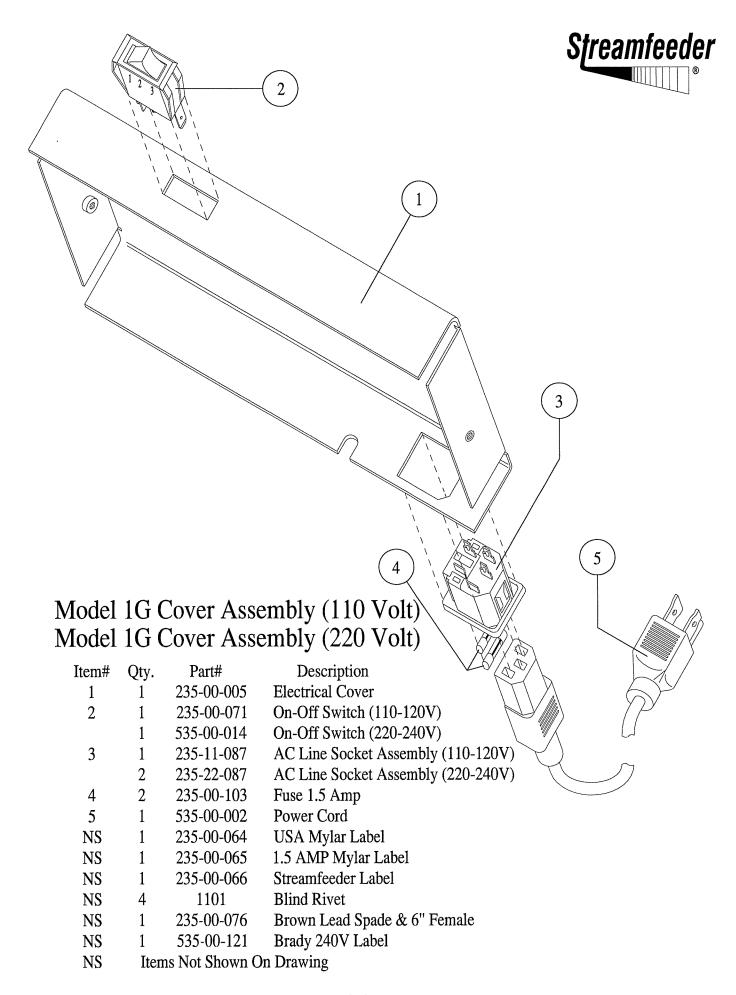


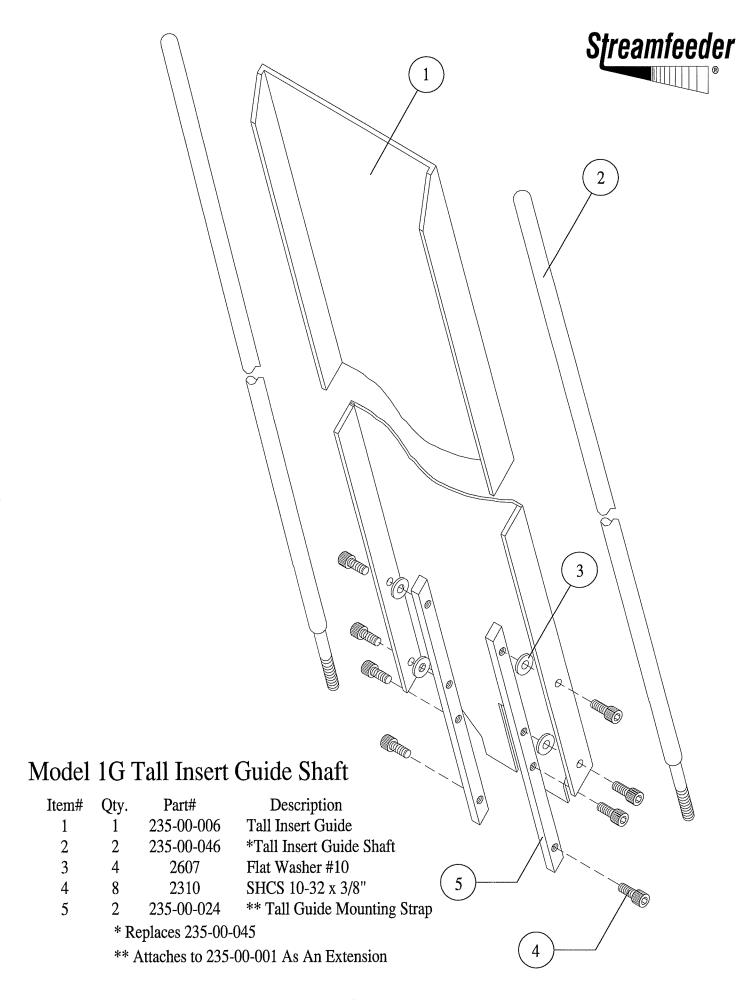
Item#	Qty.	Part#	Description
1	1	235-00-001	Gate Holder Plate
2	2	235-00-045	Short Side Guide Shaft
3	1	235-00-047	Right Hand Side Guide Bracket
4	2	235-00-044	Lower Side Guide Shaft
5	2	235-00-043	Gate Support Shaft
6	2	235-00-049	Lower Gate Support Shaft
7	1	235-00-048	Left Hand Side Guide Bracket
8	4	2310	SHCS 10-32 x 3/8"
9	2	235-00-091	Small Thumb Screw Knob
		2315	SHCS 10-32 x 1/2"



