

PITNEY BOWES

900-EI

900-EI ENVELOPE INSERTER FEEDER ***Operation & Maintenance Manual*** ***Model SE-Dynamic Rotation Technology*** ***Model ECO-Football Separation***

SE-900-EI shown



SHROUDED SEPARATOR



DIRECT MAIL SOLUTIONS

12050 49th STREET NORTH - CLEARWATER, FL. 33762-4301
PHONE: 727.571.3330 - FAX: 727.571.3443 - TOLL FREE: 1.800.INSERTER
web: surefeed.com

VERSION HISTORY

The table below summarizes the history of this document as it is published onto the company website(s). It identifies the version, date of issue and revisions and changes.

VERSION	DATE	CHANGES
900Elops	09-30-08	Initial release
900Elopsreva	6-19-09	Updated to DMS, renamed

REVISION CONVENTIONS-DOCUMENT

VERSION: name of document with revision_level of entire document-level designates minor changes that do not require revision change

DATE: date of issue for copying and publication of document.

CHANGES: details of document revision_level.

Customer Satisfaction Guarantee



Document Messaging Technologies

Pitney Bowes Document Messaging Technologies Division ("Pitney Bowes DMT") is committed to providing our customers with the finest products backed by the highest quality care and service. Pitney Bowes DMT promises to provide you the following guarantee, while your system is maintained under a DMT equipment maintenance agreement:

Guaranteed Product Performance – For all new products we guarantee performance to our specifications for the initial term of the lease or two years if purchased outright provided that the equipment has been appropriately maintained according to Pitney Bowes DMT specifications. If, during that period, the product does not perform to our specifications, and we cannot repair it, we will replace it with a comparable product. If during the first ninety days after installation of the replacement, the replacement product does not perform as specified, you will be entitled to a prorated equipment refund. Should a malfunction occur due to the use of a non-Pitney Bowes consumable supply or unapproved software/hardware modification, this guarantee will not apply.

Guaranteed Nationwide Equipment Service – Our nationwide service force will respond to service and preventative maintenance requests as part of your equipment maintenance agreement. Your Service Manager will provide you with a formal escalation process, which will be adhered to in the unlikely event that an extended outage occurs.

Operator Productivity and Training Excellence – For all products that we install, our skilled professionals will effectively deliver the agreed upon installation and training services.

At Pitney Bowes, we are committed to maintaining long-term relationships with our customers. If our sales and service support team has been unable to satisfy you, I would like to hear from you. Please call Technical Support at 1-866-877-3683.

We won't be satisfied until you are satisfied.

A handwritten signature in black ink that reads "Leslie Abi-Karam".

Leslie Abi-Karam, President
Document Messaging Technologies

Revised January 6, 2003

WARRANTY

Pitney Bowes Document Messaging Technologies (“Pitney Bowes”) warrants to the Purchaser of Pitney Bowes feeding equipment (the “Equipment”) that the Equipment will be free from manufacturing defects in material and workmanship, and that it will perform according to Pitney Bowes published equipment specifications for one (1) year on mechanical and ninety (90) days on electrical commencing immediately upon Installation (as defined below) (the “Equipment Warranty Period”). Installation is defined as, the completion date of on-site assembly and testing by Pitney Bowes, or 15 days after delivery, whichever occurs first.

If you have any material problem with the Equipment involving a manufacturing defect in material or workmanship during the Warranty Period, Pitney Bowes will repair or, at our option, replace the Equipment having such problems. During the Warranty Period, Pitney Bowes will be responsible for the cost of parts and service labor necessary to repair any defect in material or workmanship or, at our option, replacing the Equipment. We do not assume a warranty obligation for consumable parts or supplies such as print heads, and ink, or for parts worn out due to extraordinary use of the Equipment or use inconsistent with manufacturer’s published specifications.

Service labor charges for work outside of this Warranty will be at negotiated rates (or, if not determined in advance, at Pitney Bowes standard rates) beginning at time of delivery. “On-site” service is defined as: Pitney Bowes DMT employee(s) contracted (subject to a written Equipment Maintenance Agreement) for on-site maintenance at customer location to perform emergency repair and preventative maintenance for specified hours of coverage.

This Warranty and any Equipment Maintenance Agreement periods shall run concurrently. Equipment Maintenance Agreements shall provide coverage for certain items not included as part of this Warranty, in accordance with the terms and conditions of the Pitney Bowes Equipment Maintenance Agreement.

This Warranty excludes:

- (a) Preventative Maintenance, routine service and normal wear.
- (b) Pitney Bowes Equipment serviced, repaired, refurbished or otherwise disassembled/reassembled by persons not certified by Pitney Bowes to perform service and repair.
- (c) Damage to the Equipment caused by use of spare parts or supplies not supplied by Pitney Bowes.
- (d) Damage to the Equipment caused by failure to use Pitney Bowes authorized procedures and processes.
- (e) The effects or outcome of integrating or connecting Pitney Bowes Equipment with products or processing equipment of OEM’s other than Pitney Bowes or it’s wholly owned subsidiaries.
- (f) Pitney Bowes will assume the obligations stated in this Agreement only if the product is operated under suitable temperature, humidity, line voltage, and any other manufacturer specified environmental conditions, and only if reasonable care is used in handling, operating, and maintaining the Product, and only if it’s use is for the ordinary purpose for which it is designed and in accordance with manufacturer’s published specifications for the Equipment.

PITNEY BOWES DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. OTHER LIMITATIONS AND EXCLUSIONS MAY APPLY IN ACCORDANCE WITH YOUR PURCHASE, LEASE OR OTHER AGREEMENTS WITH PITNEY BOWES REGARDING THE EQUIPMENT.

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SPECIAL NOTES, DEFINITIONS AND DISCLAIMERS

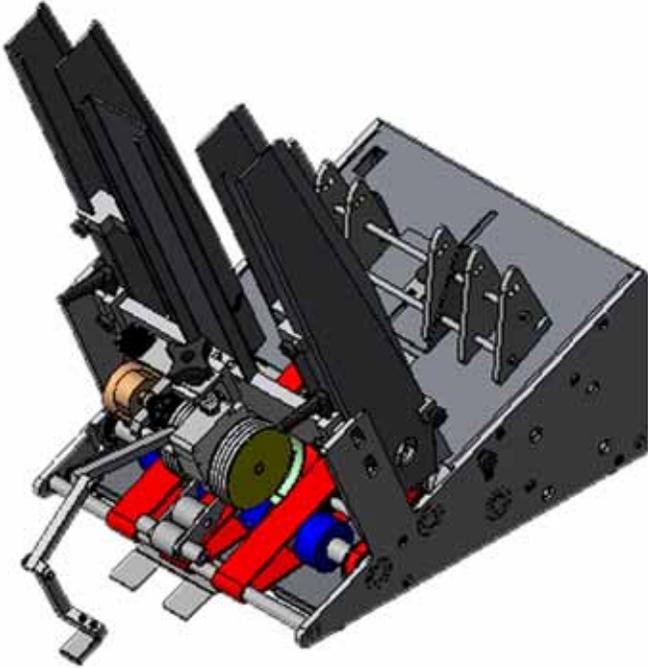
Special Note:

Some pictures and illustrations may have color, hue and contrast graphically altered for clarity when printing in black and white and may not necessarily reflect the actual color of the product when viewed on compact disk.

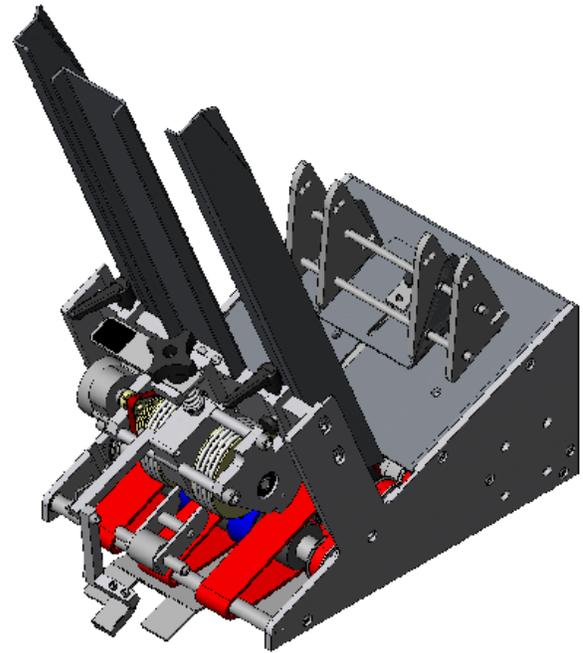
DEFINITIONS

1	ON
0	OFF
∅	PHASE
~	VAC (volts a.c.)
!	WARNING or CAUTION
	HAZARDOUS
	HEAT

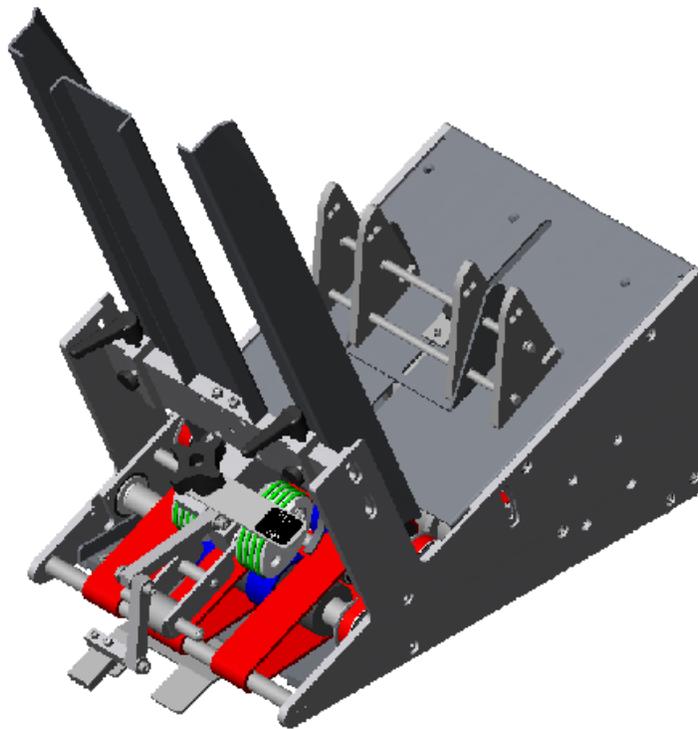
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SHROUDED SEPARATOR (SE)
NOTE: SE-1200-EI, NOT SE-900-E1



