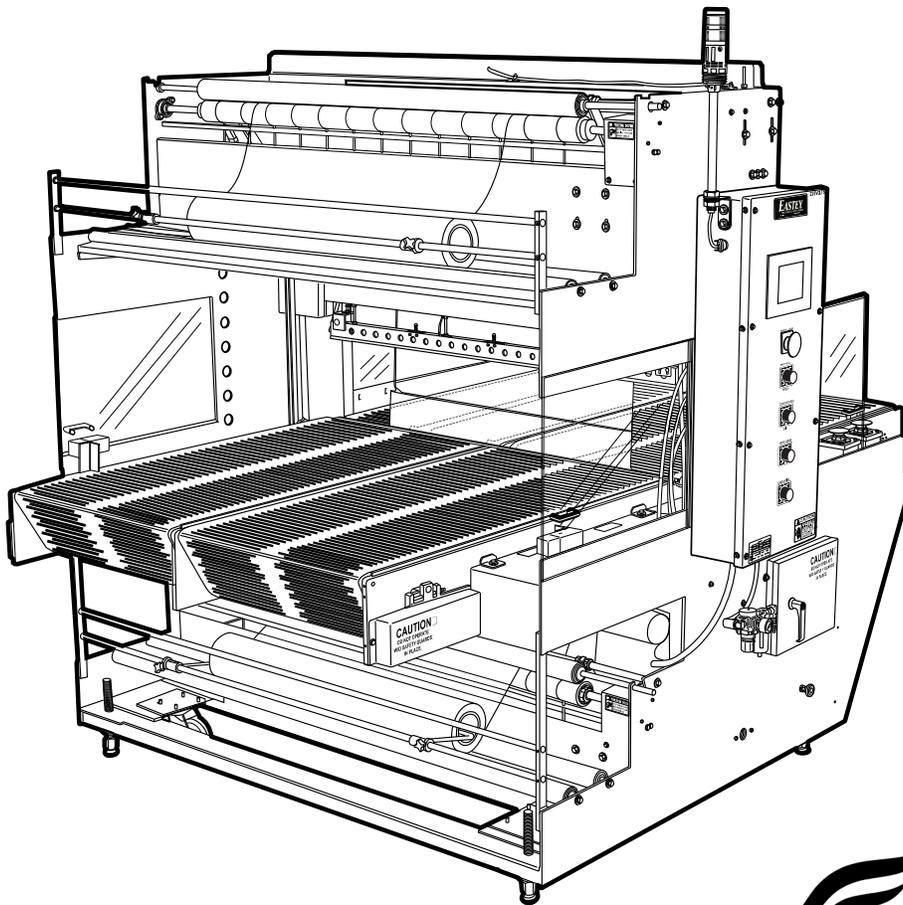


EB

**EB35A, EB50A
EB70A & EB80A**

Automatic Bundling Professional Series

User Guide



EASTEY[®]

EB35A, EB50A, EB70A & EB80A

Automatic Bundling Professional Series

User Guide

Revised 02/28/2023

PN EB0001000 Rev C

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Contents

- Safety 7**
 - General Safety Precautions 7

- Introduction 9**
 - General System Description..... 9
 - Specifications 10
 - Dimensions 12

- Unpacking 13**
 - Loading and Unloading Instructions 14

- Installation 15**
 - Location Requirements 15

- Operation 17**
 - Control Panel 17
 - Powering Up and Cycling the Sealer..... 19
 - Setting Temperatures and Timers..... 20
 - Loading Film..... 22
 - Changing Package Height..... 27
 - Running Product 29
 - Running One Product at a Time..... 29
 - Product Indexing 29

- Adjustments 30**
 - Fine Tuning the Sealer..... 30
 - Air Regulator Adjustments..... 31
 - Air Valve Setup or Adjustment 32
 - Photo Eye Adjustment..... 33
 - Dancer Bar Actuator Switch Adjustment 35
 - Conveyor Tension Adjustment 36
 - Seal Head Pressure Adjustment 37
 - Setting the Head Fault Switches 38

- Maintenance 40**
 - Weekly or Monthly Maintenance 40
 - Preventative Maintenance for Modular Plastic Conveyor Belts 41
 - Belt Assembly and Disassembly 42
 - Replacing Conveyor Components..... 44
 - Replacing Power Film Unwind Components 46

- Troubleshooting 48**

- Parts List 53**
 - Electrical..... 53
 - Mechanical 55

- Appendix A: Electrical Schematics 64**
 - Electrical Schematic (Page 1 of 2) 64

Electrical Schematic (Page 2 of 2)	65
Warranty Statement	66
Customer Support.....	68

Safety

Read this manual carefully and make it available to everyone connected with the supervision, maintenance, or operation of this machine. Additional copies are available on request (Eastey.com/contact-us).

The development of a good safety program that is rigidly enforced is absolutely imperative when involved in the operation of industrial equipment. Our machinery is well designed and includes extremely important safety features. The part you, the user, play through proper installation and maintenance procedures is of far greater importance than our design. Only properly-trained individuals following rigidly enforced safety rules, as recommended by ANSI and OSHA should be allowed to operate these machines.

Be very careful when operating, adjusting, or servicing this equipment. If in doubt, stop and obtain qualified help before proceeding.

General Safety Precautions

Before installing, operating or servicing this equipment, please read the following precautions carefully:

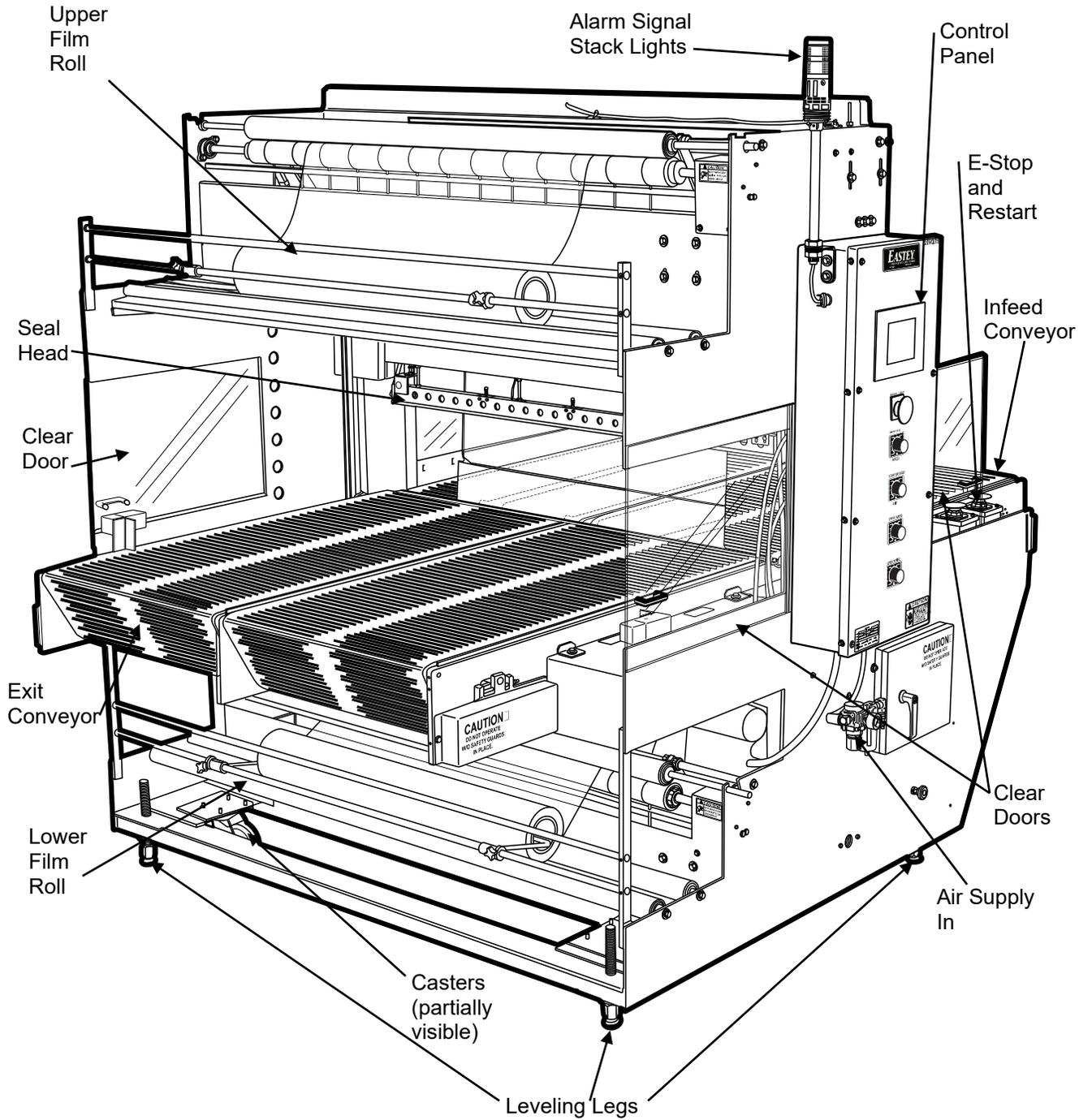
- Always disconnect electrical power before attempting maintenance for any electrical or moving parts. Do not place hands, head, or any part of the body inside the confines of the machine unless the mechanism is securely fastened and the electrical supply is shut off.
- Do not tamper with electrical wiring. Use only the specified power-supply cable. Use only licensed electricians to check or repair electrical wiring.
- In order to prevent damage to the machinery or injury to personnel, do not increase the factory settings on either the electrical or mechanical overload safety devices. Do not operate a machine if such modifications have been made.
- Keep hands away from moving conveyors and moving parts. Conveyor belts that have become worn or frayed can be hazardous and should be replaced promptly.
- Never operate this or any moving equipment without all covers and guards in place. The internal mechanism of most packaging machinery contains numerous shear, pinch, and in-running nip points, many of which are capable of causing severe injury and permanent disfiguration.
- To minimize the potential for personal injury, always be sure that the machine operators and others working on the machinery are properly trained in the correct

usage of the equipment and properly instructed regarding the safety procedures for operation.

- Heat sealing arms and jaws on packaging machinery can become very hot after a period of use. Keep hands away while in operation and use caution if the machine has been running recently.
- Do not make any modifications to either the electrical circuitry or the mechanical assemblies of this machinery. Such modifications may introduce hazards that would not otherwise be associated with this machinery. Eastey Corporation will not be responsible for any consequences resulting from such unauthorized modification. Do not operate a machine if any modification has been made
- This equipment is designed for indoor operation in a typical clean, dry factory environment. Do not operate the machine in any extremely wet or oily environment that may exceed operating specifications.
- The use of certain types of plastic films in sealing and/or shrink-wrapping equipment may result in the release of hazardous fumes due to degradation of the film at high temperatures. Before using any plastic film in this equipment, the manufacturer or supplier of the film should be contacted for specific information concerning the potential release of hazardous fumes. Adequate ventilation should be provided at all times.
- Keep combustible materials away from this equipment. The equipment may be a source of ignition.
- Do not wear loose clothing such as ties, scarves, jewelry, etc. Long hair should be pulled back and/or covered while operating this machine.

Introduction

General System Description



Specifications

Table 1 Machine Dimensions

Model Number	Machine Dimensions			Seal Dimensions		Conveyor Dimensions	
	Width (A)	Height (B)	Length (C)	Width	Height	Width	Length
EB35A	61 in. 154 cm	79 in. 200 cm	98 in. 248 cm	35 in. 88 cm	22 in. 55 cm	37 in. 93 cm	98 in. 248 cm
EB50A	76 in. 193 cm	79 in. 200 cm	98 in. 248 cm	50 in. 127 cm	22 in. 55 cm	52 in. 132 cm	98 in. 248 cm
EB70A	96 in. 243 cm	79 in. 200 cm	98 in. 248 cm	70 in. 178 cm	20 in. 51 cm	72 in. 182 cm	98 in. 248 cm
EB80A	108.5 in. 276 cm	79 in. 208 cm	98 in. 248 cm	80 in. 203 cm	22 in. 55 cm	78 in. 198 cm	98 in. 248 cm

Table 2 Power Requirements

Model Number	Standard Power		
	Volts	Amps	Phase
EB35A	220	10	1
EB50A	220	15	1
EB70A	220	20	1
EB80A	220	25	1

Table 3 Air Pressure Table 4 Machine Weights

Model Number	Minimum Air Required
EB35A	3.5 CFM 60 PSI
EB50A	3.5 CFM 70 PSI
EB70A	3.5 CFM 70 PSI
EB80A	3.5 CFM 70 PSI

Model Number	Net Weight	Shipping Weight
EB35A	2300 lbs. 1045 kg.	2500 lbs. 1136 kg
EB50A	2800 lbs. 1272 kg	3000 lbs. 1364 kg
EB70A	3300 lbs. 1500 kg	3500 lbs. 1591 kg
EB80A	3700 lbs. 1678 kg	3900 lbs. 1769 kg

Table 5 Voltage and Phase Options

Voltage / Phase Designator	Volts	Phase
V1	220	1
V3	380	1
V5	480	1

Table 6 Belt or Roller Options

Belt / Roller Designator	Belt or Roller Type
PB	Plastic Belt

Explanation of Model Numbers

- E = Manufactured by Easteey Enterprises Inc., division of Engage Technologies.
- B = Bundler
- __ = 35, 50, 70 or 80 — Digits in the model number indicate the nominal width of the seal area in inches.
- A = Automatic

- V _ = V1, V3, or V5 — Indicates the Voltage and Phase required for input power. V1 = 220V, single phase; V3 = 380V, single-phase; V5 = 480V, single-phase.
- Additional letters and numbers after the voltage and phase indicate additional information if required.

Example:

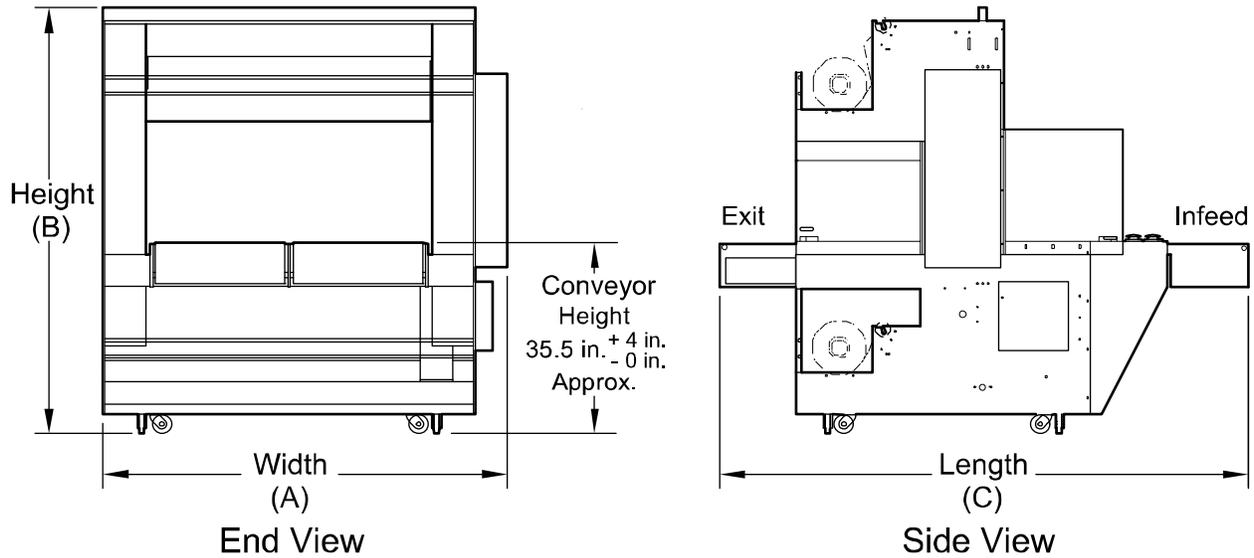
- Model number EB50-AV1: EB indicates that it is an Eastey Shrink Bundler, 50 indicates the width of seal area is 50 inches. (Width of conveyor is approximately two inches more, 52 inches.) A indicates automatic series, and V1 indicates 220V, single phase.