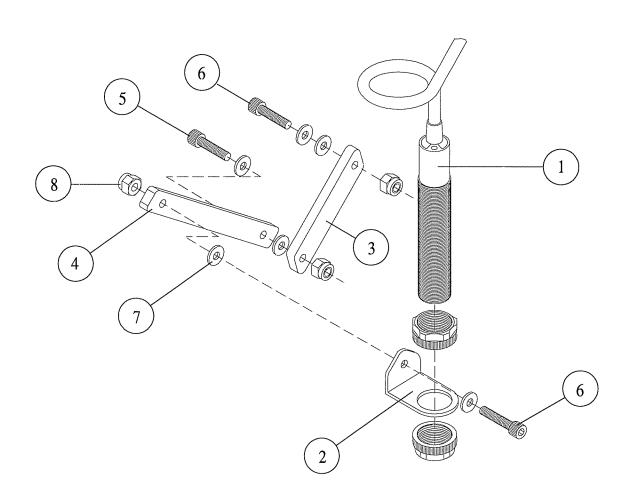
Model 1G Table Top Assembly (110 Volt) Model 1G Table Top Assembly (220 Volt)

Item#	Qty.	Part#	Description
1	1	235-00-004	Table Top
2	1	235-00-072	Solid State Relay
3	1	235-00-070	Terminal Strip
4	1	235-11-074	Capacitor (110-120V)
	1	235-22-074	Capacitor (220-240V)
5	3	2310	SHCS 10-32 x 3/8"
6	2	2213	SHCS 8-32 x 3/8"
NS	2	235-00-068	Terminal Jumper
NS	1	235-00-081	Grommet 9/16"
NS	1	2301	Ground Screw
NS	Item	ns Not Shown C	n Drawing





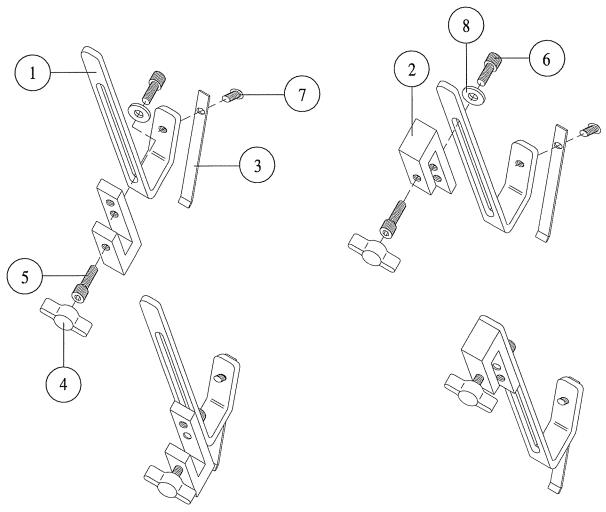




Model 1G Sensor Extension Assembly

Item#	Qty.	Part#	Description
1	1	235-11-073	Proximity Sensor w/ Nuts
2	1	235-00-007	Sensor Bracket
3	1	235-00-015	Sensor Extension Bracket "A"
4	1	235-00-016	Sensor Extension Bracket "B"
5	1	2325	SHCS 10-32 x 3/4"
6	2	2320	SHCS 10-32 x 5/8"
7	6	2607	Flat Washer #10
8	3	2110	Nylock Nut 10-32
NS	1	235-00-080	Cable Tie
NS	Item	ns Not Shown C	On Drawing





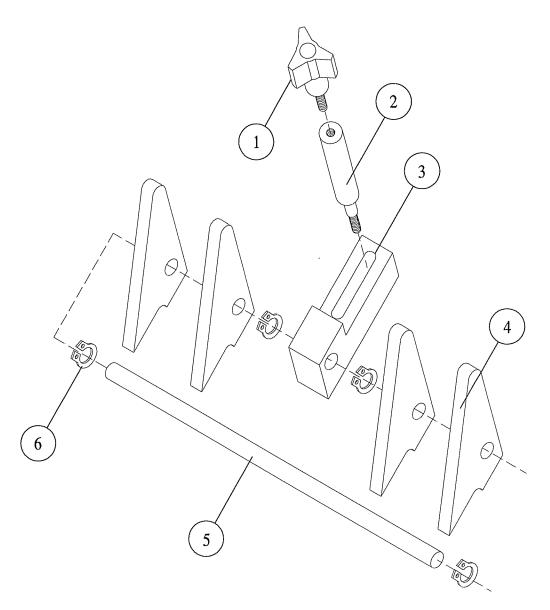
NOTE: Use This Set Up For All Bell & Howell Mailstars, And 825

NOTE: Use This Set Up For All Bell & Howell 775, 10,000, 7200, And Pre 7200

Model 1G Material Hold Down Assembly (2 Full Assemblys Required Per Machine)

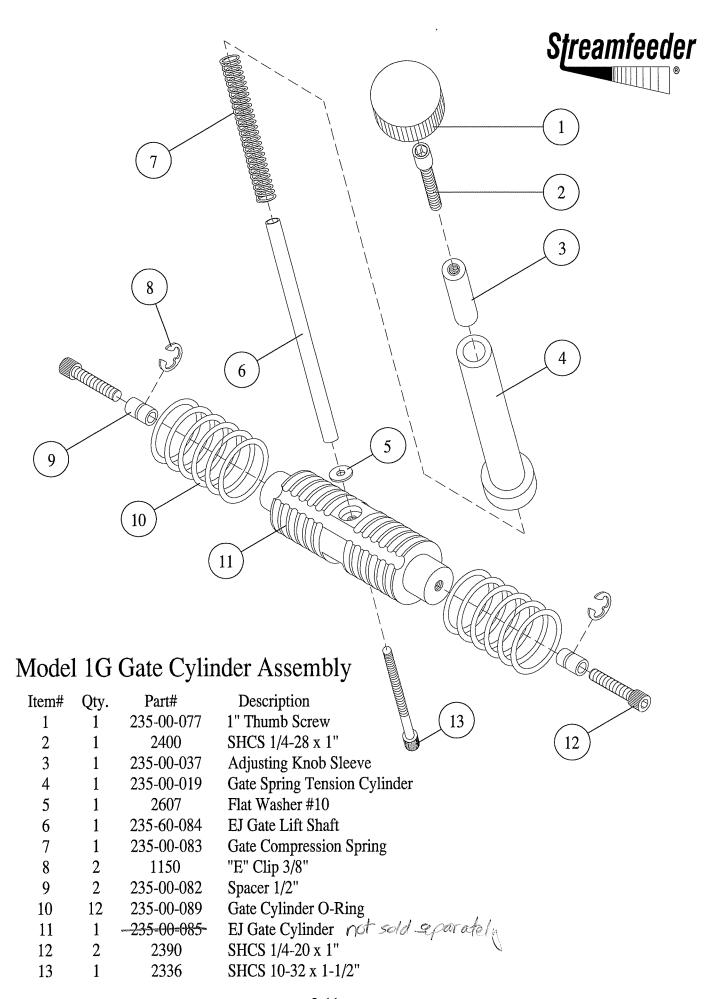
Item#	Qty.	Part#	Description
1	1	235-00-050	Universal Guide Bar
2	1	235-00-051	Universal Guide Bar Bracket
3	1	235-00-102	Material Hold Down Spring
4	1	235-00-076	Winged Knob
5	1	2315	SHCS 10-32 x 1/2"
6	1	2310	SHCS 10-32 x 3/8"
7	1	2210	BHCS 8-32 x 1/4"
8	1	2607	Flat Washer #10