SHROUDLESS SEPARATOR (SE)
SE-900-EI



ECONOMY SEPARATOR (ECO)
ECO-900-EI

Section I

Installation of the

900-EI ENVELOPE INSERTER FEEDER

Model SE-Dynamic Rotation Technology
Model ECO-Football Separation



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Section - I

Installation

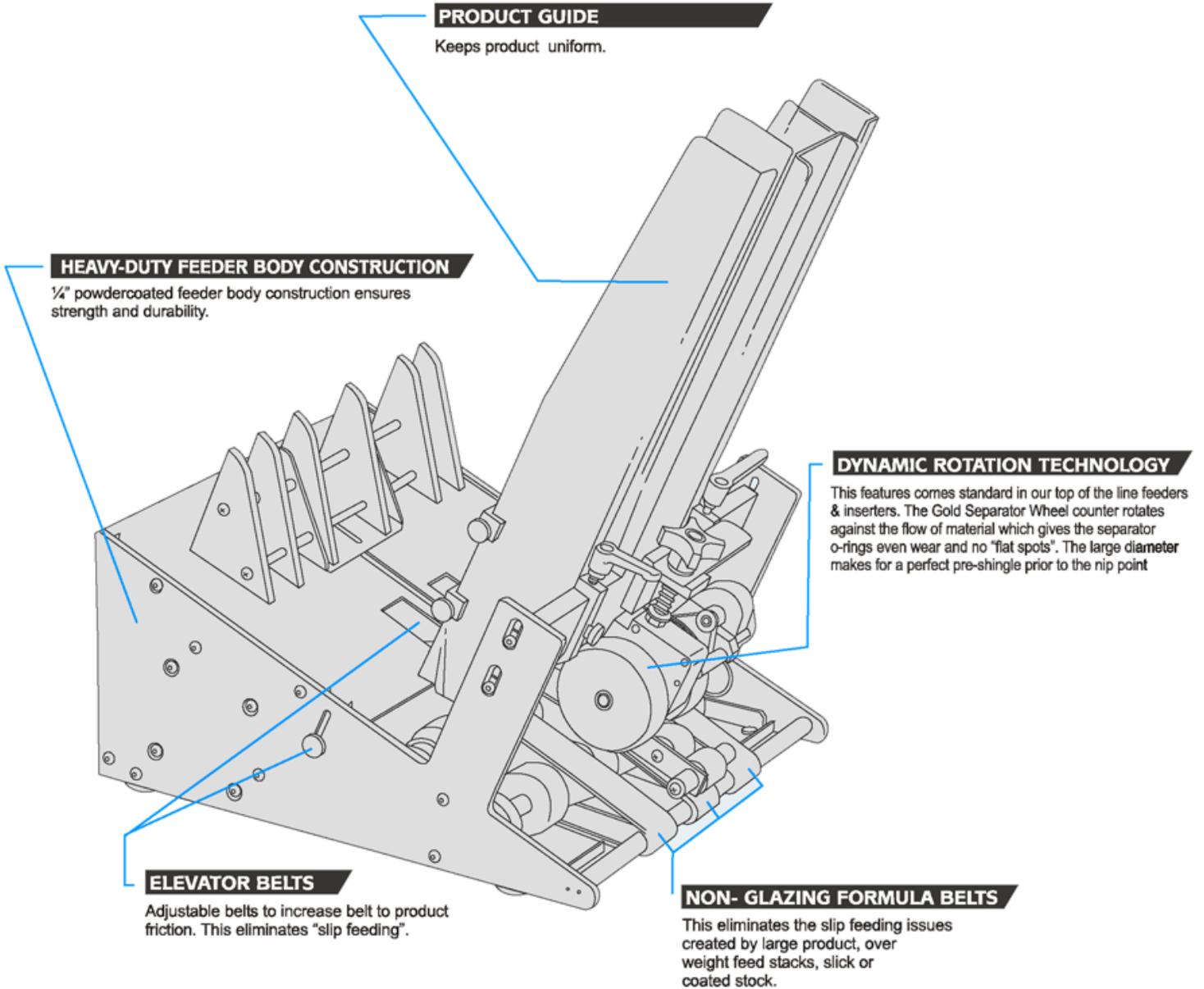
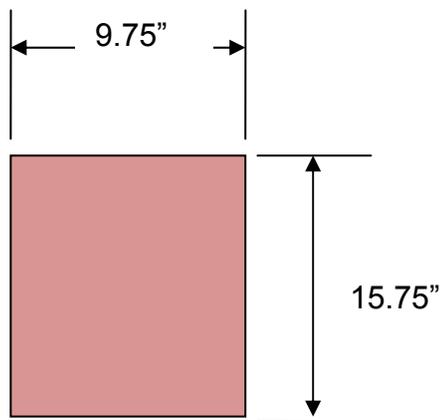


Figure I-1

**900-EI Floor plan
(Shown without conveyors)**



Requirements

Floor Space = 1.1 Sq. Ft.

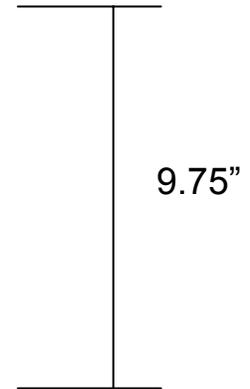
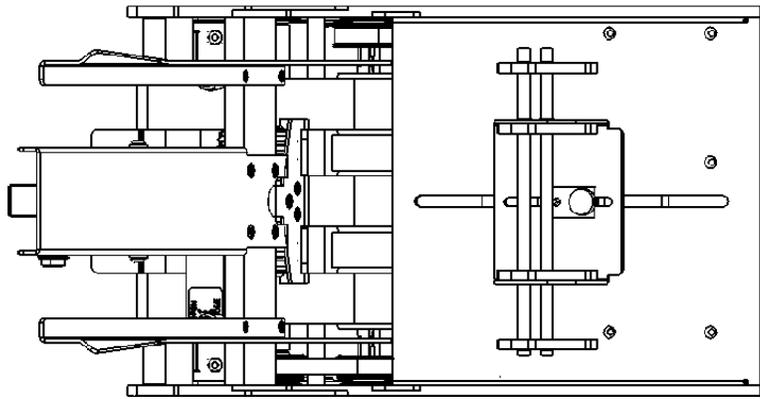
Electrical = 230 V~, 1 PH, 50 HZ, 2A

Air = None

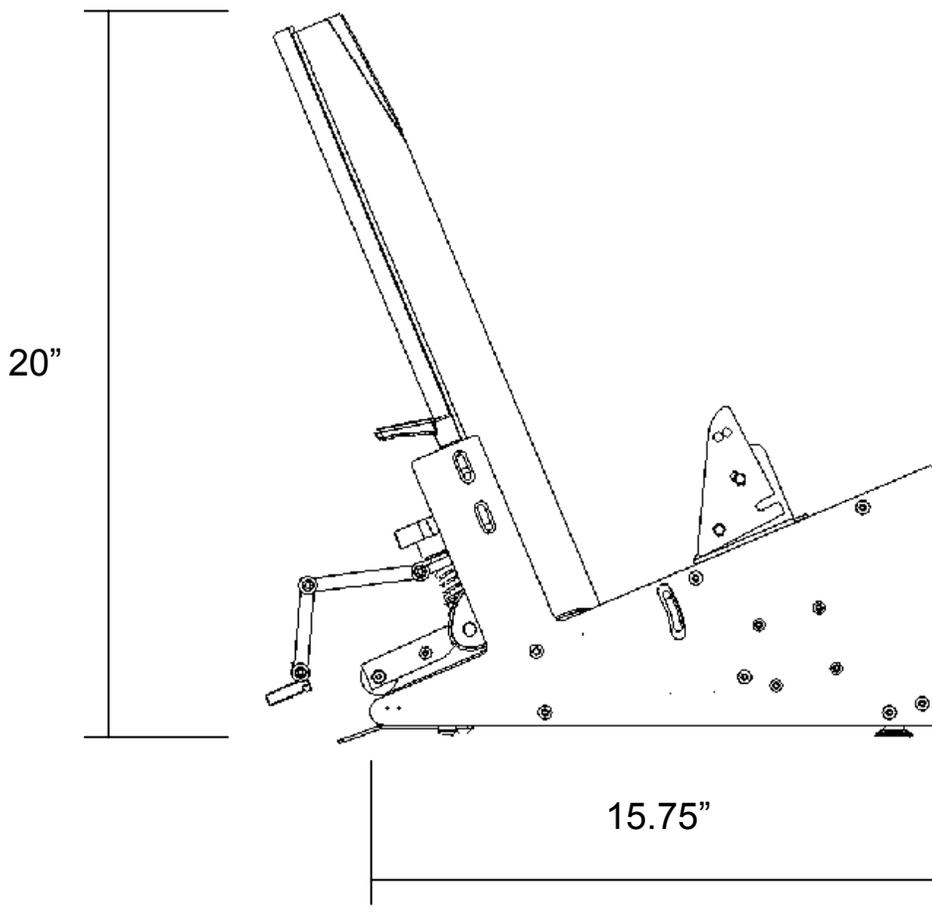
Vacuum = None

Figure I-2

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9.75"



20"

15.75"

7.25"

Figure I-3

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Environment:

The installation of the 900-EI FEEDER is intended for operation in a specific environment. See Operating Environment Table below for details.

