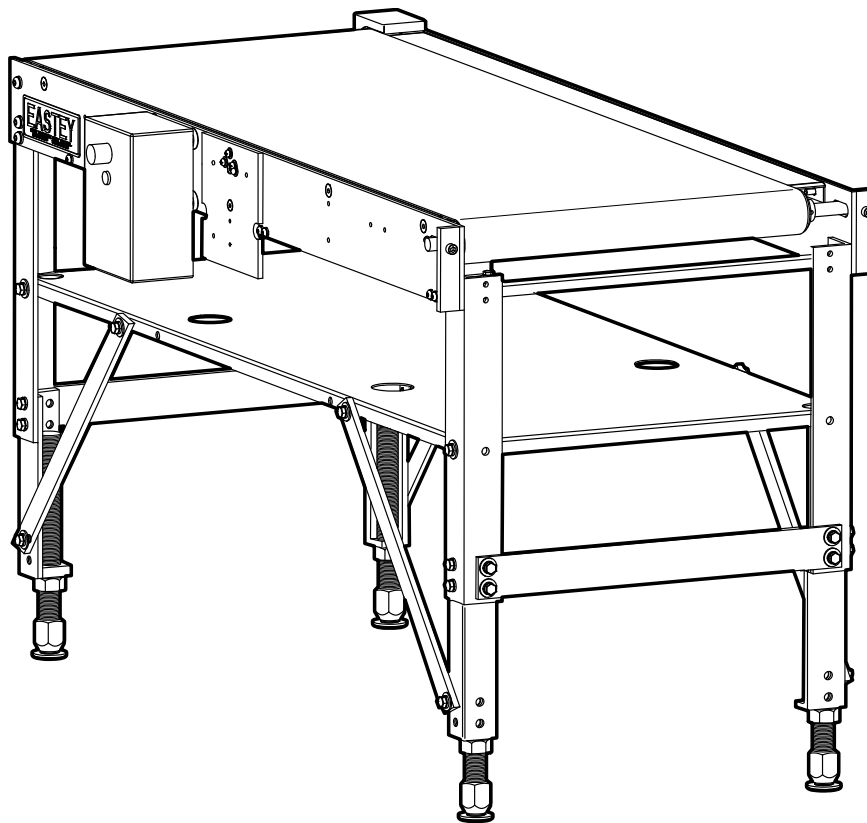


EC

EC1248, EC1848 & EC2472

Easteey EC Series Variable Speed Conveyors

User Guide



EASTEY[®]

EC EC1248, EC1848 & EC2472

Eastey EC Series Variable Speed Conveyors

User Guide

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Safety

General Safety Precautions

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

- This machine is equipped with moving belts. Do not place hands near the rear of this unit when the belts are moving as fingers may be pinched where belts enter the frame.
- Do not attempt to open or work on the electrical box, junction boxes or other electrical components of the unit without first disconnecting power to the machine. Electrical shock hazard exists if power is not disconnected.
- Do not by-pass any factory-designed safety features such as guards, interlocks, switches, etc.
- Do not place hands or body inside the confines of the machine unless all mechanisms are securely fastened and the electrical supply is shut off.
- Never provide service or clear a box jam when machine is running.
- Do not wear loose clothing such as ties, scarves, jewelry etc. Long hair should be pulled back and/or covered while operating this machine.
- Do not stand or climb on any part of the conveyor or frame.

Explanation of Symbols



Caution sign or Safety Alert symbol. Indicates caution, be alert, Your safety is involved. Knowledge of safe operation is required.



Ground symbol. Indicates ground. Use Class-3 (lower than 1000) cable to ground to earth. Incomplete grounding may lead to electrical shock.



Electrical hazard. Indicates electrical danger. Only a trained electrician can uncover the electrical panel or box.



Entanglement hazard. Moving parts can crush and cut. Keep hands and fingers clear of moving parts. Shut down the machine before performing maintenance. Keep hands and fingers clear of belt, rollers, and drive mechanism before starting conveyor and while it is in operation.



Pinch hazard. Do not place your hands or fingers in the moving mechanism. Shut down the machine before performing maintenance.

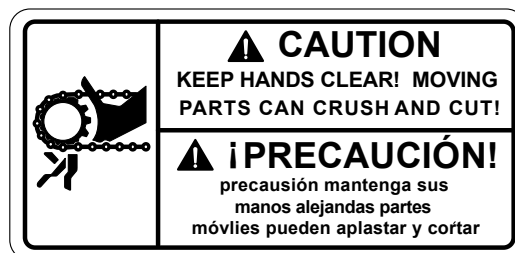


Moisture hazard. Keep equipment dry. This equipment is designed for indoor operation in a typical clean, dry factory environment, protected from rain and moisture. Do not operate the machine in any extremely wet or oily environment that may exceed operating specifications.



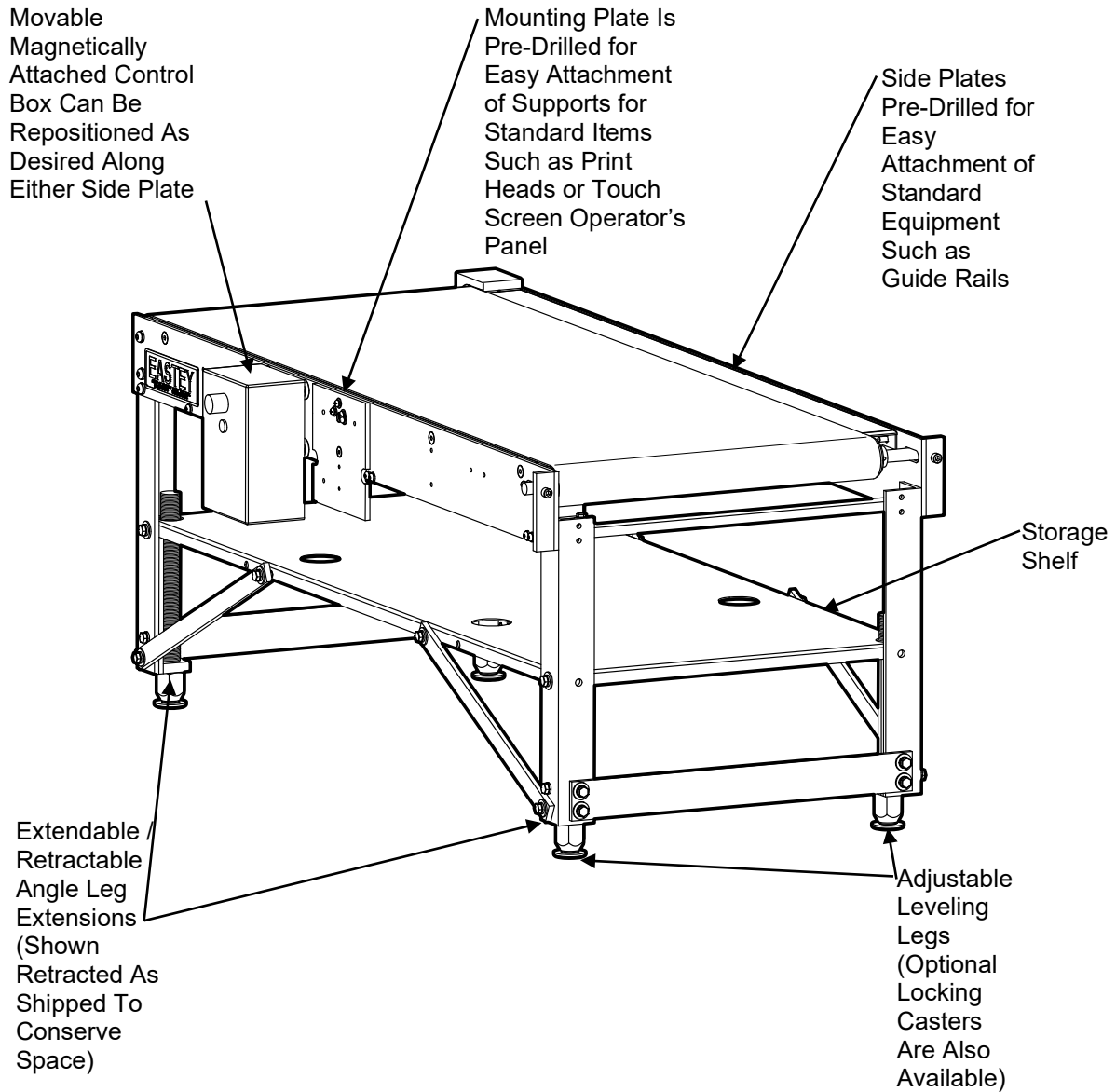
Warning symbol. Indicates a hazardous situation which, if not avoided could result in death or serious injury. A warning indicates a situation potentially more severe than indicated by a caution message but not imminent as a danger message.

The warning symbol is associated with messages for conditions as shown below.



Introduction

Eastey EC Series Variable Speed Conveyor Overview



Note: Conveyors are shipped collapsed to minimum height to conserve space during shipping. Conveyor legs are adjustable for height and leveling, and angle leg extension brackets are provided in legs at all four corners of the conveyor to provide stability at increased conveyor height.