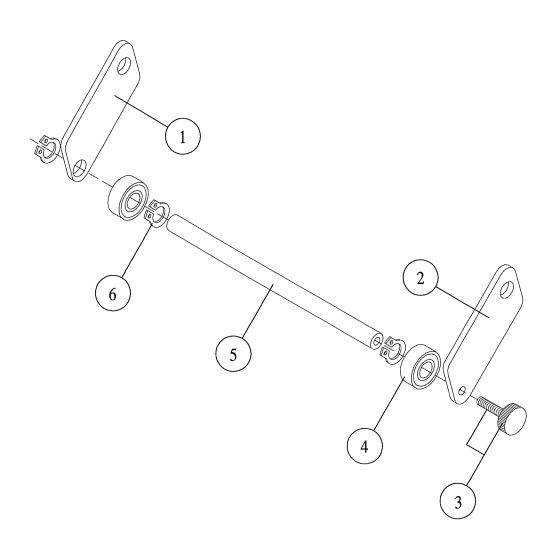


Model 1G Wedge Guide Assembly

Item#	Qty.	Part#	Description
1	1	235-00-092	Medium Knob
2	1	235-00-023	Knob Extension
3	1	335-60-213	Wedge Hold Down Bracket
4	4	335-60-212	Material Support Wedge
5	1	235-60-214	Wedge Guide Shaft
6	4	1110	Grip Ring 3/8"

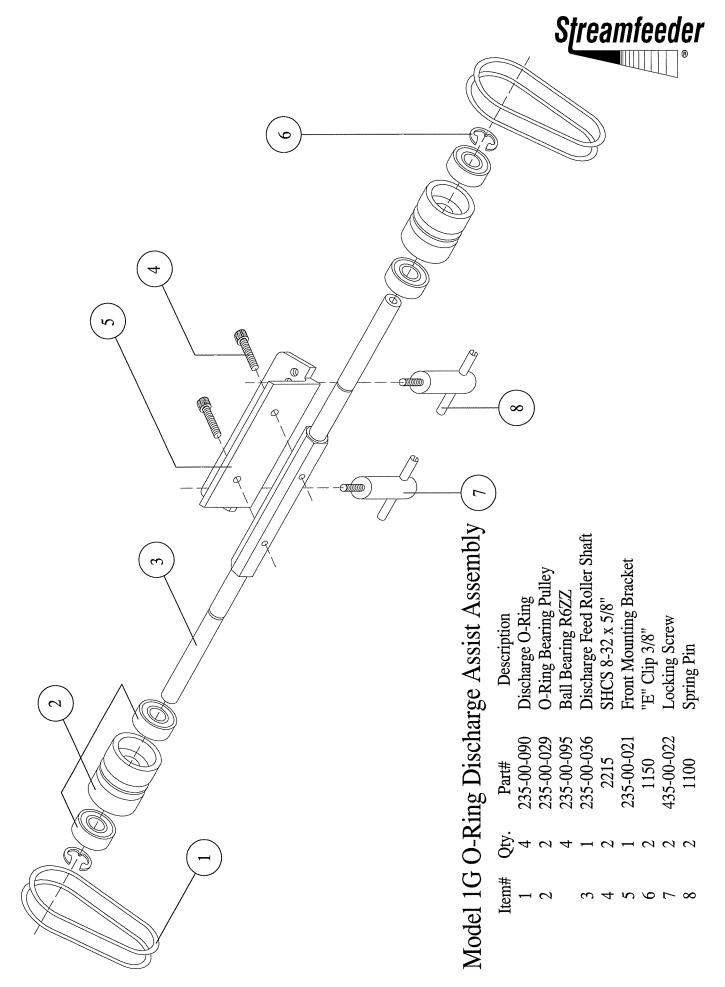




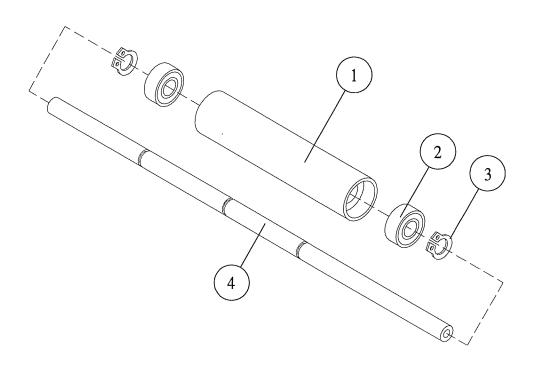


Model 1G Discharge Assist Assembly

Item#	Qty.	Part#	Description
1	1	235-00-014	Left Hand Discharge Bracket
2	1	235-00-013	Right Hand Discharge Bracket
3	1	235-00-091	Small Thumb Screw Knob
	1	2315	SHCS 10-32 x 1/2"
4	2	235-00-095	Ball Bearing R6ZZ
5	1	235-00-034	Discharge Bracket Shaft
6	3	1110	Grip Ring 3/8"