ITEM		SPECIFICATION
Environmental Conditions	Ambient Operating Temperature	0 to 55° C
	Storage Temperature	-25 to 85° C
	Ambient Operating Humidity	30% to 95% RH (with no condensation)
	Ambient Storage Humidity	5% to 95% RH (with no condensation)
	Pollution Level	Pollution level 1 (conforming to JIS B3501)
	Corrosion Gas	There must be no combustible or corrosive gas.
	Operating Altitude	2,000 m above sea level or lower
Electrical Operating Conditions	Noise Resistance	Conforming to JIS B 3502 1,500 V (p-p) in either normal or common modes with a pulse width of 100 ns/11 µsec and a rise time of 1 ns (tested with impulse noise simulator)
Mechanical Operating Conditions	Vibration Resistance	Conforming to JIS B 3502: 10 to 57 Hz with 20" amplitude of 0.075 mm 57 to 150 Hz with fixed acceleration of 9.8 m/s ² 10 sweeps each in X, Y, and Z directions (sweep time: 1 octave/min)
	Shock Resistance	Conforming to JIS B 3502: Peak acceleration of 147 m/s ² twice for 11 ms each in the X, Y, and Z directions
Installation Requirements	Ground	Ground to 100Ω max.
	Cooling Method	Natural cooling

Installation: Positioning the Components

Once the 900-EI FEEDER has been removed from the shipping container, perform the following:

1. Inspect the location where the machine is to be set up. (Note: The manufacturer recommends that the area be a relatively flat and smooth concrete or hard wood surface, similar substrates are acceptable. The area should be free of holes, divots, loose floorboards, etc. and not subject to retaining moisture from water seepage.) (Warning: In the event the floor does not meet the recommended requirements, seek an alternate location or reschedule the installation after repairs to the floor have been completed.)
2. **The side guides (left and right hand) must be re-attached to the 900-EI FEEDER. See later section for details.**

Installation: Electrical Setup Connections

3. Inspect the line current at the point where the power cable of the machine is to be plugged in. (Note: Conventional wall sockets, ceiling line drops and D-Boxes should be free of cracks, rust, visible signs of heat stress and flash marks.) (Special Note: For installations in Europe check the condition of the voltage converter box or other voltage reducing device that may be in use. In the event of a line voltage inspection failure, report your findings to the person or persons in charge of the building and postpone the installation until corrections are made.)
4. Check the line voltage to ensure that the minimum and maximum requirements are present.
5. Check to see what voltage value the transformer is pinned out.
6. Position the 900-EI FEEDER in the designated location.
7. Check entire machine for any items that may be obstructing proper operation. This includes packing/shipping components.
8. Plug the power cables for the 900-EI FEEDER into the proper sized site receptacle.



(Warning: To avoid possible damage to the machine and prevent possible injury, keep the work areas free of all packing material and other debris.)

FEEDER MOUNTING PROCEDURE

Before positioning the feeder on the inserter, complete the pre-installation setup and operating instructions as listed below. When the material is feeding consistently, proceed to the inserter preparation instructions.

SETUP INSTRUCTIONS (PRE-INSTALLATION)

- 1 With the feeder ON/OFF switch in the off position, loosen the two side guides and move them all the way to the sides of the feeder. Then loosen the back guide wedge's hand knob and slide the wedge to its fullest rear position.
- 2 Place a single piece of the material to be fed on the feeder centering the material relative to the separating device.
- 3 Move each side guide in to meet the material and then back them off about 1/16".
- 4 Tighten the bottom thumbscrews on each side guide.
- 5 Turn the separator knob clockwise until a single piece of material can easily pass under the separator. While moving the material back and forth under the separator, turn the separator knob counter-clockwise until resistance is felt from the separator. At this point, the separator setting has been roughed in. It will need to be tuned in after the completion of the following set-up steps. If the resistance under one separating wheel is not the same as under the separating wheel, the bridge needs to be trammed. Perform step 10 before proceeding with step 6.
- 6 Place a handful of material in the feeder allowing the material to shingle forward into the separator.
- 7 Move the back guide wedge forward to support the back edge of the material stack. It will fine-tuned later.
- 8 Add enough material to the stack to fill about half the height of the side guides.
- 9 Move the top of each side guide out slightly so as to create a funnel effect and then tighten the top thumbscrews on each side guide. The feeder is now ready for initial operation.

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10. **BRIDGE TRAM PROCEDURE:** It is critical to the performance of the feeder to have the separating wheels level with respect to the nip rollers. To do this, first loosen the bridge mounting screws on both sides of the bridge. Turn the separator adjustment CW several turns so that the bridge can be lowered all the way to the bottom of the slots. Tighten one screw on each side. Now place a thin strip of paper under each separating wheel (it is best to cut one piece of paper into two strips to ensure that the strips are the same thickness). Now turn the separator adjustment CCW until the separating wheels just contact the nip rollers. Move the paper strips to feel if the resistance is equal under each separating wheel. If one moves with less resistance than the other, loosen the screw on the side that is tighter and raise that side of the bridge slightly and tighten screw. Check the resistance under each separating wheel with the paper strips again and adjust accordingly. Once the resistance is equal under each separating wheel tighten the bridge screws securely. Proceed to step 6 for further setup instructions. This procedure must be followed whenever the bridge is adjusted up or down for materials with different thickness. This adjustment is “**very**” critical when feeding thin materials.

OPERATION INSTRUCTIONS (PRE-INSTALLATION)

- 1 Adjust the 3-leg sensor arm to position the sensor 1/2” above the paper path and about 3/4 of the length of the piece ahead of the feeder.
- 2 With the power still off, turn the speed control counter-clockwise to the minimum position.
- 3 Turn the power switch on and turn the speed control switch clockwise, the first piece will advance until the sensor is blocked and the feeder stops. If the sensor is not positioned properly, the feeder will not stop. Adjust the height and angle of the sensor until the feeder stops.
- 4 Cycle the feeder by removing the piece that blocks the sensor. Observe the consistency in which the material is feeding.
- 5 Turning the separator knob slightly in either direction will change the way the material is separating.
- 6 Slide the back guide wedge in and out until the position is found that creates the most consistent separation.

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- 7 One important item to note: There is no substitution for experience. The combination of separator setting and the back guide wedge adjustment together will have the greatest effect on separation. Generally, the longer the piece of material, the flatter the material stack should be. Conversely, the shorter the piece of material, the closer the back guide wedge adjustment should be to the material, adding wedge to the material stack. You will also notice that by moving the back guide wedge forward (increasing the wedge), you can open the separator and still achieve good separation.

INSERTER PREPARATION INSTRUCTIONS

- 1 Remove the rear guide from the inserter pocket.
- 2 Remove the bottom plate.
- 3 Remove the suction cup and loosen the separator feet, sliding them back and to the furthest point sideways so as not to interfere with the path of the piece to be inserted.
- 4 Cycle the inserter to the point where the gripper jaw is at the furthest point forward in the stroke.
- 5 Bend the material guide tabs so that they align just above the surface of the bottom gripper jaw.
- 6 Adjust the 3-leg sensor arm to position the sensor 1/2" above the paper path and about 3/4 of the length of the piece ahead of the feeder.
- 7 Place 10 pieces in the feeder and turn the speed adjustment to the minimum setting (counter-clockwise).
- 8 Connect the feeder into the appropriate voltage grounded outlet. (See feeder electrical nameplate)
10. Turn the power switch on.
11. Turn the speed control switch clockwise, the first piece will advance until the sensor is blocked and the feeder stops. If the sensor is not positioned properly, the feeder will not stop. Adjust the height and angle of the sensor until the feeder stops.

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12. Position the feeder on the inserter table so that the edge of the leading piece is between the material guide tabs and the bottom of the front hopper plate.
13. Adjust the sensor so that the piece advances out further and is well within the gripper jaw opening.
14. With the speed control set to minimum, jog the inserter to remove the piece staged in the gripper jaw and return the gripper jaw to the furthest inward position.
15. Turn the speed control up slightly. This should advance the next piece into the gripper jaw. Adjust the sensor, material guide tabs and position the 900 EI as needed to align the paper path into the gripper jaw.
16. Load the 900 EI with at least several inches of material and cycle the inserter.
17. Notice the material path and the presentation to the gripper jaw, as this is most important as the cycle speed is increased.
18. Cycle the inserter at full production speed adjusting the 900 EI speed so that the piece being presented to the gripper jaw is there well ahead of the end of the forward stroke.

Section II

Safety Features & Warnings



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Section- II

Safety Locks and Warnings:

All feeders have been designed with guards or covers to areas covering moving parts as well as caution or warning labels or stickers to safeguard persons operating and or working on or around this equipment. These are as follows:

General Warning
Symbol indicating possible safety hazards.

Figure II-1



Label shown at actual size

Shock Hazard
Symbol indicating possible shock hazard.

Figure II-2



Label shown at actual size

Mechanical Warning
Symbol indicating pinch hazard.

Figure II-3



Label shown at actual size

Note: This symbol  appears as a visual alert in the text of this manual next to written warnings regarding possible safety issues and or possible machine damage that may occur as a direct result of failure to follow specific instructions as written.