Specifications

Model	Nominal Conveyor Size (width × length)	Width (A)	Height (B)	Length (C)
EC1248	12 in. × 48 in. 30.5 × 122 cm	20.2 in. 51.3 cm	See Table Below Based on Leg Length	48.9 in. 124.2 cm
EC1848	18 in. × 48 in. 45.7 × 122 cm	26.2 in. 66.5 cm	See Table Below Based on Leg Length	48.9 in. 124.2 cm
EC2472	24 in. × 72 in. 61 × 183 cm	32.2 in. 81.8 cm	See Table Below Based on Leg Length	72 in. 183 cm

Model	With 9" Leveling Legs	With 17" Leveling Legs	With 9" Leveling Legs and Locking Casters	With 17" Leveling Legs and Locking Casters
All Models	20 in. - 33.5 in. 50.8 cm – 85.1 cm	28 in. - 41.5 in. 71.1 cm – 105.4 cm	24 in. - 37.5 in. 61 cm – 95.3 cm	32 in. - 45.5 in. 81.2 cm – 115.6 cm

Explanation of Model Numbers

- E = Manufactured by Eastey Enterprises Inc., division of Engage Technologies.
- C = Conveyor. EC Series variable speed conveyor offer a reliable stand-alone product transport for primary or secondary product marking, and make a convenient add-on infeed or exit conveyor to existing case taping or shrink wrapping equipment.
- __ = 12, 18, or 24 — First two digits indicate the nominal width of the conveyor belt in inches: 12, 18, or 24-inch conveyor lengths are available.
- __ = 48 or 72 — Remaining two digits indicate the nominal total length of the conveyor in inches: 48 or 72-inch conveyor lengths are available.
- V0 = Voltage and Phase, 110V 5A single phase. All models are available configured for 110V 5A single phase. Only single phase is offered.

Conveyor Specifications

Machinery Makeup	Industrial strength ¼ inch thick steel, powder coated for durability.
Variable Speed	Up to 100 fpm.
Conveyor Height Adjustment	20 in. to 33.5 in. with 9-in. leg and without casters; 23 in. to 41.5 in. with 17-in. leg and without casters; 24 in. to 37.5 in. with 9-in. leg and with casters; 27 in. to 45.5 in. with 17-in. leg and with casters.
Electrical Requirements	110~115V 5A Single Phase.

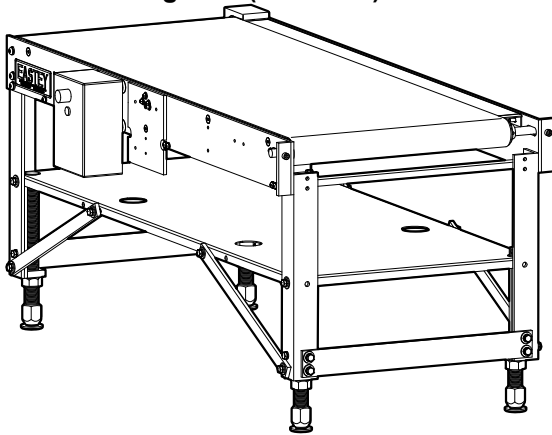
Standard features

- Magnetic control box can be mounted on either side of conveyor to accommodate conveyor orientation and operator convenience.
- Pre-drilled mounting plate for printer brackets (one mounting plate is provided standard) makes for easy integration with ink jet printers and other equipment.
- Shelf included for storage of various items such as spare printheads, printer and LED control boxes, spare ink, and more.
- Small space saving footprint
- Seamless self-tracking belt
- ¼ inch cold rolled steel
- Variable speed drive
- Optional guide rails available
- Safety cover over pinch points
- Adjustable conveyor height
- Smooth, consistent belt speed

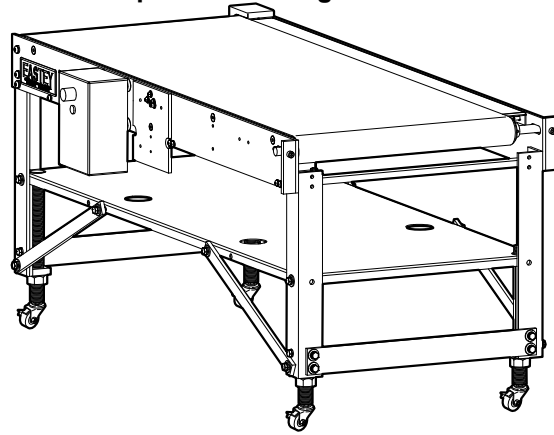
Eastey Conveyor Optional Accessories

Additional Print Head Mounting Plate	Predrilled to mount full family of Squid Ink Printing Systems.
Guide Rails	Single or dual optional heavy-duty side rails are available for box or primary product guidance to align product for consistent print (sold separately per side).
17-Inch Threaded Rod Legs	For up to 8" additional adjustable conveyor height if required.
Casters	Lockable casters for easy movement throughout the plant.

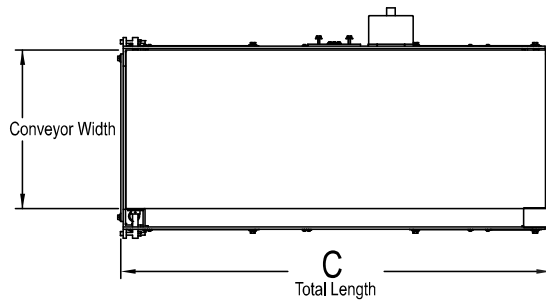
With Leveling Feet (Standard)



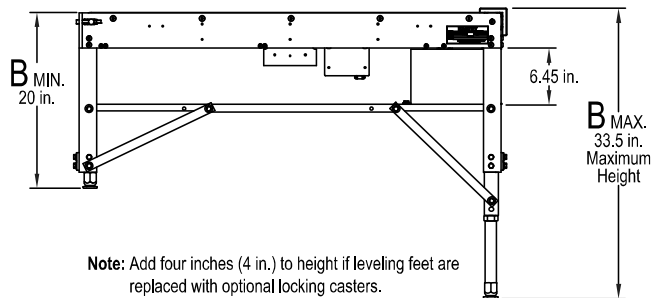
With Optional Locking Casters



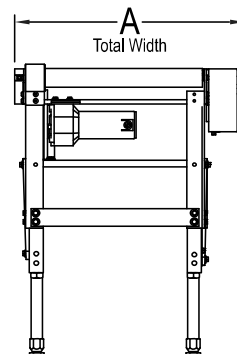
Dimensions



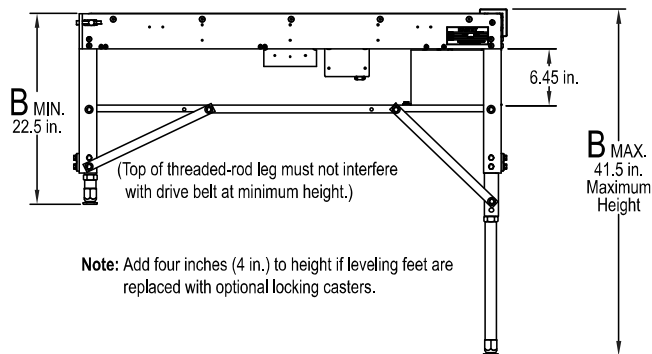
Overall Height with C0000503, 9-inch Length Leg Leveler Kit (4 Legs & Leveling Feet)



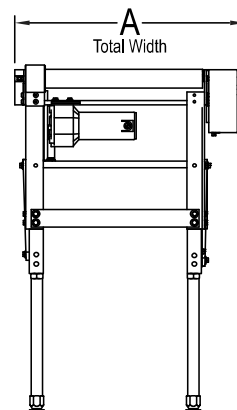
Note: Add four inches (4 in.) to height if leveling feet are replaced with optional locking casters.



Overall Height with C0000504, 17-inch Length Leg Leveler Kit (4 Legs & Leveling Feet)



Note: Add four inches (4 in.) to height if leveling feet are replaced with optional locking casters.



Installation

Carefully unpack the outer carton and shipping material. Avoid damaging the conveyor frame.

Remove shipping bolts or brackets securing the conveyor to the shipping base. Lift the conveyor off the shipping base.

CAUTION! The conveyor may require more than one person to move safely off the shipping base.

Optional Casters

The conveyor is delivered flat leveling feet, standard. If the conveyor is ordered with optional locking casters, the casters are installed at the factory and the conveyor is delivered with them installed, attached to the bottom of the threaded leveling legs.

Move Conveyor into Operating Location

Move the Eastey EC Series Variable Speed Conveyor to the desired location where it will be operating. If the conveyor is equipped with the standard leveling feet, it may require some lifting, but will easily skid across a smooth level floor surface. If you have purchased the optional locking casters you can roll the conveyor easily over a smooth flat surface. Move each caster lever to the locked position to keep the conveyor from moving.

Height Adjustment and Leveling

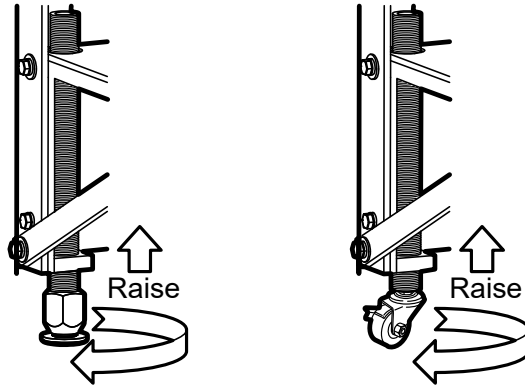
Conveyors are shipped at minimum height to conserve space during shipping so it is likely you will need to increase the conveyor height to bring it up to the desired height of your conveyor line. All four legs at the corners of the conveyor are adjustable for height and leveling, and two mechanisms allow for height adjustment: threaded-rod legs and leg-extension angle brackets.

Threaded-rod legs: threaded-rod legs are adjustable for their total length (less approximately ½ inch of threads required to secure the legs in the bottom of leg-extension angle brackets) and provide for fine adjustment to level the conveyor at the required conveyor height.

Leg-extension angle brackets: Extending or retracting the leg-extension angles provide five inches (5") additional height when extended, or less five inches (5") when retracted. When extending the leg-extension angles, it is recommended to reposition the leg brace strap for stability. See the illustrations on the following page.