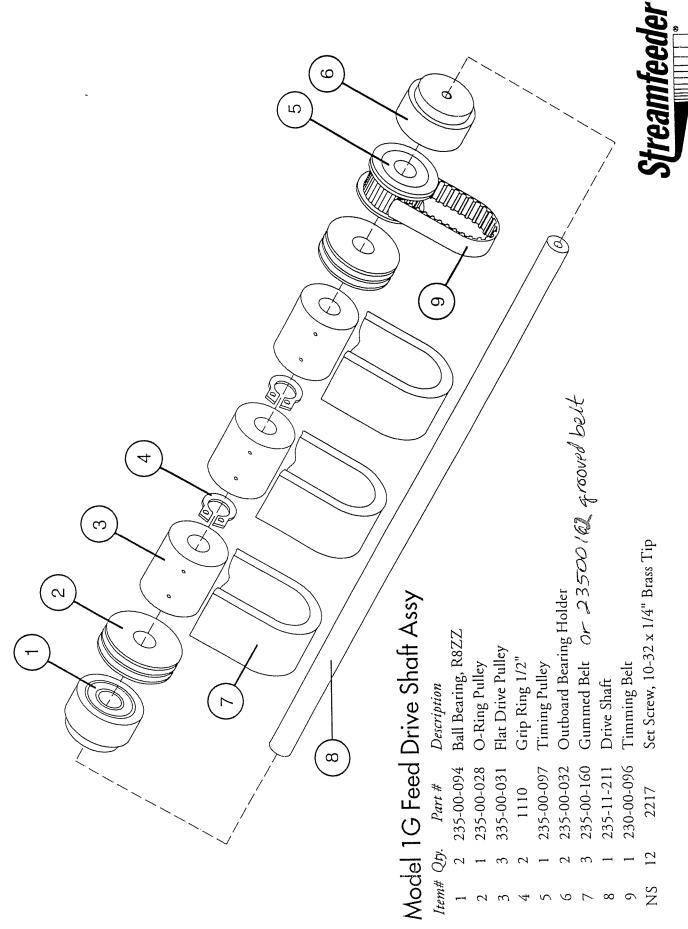


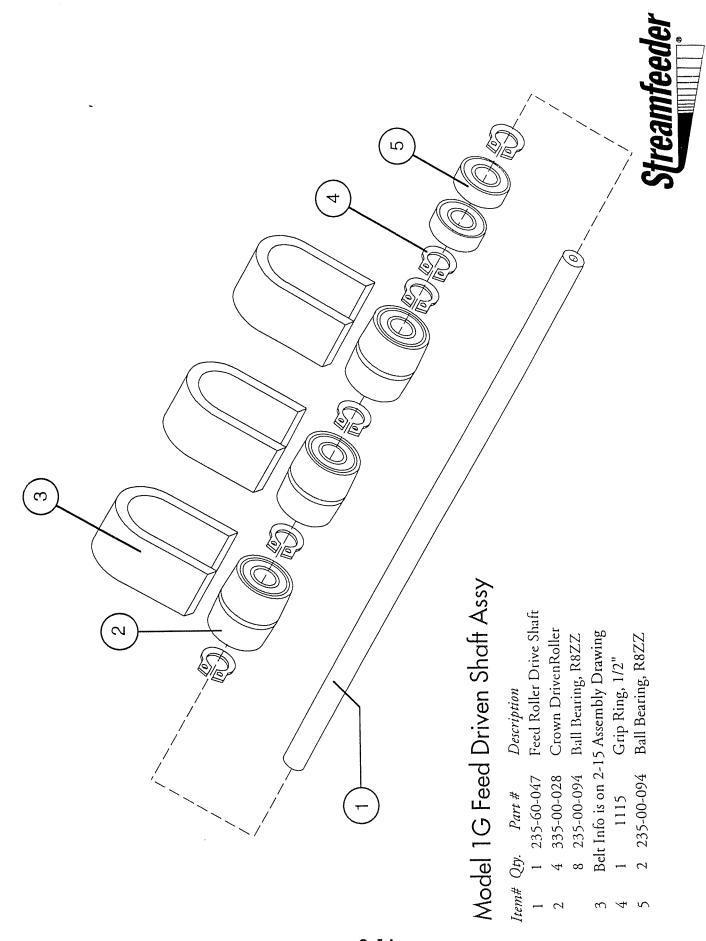


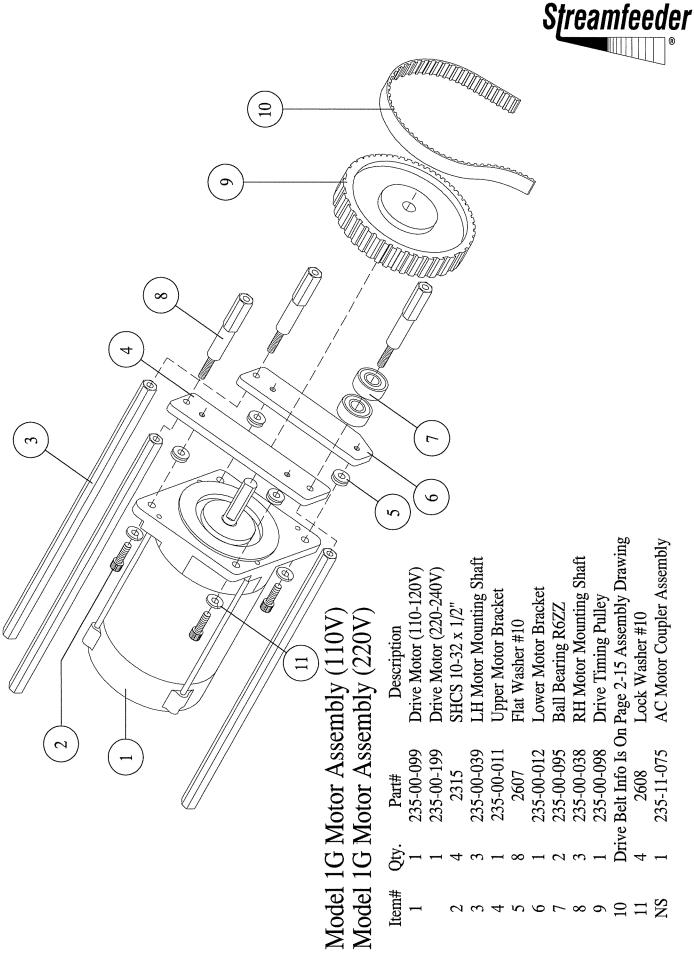


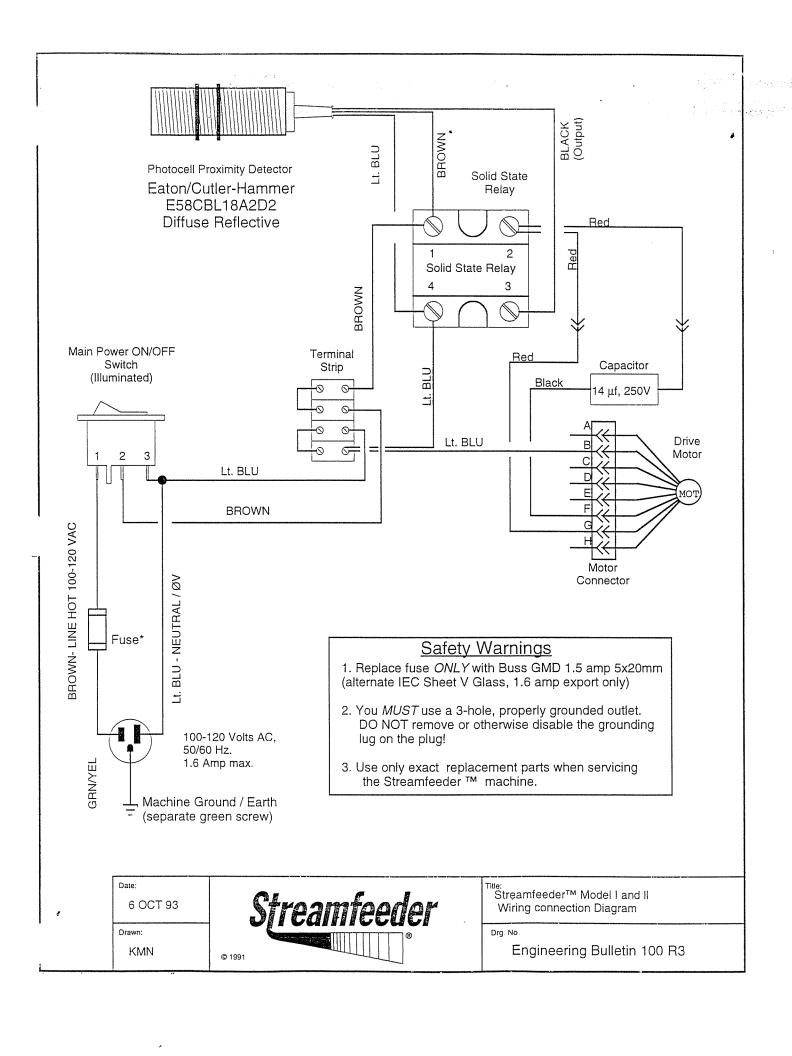
Model 1G Belt Support Bearing Assembly

Item#	Qty.	Part#	Description
1	1	235-00-270	Belt Support Roller
2	2	235-00-095	Ball Bearing R6ZZ
3	2	1110	Grip Ring 3/8"
4	1	235-00-040	Belt Support Bearing Shaft



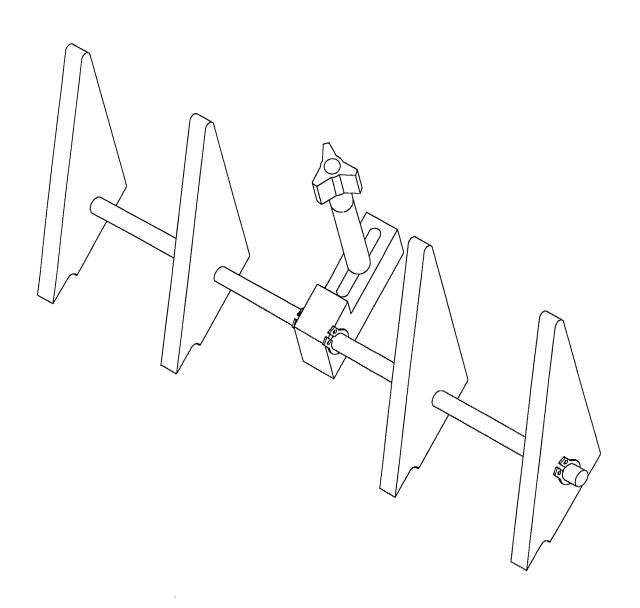