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(Note: The safety devices, guards, warning labels and stickers are installed by the manufacturer to safeguard all persons operating and or working on or around the feeder. Removing, altering or disabling any of these items will void any and all warranties, either real or implied, purchased or offered with the feeder. All companies connected with the manufacturing, promotion and sale of the feeder shall be held harmless for any and all injuries and damage in the event the safety devices, door locks, warning labels and stickers are removed, altered or disabled)

In addition to the safety devices and warnings installed on the feeder by the manufacturer, the following recommendations for safe operation and maintenance of the feeder are as follows:



- Any persons designated to operate, work on or near the Feeder must be fully trained by a factory-authorized representative.
- Do not operate or perform any type of maintenance on the Feeder while under the influence of drugs or alcohol.
- Do not operate or perform any type of maintenance on the Feeder in or around freestanding water.
- Do not wear loose or baggie fitting shirts, shirts with billowing sleeves, bracelets, rings, necklaces, neckties or other loose apparel that may come into close proximity with moving parts of the machine.
- Do not place any items near or over the “Emergency Stop Switches” that might inhibit or obstruct line of sight or access to the Emergency Stop Switches. The “Emergency Stop Switches” must be clearly visible and accessible at all times.
- Wear protective safety eyeglasses or goggles and use a particle mask or similar device when cleaning off the Feeder with compressed air. Alert all other persons in the area to stand a minimum of thirty (30) feet from the area where compressed air is put to such use.
- Hearing protection is not required for safe operation of the Feeder. Typically, decibel levels have been found to be less than 85 decibels in machines properly maintained and in good operating condition.
- All persons having hair greater than shoulder length who operate, work on or near the Feeder should keep their hair pulled back in ponytail fashion then pinned up or otherwise contained to the top of their head or confined under the back of their shirt.
- Turn off the main power to the Feeder before opening any of the service doors for general cleaning and or general maintenance. Follow the “Lock Out Procedures” as stated on page 16 for extensive repairs involving disassembly of the machine either in whole or in part or replacing any of the electrical components.

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- Any persons working near any of the electrical motors of the Feeder should use caution. Electrical motors give off heat, contact with or exposure to bare skin may result in burns.
- The Feeder was designed to feed and transport paper only. Do not attempt to feed and / or run materials made of or containing glass, metal, wood, liquids, foods, powders, gasses, explosives or toxic and hazardous chemicals on the Feeder. (Note: The manufacture recognizes and acknowledges that the Feeder is capable of successfully running and / or transporting compact disk and audio cassettes inserted into paper envelopes, however the manufacture and other companies connected with the promotion and sale of the Feeder do not assume any responsibility for any damage to the Feeder or product and shall be held harmless for any damages and or injuries resulting in this practice.)

Special Advisement:

The manufacturer and other companies connected with the promotion and sale of the Feeder shall be held harmless for any and all injuries sustained to any person or persons as a result of failure to comply with the recommendations for safe operation and maintenance of the Feeder as shown and / or described herein.

The Lithium batteries used in our products may contain Perchlorate Material --- special handling may apply.

See www.disc.ca.gov/hazardouswaste/perchlorate.

If any equipment is provided with a replaceable battery and if replacement by an incorrect type could result in an explosion (for example, with some lithium batteries), the following applies:

- If the battery is placed in an 'operator access area', there shall be a marking close to the battery or a statement in both the operating and servicing instructions;
- If the battery is placed elsewhere in the equipment, there shall be a marking close to the battery or a statement in the servicing instructions.

This marking or statement shall include the following or similar text:

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS

Lock Out Procedure

Before beginning extensive repairs involving disassembly of the machine either in whole or in part, performing general maintenance or replacing any of the electrical components, the machine must be locked out of service to ensure that power will not be restored to the machine while the work is being performed. To lock a machine out of service, perform the following:

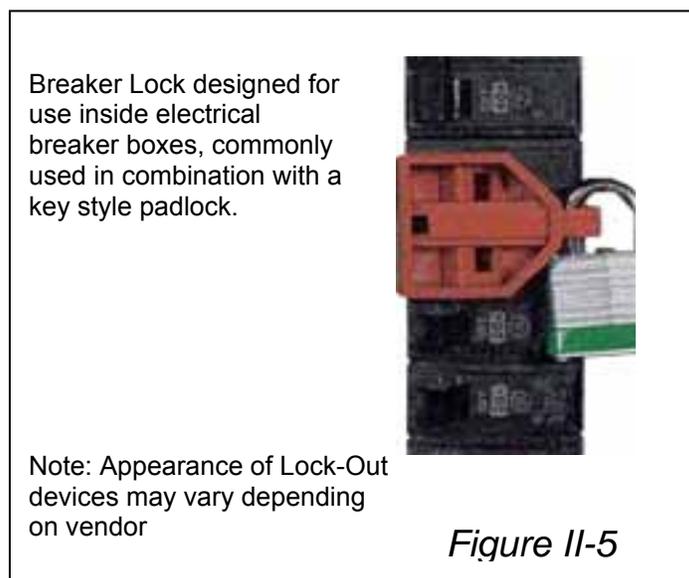
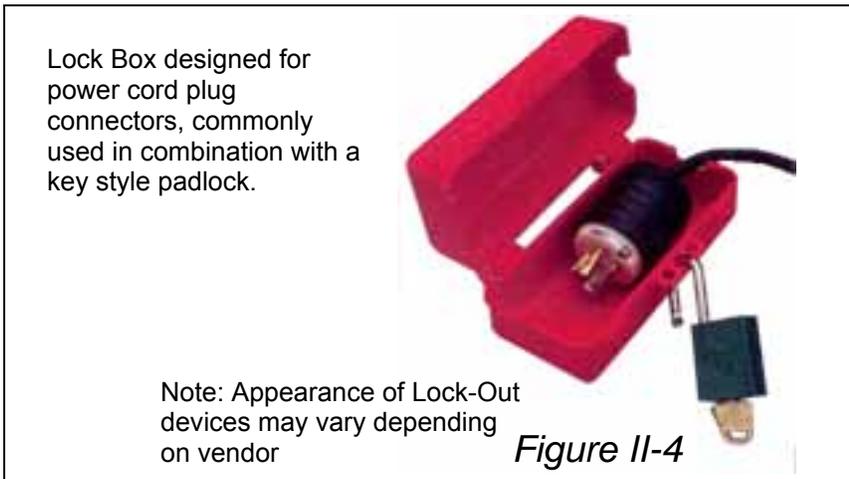
 **Warning:** The following procedure is published herein for the expressed purpose of providing a safe work environment conducive to persons performing repairs and or maintenance and or general cleaning of the Feeder and or any other components connected to or associated with the Feeder. This procedure must be followed without exception to ensure the safety of any person or persons performing the previous stated task.

The manufacturer and other companies connected with the promotion and sale of the Feeder shall be held harmless for any and all injuries sustained to any person or persons and or damage to the Feeder and or any other components connected to or associated with the Feeder as a result of failure to comply with the "Lock Out Procedure".

1. Turn the main power switch to the off position.
2. Disconnect the power cable from its source by performing the following:
 - a. Follow the main power line from the machine back to the receptacle or source of supplied power and disconnect it at the source.
 - b. Place the plug connector close to the machine in such a position that will remain in your field of vision while repairs or maintenance is being performed.
3. Notify all other persons in the area where the work is being performed that the machine will be out of service, especially if the work you are performing requires you to be crouched behind or beside the machine or in some other way obscured from the sight of other persons in the area.
4. When the work has been completed reconnect the plug to the power source and then test cycle the machine to ensure that power has properly restored and the machine is fully functional.
5. Notify all other persons in the area that the machine is fully operational and that the drive motors will become enabled when the power switch is placed in the on position.

Suggested Lockout Devices

The following are some suggested devices specifically designed to provide a greater degree of safety when locking out the power supply to a machine. These devices can be purchased from most safety equipment suppliers and vendors.



Warning Alert tags, commonly used in combination with all lock out devices.

Front View of Lock Out Tag



Back View of Lock Out Tag



Figure II-6

Section III

General Set-Up

900-EI ENVELOPE INSERTER FEEDER

Model SE-Dynamic Rotation Technology

Model ECO-Football Separator



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Section – III

This 900-EI is a feeder that can be incorporated onto a conveyor.

900-EI FEEDER SET-UP

- A. Center the material in the 900-EI FEEDER by performing the following:
1. Raise the cross bar with attached separator assembly only if necessary to accommodate thicker products. Loosen all (4) button head screws (2 on each side frame) holding crossbar until the crossbar is free to move vertically, see figure III-1. NOTE: The material side guides should always clear belts during operation. Failure to do so may cause damage to belts or shafts and cause problems in product alignment. Loosen both knobs on each outer side guide to slide inner side guide as needed (up-down).