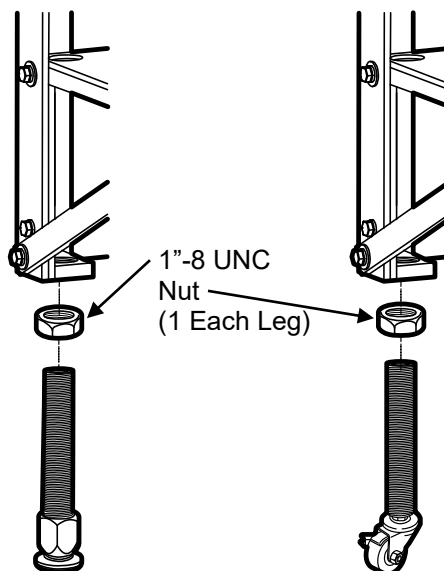
Raising the Conveyor

Begin raising the conveyor by turning the feet clockwise, as viewed from above.



Note: Thread-locking compound is used to secure the feet or optional casters to the leveling leg.

If you will be raising the conveyor more than $\frac{7}{8}$ inches from the minimum shipping height, thread the threaded-rod leg all of the way out of the bottom of the conveyor leg-extension angle bracket and thread a 1"-8 UNC standard nut (4 provided – one for each leg) onto the threaded rod, and then re-thread the threaded rod back into place. The 1-8 UNC nut will function as a jam nut to lock the conveyor at the level height when the conveyor is adjusted and leveled at the required height.

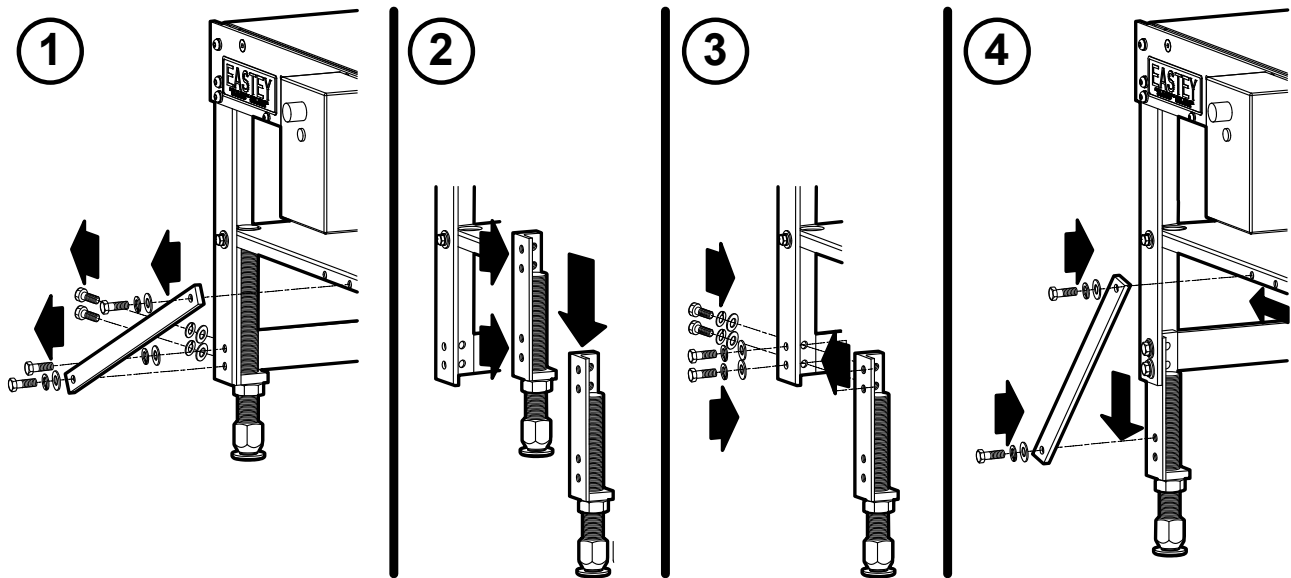


Note: An open-end wrench or channel-style wrench with a 1- $\frac{1}{2}$ " opening is required for the 1"-8 UNC standard nuts.

Leg Extension Angle Brackets

For fine-adjustment of the leg height, twist to thread the threaded-rod leg into or out of the conveyor leg angle bracket to adjust each leg up or down. (Loosen the 1"-8 UNC standard nut when applicable to allow adjustment of the threaded rod.)

If the conveyor is to be raised more than 5-⁷/₈ inches in height from minimum shipping height, extend the leg extension angle brackets on all four corners. Instructions for extending the leg extension angle brackets are provided below.

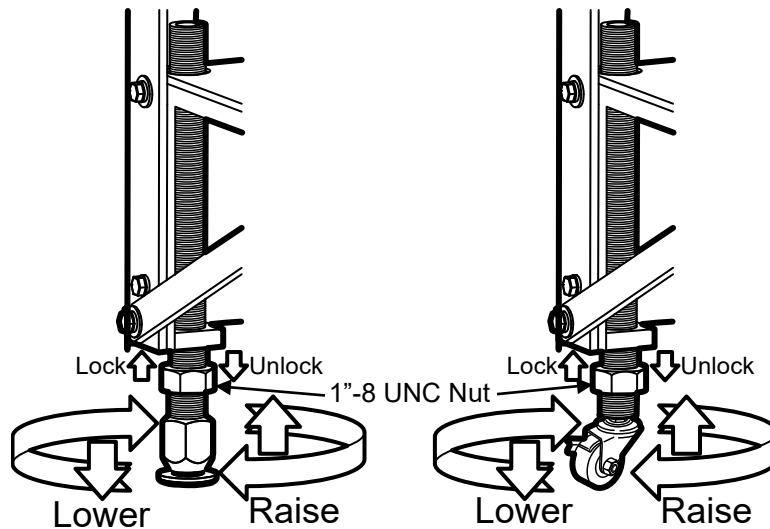


1. Temporarily remove and save the hardware that fastens the leg extension angle bracket and leg brace bar. Remove both ends of the leg brace bar, as the brace bar will be repositioned to other holes when it is refastened to the leg extension angle bracket.
2. Reposition the leg extension angle to align the upper holes in the leg extension angle with the bottom holes in the vertical leg of the conveyor base frame.
3. With the leg extension angle bracket extended, use the same hardware removed previously to refasten the leg extension angle bracket to the conveyor base frame.
4. Reposition the leg brace bar as shown, to align the top hole with the hole closer to the corner in the side brace of the conveyor base frame, and to use the upper of the two holes near the bottom of the leg extension angle bracket.

Note: If higher conveyor height is required, optional 17-inch long threaded rod legs are available to provide up to 8 inches of additional adjustable conveyor height.

Height Fine-Adjustment and Leveling

For fine-adjustment of the leg length for fine-adjustment of height or for final leveling of the conveyor, first loosen the 1"-8 UNC standard nut, if applicable, and then twist the threaded-rod leg into or out of the conveyor leg angle bracket.



Note: An open-end wrench or channel-style wrench with a 1-1/2" opening is required for the 1"-8 UNC standard nuts.

Location Requirements

When installing the Eastey EC Series Variable Speed Conveyor please be aware of the following considerations:

1. The mounting surface is flat and level.
2. Conveyor or packing table height.
3. Alignment with packaging line.

A packing table may be provided at the in feed end where items may be placed before sending them on to the conveyor. It can also be convenient to have a pack table at the exit end of the conveyor line. It is essential that the conveyor be at the same approximate height as other components of the line.

The conveyor should be placed on a flat, level floor so that it does not rock or move. We recommend that the machine be securely locked in place when used.

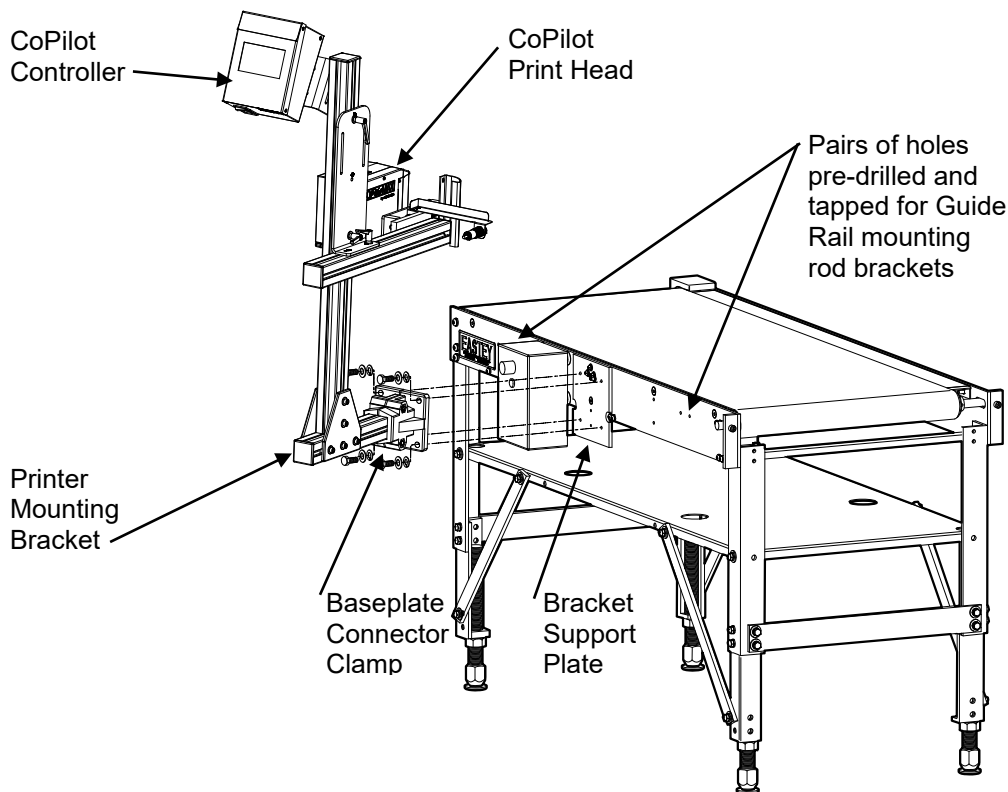
Mounting the Ink Jet Printer

There are mounting holes predrilled that allow you to mount a variety of printing systems on the Variable-Speed Conveyor. **Refer to the User Guide that came with your printer for mounting instructions.**

The illustrations that follow in this section show examples of possible locations for attaching mounting brackets for some common printer configurations. Your printer configuration may be different.