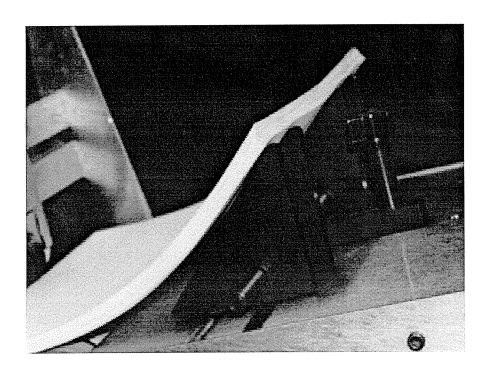


Wedge Guide Assembly Engineering Bulletin #142 Page 1-7





Wedge Guide Assembly Engineering Bulletin #142 Page 2-7

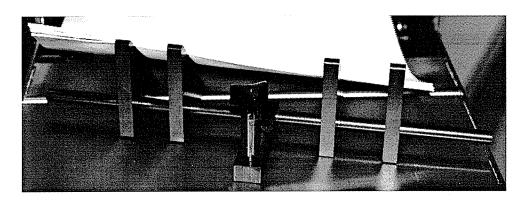


Moving the rear wedge assembly forward will raise the back edge of the product. This will reduce the amount of belt surface contact resulting in less traction. This adjustment is also used to counteract doubles