Standard features

- Designed to seal polyethylene films
- 35-inch, 50-inch, 70-inch, and 80-inch wide hot knife seal system
- Up to 22-inch adjustable product pass through height
- Infeed product guides (optional)
- Upper and lower powered film unwind for smooth feed of film
- Film loading from left or right side
- Upper film rack only 60 inches off the floor
- Color PLC touchscreen operation for easy adjustments
- Optional password protection
- Self-tracking conveyor belt and product indexing
- Flexibility for fully automatic or single product operation
- 4-foot conveyor length standard
- 12-inch maximum film roll outside diameter.
- All-welded main frame from quarter-inch ($\frac{1}{4}$ ") cold-rolled steel
- Supplied with casters for easy transportation within plant
- Leveling legs to provide sturdy base
- Custom two-part epoxy finish resists scratching
- Available in 220V, 380V, or 480V single-phase power input
- Made in the USA

Dimensions

See the Machine Dimensions table under the Specifications heading, on page 10 of this User Guide for overall machine width, height, and length.



Unpacking

Thoroughly inspect the equipment and packaging immediately on arrival.

Carefully remove the outer protective shipping wrapper. Inspect the machine for any damage that may have occurred during transit. If goods are received short or in damaged condition, it is important that you notify the carrier's driver before they leave your company and insist on a notation of the loss or damage across the bill of lading. Otherwise no claim can be enforced against the transportation company. Please note that a copy of this document is attached to the outside of every crate.

If concealed loss or damage is discovered, notify your carrier at once and **insist** on an inspection. This is absolutely necessary. A concealed damage report must be made within ten (10) days of delivery of shipment.

Unless you do this, the carrier will not entertain any claim for loss or damage. The agent will make an inspection and grant a concealed damage notation. If you give the transportation company a clear receipt for the goods that have been damaged or lost in transit, you do so at your own risk and expense.

All claims must be filled within **five (5)** months of the delivery date or the carrier will not accept them.

We are willing to assist you in every reasonable manner to help you collect claims for loss or damage. However, this willingness on Eastey's part does not make Eastey or its parent or related companies responsible for collections or claims or replacement of equipment damaged or lost in transit.

Loading and Unloading Instructions

- An Air-Ride trailer and straps are required for transportation of the Eastey EB series Automatic Bundling sealer.
- When transporting the EB Automatic Bundler, roll the machine into the trailer, and then, when the machine is in position for shipping, lower the levelers to just touch the ground.
- Use shipping straps to restrain the automatic bundler securely so it will not shift in transit.

Installation

Place the bundler in the desired location with the required electrical power source available. (See power requirements for the specific model in the Specifications table.) Make sure the electrical wiring is adequate to provide the required voltage. If the voltage provided is too low, the equipment will not operate correctly.

Selecting the proper location is one of the most important considerations for initial setup. When selecting the location, take into consideration the following factors.

1. Adequate clean air and power supply nearby?
2. Where is the automatic bundler in relation to the power source? Source of air at required CFM flow and PSI pressure?
3. Where is the automatic bundler in relation to the bundling tunnel and any conveyor(s) necessary to move product? (Alignment with packaging line.)
4. Convenience for the operator.

Note: **Avoid locating the automatic bundler in a cold or drafty area, as heat may be unintentionally drawn from the sealer and reduce its efficiency.**

If there is any doubt, get qualified assistance with your initial installation.

Location Requirements

When installing the automatic bundler please be aware of the following considerations:

1. The surface on which it is located is flat and level.
2. Conveyor or packing table height.
3. Alignment with packaging line.

When the automatic bundler is positioned in the operating location you will need access to the control panel.

Provision should be made for finished exiting packages. For example, a table or bin where packages that have been sealed will be placed until they can be picked up or moved out.

Take into consideration the entrance conveyor height in relation adjacent machinery; that is, machinery feeding into it or receiving bundles from it, such as the bundling tunnel.

The machine should be located on a flat, level and floor so that it does not rock or move. We recommend that the leveling feet be used to level the machine.

Set up the automatic bundler and move it to its location. The casters allow easy movement over smooth flat surfaces. If you need to lift the unit to move it, you will need to use a floor crane, or fork lift to move it to its location.

CAUTION! If the automatic bundler must be lifted for moving, use proper equipment when lifting and moving it to ensure it is secure and will not shift.

When the automatic bundler has been moved to its location, block the wheels to prevent rolling while adjusting the leveling legs to raise and level the automatic bundler in its permanent location. A power cord (with optional electrical plug) should be installed by a licensed electrician. Connect the air line to the regulator.

CAUTION! Before operating, ensure the following:

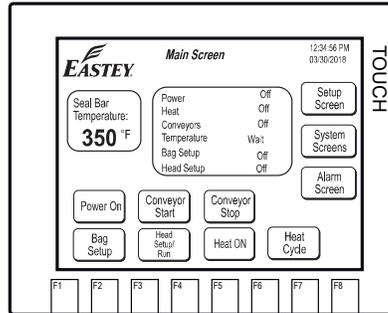
- 1. All shipping ties are removed.**
- 2. All personnel are clear of the equipment.**
- 3. Electrician has stated that all electrical work is complete.**
- 4. Adjust all controls according to the settings sheet.**
- 5. Air line is connected to the regulator and verify minimum supply of 60 PSI, 3.5 CFM.**

Refer to instructions in the Operation section for instructions to power up or shut down and to set up and operate the machine.

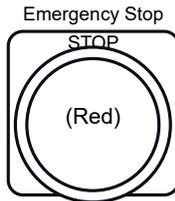
Operation

Control Panel

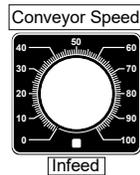
① Operator's Panel — See following page.



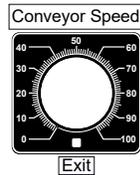
② E-Stop — Emergency Stop



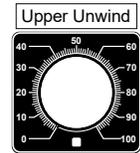
③ In-Feed Conveyor Speed



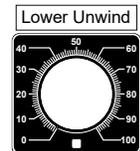
④ Exit Conveyor Speed



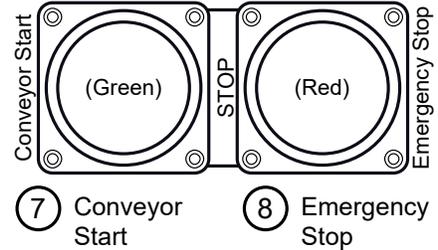
⑤ Upper Power Film Unwind Speed



⑥ Lower Power Film Unwind Speed



Alarm Signal Stack Lights

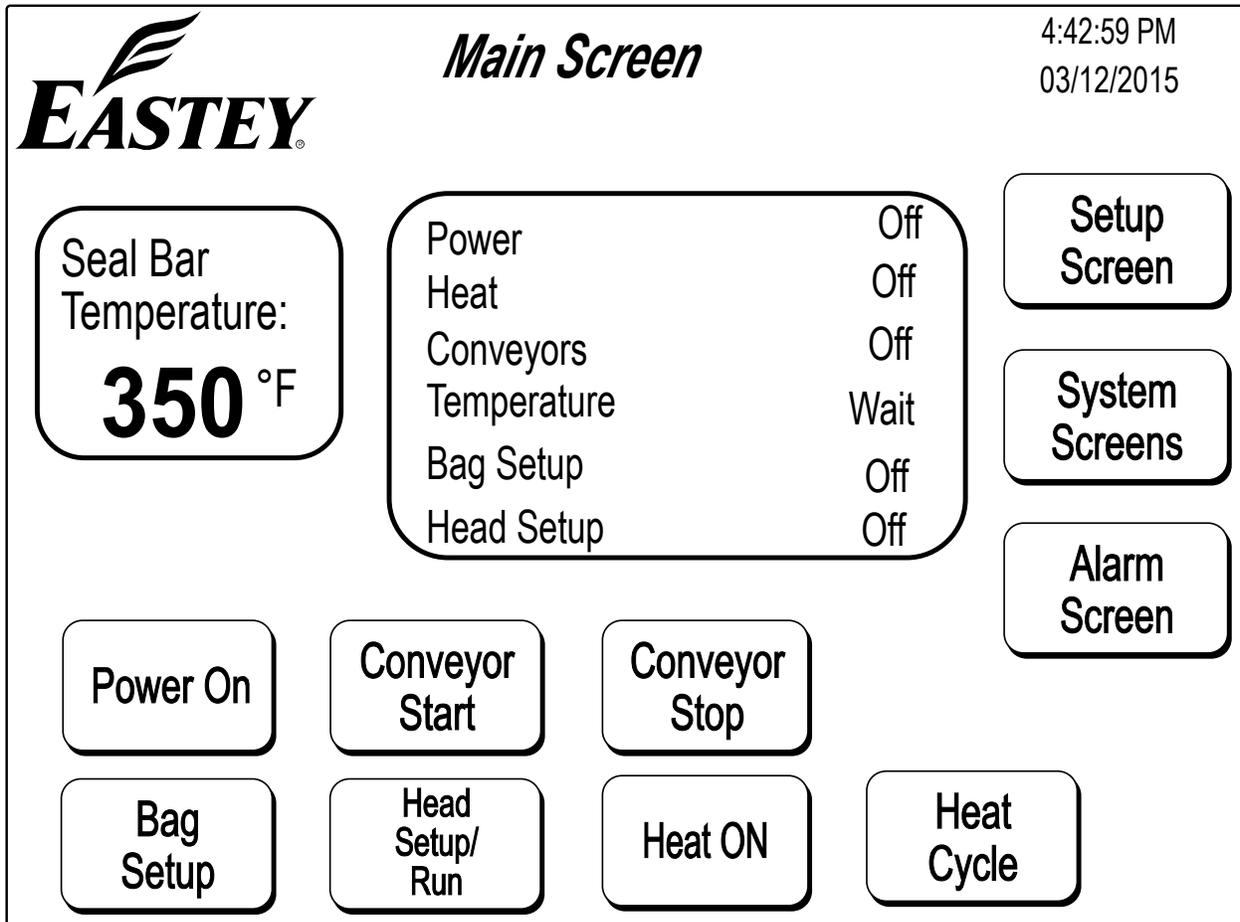


⑦ Conveyor Start

⑧ Emergency Stop

Controls for the automatic bundler are located along the side of the machine as shown in the above figure. Controls listed top to bottom above are explained on the following page.

1. **Operator's Panel** — The operator's panel is a fully-functional color touch screen. It displays current status information and displays buttons for configuring and controlling the system. The Main Screen of the panel interface is shown here.



2. **E-Stop** — In the event of an emergency, press in the large, red, mushroom-shaped E-Stop button to bring the system to a halt.
3. **Infeed Conveyor Speed** — Dial control for speed of the infeed conveyor.
4. **Exit Conveyor Speed** — Dial control for speed of the exit conveyor.
5. **Upper Power Film Unwind Speed** — Dial control for speed of the upper film roller unwind.
6. **Lower Power Film Unwind Speed** — Dial control for speed of the lower film roller unwind.

7. **Conveyor Start** — Large, green, mushroom-shaped button to start the conveyor for one-item-at-a-time manual operation. See instructions for Running One Product at a Time on page 29.
8. **Emergency Stop** — Large, red, mushroom-shaped button, same as E-Stop button (2) under the color control panel. Press to halt the system in the event of an emergency.

CAUTION! When the power is turned on be aware of sealer hot surfaces and moving belts and rollers.

Familiarize yourself with the automatic bundler controls on initial power up, and pay particular attention to the operator's panel. On the panel screen you can view buttons for system power on or off, conveyor on or off, bag setup, head setup, heat on or off, and temperature ready or wait.

If an alarm message icon appears (a circle with an exclamation mark), touch the alarm icon to display the message. Press Esc to return to the main menu.

Powering Up and Cycling the Sealer

Once the electrician has stated that all electrical work is complete and the air line is connected to the regulator and providing 60 PSI and 3.5 CFM, make sure all shipping ties are removed and all personnel are clear of the equipment, then power up the sealer and run it through a cycle by performing the following.

1. Rotate the lever on the disconnect box to the On position (if applicable).
2. Pull out the red E-Stop buttons.
3. Touch the "Power On" button on the operator's panel.
4. Touch the "Head Cycle" button. The head should complete one cycle.
5. Touch the "Conveyor Start" button. The conveyors will run and this also enables the photo eye.
6. When all of the above options function properly, touch the red "Conveyor Stop" button.

Setting Temperatures and Timers

1. Touch the “Setup Screen” button.
2. Touch the “Password” button.
3. Enter the password (100) and then touch the left-arrow.
4. Touch “OK.”
5. Touch the “Setup Screen” button.
6. Select the temperature or timer you want to set.
7. Enter the value.
8. Touch the left-arrow to lock the value in.
9. Touch the “Main Screen” button to return to the main screen.

Explanation of Timers

There are three timers: a Dwell timer, Bag timers, and Photo-Eye delay timer.

Dwell Timer — This is how long the seal head is together. Keep in mind that the timers start as the seal head starts coming together.

Bag Timers — This is the length of time after the product has passed the photo eye to enter the seal area.

Photo Eye Delay — This is the length of time after the product blocks the photo eye and then starts the power film unwinds.

Initial Settings

If you have been provided with recommended settings for your application, record these in the spaces provided below for future reference.

Head Temperature	_____	Upper Power Film Unwind	_____
Head Dwell Timer	_____	Lower Power Film Unwind	_____
Bag Length Timer	_____	Tunnel Speed	_____
Pre-Feed Timer	_____	Tunnel Temperature	_____
In-Feed Conveyor	_____	Velocity Control	_____
Exit Conveyor	_____		

Testing the Bag Length Timer

1. Turn on conveyors and then touch the “Bag Setup” button.
2. Place product onto the infeed conveyor.
3. The Infeed conveyor carries product forward to the seal area.
4. The photo eye detects the product, which starts the power film unwind.
5. The product moves into the seal area and the conveyor stops. The seal head will not cycle.

Note where the product stops.

- If the product is not under the seal head but fully into the seal area, touch “Bag Setup.”
- If the product is not fully into the seal area, increase the bag length timer and redo the test. This gives you the bag length.

Note this will change with any conveyor speed adjustments

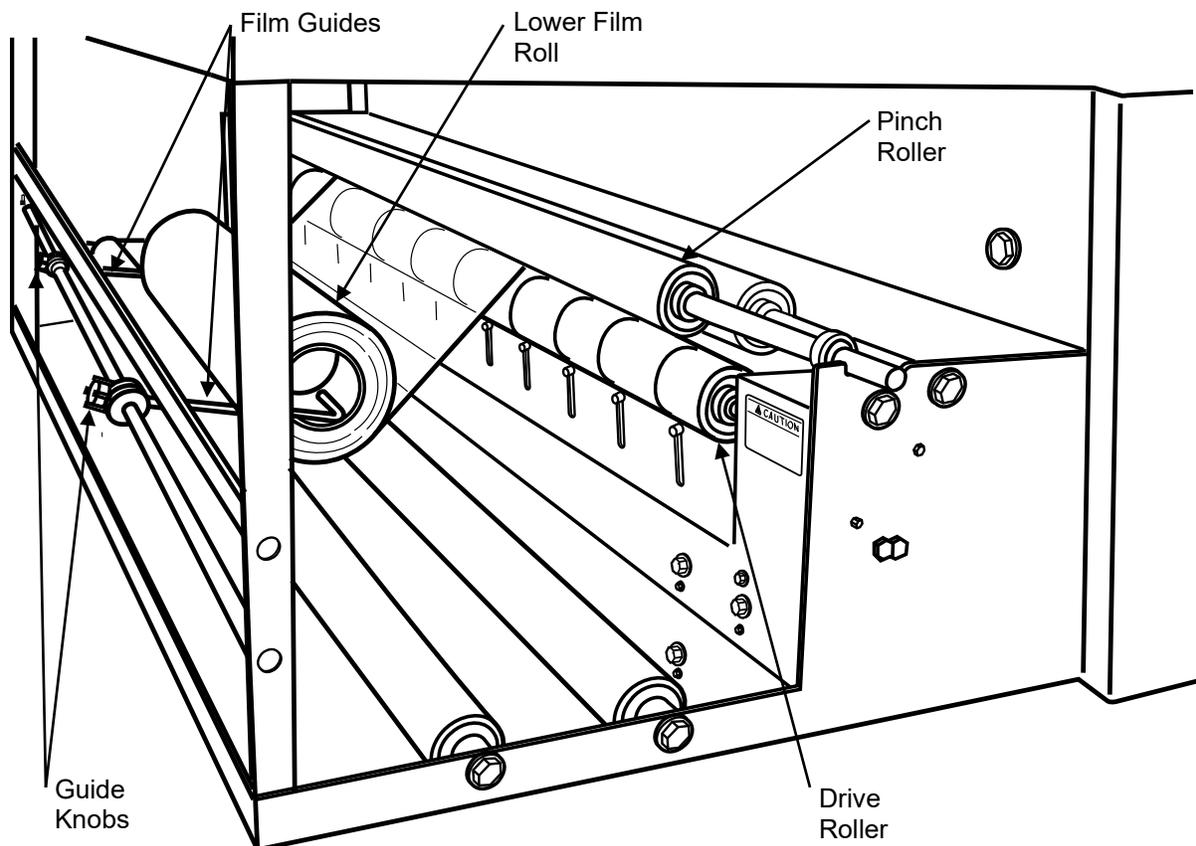
6. The conveyor will start up again. Touch the “Conveyor Stop” button.
7. Thread the film and run the product. Refer to the following procedure for film threading.