Example of Variable Speed Conveyor with CoPilot Mounting Bracket

A pre-drilled and tapped mounting Bracket Support Plate is provided for installation of the Printer Mounting Bracket. Use four (4) $\frac{1}{4}$ -20 \times 1" hex-head bolts with flat washers and lock nuts to fasten the Baseplate Connector Clamp to the Bracket Support Plate.

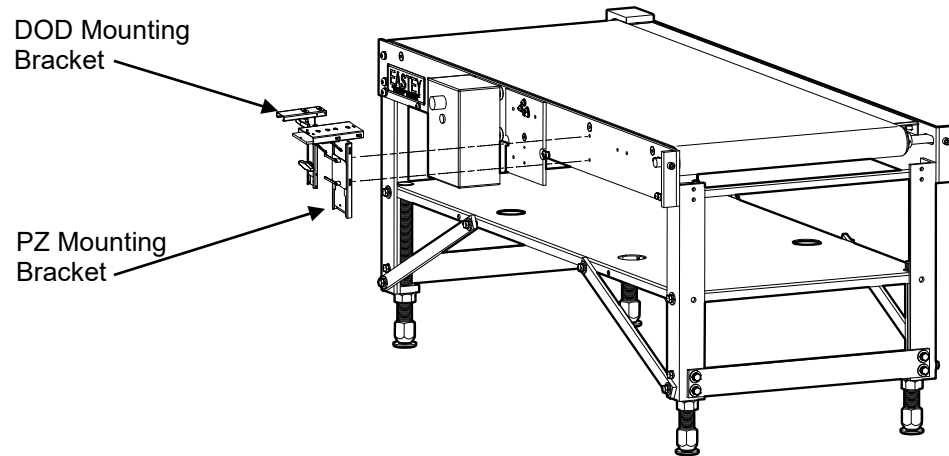


Note The above example shows a CoPilot Max system on 2005061 kit. Other printers can be mounted in a similar way.

Note Threaded holes in the conveyor side plates are provided on both sides of the conveyor for mounting Guide Rail mounting rod brackets.

Example of Variable Speed Conveyor with Squid Ink PZ Mounting Bracket or DOD Mounting Bracket

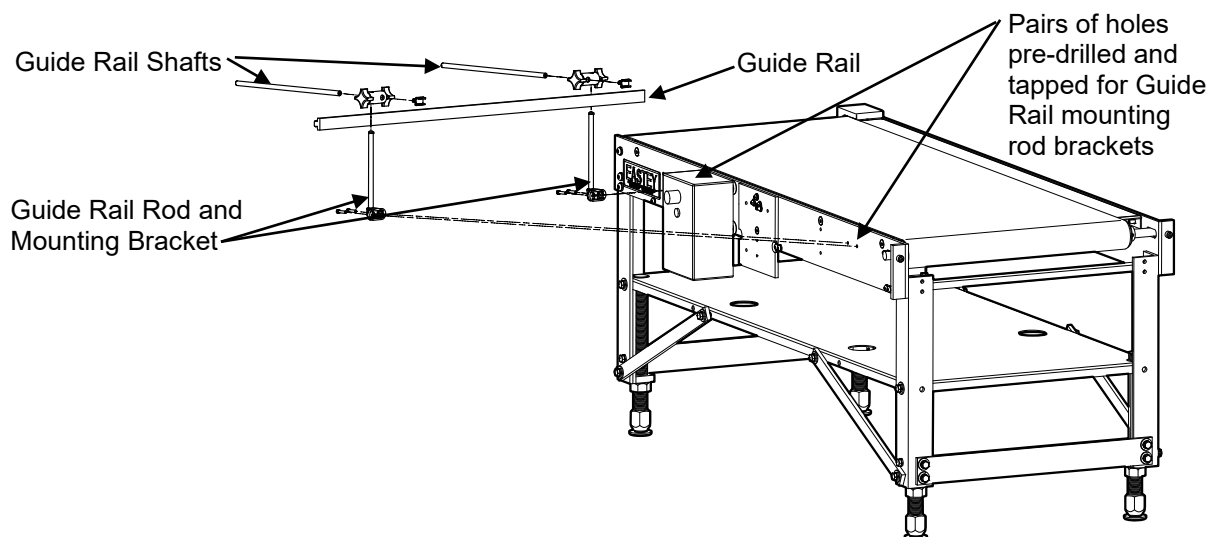
For a Squid Ink PZ or DOD printer, fasten the applicable mounting bracket to the Variable Speed Conveyor side plate as shown in the illustration below. **Refer to the User Guide that came with your printer for mounting instructions.**



Note Threaded holes in the conveyor side plates are provided on both sides of the conveyor for mounting PZ or DOD mounting brackets.

Guide Rail Assembly and Installation (C000501 or C000511)

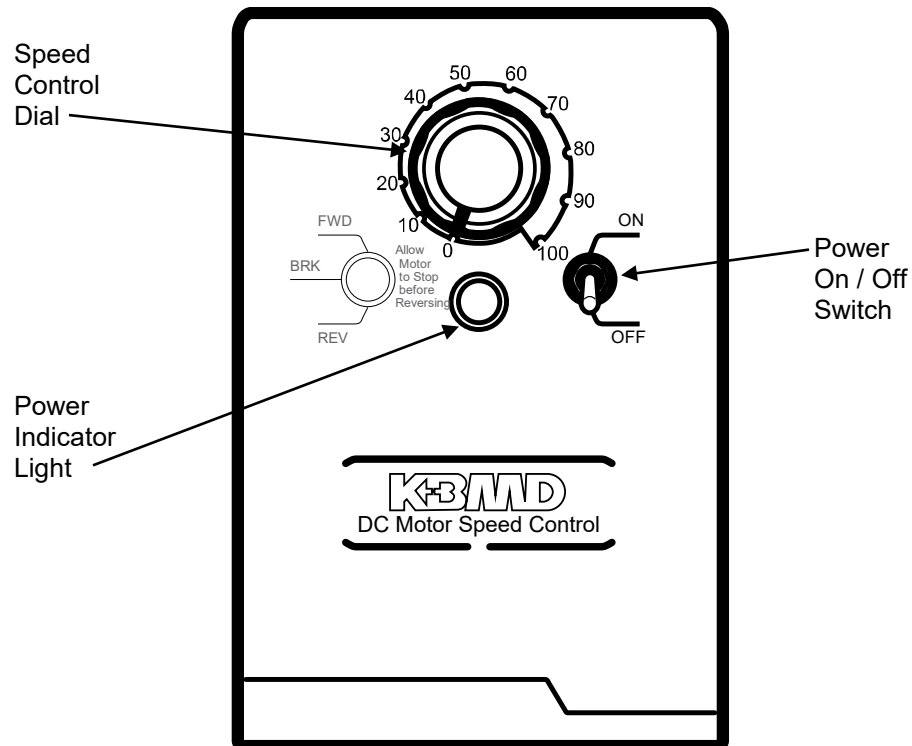
Drilled and threaded holes are provided in the Variable Speed Conveyor side plates in both sides for attaching a Guide Rail to either side of the conveyor.



Operation

Power

With the toggle Power Switch set to the Off position and Speed Control Dial set to minimum setting (0) Plug the power supply cord into a properly wired and grounded outlet.



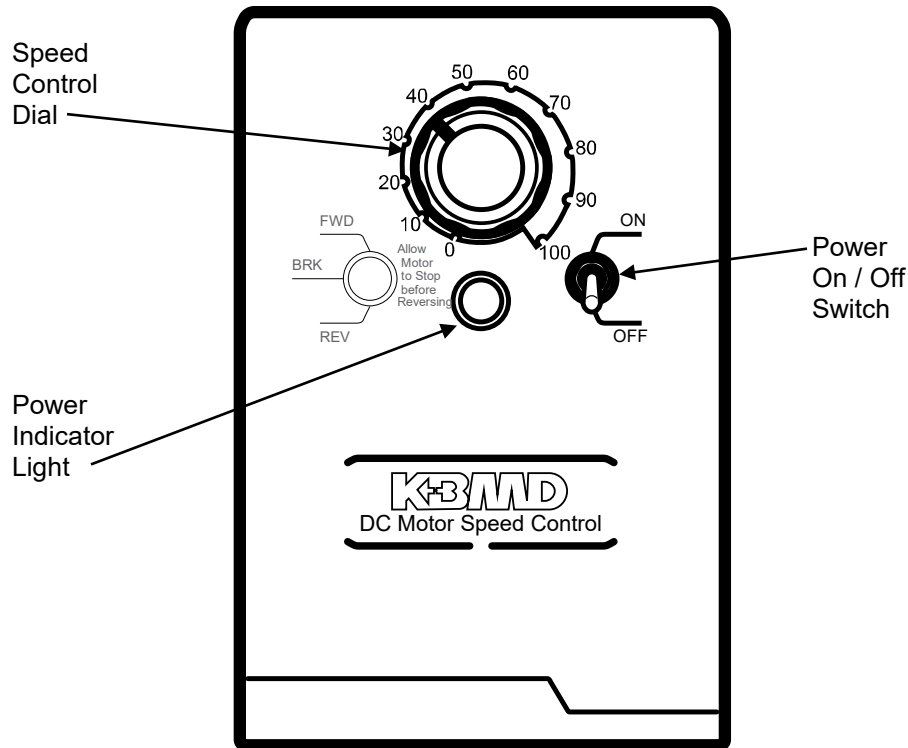
Toggle the Power Switch to the On position. The Power indicator light will illuminate.