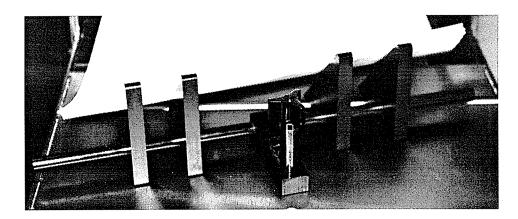


Wedge Guide Assembly Engineering Bulletin #142 Page 3-7

Increased Belt Traction On Right Side



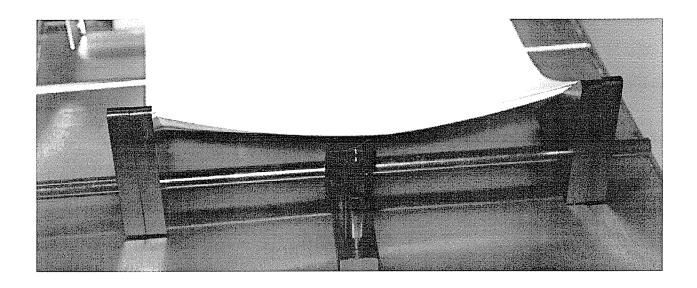
Increased Belt Traction On Left Side



The back wedge can be pivoted to increase or decrease the amount of traction on the belts and or rollers on a given side. This also can be used to control twisting or skewing of product as it leaves the gate cylinder area.



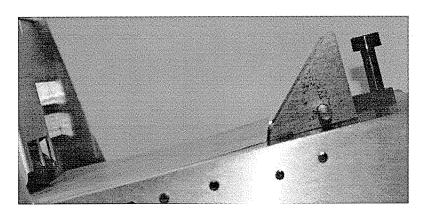
Wedge Guide Assembly Engineering Bulletin #142 Page 4-7



The triangular wedges can be moved to the outside edge of the product to create a bow in the center. The bow will stiffen the product to promote better singulation of thinner products.

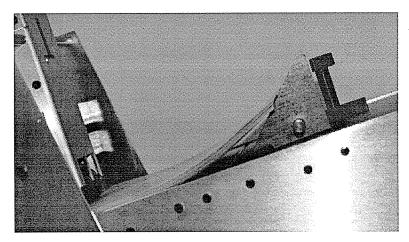


Wedge Guide Assembly Engineering Bulletin #142 Page 5-7



Incorrect Wedge Adjustment

With the wedge back, the belts are driving product before the bottom sheet has left the gate cylinder area. This can cause premature buildup of ink or varnish on the suface of the belts. This can also cause the belts to force more than one product under the gate cylinder at one time, creating a double feed.

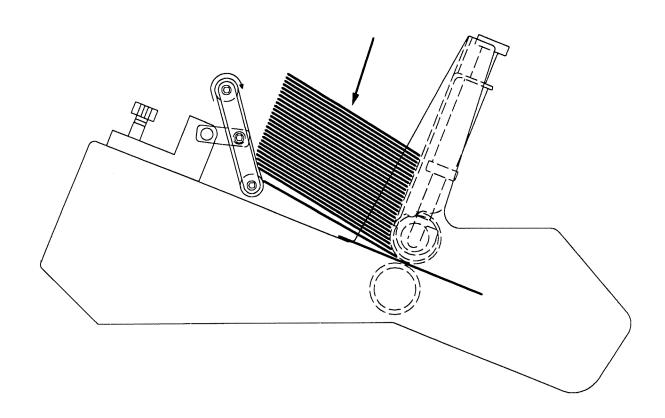


Correct Wedge Adjustment

By moving the wedge forward, only the bottom product can make contact with the belt surface. The slip factor is reduced, minimizing buildup on belt surface. This also makes it difficult to feed more than one product at a time.



Wedge Guide Assembly Engineering Bulletin #142 Page 6-7

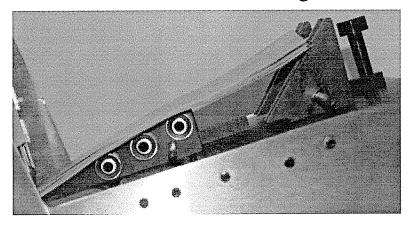


The "O"-ring wedge assembly allows the downward movement of the product to rotate the rollers and "O"-rings. This rotating motion acts as a drive to force the product around the curvature of the gate cylinder. This wedge assembly is helpful when product tends to block together.

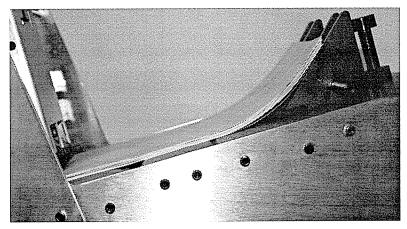


Wedge Guide Assembly Engineering Bulletin #142 Page 7-7

With Low Profile Wedge



Without Low Profile Wedge

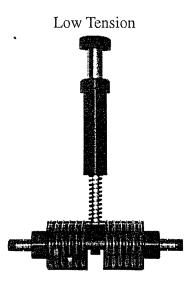


Longer products that are thin tend to lay on the rear deck plate. The weight of the product rests on the back deck and takes away traction from the feed belts. This can cause slipping or misfeeds. The low profile wedge assembly can provide support to the center of the material. The rollers reduce the amount of friction created between the bottom sheet and the stack above it.