Before setting the film on the cradle, do the following.

1. With power on.
2. Loosen the left and right film guides. Move guides to the outside of the power film unwind rollers.

To Center Film

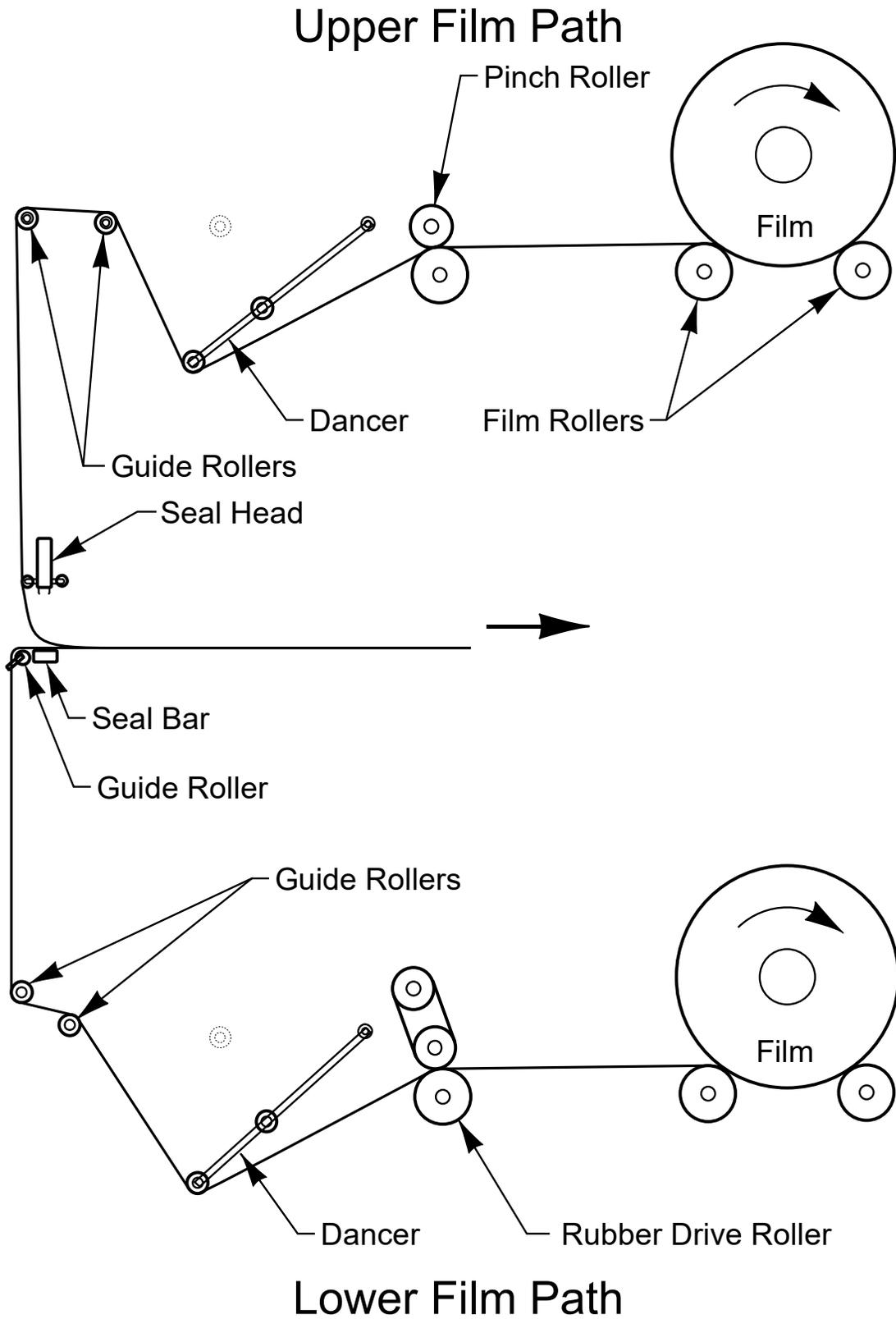
- If you are putting the film in from the right side (the side opposite the control panel), divide the film width by two (2) and subtract the result from twenty-four inches (24") to obtain the measurement from the edge of the film to the frame. For example, 24" film: $24 \div 2 = 12$ "; $24 - 12 = 12$ ".
- If you are putting the film in from the control pane side, divide the film width by two and subtract the result from twenty-four-and-a-half inches ($24\frac{1}{2}$ ") to obtain the measurement from the edge of the film to the frame. For example, 24" film: $24 \div 2 = 12$ "; $24\frac{1}{2} - 12 = 12\frac{1}{2}$ ".



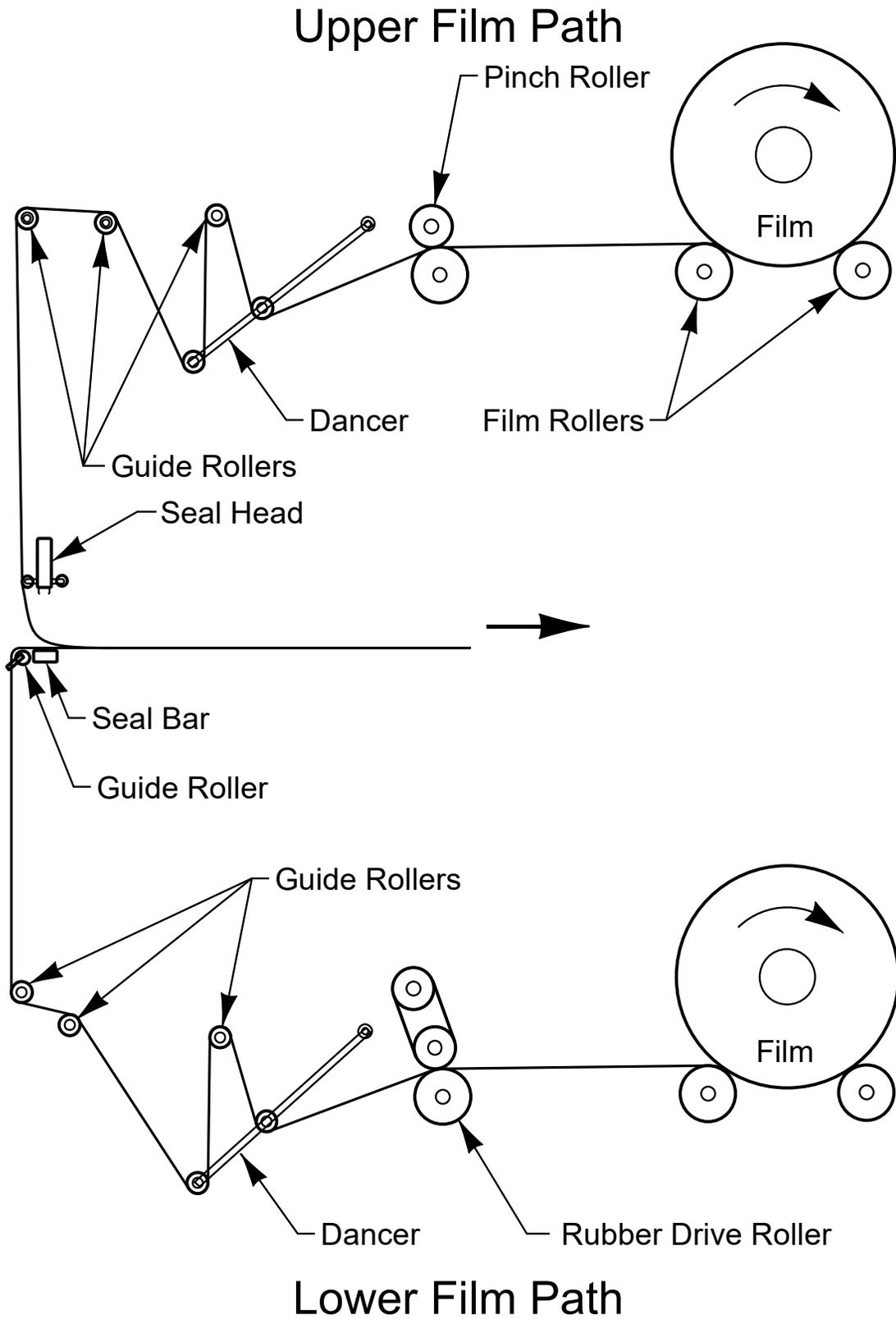
3. Place the film on the support rollers with the film coming off the bottom as shown.

4. Move film guides back into position, close against the roll of film, and retighten the guide knob.
5. Lift up the film pinch roller off of the rubber drive roller.
6. Thread the film according to the standard Film Path Diagram shown on the following page, or optionally according to the Optional Film Path diagram. (These diagrams are also provided on a laminated sheet attached to the main frame.)
7. **Very important:** drop the pinch roller back into position. This is a “**must do.**” This will also assist with threading the film through the dancer bar.

Standard Film Path



Optional Film Path

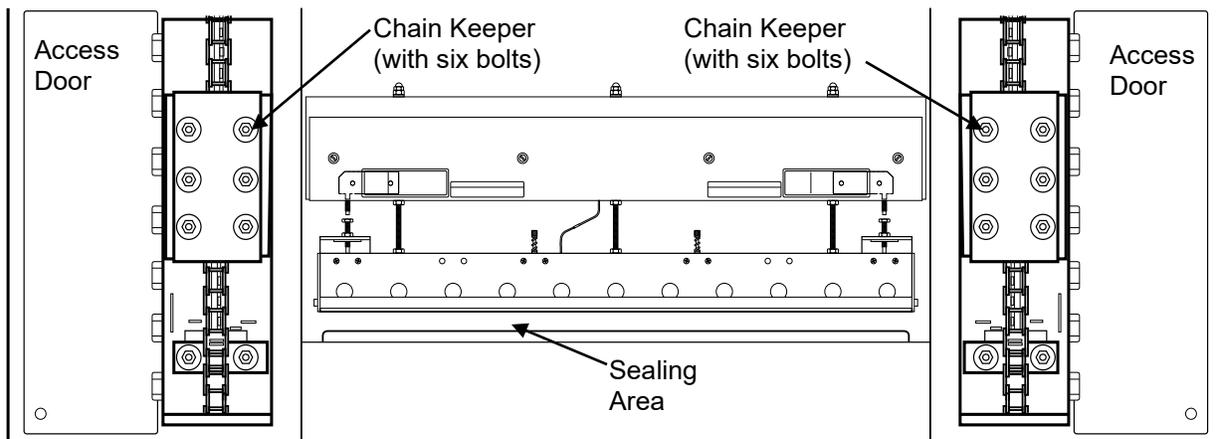


8. Pull the upper film in front of the upper seal bar, then around to the back side of the seal bar.
9. Pull the lower film in front of the lower seal bar, then around to the back side of the seal bar.
10. Line up the edges of the film from the upper and lower film unwinds.
11. Make sure the seal bar is up to temperature. (Refer to page 20 for temperature controller adjustments and recommended seal bar temperatures.)
12. Cycle seal head.

Changing Package Height

Use these steps to change the height setting of the sealer for higher or lower packages.

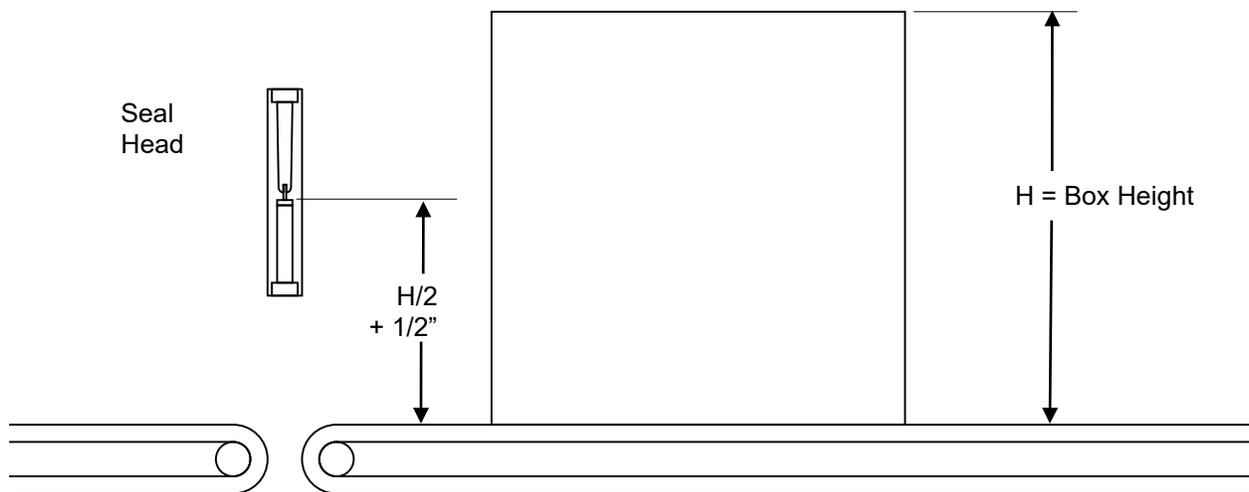
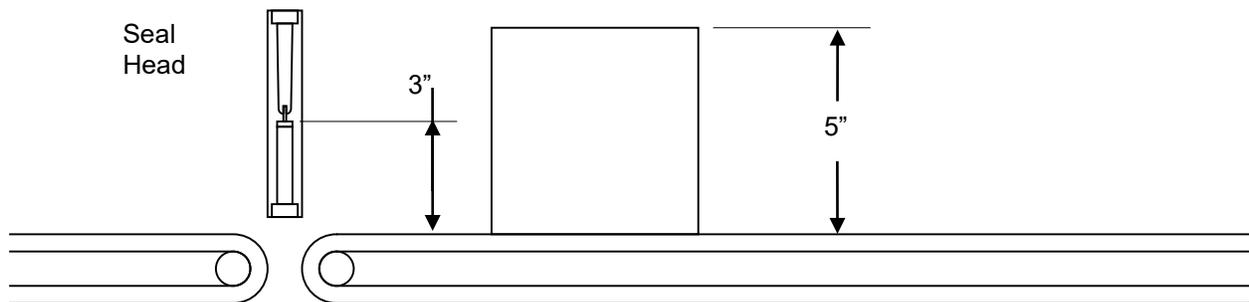
1. Turn off seal bar heat and allow to cool down before adjusting seal head.
2. Touch the “Head Setup / Run” button on the Operator’s panel and the seal head will come together.
3. Open up the left and right access doors (see illustration) to expose the chain keepers.



4. Temporarily remove the chain keepers: use a $\frac{1}{4}$ inch hex wrench to loosen the bolts securing the chain keepers. There are six (6) bolts on each side of each of the chain keepers.

5. On the control panel side of the machine, below the access door, slowly turn the seal head adjustment knob in or out to raise or lower the seal system to the required height.

The seal head should come together approximately one half of an inch ($\frac{1}{2}$ ") above the center of the box. For example, for a box that is five inches (5") tall, the seal head should come together just three inches above the belt surface.



NOTE: At this point, the seal system moves up and down easily to get an exact position. Reinstall the chain keepers with bolts only finger-tight on both chain keepers at first to allow final adjustment before tightening bolts fully.

6. Once the chain keepers are tight, close and retighten the left and right access doors.
7. Touch the "Head Setup / Run" button again to return the system to Run mode.

NOTE: The seal head will return to the open position. Stay back, away from the seal area when doing this.

8. Turn on the seal bar heat on using the “Heat On” button and allow the seal bar to reheat before running product.

Running Product

1. Turn on system power and push Conveyor Start.
2. Place the product on the infeed conveyor, lining it up with the center of the film roll.
3. Carefully watch the sequence of events as the product goes through the complete cycle of operations, including sealing and shrinking in the tunnel.