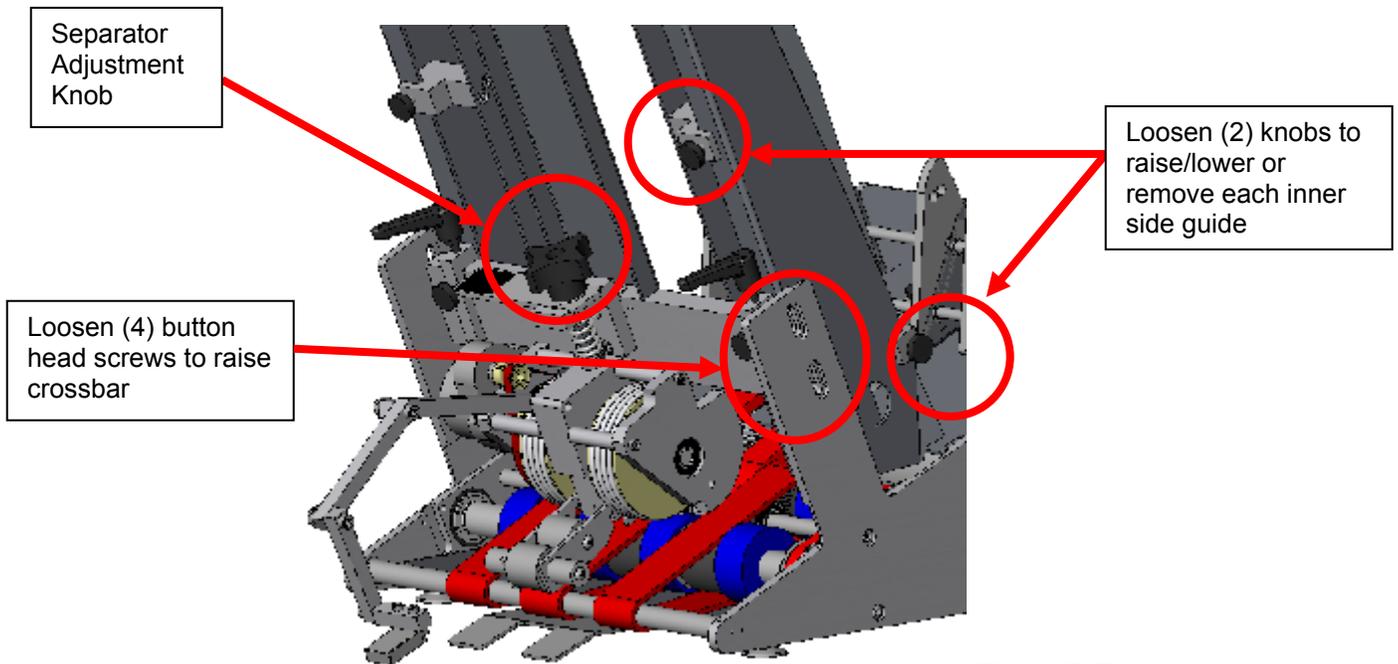
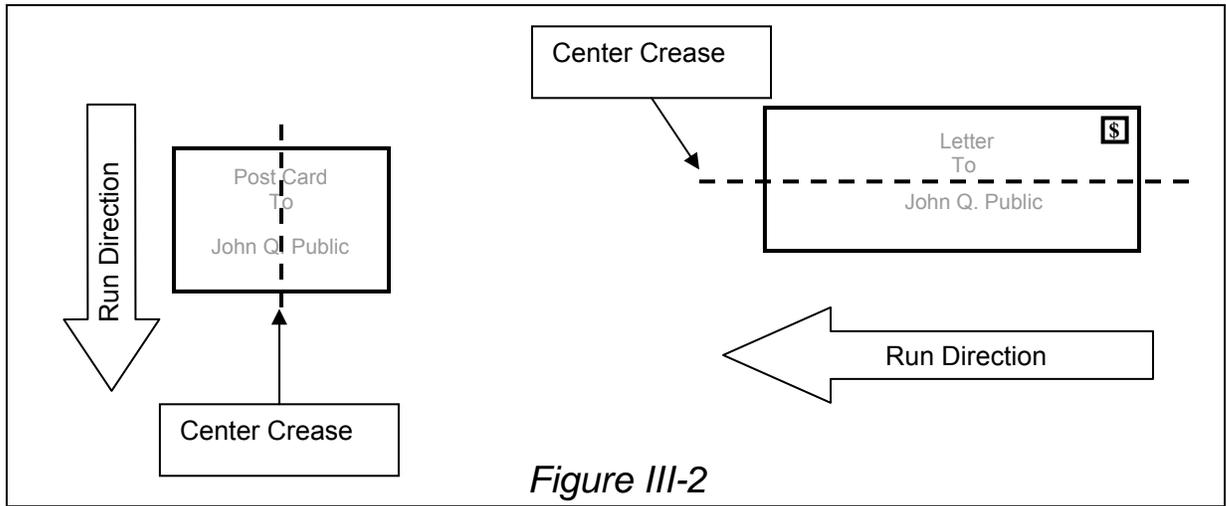


FIGURE III-1
Shroudless
Separator

2. Raise both separator wheels by turning the adjustment knob atop separator assembly in a clockwise direction, see figure III-1. (Shroudless separator shown)

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3. Fold one (1) piece of material in half to establish a center crease. (Note: The crease needs to be made in the direction of travel that the material is to be run in, see figure III-2.)



4. Align the center crease of the set up piece with the separator shroud mounting screw and back wedge center channel, see figure III-3

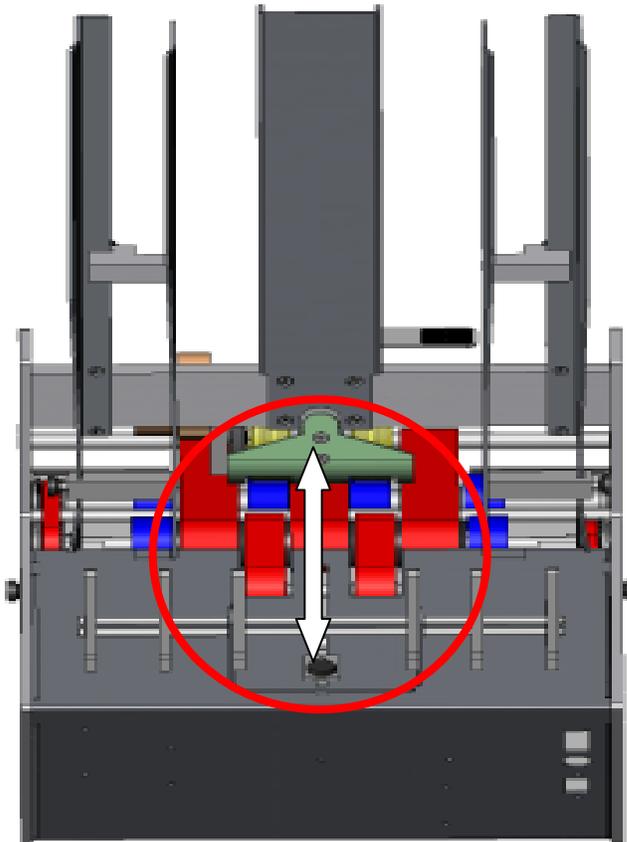


Figure III-3
Shrouded
Separator

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- Loosen the ratchet handle and knob on each crossbar clamp to move side guides to outer edges of setup piece plus 1/16" clearance on each edge. NOTE: Inner side guides may need to be removed completely to accommodate wide pieces (see discussion with figure III-1). Loosen knob on paper slide (wedge) to move paper slide to its rearmost position (see later discussion on wedge positioning), see figure III-4.

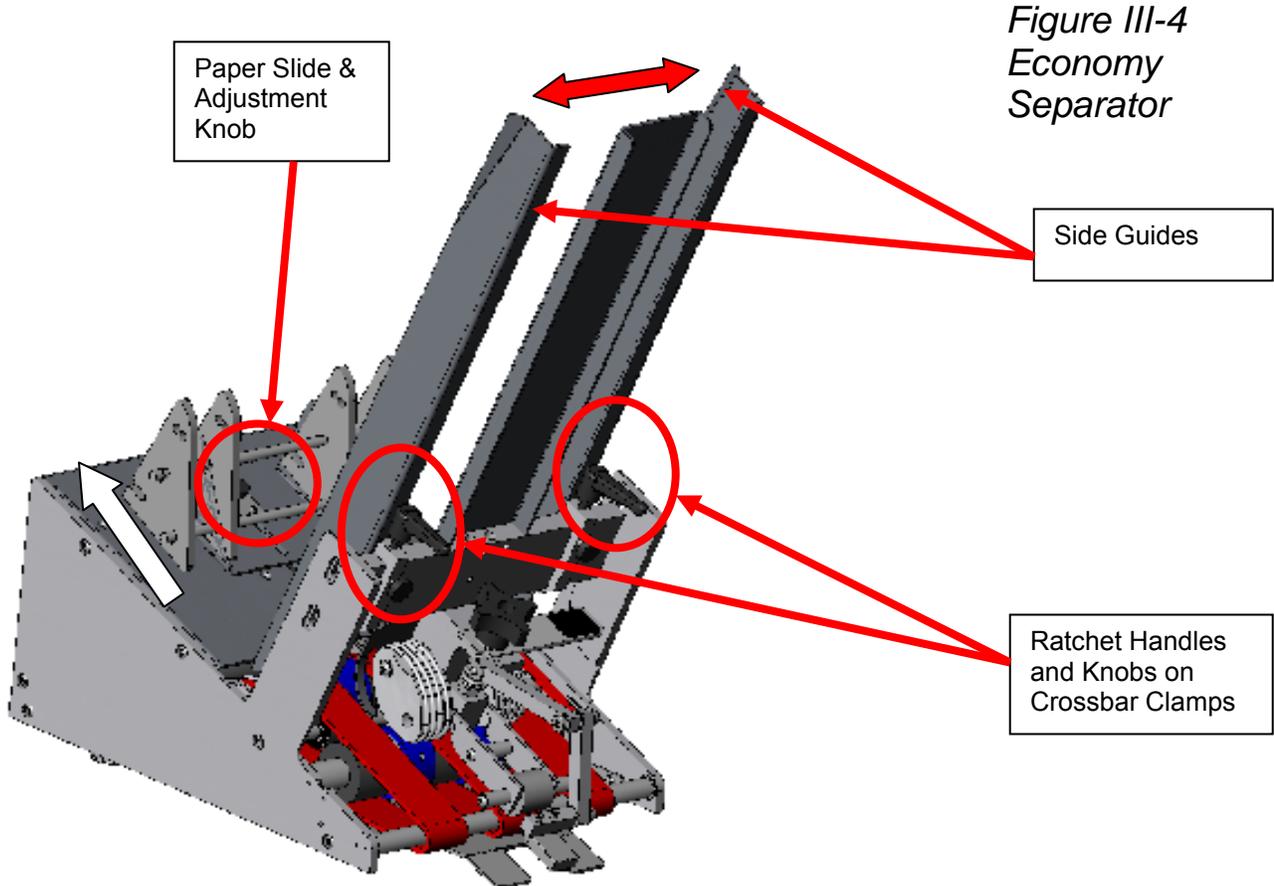


Figure III-4
Economy
Separator

- Insert the setup piece between the separator wheels and the blue nip rollers. While moving the setup piece back and forth beneath the separator wheel, turn the separator adjustment knob counter-clockwise (CCW) until resistance is felt from the separator wheels (see later discussion on fine-tuning of the separator wheel), see figure III-5.