Gate Cylinder Assembly Engineering Bulletin #161





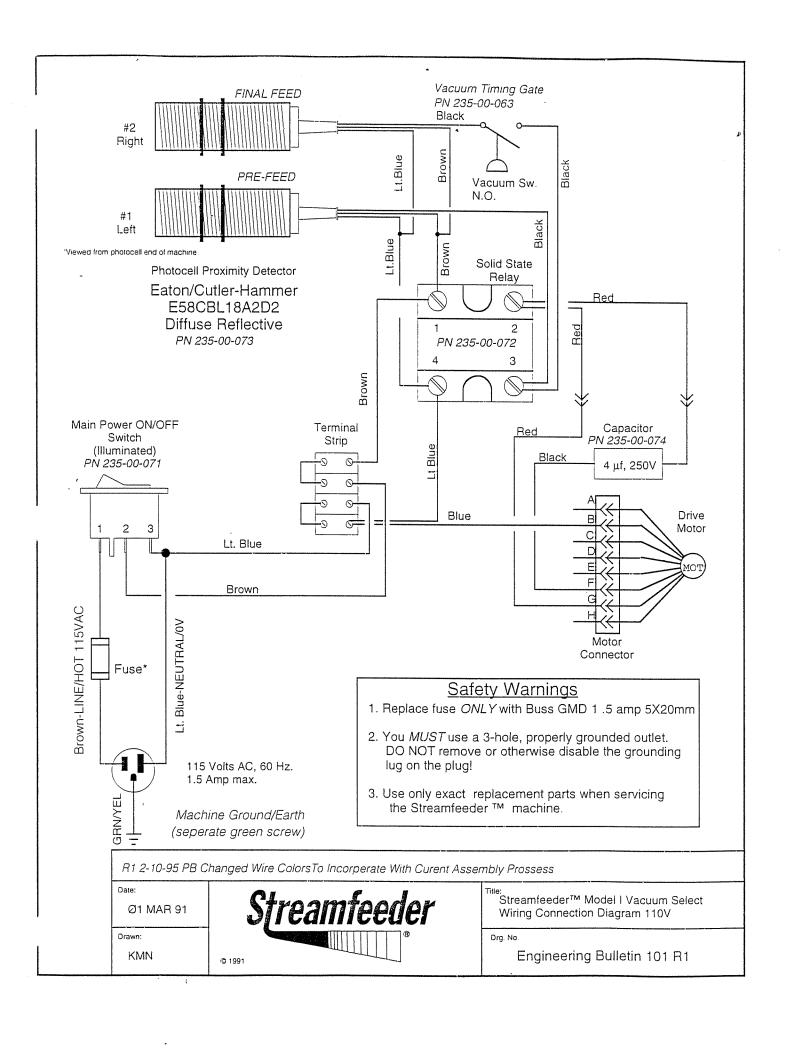
CAUTION: Before running the feeder, be sure that the gate cylinder is adjusted upwards enough that the "O"-rings are not contacting the feed rollers and belts. If the gate cylinder "O"-rings are in contact with the belts and rollers and the feeder is run with no material in it, you will damage the belts, rollers and "O"-rings.

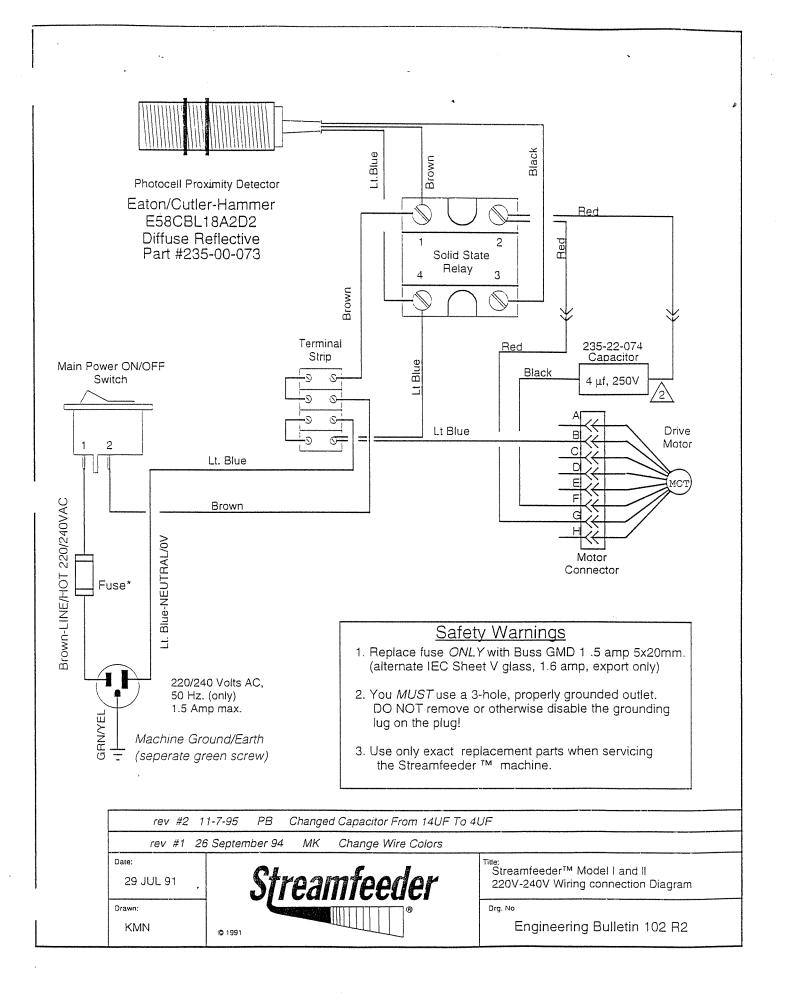
Gate adjustment. Place two pieces of material to be run under the gate. To do this, pull up on the gate adjustment knob enough to slip the two pieces under the gate "O"-rings. Grasp the top piece of material and slide it back and forth under the gate. The proper adjustment is a slight amount of drag on the top piece. Use the gate cylinder adjust knob to set the amount of drag.