NOTE: If you change conveyor speeds, the bag length timer may need to be adjusted.

NOTE: If difficulty arises, see the operational troubleshooting section starting on page 48.

Running One Product at a Time

1. Place the product on the infeed conveyor, lining it up with the center of the film roll.
2. Push the green palm button on the infeed conveyor.
3. Carefully watch the sequence of operations as the product goes through the complete cycle of operations, including sealing.
4. After product is sealed, both conveyors will remain off until the green button is pressed again or the “Conveyor Start” button is touched on the operator’s panel.

Product Indexing

This equipment has product indexing. There must be a gap in between packages. If a package is being sealed and the photo eye senses a package, the infeed conveyor will stop. As soon as the seal head starts to open, the infeed conveyor starts. The eye is adjustable and needs to be pointed away from the seal bar to ensure the package on the infeed does not run into the seal bar while opening.

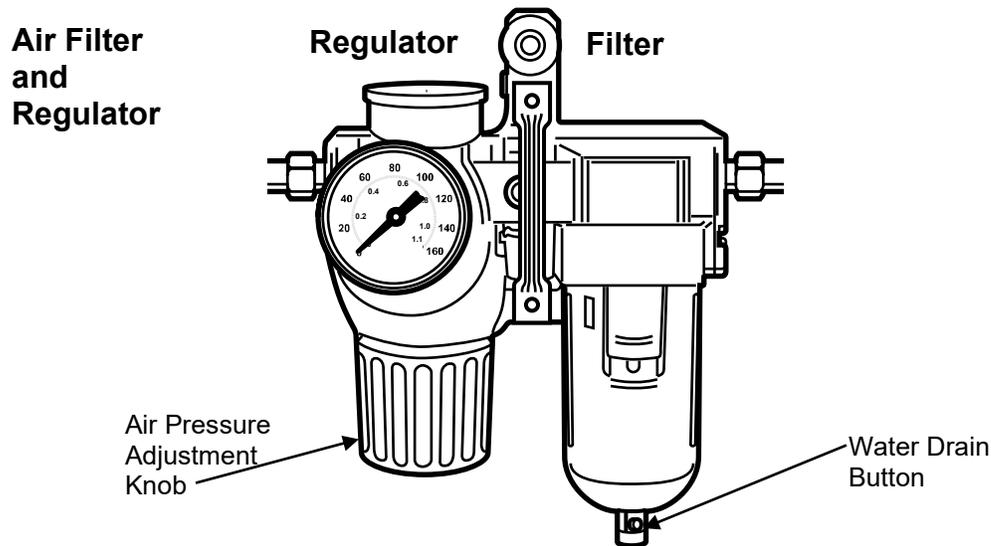
Adjustments

Fine Tuning the Sealer

To achieve maximum efficiency, individual controls can be tuned to improve productivity. Here are some helpful hints.

1. Shorten dwell time as much as possible without jeopardizing the seal's integrity. This will minimize cycle time and increase products-per-minute output.
2. Lower the seal head to the point where it will clear the product only by a very minimal distance. This will reduce cycle time also and increase output.
3. Reduce the bag-length at the end of the product as much as possible without jeopardizing the integrity of the seals. To do this, decrease the time on the bag-length timer as much as possible while still clearing the product with the seal head. This will save cost of film and also reduce the amount of time that the product will need to heat in the tunnel.
4. Determine the tunnel settings necessary to get the most desirable package. The tunnel conveyor speed is at or slightly slower than the speed you should set the seal conveyors. The closer the speed of the tunnel conveyor to the speed of the sealer's exit conveyor, the smoother your operation will run.

Air Regulator Adjustments

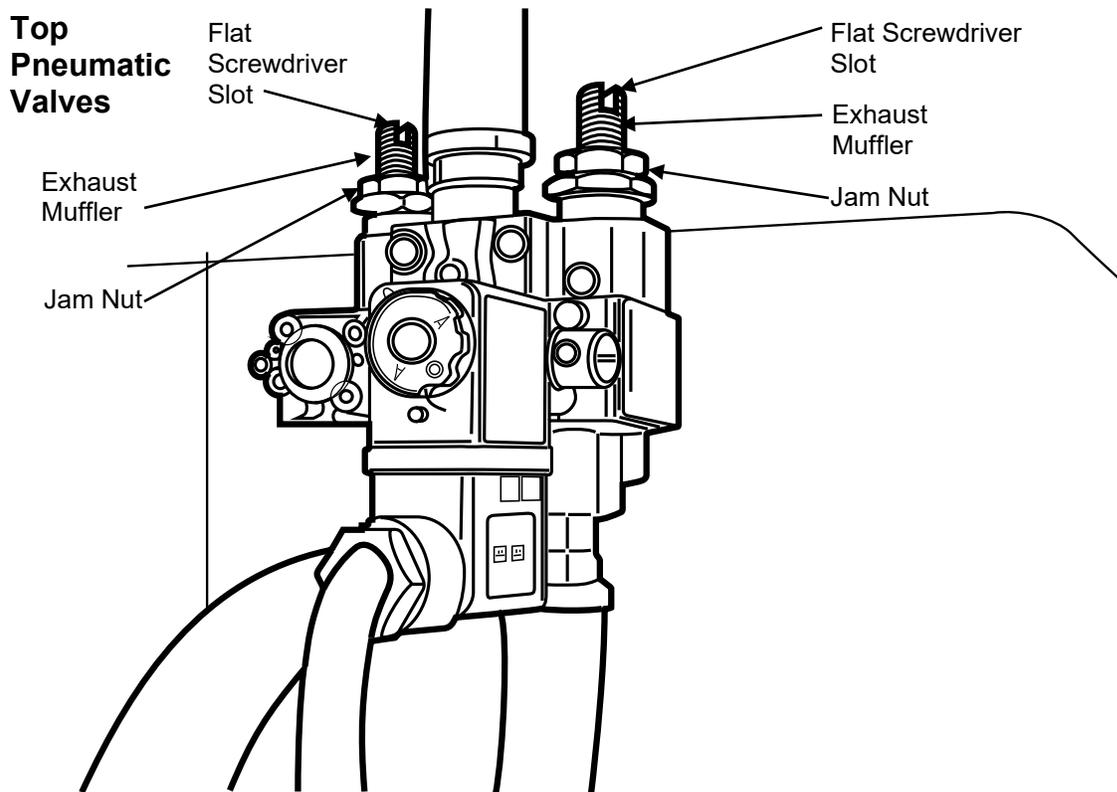


Before Adjusting Air Regulator

1. Make the sure seal head is held open.
2. Hook up air supply.
3. Set the air pressure regulator to minimum 60 PSI for 35-inch seal bar or to 70 PSI for 50-inch, 70-inch, or 80-inch seal bar. To adjust the regulator setting, pull down on the adjustment knob, and then turn the knob.
 - Turn the adjustment knob to the left to decrease pressure.
 - Turn the adjustment knob to the right to increase pressure.

NOTE: Pressure is set at 60 PSI or 70 PSI. Also watch for water in the bowl of the pneumatic filter. If water is present, drain it by pressing the water drain button at the bottom of the reservoir.

Air Valve Setup or Adjustment



Head Closing and Opening Speeds

Some speed adjustment for closing or opening the sealing head is possible adjusting the valve exhaust port mufflers in the top valve ports.

- Turn the exhaust port muffler clockwise to tighten the muffler and slow the system down.
- Turn the exhaust port muffler counter-clockwise to loosen the muffler and speed the system up.

NOTE: Make small adjustments, no more than $\frac{1}{4}$ turn at a time, to avoid damaging the machine.

Photo Eye Adjustment

The photo eye used in the Eastey bundle sealer is a reflective type sensor that uses a visible red beam (reflected off a reflector) to detect objects.

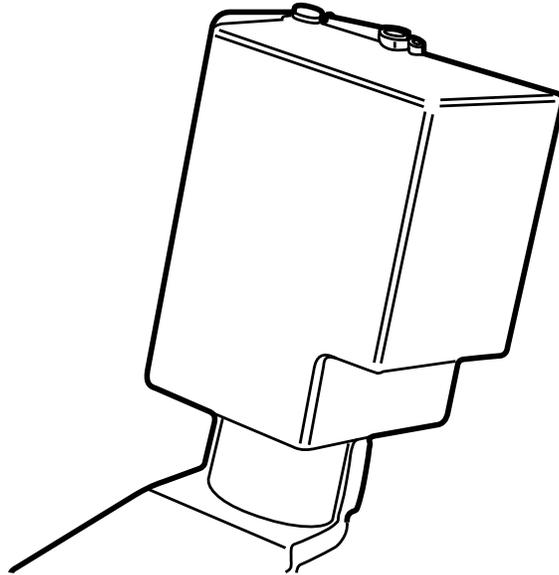
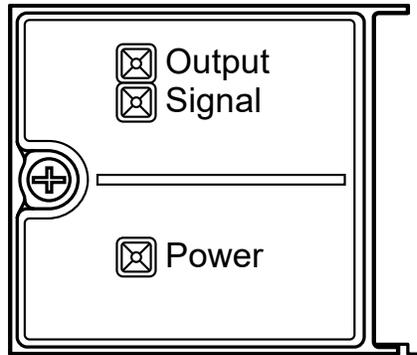


Photo Eye Sequence of Operation

To understand how the photo eye must be aligned, it is important to understand how the photo eye operates in the sequence of operation.

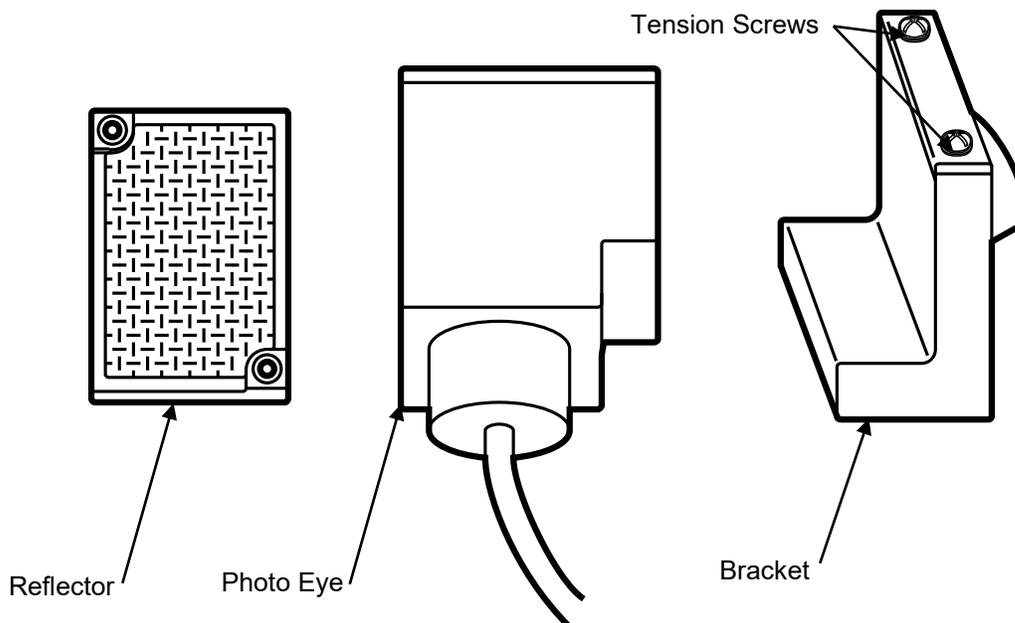
1. The product is placed on the infeed conveyor and moved toward the seal head.
2. The product interrupts the beam of the photo eye (indicated by the signal light going out on the photo eye), Energizing input IO 2.
3. The product moves into the seal area and clears the eye, no longer interrupting the beam (indicated by the signal light re-illuminating).
4. The bag-length timer times out and cycles the seal head, resetting the circuit.

NOTE: In order for the photo eye to be operational, the conveyor needs to be running. The photo eye can be checked for alignment and the output checked without conveyors running.



NOTE: When properly set up and operational, the red and green lights on top of the eye will be illuminated. Breaking the beam will cause the "Signal" light to go out and the yellow "Output" light to turn on. The Signal light will come back on when the beam is reconnected and the yellow Output light will turn off.

Aligning the Photo Eye



If the beam is not properly lined up on the reflector, the output and signal lights will not be illuminated. To adjust the beam into the reflector, loosen the two tension (Phillips) screws on the top of the mounting bracket (see the illustration above) and move the eye by hand until the red light is centered on the reflector.

NOTE: If the photo eye is not properly aligned under normal operations you could have problems such as varying bag lengths, double packaging, etc.

Dancer Bar Actuator Switch Adjustment

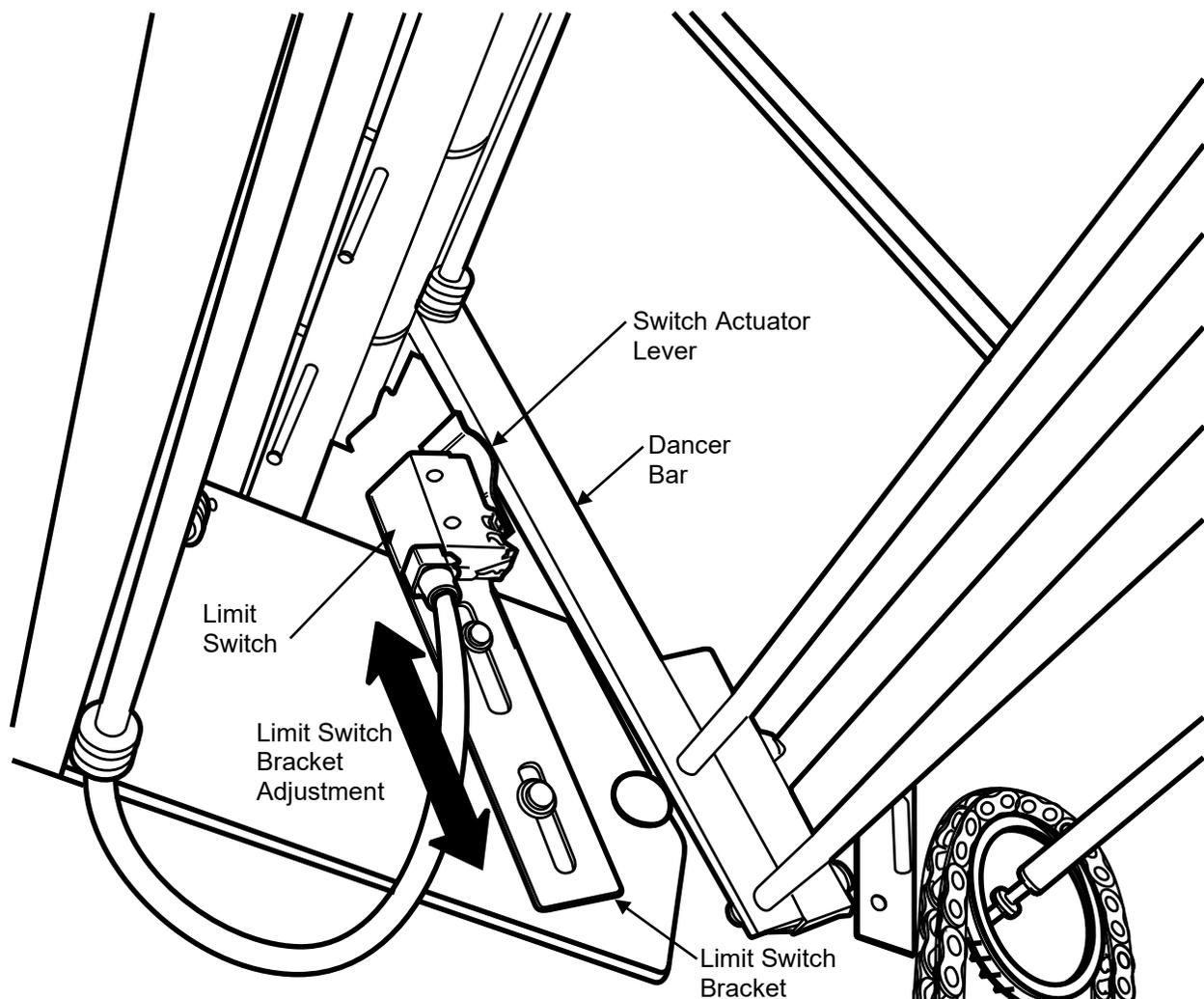
Shut off power and disconnect electrical connections before making any adjustments. The dancer bar should lift $\frac{1}{2}$ inch above the rubber stopper and should actuate the switch.