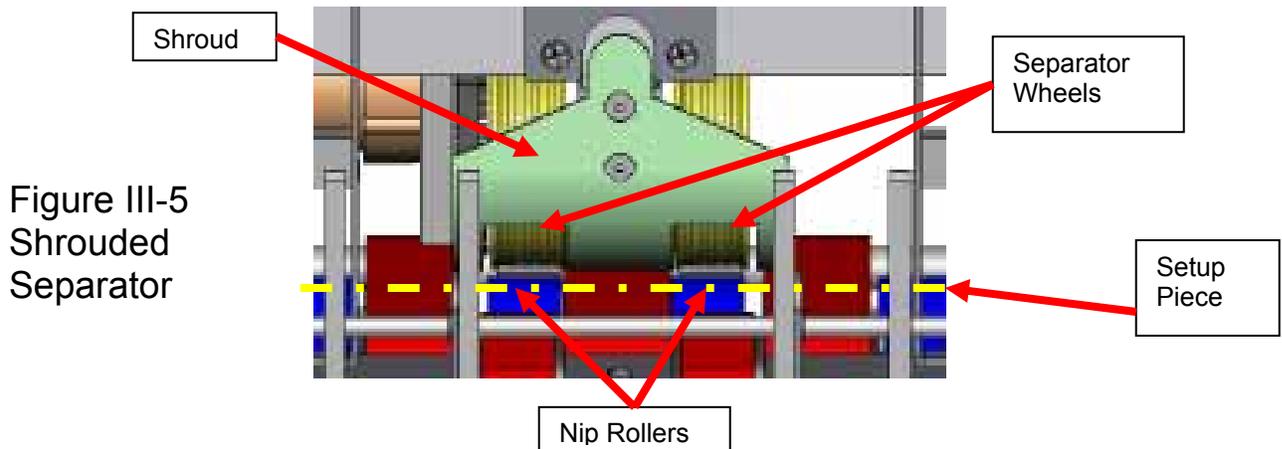


Figure III-5
Shrouded
Separator

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7. Place approximately 3/4" thick stack of production pieces between side guides and against shroud/separator allowing pieces to shingle forward, see figure III-6.



Figure III-6

8. Slide the Paper Slide forward (see step 5, figure III-4) to support the rear edge of the stack of production pieces.
9. Add enough production pieces to fill approximately to half the height of the side guides.
10. Adjust the side guides to form a slight funnel effect (top is wider than bottom) and tighten the ratchet handles and knobs on crossbar clamps to hold the side guides in position, see figure III-4.



(Caution: Do not over tighten. Over tightening may result in damage to the clamps and cause scarring to the crossbar.)

THERE IS NO FIGURE III-7

The 900-EI FEEDER is now setup to begin operation. It is recommended that initially the potentiometer controlling the feeder's speed be set at zero (0) before energizing the power switch. When power has been applied, increase the potentiometer setting to 25% to begin final-tuning of the feeder.

MECHANICAL COMPONENTS SETUP

SIDE GUIDES

Adjust side guides to contain the stack of production pieces without binding: distance between upper ends may have to slightly greater (1/16 to 1/8 inch) than the bottom ends.

SEPARATOR WHEEL

The separator wheels on the 900-EI FEEDER are located directly inline with nip rollers (known as a hard nip). A hard nip setup is typically used for thin pieces or pieces that do not readily separate from each other.

Set the height of the “Separator Wheel” to allow the thickness of one (1) piece of material to pass under it. To do this, turn the adjustment knob clock wise to raise the wheel, counter clock wise to lower the wheel, see figure III-8. Note: There should be a little resistance felt by hand, when the material is directly under the separator wheels, when this is properly set. (**Tip:** The thinner the material is, the more critical this setting is).

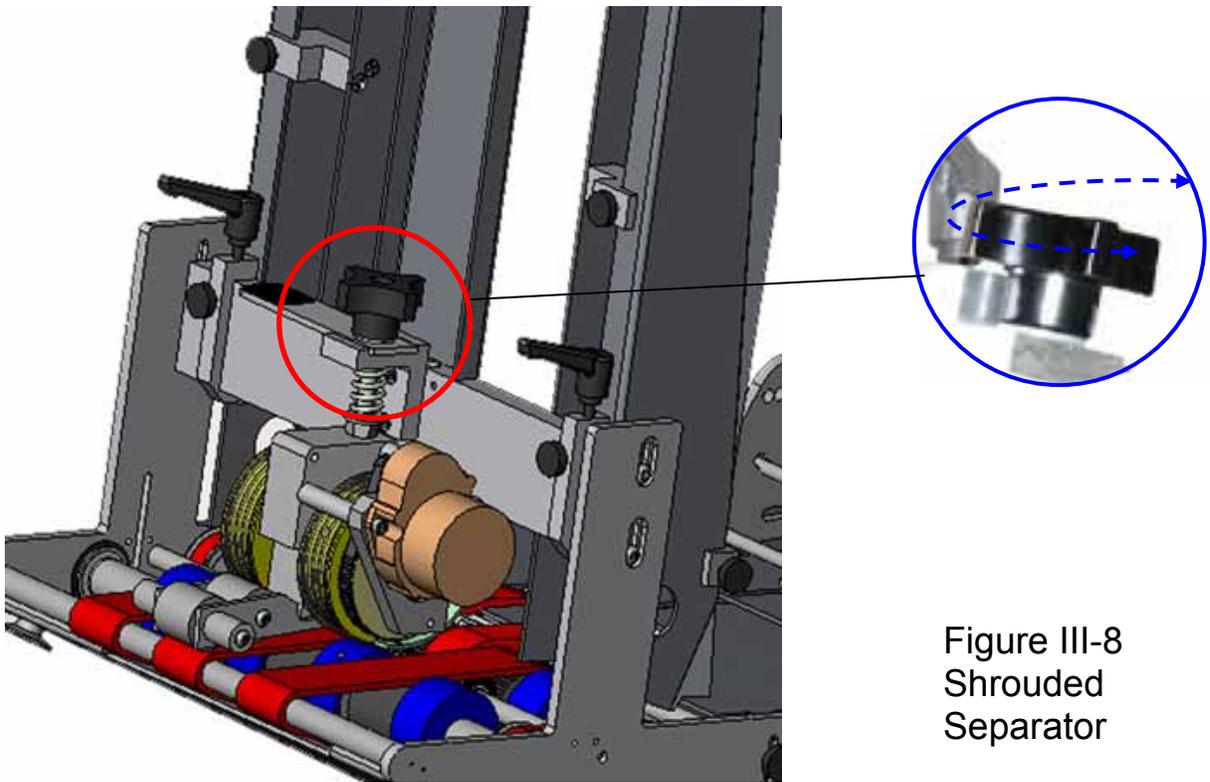


Figure III-8
Shrouded
Separator

PAPER SLIDE

Also known as the Back Wedge, this component is positionally adjusted to support the trailing edge of the production piece, see figure III-9.

Normally, there is an inverse positioning relationship between the Paper Slide and the Separator wheels. If the paper slide is moved toward the separator wheel, the entry angle of the production piece is increased. This causes less contact with the feeder friction belts and therefore, the separator wheel may have to be lowered to minimize the creation of doubles. Raise the separator wheels if the slide is moved away from the separator wheels.

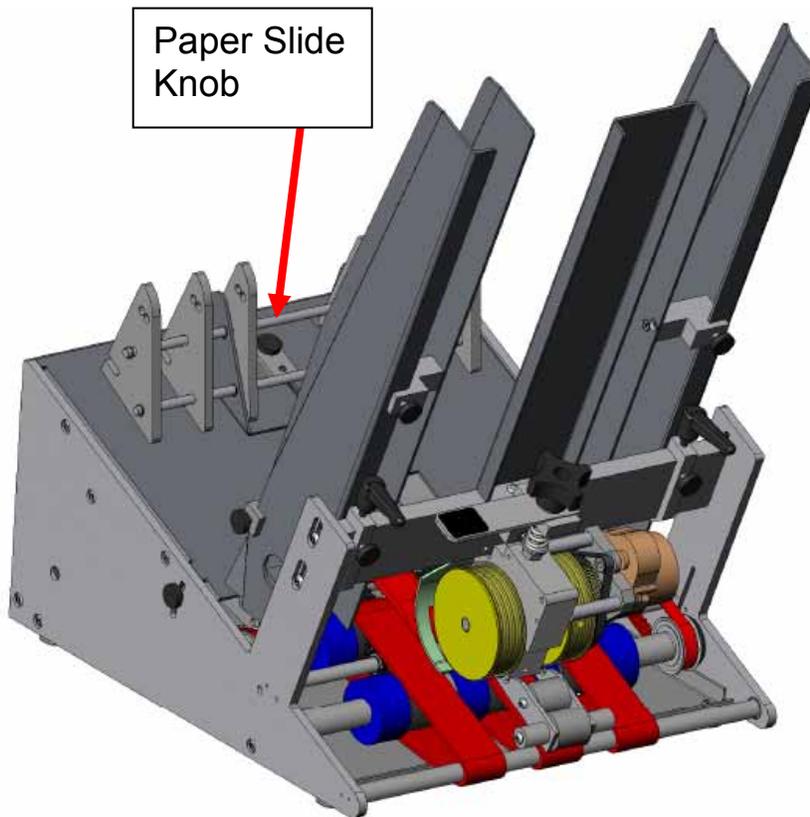


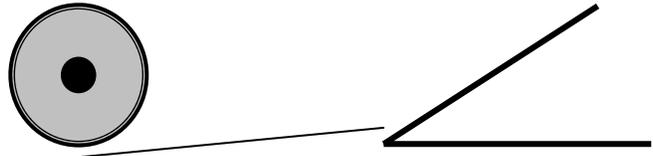
Figure III-9
Shrouded
Separator

Set the PAPER SLIDE (Back Wedge) in the following manner:

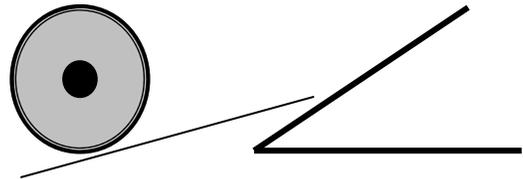
The variables of this setting may be dependent on the characteristics of the material. The 900-E1 FEEDER comes with wedges that can be adjusted to support narrow production pieces. Simply slide each wedge as needed along cross shafts into position.