CAUTION! When the power is turned on keep clear of the moving belt.

Gradually increase conveyor speed using the Speed Control Dial to adjust the conveyor speed to required speed.

Control Box

The conveyor control box is held in place by magnets and is repositionable. It can be repositioned anywhere along the metal surface of the conveyor frame side rail where it will be most convenient for operation.



Power On / Off Switch

The Power On / Off is a toggle switch to turn the power on or off. Power is switched off when the switch is in the down position: power is on when the switch is in the up position. Switch the power on by flipping the lever up; switch the power off by flipping the lever down.

Power Indicator Light

Illuminates when power is On; is unlit when power is Off.

Speed Control Dial

Adjust conveyor speed using the Speed Control Dial to bring the conveyor to the required speed. The level gradations from 0 to 100 represent percentage from minimum (0) to maximum (100) available speed and are otherwise arbitrary and likely will not correspond to any specific units of linear velocity.

To stop the conveyor, turn the Speed Control Dial to minimum setting (0), and toggle the Power Switch to the Off position. The conveyor will slow down and stop.

Adjustments

Shut off power and disconnect electrical connections before making any adjustments.

Height Adjustment and Leveling

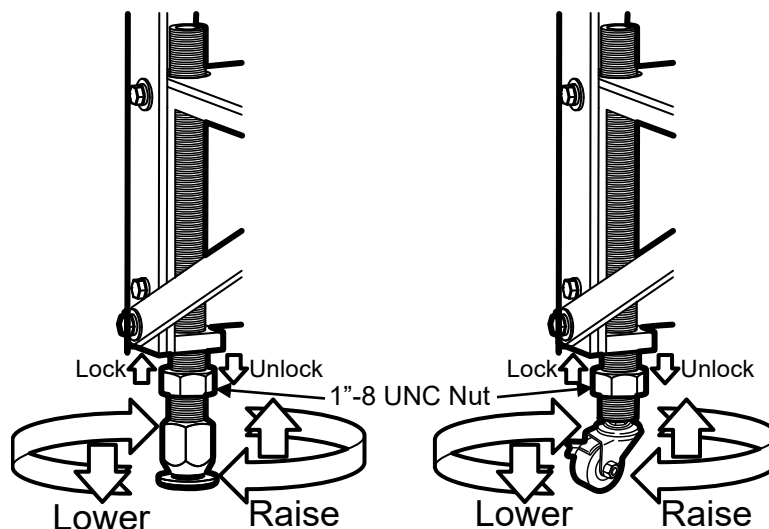
All four legs at the corners of the conveyor are adjustable for height and leveling, and two mechanisms allow for height adjustment: threaded-rod legs and leg-extension angle brackets.

Threaded-rod legs: threaded-rod legs are adjustable for their total length (less approximately $\frac{1}{2}$ inch of threads required to secure the legs in the bottom of leg-extension angle brackets) and provide for fine adjustment to level the conveyor at the required conveyor height.

Leg-extension angle brackets: Extending or retracting the leg-extension angles provide five inches (5") additional height when extended, or less five inches (5") when retracted. When extending the leg-extension angles, it is recommended to reposition the leg brace strap for stability. See the illustrations on the following page.

Raising or Lowering by Small Increments or Leveling the Conveyor

For fine-adjustment of the leg length for fine adjustment of height or leveling the conveyor, first loosen the 1"-8 UNC standard nut, if applicable, and then twist the threaded-rod leg into or out of the conveyor leg angle bracket.

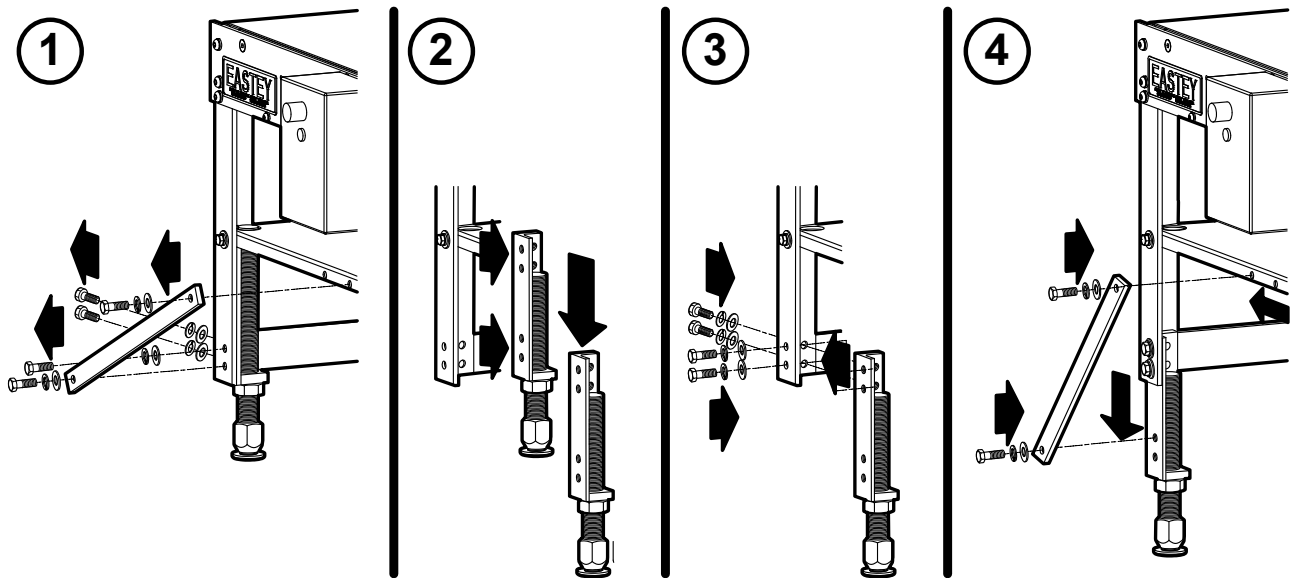


Note: An open-end wrench or channel-style wrench with a 1- $\frac{1}{2}$ " opening is required for the 1"-8 UNC standard nuts.

Note: Thread-locking compound is used to secure the feet or optional casters to the leveling leg.

Leg Extension Angle Brackets

Leg-extension angle brackets in each of the four legs of the conveyor frame provide five inches (5") additional height when extended, or less five inches (5") when retracted. When extending or retracting the leg-extension angles, it is recommended to reposition the leg brace strap accordingly for stability.



1. Temporarily remove and save the hardware that fastens the leg extension angle bracket and leg brace bar. Remove both ends of the leg brace bar, as the brace bar will be repositioned to other holes when it is refastened to the leg extension angle bracket.
2. Reposition the leg extension angle to align the upper holes in the leg extension angle with the bottom holes in the vertical leg of the conveyor base frame.
3. With the leg extension angle bracket extended, use the same hardware removed previously to refasten the leg extension angle bracket to the conveyor base frame.
4. Reposition the leg brace bar as shown, to align the top hole with the hole closer to the corner in the side brace of the conveyor base frame, and to use the upper of the two holes near the bottom of the leg extension angle bracket.

After changing the conveyor height by extending or retracting the leg extension angle brackets, return to the instructions for Raising or Lowering by Small Increments or Leveling the Conveyor

Conveyor Tension Adjustment

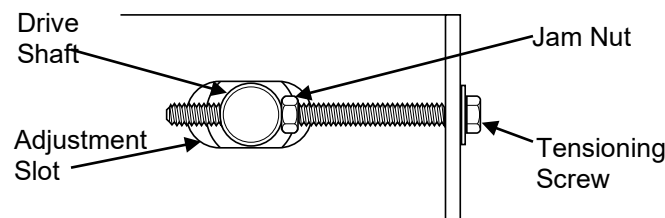
Adjustment of conveyor tension is made by tightening or loosening the conveyor tension adjustment screws. There is a tension adjustment screw on each side of the conveyor at the right and left ends of the idler shaft. Jam nuts secure the tension adjustment.



Ideally the conveyor shaft should be adjusted so that when correct tension is achieved, the shaft is near the center of the adjustment slot. Before beginning adjustment, measure these distances to position the conveyor shaft near the center of the adjustment slot when proper tension is achieved.

Note: It is necessary to run the conveyor to verify that it is tracking correctly and not pulling to either side and wearing against the side frame. Make small adjustments, one at a time on each side, until proper belt tension is achieved and belt is tracking properly.

1. Loosen the jam nuts on the adjustment screws away from the conveyor shaft.



2. Use a wrench on the screw head to adjust tension.
 - Turn the adjustment screw counterclockwise to loosen tension.
 - Turn the adjustment screw clockwise to increase tension.
3. Ensure tracking of belt is centered between frames so the belt does not wear on either side frame. The belt will pull to the side where tension is tighter.
4. When the conveyor tension is correctly adjusted, re-tighten the jam nuts against the drive shaft to lock-in tension setting.