If not, there are two ways you can adjust for this:

1. Loosen the bolts that secure the limit switch bracket, adjust by sliding up or down as required to get $\frac{1}{2}$ inch lift on the dancer bar, and then retighten bolts.

Or:

2. Adjust the lever by carefully bending it up or down as required to get $\frac{1}{2}$ inch lift on the dancer bar.

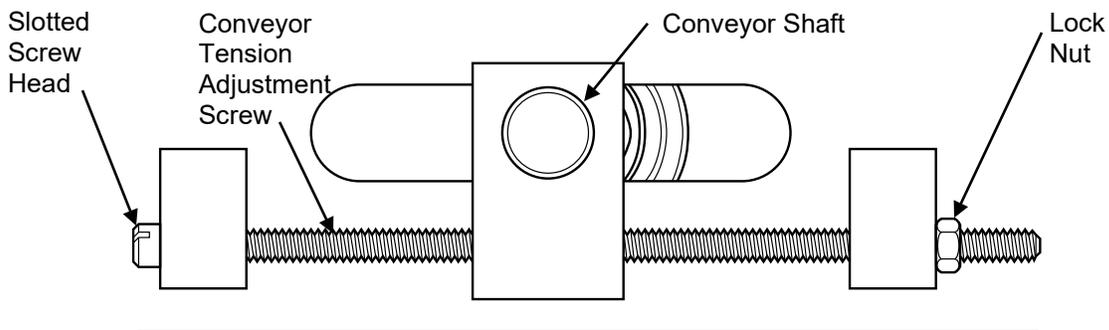


Conveyor Tension Adjustment

Shut off power and disconnect electrical connections before making any adjustments. Adjustment of conveyor tension is made by tightening or loosening the conveyor tension adjustment screws. There are three tension adjustment screws total: there is one at each end of the idler shaft, and one is in the center of the drive shaft.

Ideally the conveyor shaft should end up near the center of adjustment, which is the middle of the distance between the two fixed blocks welded to the frame. Before beginning adjustment, measure these distances to place the conveyor shaft near the middle of adjustment.

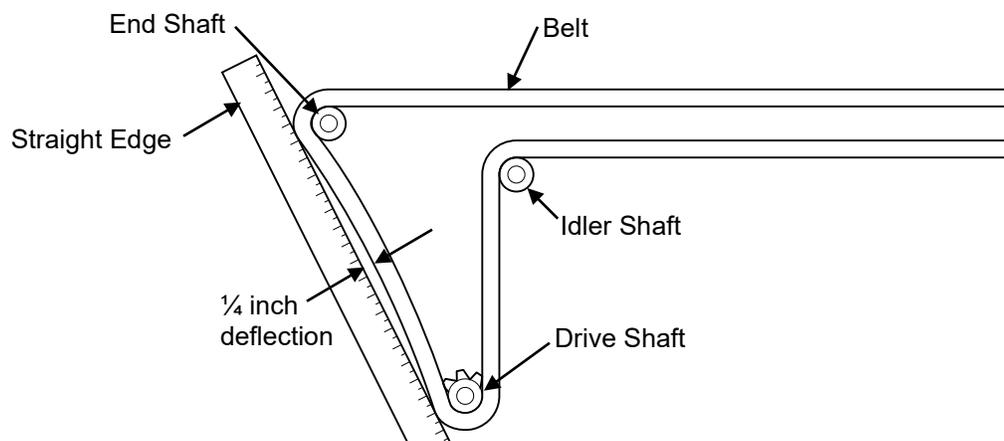
1. Loosen the lock nuts at the ends of the adjustment screws.



2. Use a flat blade screwdriver to adjust tension.

- Turn the adjustment screw counterclockwise to loosen tension.
- Turn the adjustment screw clockwise to increase tension.

3. The proper tension allows approximately $\frac{1}{4}$ inch deflection in the web of the conveyor belt between the end shaft and drive shaft.



4. When the conveyor tension is correctly adjusted, re-tighten the lock nuts.

Seal Head Pressure Adjustment

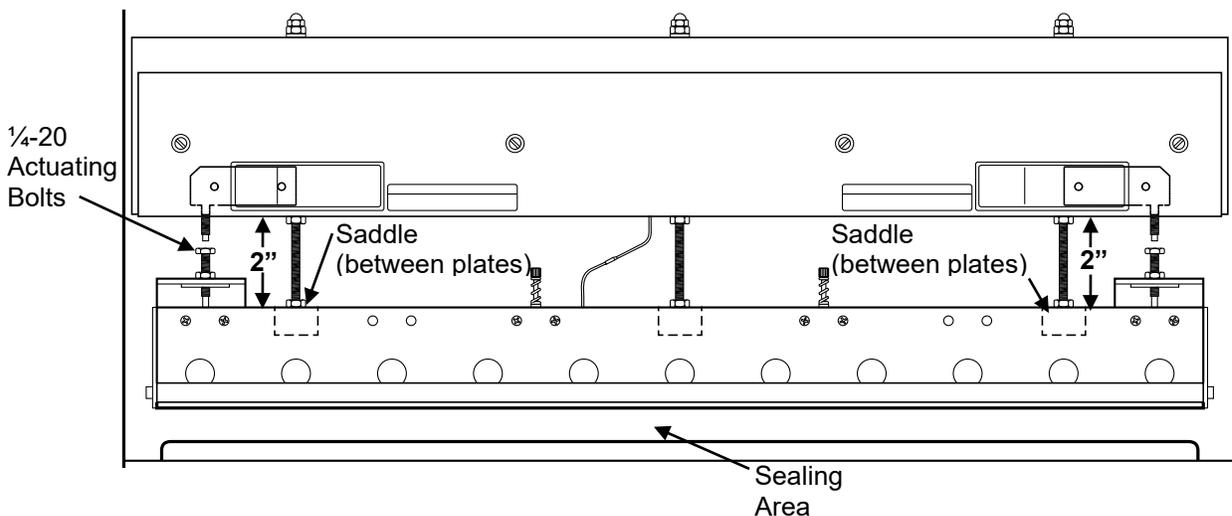
Uniform pressure between the seal head inserts and the sealing pads must always be maintained for proper sealing and uniformity, and to prevent weak seals. This adjustment should be checked periodical and should always be checked when sealing gaps occur. Proceed as follows.

1. Keep power on.
2. Adjust the seal head pressure.

NOTE: If the machine has been in operation for some time, check lower seal pad materials and replace as necessary before making any pressure adjustments. See Lower Seal Pad Replacement on page 47

3. Check the air supply to ensure minimum of 60 PSI.
4. With a piece of paper between the upper and lower seal bars, cycle the seal head. Check with paper all the way across the seal head. Check the impression on the paper to make sure there is even pressure across the seal head.

NOTE: From the cross bar to the top of the saddle (next to the 5/16 inch nut) is 2 inches in height. (This is a good starting point.)



NOTE: One full turn is approximately 1/16 of an inch.

5. If the film pressure is unequal, loosen the upper and lower nuts holding the seal bar saddle in place only in areas where pressure is unequal.

NOTE: If adjustment is needed, see the procedure for **Setting the Head Fault Switches**, which follows.

Setting the Head Fault Switches

NOTE: These switches are factory set and should not be adjusted.

The head fault switches are mounted on top of the seal head crossover bar. Their purpose is to retract the seal head from its downward motion if the guards come into contact with an object.

The head fault switches work in conjunction with the override switch. When the head is $\frac{1}{4}$ inch from the lower seal pad, the override switch is activated. At this point, the head fault will no longer work. For this reason, the override fault limit switch must not be moved from its position preset at the factory.

Replacement of Head Fault Switches

If the head fault switch should need replacing or resetting, you must perform the following steps.

1. Turn off power and allow the head to cool down.
2. Remove the two (2) #8-32 screws that hold the switch on.
3. Disconnect wires at the switch.
4. Remove and replace the switch.
5. Connect wiring to the new switch.
6. Fasten the switch using two (2) #8-32 screws.

Testing the Head Fault Switches

1. Turn on power.
2. Touch Cycle Head button and determine where the lower and upper seal bars meet together.
3. If seal head does not come together, adjust $\frac{1}{4}$ -20 actuating bolts until seal comes together, times out, and then opens.

4. Using approximately $\frac{1}{2}$ inch thickness of cardboard, hold the cardboard between seal bars where they come together and cycle the seal head. The seal head should come together on the cardboard and then open immediately.
5. **Important:** keep all fingers, product, etc., out of the seal area while testing the limit switches.
6. Cycle the seal head without the cardboard. The seal head should come together to meet, time out, and then open.
7. If steps four (4) and five (5) of this procedure are not operating properly, readjust the $\frac{1}{4}$ -20 actuating bolt with lock nut that pushes on the fault limit switch.
8. When the seal head operates properly, lock the $\frac{1}{4}$ -20 actuating bolt in place using the $\frac{1}{4}$ -20 lock nut.

Maintenance

Weekly or Monthly Maintenance

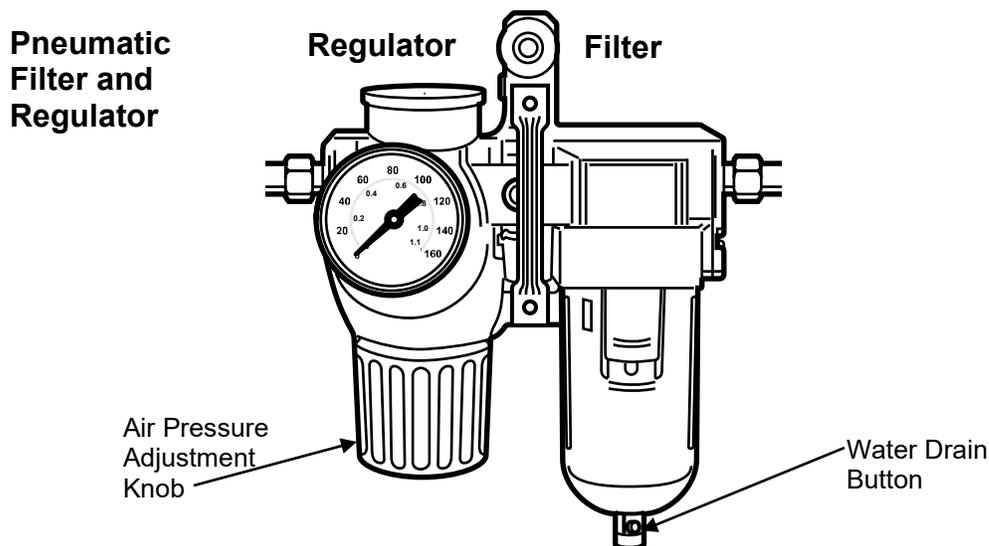
- **Chains:** All seal head drive chains must be oiled every month. They are located on the seal system. Open the doors on the sealer vertical frame members to access the chains. The power film unwinds are also chain driven and these chains must be oiled periodically as well.
- **Linear Bearings:** There are four (4) linear bearings on each side that slide on linear shafts. Every month apply a lightweight oil on these shafts to keep the shafts and bearings moving freely.

NOTE: With upper and lower bearings on each side, there are eight (8) total linear bearings that require light lubrication.

- **Seal Head:** After a while, film may begin to build up on the seal head. With the seal head up to temperature, remove this buildup by wiping the seal head with a clean rag. How often this needs to be done depends on how much the machine is used. Check this every shift or possibly more often if the need arises. Indications that the seal head is accumulating film buildup include poor seals with weak or unsealed spots.

CAUTION: Never clean with any abrasive.

- **Pneumatic Filter:** Periodically drain any water accumulation in the filter and regulator. Press the button on the bottom of the filter and hold to drain out all water that has accumulated in the filter bowl.



- Lower Seal Pad:** Periodically check lower seal pad integrity. Refer to page 47 for replacement.
- Conveyor Tension:** Check the belt tension of the conveyor occasionally to ensure that it is not excessive, as this will cause unnecessary wear. See the instructions for Conveyor Tension Adjustment on page 36 in the previous section if necessary. Refer to page 36 for proper belt tension.

Preventative Maintenance for Modular Plastic Conveyor Belts

Modular plastic conveyor belts typically do not require day-to-day maintenance and are generally trouble-free when installed and operated properly.

Following are a few recommendations to obtain maximum life of the belt and avoid down-time.

- Check belt tension on a routine basis (weekly or monthly) to ensure proper drive. Adjust screw take-up if necessary. (Belts experience thermal expansion while hot.)
- Sprocket alignment should be checked before installing a new belt to ensure that all the teeth are aligned. (A misaligned sprocket can cause the belt to break or go off track.) On round-bore sprockets, it is good practice to check the keyways and tighten keyway setscrews when required.
- If a small section of the belt or a module breaks, it is important to replace it as soon as possible. Failure to do so could incur further damage to the belt. Try to determine the cause of the break before restarting to avoid the break from happening again.
 - To replace a belt section See the Belt Assembly and Belt Disassembly section that begins on page 42 and outlines procedures for Belt Disassembly on page 42.

Belt Assembly and Disassembly

CAUTION: Disconnect main power source before performing any procedure to replace any conveyor component(s).

Whenever possible, for ease of reassembly, try not to remove the conveyor belt completely from the conveyor frame. Open the conveyor belt only enough to expose parts that need to be replaced.

Before removing any belt completely, make note of direction of belt lugs so you will know which direction to face the belt when reinstalling it.

To aid in reinstalling the belt, take note of sprocket locations before disassembly.

Belt Assembly

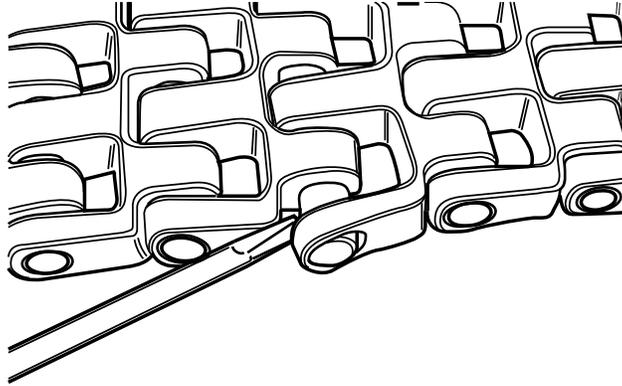
1. Align the ends of the belt to be connected.
2. Insert the new rod.
3. Use a small, plastic tipped hammer to tap the rod while supporting the outer knuckle until the head of the rod is flush with the belt.
4. Trim off the excess rod opposite the head flush with the side of the belt.

Belt Disassembly

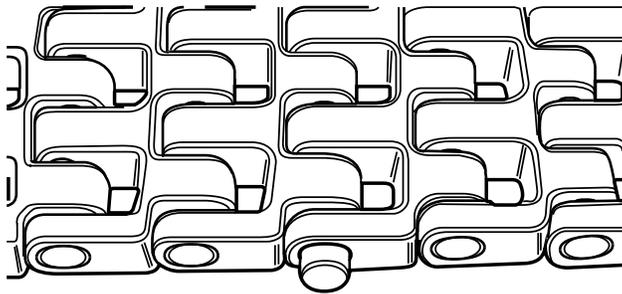
Before disassembling the belt, follow instructions outlined in the Conveyor Tension Adjustment section on page 36 of the Adjustments chapter to loosen the belt tension.

Whenever possible, for ease of reassembly, try not to remove the conveyor belt completely from the conveyor frame. Open the conveyor belt only enough to expose parts that need to be replaced.

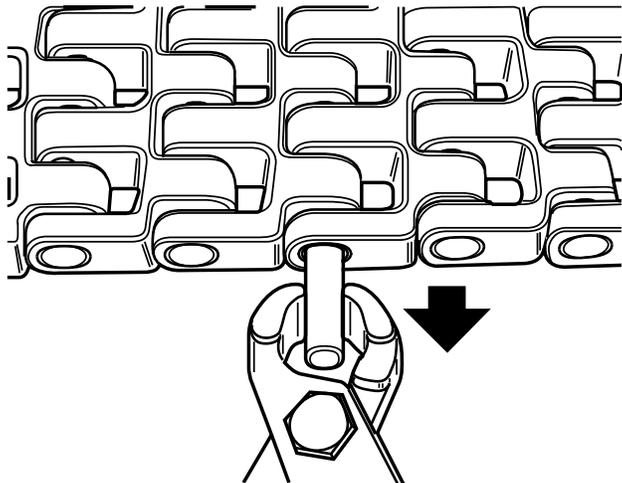
1. Use a small flat-blade screwdriver to gently bend open the belt just enough so that the rod end will be exposed when the screwdriver is released.