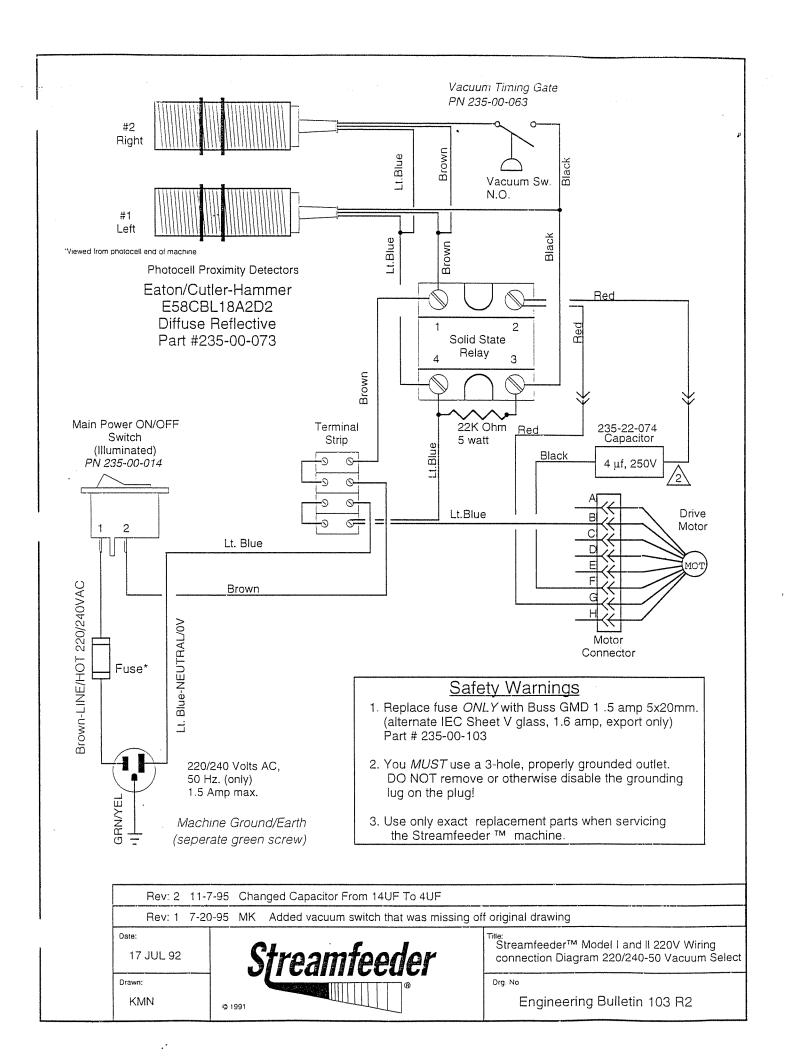
It is desirable to adjust the gate to the maximum opening without feeding doubles. This will allow the maximum tolerance for curled or bent edges, etc. If the feeder feeds doubles after feeding several pieces, you need to close the gate cylinder gap a little. Do this by turning the gate cylinder knob about 1/8 turn counter-clockwise. Retest and repeat the adjustment if necessary. If the gate cylinder is too tight, the material will have difficulty pulling through the gate and you will get missed feeds.

You can also adjust the amount of spring tension holding the gate cylinder in position. The gate can move upwards slightly against the spring while material is being fed. This is useful in feeding irregular materials. The normal setting for the gate cylinder spring tension is with the collar on the barrel in the "down" position. This is shown in the left position in the photograph. This setting will work well for most materials and allows the greatest stack heights. It also gives the best performance in preventing doubles.

The cylinder can be turned to the "up", or low tension position for special feeding requirements. This would be especially useful in feeding irregular thickness product that requires the gate to "float" more during the feeding process. The low tension setting can be used to minimize marking of the product by the gate cylinder or to prevent peeling back the top sheet of a booklet, for example.









Engineering Bulletin #136 02-07-95 Page 1-2

SUBJECT:

Streamfeeder Part # 235-00-063 Micro Pneumatic Logic, Inc. / Series MPL-500-V-10 Miniature adjustable pressure, vacuum and differential sensor.

INTRODUCTION:

The MPL-500-V-10 is a miniature adjustable pressure, vacuum, and differential sensor. It is used in conjunction with a solid state relay (Streamfeeder Part# 235-00-072) and a photo proximity sensor (Streamfeeder Part# 235-00-073) to activate the drive motor in the final feed mode of the vacuum select function.

DESCRIPTION:

The MPL-500-V Series switches are normally a open diaphragm operated vacuum switch which utilize low stressed deflecting contacts instead of sliding or pivoting parts.

These switches feature a vernier adjustment screw to permit accurate pressure actuation settings. The adjustment screw is accessible through the top cover of the switch.

These switches are preset at Streamfeeder to 8 inches of water (27.68 inches of water = 1 psig).

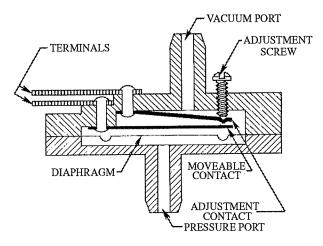
The vacuum ports are designed for 5/32 I.D. tubing in a panel mount configuration.

Sensor mounts with two No. 4 screws.

ACTUATION SETTINGS:

NOTE: Actuation is defined as the pressure at which an electrical closure occurs with increasing gradual pressure. Closure is determined with a neon lamp load.

The pressure ranges are determined by the thickness of the cantilevered contact and the adjustment blade position. The adjustment blade is intended only to provide a fine vernier adjustment within the range of each contact thickness. The standard setting for this particular sensor has been preset at the factory. This range is classified as range C or 2.0 to 13.0 inches of water. We are currently preseting the pressure to 8 inches of water. We feel that this setting will take into account any installations that require lower vacuum levels as well as the 10 inch range. This change will hopefully reduce the need to make adjustments to the sensor.



If actuation doesn't occur, the following settings must be performed.

- 1.) Measure the amount of vacuum at the source to determine the direction that the adjustment screw must be turned.
- 2.) Check for any physical damage or blockage to the input or output vacuum hoses. Small cuts, holes or blockage will reduce vacuum and result in sensor actuation failure.
- 3.) Turn the adjustment screw clockwise to make the sensor more sensitive. This means that the amount of vacuum that it takes to actuate the switch will be less. Turn the adjustment screw clockwise gradually until the desired actuation occurs.
- 4.) Turn the adjustment screw counter clockwise to make the sensor less sensitive. This means that the amount of vacuum that it takes to activate the switch will be more. Turn the adjustment screw counter clockwise gradually until the desired actuation occurs.
- 5.) Should the above adjustments fail to respond, replace sensor and check for proper actuation.