Advanced Speed and Control Function Adjustment

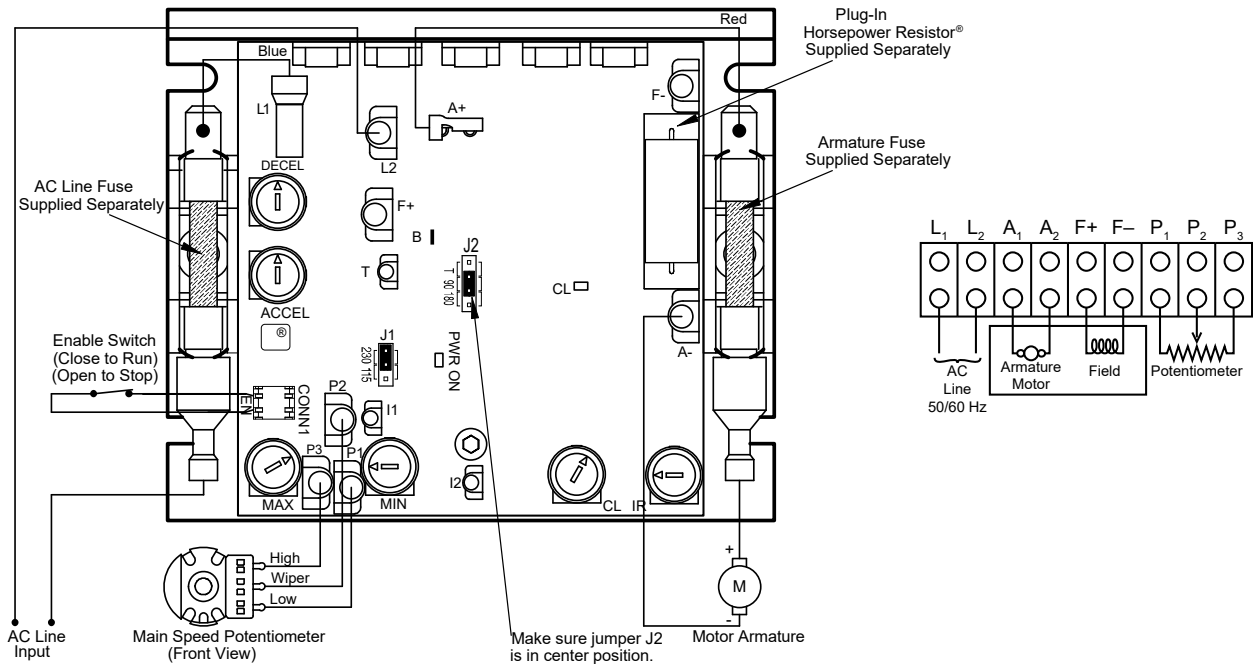
The following illustration shows the D.C. board housed in the conveyor Control Box. Adjustments explained in this section refer to adjustments made by turning potentiometers on this board.

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)

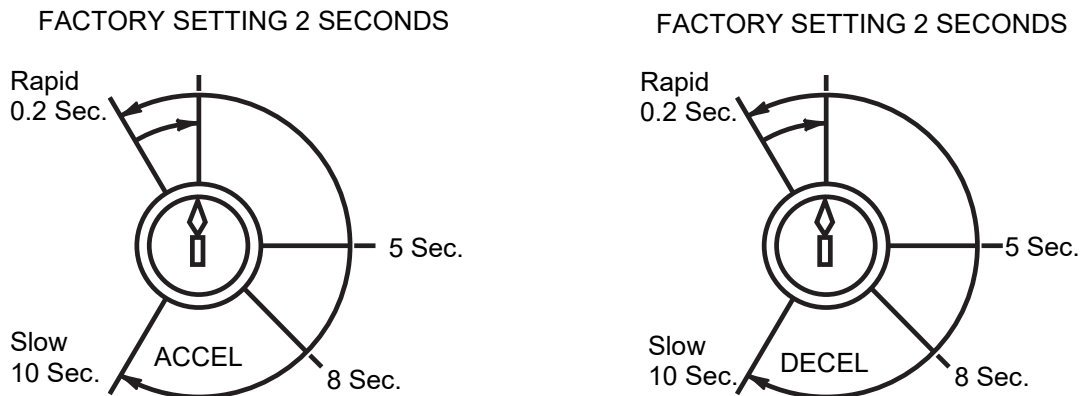


For more information refer to the *KBMM™ Installation and Operation Manual* (provided by the D.C. board manufacturer).

The Multi-Drive™ has been factory adjusted to provide zero (0) to full-speed range using the Speed Control Dial. Minimum and maximum speed control trim-potentiometers (trimpots) are provided to increase the minimum speed or decrease the maximum speed if necessary. An acceleration start trimpot is set to provide motor acceleration from zero (0) to full speed over a time period of 2 seconds (approximately) each time AC power is applied. The Current Limiting (CL, or torque output) adjustment is factory set to approximately one-and-one-half ($1\frac{1}{2}$) times the motor rating. The IR Compensation (IR) is factory adjusted to provide near-optimum motor regulation under normal operation.

Note: In order for the IR comp and CL trimpot settings to be correct, the proper Plug-In Horsepower Resistor[®] must be installed for the particular motor and input voltage being used. Do not attempt to change the setting of the trimpots unless absolutely necessary since they are factory adjusted to near optimum settings.

The following procedure, presented in order of adjustment sequence should be used when readjusting all trimpot functions.



- A. **Acceleration, Start, and Deceleration.** ACCEL and DECEL trimpots are located near the left side of the speed control module. If the ACCEL and/or DECEL are to be readjusted to different times, adjust trimpots according to the illustration above.
- B. **Maximum Speed Adjustment.** Turn Speed Control Dial to full speed (maximum clockwise position). Adjust MAX speed trimpot to new desired setting.

Note: Do not attempt to adjust the maximum speed above the rated motor RPM since unstable motor operation may occur. For moderate changes to the maximum speed, there will be slight effect on the minimum speed setting when the minimum speed is set to zero. There may be significant variation in the minimum speed setting if the minimum speed is set higher than zero.

When adjustment of the controller board is complete, it is necessary to reattach the controller box front cover. Slide the front cover in place to cover the controller box and re-use the two (2) #6-32 screws to fasten the front cover in place to the control box.

Read these simplified instructions before operating.

Important: Verify that the Dual Voltage Switch is set to the correct AC line input voltage, “115” or “230.”

- Install the correct Plug-In Horsepower Resistor® according to input voltage and motor horsepower.
- Install proper size Armature Fuse.
- Install Auxiliary Heatsink on controls used with motors rated above $\frac{3}{4}$ HP on 120V AC, and 1- $\frac{1}{2}$ HP on 240V AC.
- Recheck connections: AC line to L1 and L2; armature to A+ and A-; and field (Shunt motor only) to F+ and F-. Connect ground via ground screw. (Note: if motor runs in improper direction, reverse armature leads.)
- Nominal trimpot settings are as follows (expressed in % of full clockwise rotation):

MIN (minimum speed)	15%
MAX (maximum speed)	60%
IR (IR compensation)	15%
CL (current limit/torque)	65%
ACCEL (acceleration start)	20%
DECEL (deceleration)	20%

For more detailed information refer to instructions in the previous pages or refer to the KBMM™ Installation and Operation Manual, provided by the D.C. board manufacturer

Maintenance

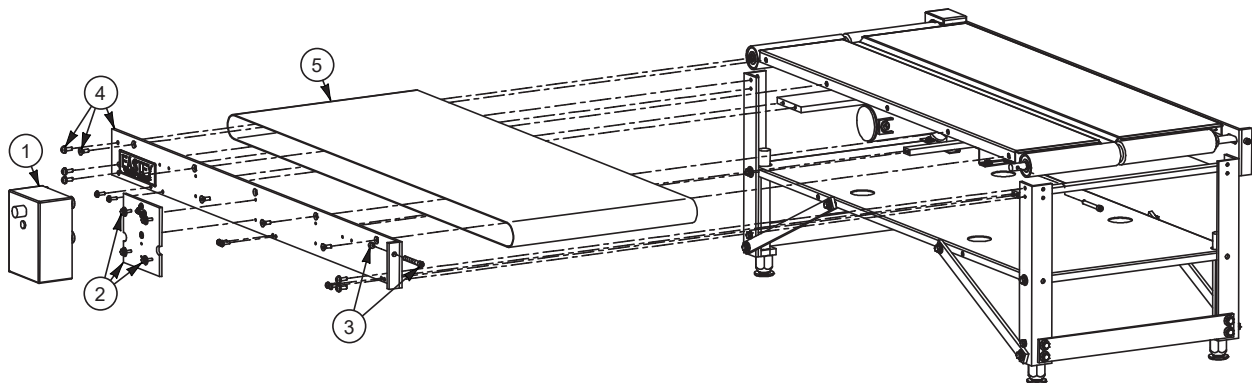
The Eastey EC Series Variable Speed Conveyor will provide many hours of maintenance free operation. There are a few items that may require attention from time to time.

Cleaning the Belt

Make sure the belt stays clean and grease free. If the belt requires a more thorough cleaning, use a soft, lint-free cloth with a mild detergent and water and let dry. **Never use harsh or abrasive cleaners or chemical agents when cleaning any part of the machine.**

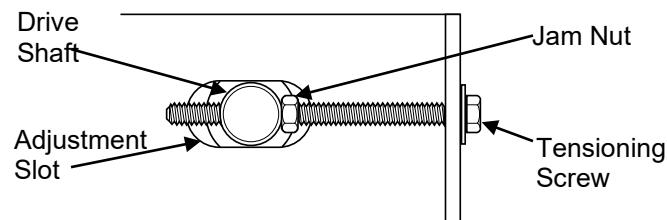
Changing the Belt

Shut off power and disconnect electrical connections before beginning the belt changing procedure. You may choose either side from which to remove and replace the conveyor belt; attaching hardware on the opposite side will hold rollers and plates in position while rail is removed from one side. Save all removed parts and attaching hardware, noting if necessary were each is used. Re-use removed parts for reassembly; replacing any excessively worn, broken, or missing parts with replacements that meet specifications of original parts. Reassembly is the reverse of disassembly.