2. Release the screwdriver to expose the rod end.



3. Use a pliers, pincer, or similar tool to pull the rod out completely. When grasping and pulling the rod, be careful to not cut or break off the exposed outer finger.



Replacing Conveyor Components

NOTE: Use steps in this section for replacing drive belt, conveyor motor, or drive or idler rollers. Use steps in previous section to replace conveyor belt.

1. Disconnect electrical power.
2. To replace the conveyor end rollers or shafts, idler rollers or shafts, drive shaft or sprocket, it is necessary to loosen the belt tension and open the belt. (See instructions in the previous section.) For ease of assembly and reassembly, try not to remove the conveyor belt completely from the conveyor frame. Open the conveyor belt only enough to expose parts that need to be replaced.

Replacing Conveyor End Roller

There are two rollers with one shaft that extend through the rollers at each end of the conveyor.

Remove the conveyor belt. (See instructions on page 42, earlier in this chapter.)

1. There are two (2) set screws on the end of the conveyor frame and one in the center that secure the conveyor shaft. Loosen these three set screws.
2. Slide the end shaft out of the side of the conveyor and remove the roller.

CAUTION: There are shims on each side of the roller. Note which shim is in each location (to refer to for reassembly) and do not lose these shims. The shims come off with the shaft and need to be reinstalled when reassembling the end roller.

3. Replace worn or damaged parts and reassemble in reverse order of disassembly.

Replacing Drive Shaft, Drive Sprockets, or Conveyor Motor

1. With the power off, open the conveyor belt as much as necessary to expose the drive (exit end) components of the conveyor. (See instructions on page 42, earlier in this chapter.)
2. Remove the chain guards from each side of the conveyor.

3. Loosen the three (3) ¼-20 motor mount bolts and slide the motor forward to remove the chain.

At this point, if the motor requires replacement, disconnect electrical wires and remove the three ¼-20 bolts to remove the motor.

NOTE: Before loosening sprockets, not sprocket location on the shaft and on the belt to aid in reassembly.

4. Loosen the screw in the drive sprocket which hold the key in place.
5. Loosen drive bearing set screws. There are two (2) set screws on each bearing.
6. Slide the drive shaft out of the side of the conveyor frame to replace the drive shaft or sprockets.
7. Replace worn or damaged parts and reassemble in reverse order of disassembly.
8. Use the conveyor belt to properly align sprockets. Refer to notes of sprocket locations taken at disassembly to aid with reassembly

Replacing Conveyor Idler Rollers or Idler Shaft

1. Open the conveyor belt as much as necessary to expose the idler components of the conveyor. (See instructions on page 42, earlier in this chapter.)

There are two (2) idler rollers with one (1) common shaft extending through both rollers.

2. You have already loosened the idler tension adjusting screws to remove tension on the conveyor belt. Remove the idler tension bolts (3 total).
3. There are three (3) idler tension blocks, one on each side and one in the center that the idler tension bolts are screwed into. Loosen the set screw in the tension block to remove it.
4. Loosen the set screws on the idler bearings (two set screws per bearing). There is one bearing on each side of the idler roller.
5. Slide the idler shaft out of the side of the conveyor to replace the idler shaft or idler roller.
6. Replace worn or damaged parts and reassemble in reverse order of disassembly.

Replacing Power Film Unwind Components

CAUTION: Disconnect main power source before performing any procedure to replace any conveyor component(s).

Rubber Drive Roller Replacement

1. Disconnect electrical power.
2. Lift pinch roller and move it out horizontally.

CAUTION: The Pinch roller is heavy. Be careful and do not drop it.

3. Remove the chain guard by the motor.
4. Loosen four motor bolts and slide the motor upward while removing it from the chain.

NOTE: At this point, if the motor needs replacement, disconnect electrical wires, remove the four (4) 5/16-18 bolts to remove the motor.

5. Loosen the anti-backlash pins and slide them back, out of the way.
6. Remove the 5/16 inch bearing bolts off both ends and lift rubber drive roller from machine.
7. Loosen two (2) set screws on bearings and remove them from the shaft.
8. Loosen two (2) set screws on sprocket and remove it from the shaft.
9. Loosen the set screws on the rubber drive roller on both ends.
10. Remove shaft out of old roller and slide shaft into new replacement roller.
11. Work backwards through the above steps for reassembly.

NOTE: When sliding the anti-backlash pins into position, make sure they are not touching the rubber drive roller. Keep them $\frac{1}{8}$ inch away from the roller.

Lower Seal Pad Replacement

Occasionally it will be necessary to replace the sponge rubber on the lower seal bar. These should be replaced if the following are noted:

- Gaps in the seal.
- Weak seals.
- Improper film cutoff.

To replace pads, do the following:

1. Leave the seal head at the highest position.
2. Disconnect electrical power.
3. Seal pads are designed with a channel for easy replacement.
 - a. Pull the sponge rubber out of the channel and replace with a new replacement pad.
 - b. Press the new pad into the channel.

NOTE: If sponge-rubber is covered with talcum powder, clean the exterior with a rag.

NOTE: When replacing sponge rubber, press it in to the channel from side to side, taking care so as not to stretch the material.

Troubleshooting

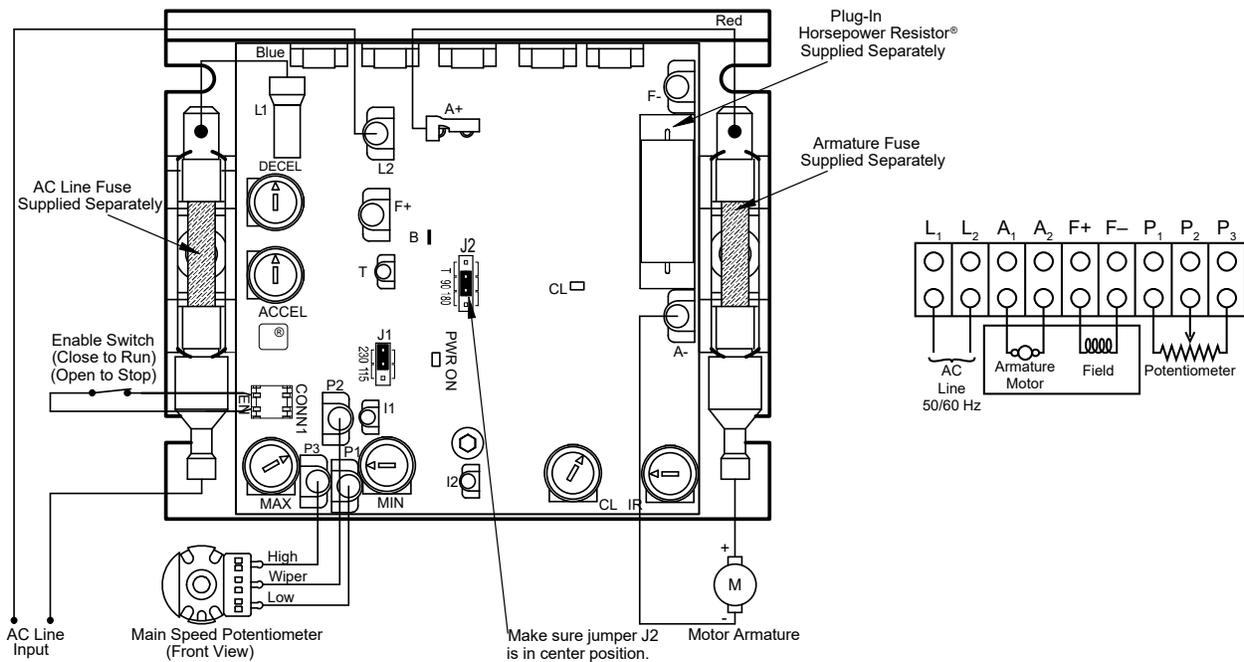
The following illustration shows the D.C. board used in the shrink bundler. Some of the solutions to problems identified in the troubleshooting table that follows refer to adjustments made by tuning potentiometers on this board.

Basic KBMM™ Controller Board Connection Diagram

KBMM™ with Barrier Terminal Kit

CONTROL LAYOUT & GENERAL CONNECTION DIAGRAM (Model KBMM-225D Shown)

(Note: Control is set for 208/230 VAC line input, 0-180 VDC output with armature feedback)



For more information refer to the *KBMM™ Installation and Operation Manual* (provided by the D.C. board manufacturer).

Problem	Solution
Conveyor not moving	<ul style="list-style-type: none">• The conveyor motor is controlled by a D.C. control board. Input is 220 VAC in and variable 0 to 90 VDC out.• Is a green light on? If not, check the input fuse.• If fuse is good and a green light is not on, check for 220 VAC on L1 and L2. If there is voltage, check the output DC voltage.• Check output fuse.• The KBMM-225 has a current overload. Is there a red light on the board? If so, below are some conditions that could cause this light to turn on.• This could be caused by a jammed conveyor.• Locate the ceramic horsepower resistor and check its resistance. If the ohmmeter indicates open (infinite resistance), the resistor is damaged; replace it — but, there is a reason the resistor went out. There will be a point number (for example, .1 or .25) you will need this number when ordering a replacement resistor.• The motor is pulling more amps than the board is allowing. Try adjusting the CL potentiometer on the motor controller board.• Bad idler or drive bearing.• If the red light is on, disconnect the drive motor from the drive chain. Power up the machine and operate the motor without any load and see if the red light goes off. If the board works and the red light does not light, it does not mean that the motor is good; it could be weak under load. Check the brushes. Also pull the conveyor by hand, checking to make sure it pulls smoothly and checking for bad bearings.• If the light remains on, replace the motor.• If the red light is not on and a green light is, with the speed pot set at 100%, check for 90 VDC on terminals A+ and A-. If voltage is not correct, try adjusting the MAX potentiometer to obtain 90 VDC.

LED	Drive Status	Color and Flash Sequence	Flash Rate	Color and Sequence After Recovered Fault
	Normal Operation (Run)	Green	1 sec. On / Off	—
	Overload (120% – 160% Full Load)	Red	On continuously	Green
	I ² t (Drive Timed Out)	Red	0.25 sec. On / Off	—
	Short Circuit	Red	1 sec On / Off	—
	Under-Voltage	Red / Yellow	0.25 sec. On / Off	Red / Yellow / Green
	Over-Voltage	Red / Yellow	1 sec. On / Off	Red / Yellow / Green
	Stop	Yellow	On continuously	—
	Phase Loss Detection ^{1,2}	Yellow	0.04 sec. On / 0.06 sec. Off	—
	Communication Error ²	Green / Red	1 sec. On / Off	Green
PWR (Power)	Bus and Logic Power Supply	Green	On continuously	—

Notes:

1. Phase Loss Detection: Models KBVF-23P, 24P, 29, 45, 48.
2. Requires AC line restart.
3. With DVF Modbus Communication Module Installed.
4. All LED flash rates after recovered faults are 1 sec. On / Off.
5. Drive will require manual restart to return the Status LED color to its normal flashing green state.

Problem	Solution
Seal Head Does Not Cycle	<ol style="list-style-type: none"> 1. Is the power on and E-stop pulled out? 2. Is the air pressure sufficient? Refer to pages 31 and 32. 3. Is the photo eye operational? Refer to pages 33-34. 4. Are the head fault switches aligned properly? Check on IO 1 in PLC light. Refer to page 38. 5. Is “Bag Setup” on display on? The seal head will not operate if “Bag Setup” is on. 6. Did a product trip the head fault switch? Press the “Conveyor Start” button. 7. Does seal head cycle manually?

Problem	Solution
Bad Thermocouple	<p>If there is a bad thermocouple, there will be a red light on the PLC thermocouple module.</p> <ol style="list-style-type: none"> 1. The operator panel will display which zone the bad thermocouple is in, or you can touch the Alarm Screens button to display this information. 2. You can get back to the operating screen without fixing the problem, but there will be an exclamation displayed in the right corner until the problem is fixed. 3. With the thermocouple at room temperature, resistance should measure at about 9.4 Ω. Make sure insulation is not stripped anywhere that would result in a false reading to the temperature controller. 4. If the thermocouple is open, there will be a red light on the thermocouple module. Replace the thermocouple.
Seal Bar Not Heating	<p>Suggestions</p> <ol style="list-style-type: none"> 1. Is the power on? (Power light should be illuminated.) 2. Is the heat display on or off? Touch the "Heat On/Off" so it displays as On. 3. Is the temperature controller set point set above the actual reading? 4. Check thermocouple. 5. Is the red "Out" light for the temperature controller on? 6. Is the green light lit on the solid state relay in the control panel? 7. Is the light on output Q1.4 in the PLC on? (Q1.5 for EB70A or EB80A model.)

Problem	Solution
Film Does Not Feed (Power Film Unwind)	<ol style="list-style-type: none">1. Is the power on?2. Is the pinch roller contacting the rubber drive roller completely?3. Are the dancer bars moving freely? Check dancer bar switch. (Refer to page 35.)4. Is the speed dial for film unwind on?5. Does the green light turn on for the corresponding DC board? (Labeled Upper or Lower PFU.)6. Check fuses on corresponding DC board for continuity.
Conveyors Are Not Running	<ol style="list-style-type: none">1. Is the power on?2. Is the "Conveyor Start" button activated?3. Check fuses on the DC board for conveyors.4. Is there a green light on in the DC board?5. Is the conveyor speed dial turned up?6. Is the output light on the PLC, Q1.0 and Q1.2 on?

Parts List

Electrical

ITEM	PART NO.	DESCRIPTION	EB35A	EB50A	EB70A	EB80A
202	EA000833	CPU Module 16 I/O 24 VDC	1	1	1	1
203	EA000834	CPU Thermocouple Module	1	1	1	1
220	EAST0315	DC Board with DC Dial Speed Control	4	4	4	4
221	EAST0315A	DC Board Dial Kit PFU	4	4	4	4
234	EAST0421-1	Contactor 25/30 Amp 220 V 2-Pole	1	1	1	1
235	ESC00071	DC Motor Control Resistor .05	2	2	4	4
236	ESC00524	Contactor Auxiliary Contacts	1	1	1	1
253	ET000081	DC Motor Control Resistor .1	1	1	1	1
241	EP000532	DIN Rail 6-foot Steel	2	2	2	2
238/245	ESC00577	Legend Plate Stop	1	1	1	1
237/244	ESC00552	Jumpers 10 Pole	1	1	1	1
254	ET000185	Fuse 2.5 Amp Ceramic	2	2	–	–
260	ET000206	Fuse 3 Amp 240 V Glass	2	2	–	–
246	ET000204	Fuse 4 Amp 240V Glass	–	–	4	4
245/255	ET000186	Fuse 5 Amp Ceramic PFU	4	4	4	4
261	ET000301	Fuse 10 Amp 250 Volt	2	2	–	–
271	ETL00200	Fuse 15 Amp 250 Volt	0	0	–	–
227	EAST1009	Fuse 20 Amp 250 Volt		–	2	2
264/250	ETC00125	Fuse Block 30 Amp 250 Volt	1	1	1	1
251/265	ETC00204	Ground Lug 1 Hole ILSCO	2	2	2	2
239/250	ESC00600	Palm Button Head Actuator	1	1	1	1
240/251	ESC00601	Palm Button Red Stop	1	1	1	1
241/252	ESC00604	Palm Button Switch N.C.	1	1	1	1
206/210	EA000836	PLC To HMI Cable 1 m	1	1	1	1
201	EA000832	PLC-S7-1200	1	1	1	1

54 Parts List

ITEM	PART NO.	DESCRIPTION	EB35A	EB50A	EB70A	EB80A
228/240	ECOS0089	Power Cord 12-3	14 ft.	14 ft.	14 ft.	14 ft.
204	EA000804	Power Supply 24 VAC / 1.3 Amp	1	1	1	1
247/262	ET820000	Push / Pull / E-Stop Module	1	1	1	1
211/212	EAST0034	Relay Base	4	4	4	4
210/211	EAST0032A	Relay Spring Clip (Potter & Brumfield)	4	4	4	4
248/263	EA000837	Relay Top – DPDT, 24 VDC	4	4	4	4
200	EAST0495	Relay – Solid State Hot Knife	1	1	1	1
235	EAST1004	Romex Connector 3/8"	1	1	–	–
252/270	ETC00230	Romex Connector 1"	1	1	1	1
213/214	EAST0185	Terminal Strip 10 Place	4	4	4	4
205	EA000831	Touch Screen 7" Color	1	1	1	1