Back Wedge recommendations for common type paper stocks

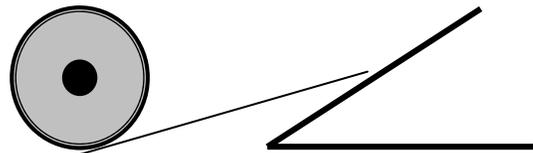
For ridged stock, place the lead edge of a sample of the stock being set up under the separator wheels at 6 o'clock, position the lowest point of the back wedge so that it is just touching the trailing edge of the sample piece.



For flimsy stock, place the lead edge of a sample of the stock being set up under the separator wheels approximately half an inch beyond the 6 o'clock position and set the back wedge so that the trailing edge of the sample is about a half to one inch up the incline from the lowest point of the back wedge.



For stock containing static, place the lead edge of a sample of the stock being set up under the separator wheels at 6 o'clock, position the back wedge so the trailing edge of the sample is mid-way between the lowest and highest point of the back wedge.



Note: These are basic starting points for a set-up. Further adjustments may be required.

Control Panel and Switch Operation

900 EI Feeder Operator Control Panel
and Speed Control-Figures III-11 and -12

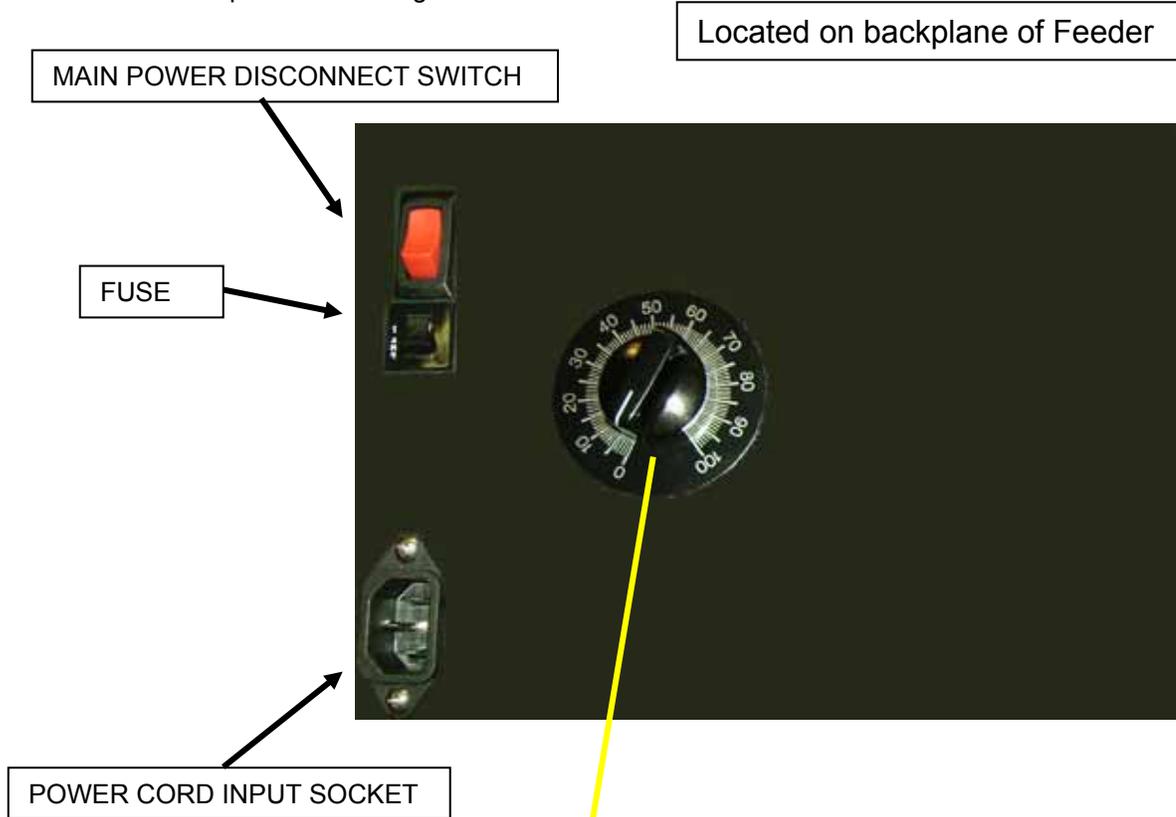


Figure III-11

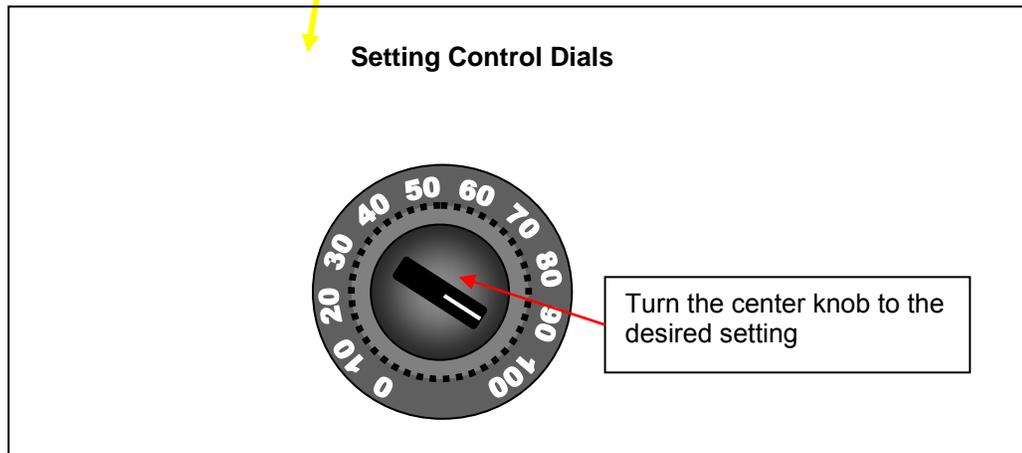


Figure III-12

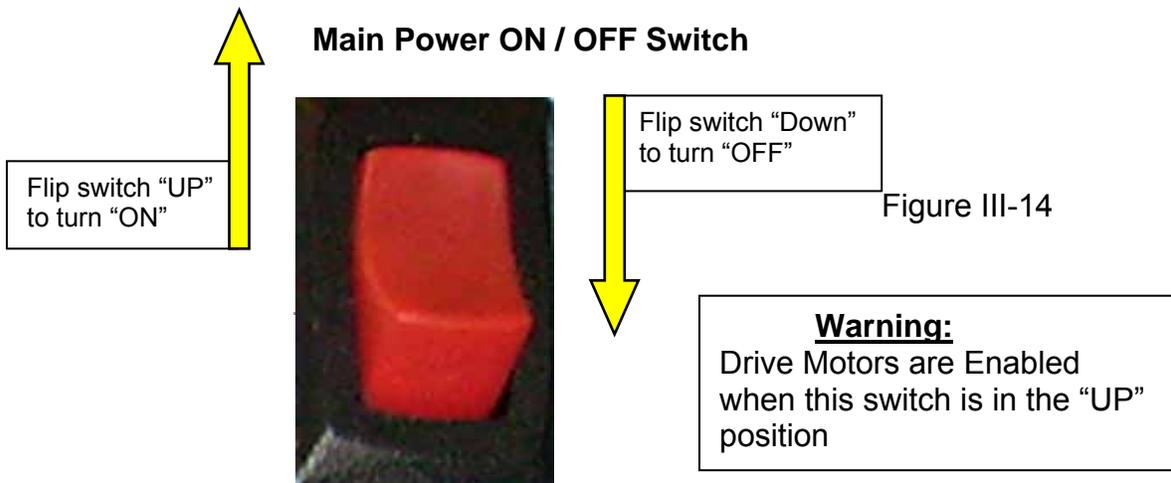
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Operating the 900-EI FEEDER

Once the basic set up is completed, turn the power switch to the “On” position and initiate the operation of the 900-EI FEEDER.

Power:

1. Turn power to the machine on by flipping the red power switch, located on the electrical enclosure, in an upward direction. See figure III-14.



2. Press the green START switch button to initiate Feeder operation. See figure III-13. Observe how the 900-EI FEEDER separates and feeds material, if doubling occurs, advance the back wedge further under the stack of paper, or apply more pressure using the separator wheels.
3. When you have adjusted the feeder to operate properly, adjust the belt speed of the feeder to the desired running speed. See figure III-12.

MECHANICAL ADJUSTMENTS

1. By turning the separator knob slightly in either direction, you will change the way the material is separating.
2. By moving the back guide in and out, you will quickly find the position that creates the most consistent shingle effect.
3. One important item to note; There is no substitution for experience. By working with the 900 EI, you will notice that the combination of separator setting and the back guide adjustment together will have the greatest effect on separation. Generally, the longer the piece of material, the flatter the material stack should be. Conversely, the shorter the piece of material, the closer the back guide adjustment should be to the material, adding wedge to the material stack. You will also notice that by moving the back guide forward (increasing the wedge), you can open the separator and still achieve good separation.

Section IV

General Maintenance

900-EI ENVELOPE INSERTER FEEDER

Model SE: Dynamic Rotation Technology

Model ECO-Football Separator



DIRECT MAIL SOLUTIONS

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web: surefeed.com

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Section IV

900-EI Maintenance:

The general maintenance of the 900-EI is limited due to the design and materials used in manufacturing. The frequency of general cleaning required for the 900-EI is dependent on the amount of running time put on the machine.

General Cleaning:

Removing debris from the machine with compressed air

1. Acquire and use eye protection, safety goggles or safety glasses with side guards. Also use respiratory protection, a simple disposable cloth or paper style particle mask is sufficient.
2. Alert all other people in the area to stand clear of the work area a minimum of 30 feet, (7.7 meters) where compressed air is being used to blow off machines.
3. Turn off the machine and disconnect the power line.