1. Remove the magnetically-mounted control box (1) and set it aside if it is on the side from which you will be replacing the conveyor belt.
2. Remove attaching socket head cap screws and mounting plate (2). Set aside mounting plate and retain attaching hardware for re-use.

3. Loosen conveyor tension adjustment and jam nut (3) only from the side from which you will be changing the belt. Loosen completely and remove tensioning screw from idler roller shaft. On the opposite side, loosen the conveyor tension, but it is not necessary to disassemble the mechanism.
4. Remove attaching flat head socket cap screws and side rail (4) from the side from which you are removing the belt, and retain for re-use.
5. With the belt loose, carefully slide the belt (5) out the open side, off of the drive and idler rollers and slide plates. Attaching hardware on the opposite side will hold rollers and slide plates in position while the belt is removed. Taking care to not nick or snag the belt on any exposed sharp corners, slide the replacement belt onto the rollers and slide plates to take the place of the removed worn or damaged conveyor belt.
6. With replacement belt (5) in place, re-use existing hardware to reattach the side rail (4) and reassemble the belt tensioning mechanism (3), running the adjustment screw through the side rail flange, through the jam nut, and through the roller shaft.



7. Fasten the mounting plate (2) to the side rail, re-using existing hardware. Place magnetically-mounted control box (1) where desired along the side rail.

When reassembly is complete, check the conveyor to make sure it will not catch or snag on any parts. Plug in and turn on the conveyor to resume operation. Perform the Conveyor Tension Adjustment described in the Adjustments section to adjust the conveyor to correct tension and make sure the belt tracks true.

Troubleshooting

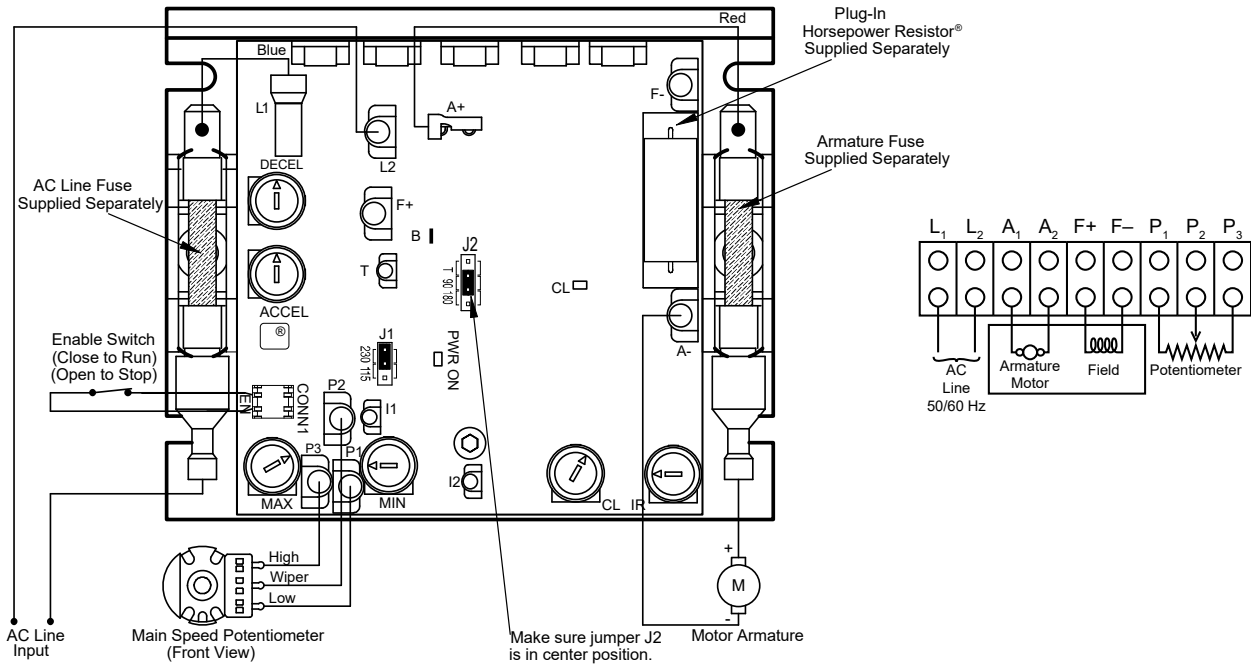
The following illustration shows the D.C. board housed in the conveyor Control Box. Some of the solutions to problems identified in the Troubleshooting table that follows refer to adjustments made by turning potentiometers on this board.

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).

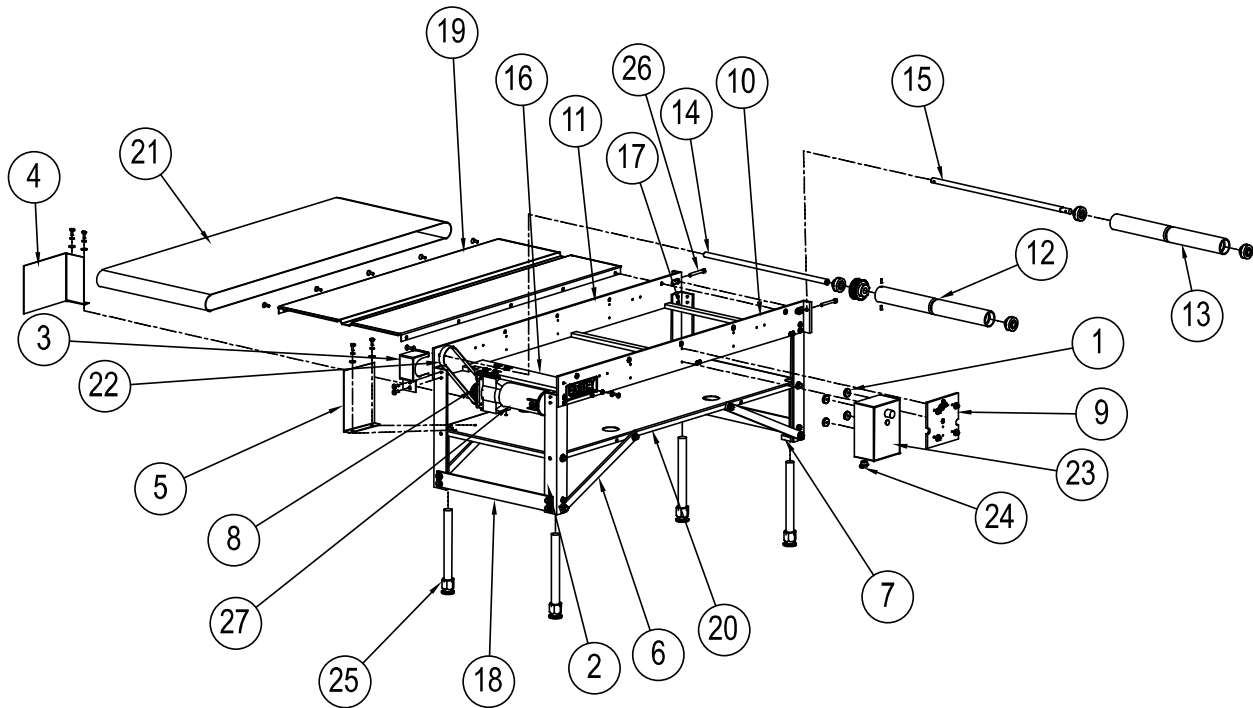
Problem	Possible Cause	Corrective Action
1. Motor does not run; Power On, Indicator not lit.	1. Power switch is in Off position, or 2. AC voltage is not brought to L1 and L2 terminals. 3. Blown line fuse	1. Toggle power switch to On position; or 2. Correct wiring to control box. 3. Replace line fuse with 20A rated 3AB-type fuse. If fuse blew due to mis-wiring, speed control module may be damaged.

Problem	Possible Cause	Corrective Action
2. Motor does not run; power On indicator lit.	<ol style="list-style-type: none"> 1. Speed control knob set to 0 (zero). 2. Defective motor. 3. Plug-in Horsepower Resistor[®] not installed. 4. Blown armature fuse. 	<ol style="list-style-type: none"> 1. Turn knob clockwise to start motor. 2. Check for defective motor, worn brushes, etc. Replace motor 3. Install proper plug-in Horsepower Resistor[®]. 4. Replace fuse with fuse of proper value.
3. Motor hums or runs at very low speed (with speed control knob turned up to a high speed setting) or motor slows down substantially when load is applied.	<ol style="list-style-type: none"> 1. Low voltage. 2. Overload condition: control in current limit mode (CL trim pot not set correctly). (CL LED is lit.) 3. Plug-in Horsepower Resistor[®] not correct size. 4. Incorrect wiring. Armature and shunt connections interchanged (shunt motor only). 	<ol style="list-style-type: none"> 1. Check line voltage at control and rewire as required. 2. Reduce loading; CL trim pot setting may need to be increased. See Adjustments section. 3. Install proper size plug-in Horsepower Resistor[®]. 4. Correct wiring (armature has lower resistance than field).