Mechanical

Main Assembly

ITEM	PART NO.	DESCRIPTION	EB35A	EB50A	EB70A	EB80A
205	EA000522	240 V Coil	2	2	2	2
204	BM000507	Air Cylinder ARO 4" × 12"	1	1	2	2
219/220/232	BM000537	Air Filter / Regulator 3/8N	1	1	1	1
265/278/302	P52000109	Air Fitting Male	1	1	1	1
200	65000267	Air Hose 1/2" Used on BM	18 ft.	18 ft.	36 ft.	36 ft.
205	BM000508	Air Valve "ARO"	2	2	2	2
45	BM350153	Anti-Backlash Pin Bar	2	–	–	–
51	BM500153	Anti-Backlash Pin Bar	–	2	–	–
49	BM700153	Anti-Backlash Pin Bar	–	–	2	–
49	BM800153	Anti-Backlash Pin Bar	–	–	–	2
62/63/73	EP000019	Anti-Backlash Pin-Film Rack	16	26	32	36
226/235	EAST0052	Bearing	–	12	12	12
243/255/270	ESC00574	Bearing 1" Bore, Flanged	4	4	4	4
259/272/292	ETC00008	Bearing 5/8 ID General Purpose	12	16	20	20
264/276/301	ETC00308	Bearing 5/8" Flanged Ball	4	4	4	4
214/215/223	BM000529	Brass Fitting 3/8 NPT Plug	1	1	1	1
209/210/213	BM000521	Brass Fitting 3/8 NPT Tee	2	2	2	2
215/216/224	BM000533	Brass Reducer 1/2 NPT – 3/8	1	1	1	1
208	BM000516	Brass Tee 3/8" Female	–	–	2	2
266/280/303	TM000516	Bushing Flange 5/8" × 3/4"	4	4	8	8
235/245/254	ECOS0087	Bushing Snap Econo 3/8" ID	2	2	2	2
260/273/293	ETC00096	Chain # 40 Riveted	4 ft.	6 ft.	4 ft.	4 ft.
202	BM000505	Chain # 60 Roller	24 ft.	24 ft.	24 ft.	24 ft.
023	BM500299	Chain Guard	–	–	–	2

56 Parts List

ITEM	PART NO.	DESCRIPTION	EB35A	EB50A	EB70A	EB80A
033	BM000155	Chain Guard	2	-	-	2
261/274/294	ETC00109	Chain Master Link #40	2	2	2	2
203/	BM000506	Chain Roller #60 Master Link	4	4	4	4
040	BM350026	Chain Shaft Lower	1	-	-	-
041	BM500026	Chain Shaft Lower	-	1	-	-
040	BM700026	Chain Shaft Lower	-	-	1	-
040	BM800026	Chain Shaft Lower	-	-	-	1
041	BM350027	Chain Shaft Upper	1	-	-	-
042	BM500027	Chain Shaft Upper	-	1	-	-
041	BM700027	Chain Shaft Upper	-	-	1	-
041	BM800027	Chain Shaft Upper	-	-	-	1
241/253/264	ESC00538	Clamp Insulated Small	6	6	8	8
67/72/82	ESC00111	Collar 5/8" Split for Film	4	4	4	4
246/258/273	ESC00596	Collar 5/8"	10	10	10	10
243	EAST1019	Collar Set Screw 3/8" ID	-	-	8	16
053	BM350157	Common Shaft	6	-	-	-
055	BM500157	Common Shaft	-	4	-	-
053	BM700157	Common Shaft	-	-	6	-
053	BM800157	Common Shaft	-	-	-	6
217/218/230	BM000535	Conduit 3/4" SS Greenfield	2 ft.	2 ft.	2 ft.	3.75 ft.
252/264	ESC000631	Conduit Clamp 1/2"	-	1	5	5
225/216/217	BM000534	Conduit End 1/2 Greenfield	2	2	2	2
054	BM350300	Conveyor Front Guard Complete	1	-	-	-
66/71/81	ESC00079	Dancer Bar Side Extended Side	4	4	4	4
030/34	BM000156	Dancer Bar L.S. Holder	2	2	2	2
044	BM350152	Dancer Bar Shaft	2	-	-	-
050	BM500152	Dancer Bar Shaft	-	2	-	-
048	BM700152	Dancer Bar Shaft	-	-	2	-
048	BM800152	Dancer Bar Shaft	-	-	-	2
055	BM700160	Dancer Bar Tube Shaft	-	-	2	-
055	BM800160	Dancer Bar Tube Shaft	-	-	-	2
050	BM350154	Dancer Bar Tube	4	-	-	-
052	BM500154	Dancer Bar Tube	-	2	-	-

ITEM	PART NO.	DESCRIPTION	EB35A	EB50A	EB70A	EB80A
050	BM700154	Dancer Bar Tube	-	-	2	-
024	BM000009	Dancer Bar Switch Bracket	-	-	-	2
046	BM500151	Drive Shaft 50" Rubber	-	2	-	-
047	BM700151	Drive Shaft 70" Rubber	-	-	2	-
222/223/235	BM000548	Female Elbow 3/8"	1	1	1	1
064	BM500162	Film Guide Roller Shaft	-	2	-	-
057	BM700162	Film Guide Roller Shaft	-	-	2	-
057	BM800162	Film Guide Roller Shaft	-	-	-	2
240	BM350501	Film Rack Roller 37 1/8"	2	-	-	-
241	BM350502	Film Rack Roller 53 1/8"	4	-	-	-
051	BM350155	Film Rack Roller Shaft	4	-	-	-
061	BM500159	Film Rack Roller Long	-	2	-	-
053	BM500155	Film Rack Roller Shaft	-	4	-	-
051	BM700155	Film Rack Roller Shaft	-	-	4	-
060	BM500158	Film Rack Roller Shaft	-	2	-	-
054	BM700158	Film Rack Roller Shaft	-	-	2	-
054	BM800158	Film Rack Roller Shaft	-	-	-	2
043	BM350150	Film Roller Large	4	-	-	-
045	BM500150	Film Roller Large	-	4	-	-
046	BM700150	Film Roller Large	-	-	8	-
046	BM800150	Film Roller Large	-	-	-	8
063	BM500161	Film Rack Roller Short	-	4	-	-
056	BM700161	Film Rack Roller Short	-	-	4	-
056	BM800161	Film Rack Roller Short	-	-	-	4
065/070/80	ESC00060	Film Roll Guide	4	4	4	4
206/210	BM000509	Flow Control / Air Silence	2	2	2	2
251/263/282	ESC00629	Handle #10-32 Threads	4	4	4	4
224/230/242	EA000711	Handle Locking Cam	2	2	2	2
225/231/243	EA000712	Handle Wing Latching	2	2	2	2
220/221/233	BM000546	Hex Nipple 3/8"	1	1	1	1
233/263/275	ETC00237	Hole Plug Buttons 3/8"	2	2	2	2
227/236/244	EAST0087	Hole Punch Strain Relief	10	10	10	-
028/032	BM000059	Hot Knife Threaded Rod 6" L	4	4	4	4

58 Parts List

ITEM	PART NO.	DESCRIPTION	EB35A	EB50A	EB70A	EB80A
70/73/83	ETC00150	Key For Falcon Sprocket	2	2	2	2
503	ETC00239	Label 2 UL Oil Chains	2	2	2	2
504	ETC00257	Label 21 UL Caution Do	8	8	8	8
500	EAST0737	Label Caution Combustible	2	2	2	2
501	EAST0906	Label Hazardous Voltage	1	1	1	1
506	ETC00512	Label Hot Surfaces	2	2	2	2
505	ETC00511	Label Keep Hand Black & Yellow	10	10	10	10
502	ESC00671	Label Sleeve Wrap Upper Unwind	3	1	3	–
244/256/271	ESC00576	Legend Plate Start	1	1	1	1
245/257/272	ESC00577	Legend Plate Stop	2	2	2	2
001	SUBA0104	Leveling Foot Assembly 1”	4	4	4	4
044	BM700148	Mach-Dancer Counterweight Crossbar	–	–	2	–
044	BM800178	Mach-Dancer Counterweight Crossbar	–	–	–	2
045	BM700149	Mach-Dancer Counterweight Extension	–	–	4	4
043	BM700174	Mach-Dancer Counterweight Shaft	–	–	4	4
262/295	ETC00185	Motor Conveyor Drive 1/8 HP	2	2	–	–
277	ETL00247	Motor Conveyor 1/4 HP 90 RPM	–	–	2	2
240/252/263	ESC00532	Mushroom Head Cap Green	1	1	1	–
284	SA000523	Pushbutton Switch Body	–	–	–	1
285	SA000524	Pushbutton Switch Green Cap	–	–	–	1
229/238/250	EAST0147	Name Plate 2 × 6 Eastey	2	2	2	2
247/259/274	ESC00600	Palm Button Head Actuator	3	3	3	–
248/260/275	ESC00601	Palm Button Red Stop	2	2	2	–
250/262/281	ESC00604	Palm Button Switch N.C.	2	2	2	–
249/261/280	ESC00603	Palm Button Switch N.O.	1	1	1	–
253/263/265	ESC00632	Photo Bracket Mount	1	1	1	–
254/266/284	ESC00636	Photo Sensor	1	1	1	–
052	BM350156	Pinch Roller Shaft	2	–	–	–
044	BM500156	Pinch Roller Shaft	–	2	–	–
052	BM700156	Pinch Roller Shaft	–	–	2	–
064	ES350011	Pinch Roller Tube 38”	–	–	4	–
064	BM800164	Pinch Roller Tube	–	–	–	4
221/222/234	BM000547	Pipe Bushing 3/8” × 3/4”	1	1	1	1
242/254/265	ESC00563	Power Cord 18-3 SO Cord	60 ft.	60 ft.	100 ft.	48.1 ft.

ITEM	PART NO.	DESCRIPTION	EB35A	EB50A	EB70A	EB80A
267/281/304	TM000530	Power Cord 18-2 SO Cord	54 ft.	60 ft.	54 ft.	27 ft.
207/211	BM000511	Precision Regulator $\frac{3}{8}$ "	1	1	1	1
210/211/214	BM000522	Push On Fitting 90° $\frac{1}{2}$	7	7	7	9
211/212/220	BM000524	Push on Fitting 90° $\frac{1}{2}$	2	2	4	4
212/213/215	BM000523	Push on Fitting Straight	5	5	10	9
257/270/290	ET820000	Push / Pull / E-Stop Module	2	2	2	–
283	SA000520	E-Stop Push/Twist N.C	–	–	–	2
284	SA000523	E-Stop Pushbutton Switch Body	–	–	–	1
256/268/507	ESC00679	Reflective Tape For Photo Eye	1 in.	1 in.	1 in.	1 in.
268	ESC00958	Rod End $\frac{3}{4}$ – 16M × $\frac{3}{4}$ I.D.	–	–	1	2
232/241/253	EAST1004	Romex Connector $\frac{3}{8}$ "	6	6	6	1
064/236/246	EP000516	Rubber Bumper Cylindrical	4	4	4	4
074	ES500007	Rubber Drive Roller	–	2	–	–
063/064	EP340001	Rubber Drive Roller with 8 grooves00070	2	–	4	–
063	EM800001	Rubber Drive Roller	–	–	–	4
027/031	BM000031	Seal System Chain Clamp	4	4	4	4
213/214/221	BM000526	Solenoid Connection	2	2	2	2
201	BM000501	Sprocket #60	4	4	4	4
208/209/212	BM000520	Sprocket 40B14 $\frac{5}{8}$ " Bore KW	4	2	4	4
234	EB000523	Sprocket 40BS14	–	2	–	–
219	ETC00301	Sprocket Drive 40BS12 5/8	–	–	–	–
238/248/261	EP000561	Switch Limit PFU	2	2	2	2
025	BM000021	Switch Bracket For Head	1	1	1	1
237/247/260	EP000560	Switch / Limit Dwell / Safety	3	3	4	4
230/239/251	EAST0185	Terminal Strip 10 Place	1	1	1	1
255/267	ESC00640	Tower Light with Pole And Mount	–	1	1	–
267	ESC00647	Tower Light 3-Color 24VAC/DC	–	–	–	1
026/030	BM000025	Upper Chain Adjuster Block	2	2	2	2
035/074	BM000158	W / F – Collar Pinch Roller	2	2	–	2
042	BM350109	Wire Guard 35"	1	–	–	–
043	BM500109	Wire Guard 50"	–	1	–	–
042	BM700109	Wire Guard SS	–	–	1	1
231/240/252	EAST0238	Wire Hole Bushing	11	11	11	16

Seal Head

ITEM	PART NO.	DESCRIPTION	EB35A	EB50A	EB70A	EB80A
207/210/213	ESC00504	Bearing Film Guide	2	4	4	4
001/021/024	52000120	Bushing – Poly/Head Cushion	2	2	2	2
205/206/210	EAST1020	Collar ¼" Zinc Plated	2	2	2	2
044	ES350044	Cutting Rule 35 ⅞" EB35	1	–	–	–
019	ES500054	Cutting Rule 51"	–	1	–	–
052	ES700054	Cutting Rule 70 ⅞"	–	–	1	–
053	ES800054	Cutting Rule 80"	–	–	–	1
208/212/215	ESC00623	Damper Shock Absorber	2	2	2	2
211/214	ESC00580	Firerod Cart 220V 35"	1	–	2	–
211	EAST0629	Firerod Cart 220V 40"	–	–	–	2
203	EAST0678	Firerod Cart 220V 50"	–	1	–	–
007/027/031	BM000057	Head Safety Bracket	2	2	3	3
026/060/062	ESC00037	Hot Knife Saddle Center	1	1	1	1
046	EAST0511E	Hot Knife Saddle with Extended Slot	–	–	1	2
014/045/203	EAST0511	Hot Knife Saddle with Slot MM	2	2	2	2
042	ES350051	Hot Knife Seal Bar 35 ⅞" EB35	1	–	–	–
018	ES500051	Hot Knife Seal Bar 51"	–	1	–	–
051	ES700051	Hot Knife Seal Bar Upper	–	–	1	–
051	ES800051	Hot Knife Seal Bar Upper	–	–	–	1
027/054/061	ESC00131	Hot Knife Slotted Spacer	2	2	2	–
049	ESC00131E	Hot Knife Slotted Spacer Extended	–	–	2	2
017/048/211	EP000095	Hot Knife Spacer Block	1	1	2	3
015/047/204	EAST0514	Hot Knife Spacer Block MM	1	1	2	3
008/028/032	BM000058	Hot Knife Threaded Rod 10"	3	4	5	5
201	BM000503	Linear Bearing 1"	8	8	8	8
006/026/030	BM000040	Linear Bearing Spacer	4	4	4	4
200	BM000028	Linear Shaft	2	2	2	2
043	ES350053	Mushroom Insert 35"	1	–	–	–
020	ES500053	Mushroom Insert 50"	–	1	–	–
053	ES700053	Mushroom Insert 70"	–	–	1	–
061	ES800053L	Hot Knife Mushroom Insert 80"	–	–	–	1

ITEM	PART NO.	DESCRIPTION	EB35A	EB50A	EB70A	EB80A
062	ES800053R	Hot Knife Mushroom Insert 80"	-	-	-	1
052	ES350213	Safety Shield Front [35"]	1	-	-	-
024	ES500216	Safety Shield 50" Front	-	1	-	-
056	ES700216	Safety Shield 70" Front	-	-	1	-
056	ES800216	Safety Shield 80" Front	-	-	-	1
053	ES350216	Safety Shield 35" Back	1	-	-	-
025	ES500217	Safety Shield Back SS [50"]	-	1	-	-
057	ES700217	Safety Shield 70" Back	-	-	1	-
057	ES800217	Safety Shield 80" Back	-	-	-	1
204/205	EAST1007	Safety Shield Spring	2	5	3	3
041	BM350050	Seal Bar Lower 35"	1	-	-	-
013	BM500050	Seal Bar Lower 50"	-	1	-	-
038	BM700050	Seal Bar Lower 70"	-	-	1	-
038	BM800050	Seal Bar Lower 80"	-	-	-	1
045	ES350068	Seal Head Film Guide [35"]	1	-	-	-
022	ES500070	Seal Head Film Guide Tube [50"]	-	2	-	-
022	ES700070	Seal Head Film Guide Tube [70"]	-	-	2	-
050	ES800070	Seal Head Film Guide Tube [80"]	-	-	-	2
037	BM700037	Seal Bar Lower Pad Plate	-	-	1	-
051	ES350070	Seal Head Film Guide Tube	1	-	2	-
050	ES800070	Seal Head Film Guide Tube	-	-	-	2
021	ES500068	Seal Head Film Guide Shaft	-	1	-	-
054	ES700068	Seal Head Film Guide 72"	-	-	1	-
054	ES800068	Seal Head Film Guide 80"	-	-	-	1
040	BM350037	Seal Head Lower Pad Plate	1	-	-	-
037	BM800037	Seal Bar Lower Pad Plate	-	-	-	1
004/024	BM000032	Seal System Linear Shaft	4	4	4	4
005/025	BM000033	Seal System Bearing Keeper	8	8	8	8
002/022	BM000029	Seal System Chain Plate	4	4	4	4
003/23	BM000030	Seal System Chain Side	8	8	8	8
206/207/212	EP000535	Thermocouple Hot Knife	1	1	2	2
009/029	BM000515	Threaded Rod 1-¼ - 12	-	2	2	2