Warning: To prevent accidental injury, refer to “The Lock Out / Tag Out Procedure” in Safety section

4. Remove any loose items from the surfaces of the machine, i.e. Ballpoint pens, pencils, tape dispensers, paper clips rubber bands etc.
5. Hold the air nozzle firmly at arm’s length and clean off the machine beginning with the top surfaces then work your way down.



Warning: Be sure to keep the direction of compressed air blowing away from you.

(Note: High volume businesses running three (3) shifts five (5) days a week should plan this function once a week. Businesses producing light to moderate volume should plan this function once a month.)

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Cleaning Feeder Belts:

1. Acquire and use eye protection, safety goggles or safety glasses with side guards.
2. Turn off the machine and disconnect the power lines.
3. Clean the following material belts;
 - ✓ Red Feeder Transport Belts of the 900-EI Feeder

Apply a liberal amount of “Simple Green” general-purpose cleaner or (“Isopropyl Alcohol”, 70% by volume see warning below) to a soft cloth and wipe down the belt you wish to clean. Advance the belt being cleaned by hand until the entire belt surface has been cleaned.

 **(Warning:** Do not spray or pour Simple Green general-purpose cleaner or Isopropyl Alcohol directly onto the belts, free flowing liquids may seep into some electronic components and cause damage)

(Note: “Simple Green” general-purpose cleaner and / or “Isopropyl Alcohol” can be purchased at most local grocery stores and drug stores.)



Warning: Isopropyl Alcohol is INFLAMMABLE !!! Always unplug the machine before cleaning belts and 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. Allow used rags to air-dry before throwing them in the trash. Dispose of used rags properly. Other areas of the machine should be wiped clean with a clean dry rag.

Section V

ELECTRICAL COMPONENTS

900-EI ENVELOPE INSERTER FEEDER

Model SE: Dynamic Rotation Technology

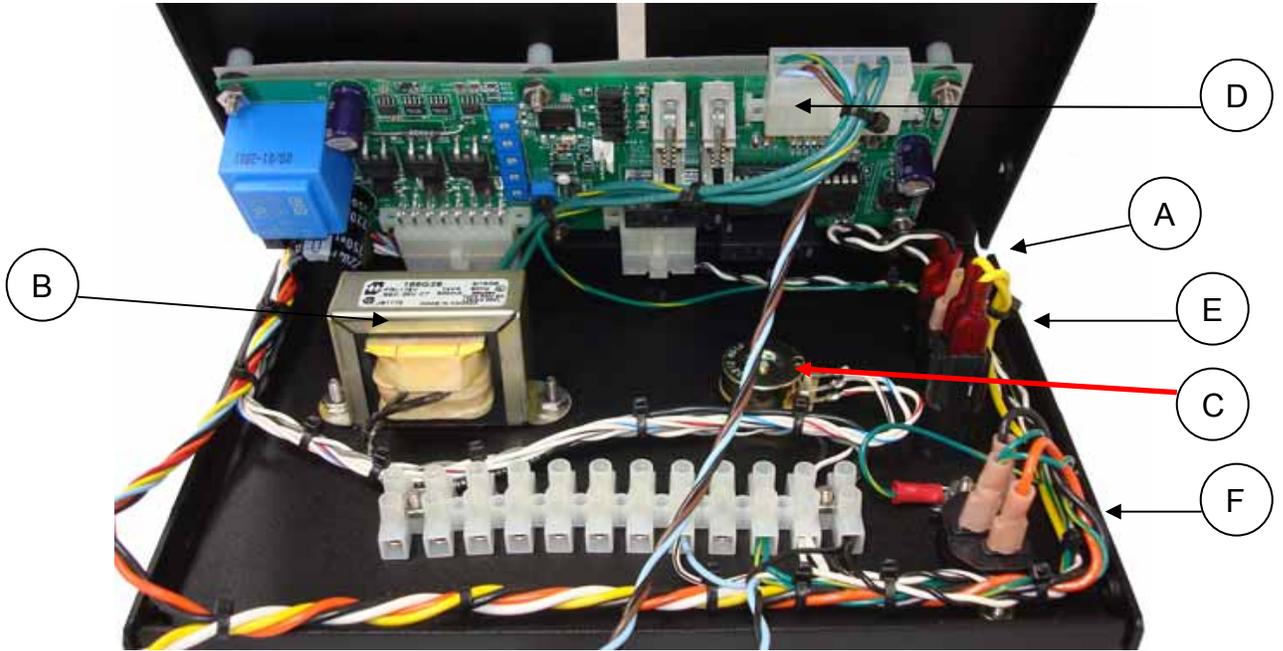
Model ECO-Football Separator



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Item	Component	Function
A	Rocker switch, illuminated	Main power: off-on
B	Transformer	Transforms incoming line voltage to specific voltage to machine
C	Speed Pot, 1 MΩ	Feeder speed control
D	I/O board	Feeder operation controller
E	Circuit breaker, 2A	2 amp circuit protection-dc motor control
F	Power cord receptacle	Incoming power connection
	TOROIDAL TRANSFORMER	Step down 230 to 115vac, filters noise

Section VI

ELECTRICAL WIRING

900-EI ENVELOPE INSERTER FEEDER

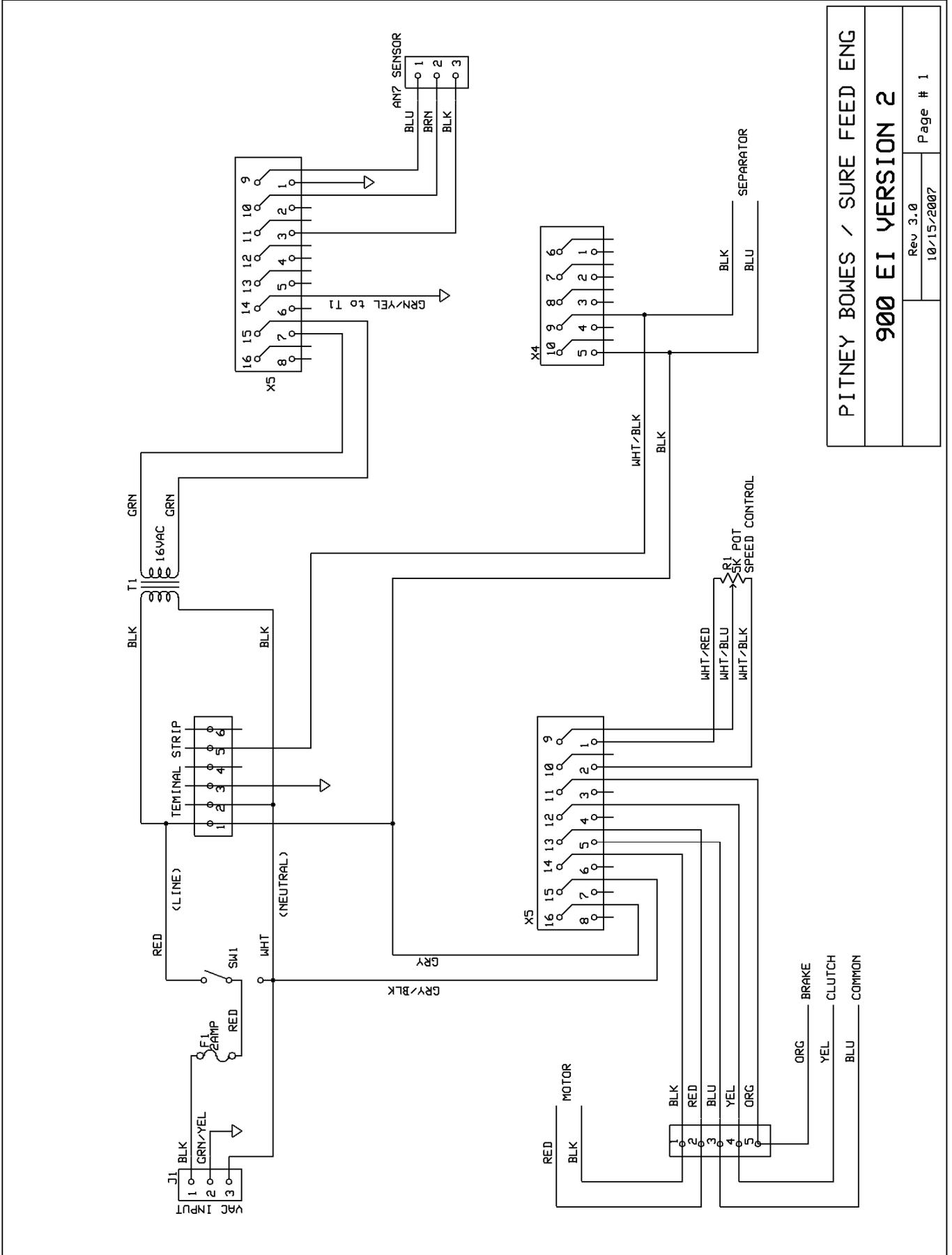
Model SE: Dynamic Rotation Technology

Model ECO-Football Separator



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900 EI VERSION 2
 Rev. 3.0
 10/15/2007
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Section VII

TROUBLESHOOTING

900-EI ENVELOPE INSERTER FEEDER

Model SE: Dynamic Rotation Technology

Model ECO-Football Separator



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900 EI Troubleshooting Guide

<u>Problem</u>	<u>Solution</u>
Feeder will not run.	Check fuse condition. Check outlet power source. Check power switch.
Feeder runs but no material is being dispensed.	Check material supply. Remove all material and follow setup procedure. Check rollers and belts for excessive wear or dirt.
Feeder does not create a gap between pieces.	Lower separator adjustment and observe. If a gap is not present after this adjustment, return separator to original position and move the back guide forward.
Feeder does not detect material.	Adjust position of the sensor.
Thick material does not feed well.	Decrease the height at the back of the material stack. Increase the opening at the separation device (the thicker the material the less critical the setting is).
Thin material does not feed.	Adjust separation device as described in section I or III. Remove material and fan the stack allowing air to separate the pieces. Raise the rear of the material stack by moving the wedge forward.