Problem	Possible Cause	Corrective Action
<p>4. Erratic motor performance.</p>	<ol style="list-style-type: none"> 1. Worn or damaged motor: worn brushes, etc. 2. Overload condition. 3. Plug-in Horsepower Resistor® wrong size 4. IR comp and/or CL trimpots not set properly. 5. Defective or damaged speed control module. 6. Dual Voltage Switch set in wrong position 	<ol style="list-style-type: none"> 1. Repair motor. 2. Remove overload. 3. Replace Plug-in Horsepower Resistor® with proper size. 4. Readjust trimpots. 5. Replace module. 6. Recheck line voltage and set Dual Voltage Switch to proper position, 115 or 230.
<p>5. Motor continues to run when speed control knob is set to</p>	<ol style="list-style-type: none"> 1. Minimum speed trim pot not set to full counter-clockwise position. 2. IR comp trim pot set too high. 	<ol style="list-style-type: none"> 1. Readjust minimum speed trim pot. 2. Lower IR comp trim pot setting.
<p>6. Motor runs in wrong direction.</p>	<p>Armature leads reversed.</p>	<p>Correct and reconnect armature leads.</p>

Parts List

Conveyor — EC1248, EC1848 & EC2472



ITEM	EC1248	EC1848	EC2472	PART NUMBER	DESCRIPTION	QUANTITY
1	✓	✓	✓	2003009	Magnet, Disk, Control Box, All Models	4
2	✓	✓	✓	C0000005	Leg, Vertical, All Models	4
3	✓	✓	✓	C0000006	W/F Sprocket Top Guard, All Models	1
4	✓	✓	✓	C0000007	Belt Guard Rear, All Models	1
5	✓	✓	✓	C0000008	Belt Guard Front, All Models	1
6	✓	✓	✓	C0000009	Leg Brace, All Models	4
7	✓	✓	✓	C0000011	Leg Extension, All Models	4
8	✓	✓	✓	C0000020	Sprocket Bando Mild Steel, All Models	1
9	✓	✓	✓	C0000502	Printer Mounting Kit, All Models	1

ITEM	EC1248	EC1848	EC2472	PART NUMBER	DESCRIPTION	QUANTITY
10	✓	✓		C0048001	W/F Conveyor Side Plate, Left, EC1248 & EC1848 Models	1
10			✓	C0072001	W/F-Conveyor Side Plate Left, EC2472 Model Only	1
11	✓	✓		C0048002	W/F Conveyor Side Plate, Right, EC1248 & EC1848 Models	1
11			✓	C0072002	W/F-Conveyor Side Plate, Right, EC2472 Model Only	1
12	✓			C1200001	Assembly, Drive Roller, EC1248 Model Only	1
12		✓		C1800001	Assembly, Drive Roller, EC1848 Model Only	1
12			✓	C2400001	Assembly, Drive Roller, EC2472 Model Only	1
13	✓			C1200002	Assembly, Idler Roller, EC1248 Model Only	1
13		✓		C1800002	Assembly, Idler Roller, EC1848 Model Only	1
13			✓	C2400002	Assembly, Idler Roller, EC2472 Model Only	1
14	✓			C1200003	Shaft, Drive Roller, EC1248 Model Only	1
14		✓		C1800003	Shaft, Drive Roller, EC1848 Model Only	1
14			✓	C2400003	Shaft, Drive Roller, EC2472 Model Only	1
15	✓			C1200004	Shaft, Idler Roller, EC1248 Model Only	1
15		✓		C1800004	Shaft, Idler Roller, EC1848 Model Only	1
15			✓	C2400004	Shaft, Idler Roller, EC2472 Model Only	1
16	✓			C1200005	Motor Mount Plate, EC1248 Model Only	1
16		✓		C1800005	Motor Mount Plate, EC1848 Model Only	1
16			✓	C2400005	Motor Mount Plate, EC2472 Model Only	1
17	✓			C1200006	Cross Bar, EC1248 Model Only	2
17		✓		C1800006	Cross Bar, EC1848 Model Only	2
17			✓	C2400006	Cross Bar, EC2472 Model Only	2
18	✓			C1200007	Cross Brace, Lower, EC1248 Model Only	2
18		✓		C1800007	Cross Brace, Lower, EC1848 Model Only	2
18			✓	C2400007	Cross Brace, Lower, EC2472 Model Only	2
19	✓			C1248001	Conveyor Pan 12W 48L, EC1248 Model Only	1
19		✓		C1848001	Conveyor Pan 18W 48L, EC1848 Model Only	1

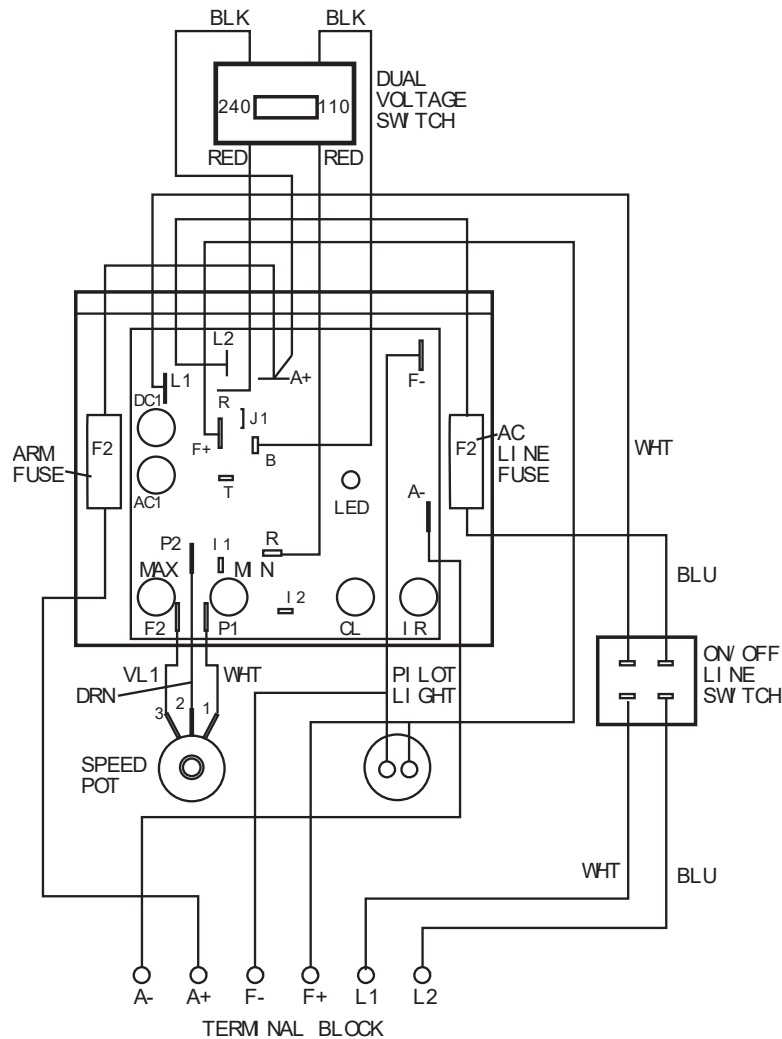
ITEM	EC1248	EC1848	EC2472	PART NUMBER	DESCRIPTION	QUANTITY
19			✓	C2472001	Conveyor Pan 24W 72L, EC2472 Model Only	1
20	✓			C1248002	Brace For Base, EC1248 Model Only	1
20		✓		C1848002	Brace For Base, EC1848 Model Only	1
20			✓	C2472002	Brace For Base, EC2472 Model Only	1
21	✓			C1248501	Conveyor Belt, EC1248 Model Only	1
21		✓		C1848501	Conveyor Belt, EC1848 Model Only	1
21			✓	C2472501	Conveyor Belt, EC2472 Model Only	1
22	✓	✓	✓	EAST0054	Timing Belt, EM16, Bando, All Models	1
23	✓	✓	✓	EAST0316	DC Control EA, All Models	1
24	✓	✓	✓	EAST1004	Romex Connector 3/8 in., All Models	1
25	✓	✓	✓	ESC00507	Leveling Feet 1 in. Steel (Option), All Models	4
26	✓	✓	✓	ETC00117	Idler Adjust Bolt, 5/16-18, All Models	2
27	✓	✓	✓	ETL00205	Motor, Conveyor, 160 RPM All Models	1

Option / Accessory Kits — EC1248, EC1848 & EC2472

EC1248	EC1848	EC2472	PART NUMBER	DESCRIPTION
✓	✓		C0000501	Guide Kit, 48 in. L. 1-1/4 in. Wide / One Side, EC1248 and EC1848 Models
		✓	C0000511	Guide Kit, 72 in. L. 1-1/4 in. Wide / One Side, EC2472 Model Only
✓	✓	✓	C0000500	Caster Kit, Eastey Conveyor, (4 Legs and Casters) All Models
✓	✓	✓	C0000503	Leg Leveler Kit 9-in. legs, Eastey Conveyor, (4 Legs & Leveling Feet) All
✓	✓	✓	C0000504	Leg Leveler Kit 17-in. legs, Eastey Conveyor, (4 Legs & Leveling Feet) All

Appendix A: Electrical Schematic

Internal Wiring Diagram for Basic Multi-Drive



The D.C. board shown in this schematic is shown alone in more detail in the Adjustments and Troubleshooting sections of this User Guide.

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

Warranty Statement

Eastey EC Series Variable Speed Conveyor

Warranty Statement

Eastey warrants that all of the products it ships will be in good working order and free from defects in material and workmanship and will conform to the published specifications for that product.

Warranty Period

Drive motor(s): 1 year

All other parts: 1 year (Except for moving parts which are subject to normal wear, tear and replacement which are warranted to be free from defects in material and workmanship.)

Operation Quality

Quality of operation achieved in a given application is dependent on the installation, the material handling, and the maintenance provided. Eastey makes no warranty that the quality achieved in an application will be the same as that achieved 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 his 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). Once an RMA number has been obtained, return the defective item to Eastey. Eastey will analyze the product and, if found to be defective, we will, at our option, replace or repair the item. If the item is found to not be eligible for warranty, you will be notified and may decide on disposition. Defective products will be replaced or repaired as promptly as possible.

Warranty Eligibility

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

Limited Warranty

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Customer Support

Eastey Technical Service

For help setting up or operating the Eastey EC Series Variable Speed Conveyor, 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

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