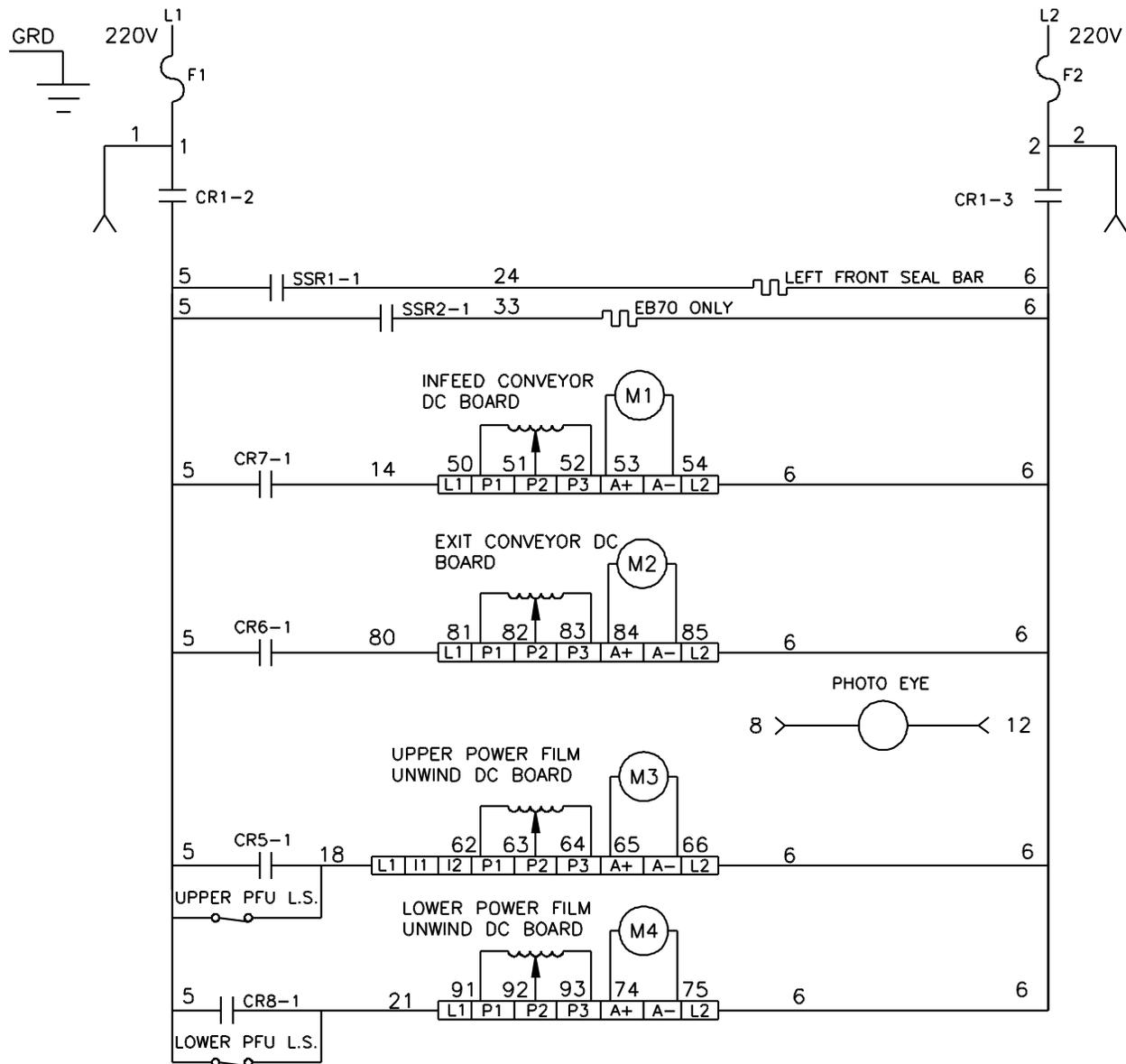
Conveyor

ITEM	PART NO.	DESCRIPTION	EB35	EB50	EB70	
213/214/221	ESC00574	Bearing 1" Bore, Flanged	3	3	3	2
215/225	ETC00008	Bearing 5/8" I.D. General Purpose	4	4	4	4
205/210/225	EA000533	Bearing High Load	8	8	8	16
216/220/226	ETC00096	Chain #40 Riveted	2 ft.	2 ft.	2 ft.	2 ft.
215/217/227	ETC00109	Chain Master Link #40	1	1	1	1
021	BM000594	Conveyor Adjustment Bolt	3	3	3	3
202	BM000572	Conveyor Belt 16" Intra FR	18 ft.	–	–	–
202	BM000575	Conveyor Belt 24" Intra FR	–	18 ft.	–	–
203	BM000595	Conveyor Belt 33" Intra FR	–	–	18 ft.	–
203	BM000597	Conveyor Belt 38" Intra FR	–	–	–	18 ft.
026/032	BM500299	Conveyor Chain Guard	2	2	2	–
030	BM350298	Conveyor Drive Shaft	1	–	–	–
031	BM500298	Conveyor Drive Shaft	–	1	–	–
035	BM700298	Conveyor Drive Shaft	–	–	1	–
033	BM800298	Conveyor Drive Shaft	–	–	–	1
205	BM350297	Conveyor End Roller	4	–	–	–
030	BM500297	Conveyor End Roller	–	4	–	–
034	BM700297	Conveyor End Roller	–	–	4	–
032	BM800297	Conveyor End Roller	–	–	–	4
023	BM350292	Conveyor End Shaft	2	–	–	–
026	BM500292	Conveyor End Shaft	–	2	–	–
031	BM700292	Conveyor End Shaft	–	–	2	–
025	BM800292	Conveyor End Shaft	–	–	–	2
025	BM350296	Conveyor Idler Roller	2	–	–	–
029	BM500296	Conveyor Idler Roller	–	2	–	–
033	BM700296	Conveyor Idler Roller	–	–	2	–
031	BM800296	Conveyor Idler Roller	–	–	–	2
024	BM350295	Conveyor Idler Shaft	1	–	–	–
028	BM500295	Conveyor Idler Shaft	–	1	–	–
032	BM700295	Conveyor Idler Shaft	–	–	1	–
030	BM800295	Conveyor Idler Shaft	–	–	–	1

ITEM	PART NO.	DESCRIPTION	EB35	EB50	EB70	
025	BM500291	Conveyor Take Away Welded	–	1	–	–
030	BM700291	Conveyor Take Away Welded	–	–	1	–
024	BM800291	Conveyor Take Away Welded	–	–	–	1
204/210	BM350289	Conveyor Top Skid Plate	4	6	6	10
218/222	ETC00237	Hole Plug Button 3/8"	1	–	2	1
027/031	BM500294	Idler Shaft Adjustment Block	3	3	3	3
034/041/045	ETC00150	Key For Falcon Sprocket	7	9	11	13
220/224/230	ETL00247	Motor Conveyor 1/4 HP 90 RPM	1	1	1	1
212/213	ESC00563	Power Cord 18-3 SO Cord	15 ft.	–	12 ft.	48.1 ft.
201	BM000289	Return Rail Nylatron	6	6	6	6
210/211	EAST1004	Romex Connector 3/8"	1	–	1	1
200	BM000288	Side Rail Nylatron	4	4	4	4
202/203	BM000580	Sprocket 3.1" Gray 1" Round	6	8	10	12
211/212/220	ESC00562	Sprocket 40 B 18 1" Bore	1	1	1	1
219/223/228	ETC00301	Sprocket Drive 40BS12–5/8	1	1	1	1

Appendix A: Electrical Schematics

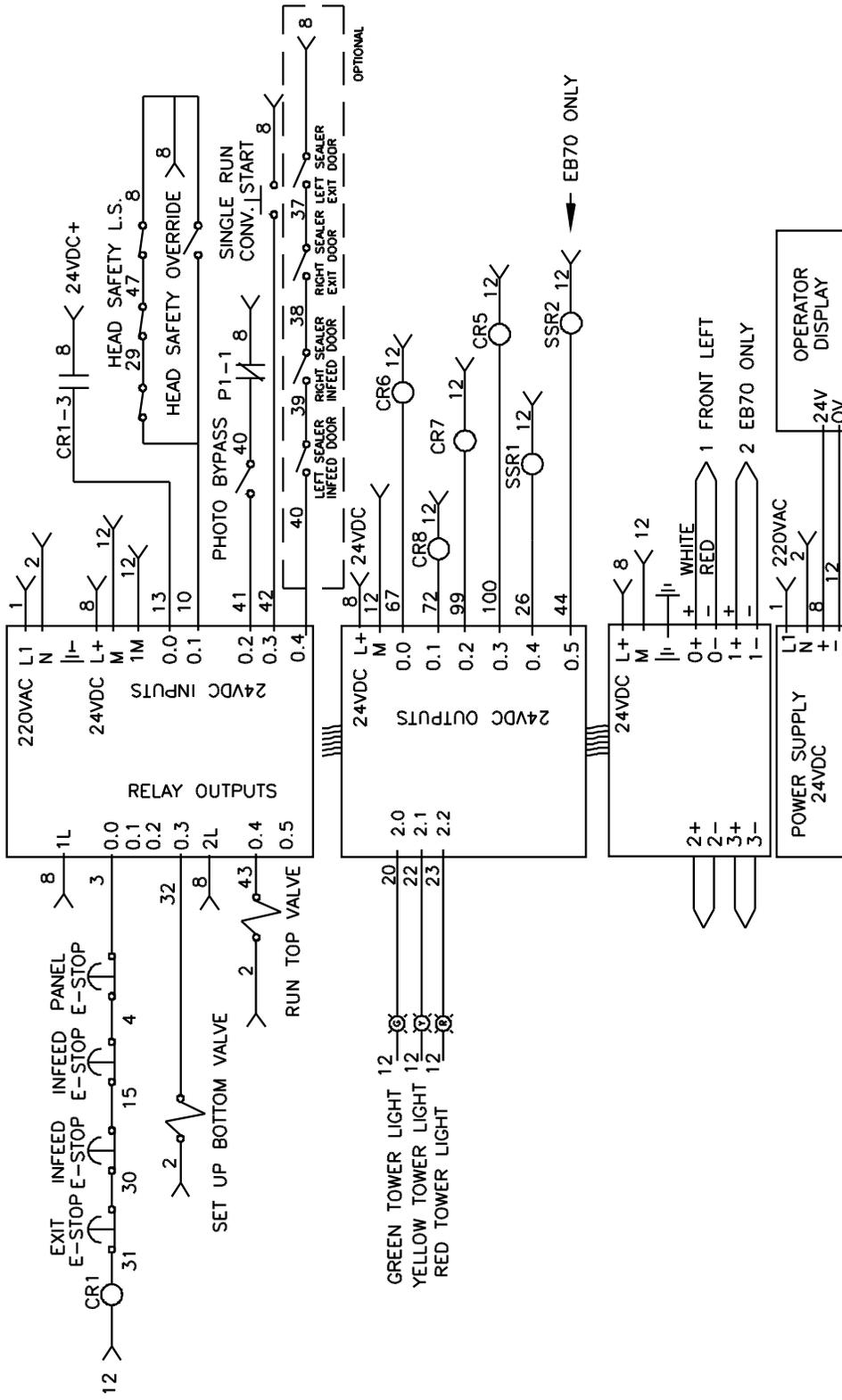
Electrical Schematic (Page 1 of 2)



- NOTE:
 1) DC BOARDS HAVE INTERNAL FUSING ON L1 AND A+ (MOTOR ARMATURE)
 5 AMP FUSES ON L1 (ALL DC BOARDS)
 3 AMP FUSES FOR A+ FOR M1 & M2
 2.5 AMP FUSES FOR A+ ON M3 & M4

ELECTRICAL DRAWING EB-AUTO, UL	
EASTEX	BM000492 UL - NEW PCL/HMI
	REV D - 3-2-18 - PAGE 1 OF 2

Electrical Schematic (Page 2 of 2)



NOTE:
 1) DC BOARDS HAVE INTERNAL FUSING ON L1 AND A+ (MOTOR ARMATURE)
 5 AMP FUSES ON L1 (ALL DC BOARDS)
 3 AMP FUSES FOR A+ FOR M1 & M2
 2.5 AMP FUSES FOR A+ ON M3 & M4

ELECTRICAL DRAWING EB-AUTO, UL	
EAST EASTEY	BM000492 UL - NEW PCL/HMI
	REV D - 3-2-18 - PAGE 2 OF 2

Warranty Statement

Eastey Shrink Packaging Equipment

Warranty Statement

Eastey Enterprises warrants that all of the products it ships will be in good working order and free from defects in material and workmanship for a period of two (2) years from the date of shipment by Eastey and will conform to the published specifications for that product. Spare parts that are manufactured in house by Eastey will be warranted for two (2) years. Bought out parts will be warranted for one (1) year.

Warranty Period – Specific Items:

Silicone Tubing (Roller Covering)	30 days
End Curtains	30 days
Felt Pad	30 days
Conveyor Belt	30 days

Fuses are considered to be consumable items and not under warranty.

Shrinking Quality

Shrinking quality achieved in a given application is dependent on the installation, the material handling, and the maintenance provided. Eastey makes no warranty that the shrinking quality achieved in an application will be the same as that achieved on a test piece in our demo facility.

Shipping Policy

Customer pays all incoming shipping. If the item is defective and under warranty, Eastey pays return shipping charges for least costly method. If expedited shipping is desired, customer must furnish their shipping account and shipping fees will be charged to that account.

Warranty Verification

If you conclude that a product may be defective and may be covered by warranty, obtain a Return Material Authorization number by calling our technical support number (toll free at 1-800-835-9344, or 763-428-4846 or Fax: 763-795-8867) or e-mail: info@eastey.com. Based on the recommendation from Eastey technical support, replacement components may be shipped out via UPS Ground or similar method. If expedited shipping is desired, customer must furnish their shipping account and shipping fees will be charged to that account. Customer is required to return the defective component to Eastey. If, after 30 days, Eastey hasn't received the defective component, the customer will be invoiced for the replacement component. If the returned component is found to not be eligible for warranty, Eastey will contact the customer, and the customer will be invoiced for the replacement component.

Warranty Eligibility

The warranty provided by Eastey Enterprises, Inc. is only to the original buyer.

Limited Warranty

THE ABOVE WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT.

Disclaimer of Damages

REGARDLESS OF WHETHER ANY REMEDY SET FORTH HEREIN FAILS OF ITS ESSENTIAL PURPOSE, IN NO EVENT WILL EASTEY ENTERPRISES, INC. BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT OR SIMILAR DAMAGES, INCLUDING LOST PROFIT OR LOST OPPORTUNITIES OF ANY TYPE ARISING OUT OF THE USE OR INABILITY TO USE THESE PRODUCTS EVEN IF EASTEY ENTERPRISES, INC. HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Customer Support

Eastey Technical Service

For help setting up or operating the EB/A Professional Series Semi-Automatic-Bundling Sealers, please contact Eastey Technical Service at one of the numbers listed below.

Toll-Free Phone	800-835-9344
Phone	763-428-4846
Fax	763-795-8867
E-mail	info@eastey.com
Web	www.eastey.com

Thank you again for your purchase of Eastey products. We are pleased to be a part of your packaging needs.



EASTEY®