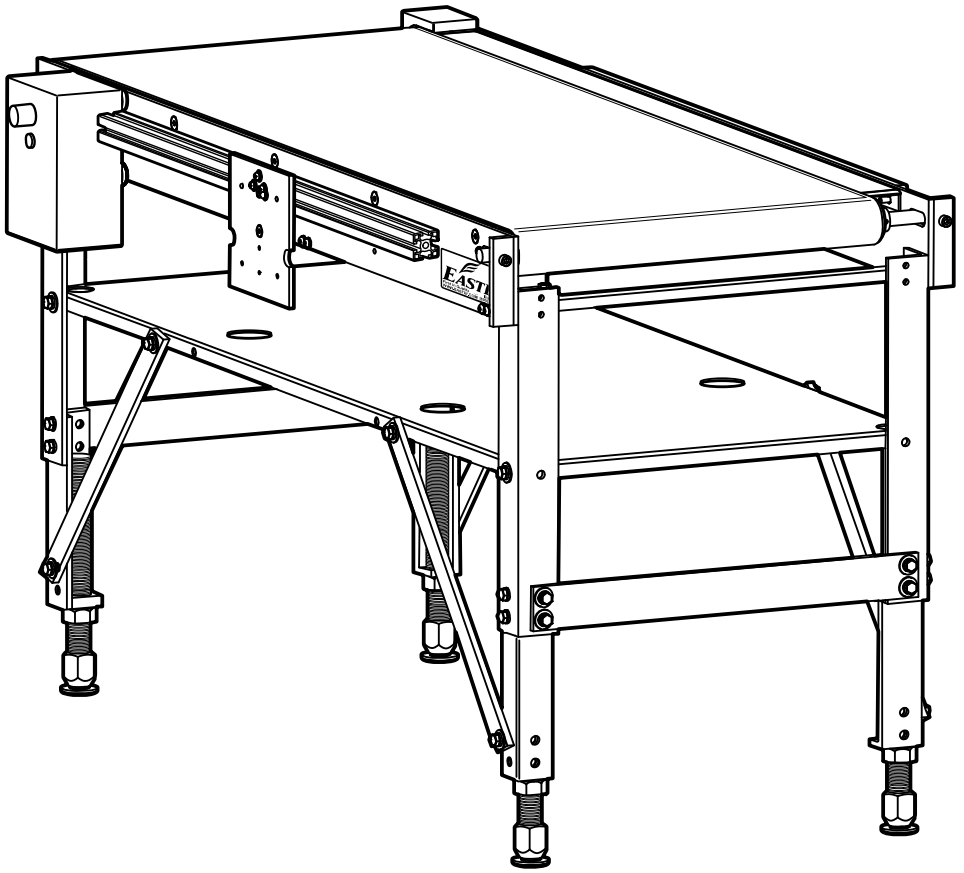
C-Series

C1248, C1272, C1848,
C1872, C2430 & C2472

Eastey C Series
Variable Speed Conveyors

User Guide



EASTEY®

C-Series C1248, C1272, C1848, C1872, C2430 & C2472

Eastey C Series
Variable Speed Conveyors

User Guide

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Contents

We Help Companies Deliver Products to the World

Thank you for choosing the Eastey Conveyors for your conveyor needs. Eastey Conveyors are perfect for integration with Squid Ink ink jet printing equipment. Eastey and Squid Ink are both part of Engage Technologies, an ISO 9001-2015 certified company that has steadily built a solid reputation for quality since 1979. Engage is known for providing rugged, durable, reliable packaging equipment to help companies deliver their products to the world.

Each Engage Technologies company – Squid Ink, Eastey, and American Film & Machinery (AFM), focuses on a different part of the packaging section of the production line.

ENGAGE *technologies corporation*

Squid Ink (www.SquidInk.com)
Coding and marking equipment, inks, and fluids for product identification and traceability

Eastey (www.Eastey.com)
Automated shrink wrapping and bundling, automated case sealing, case erecting and product handling

AFM (www.AFMSleeves.com)
Automated shrink sleeve labeling equipment, tamper-evident banding equipment, shrink tunnels and shrink sleeve consumables

When you purchase your packaging equipment from the Engage Technologies family of companies, you can feel confident that you have a machine that is first in quality and built to last. Thank you for choosing us for your packaging needs.

Safety

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.

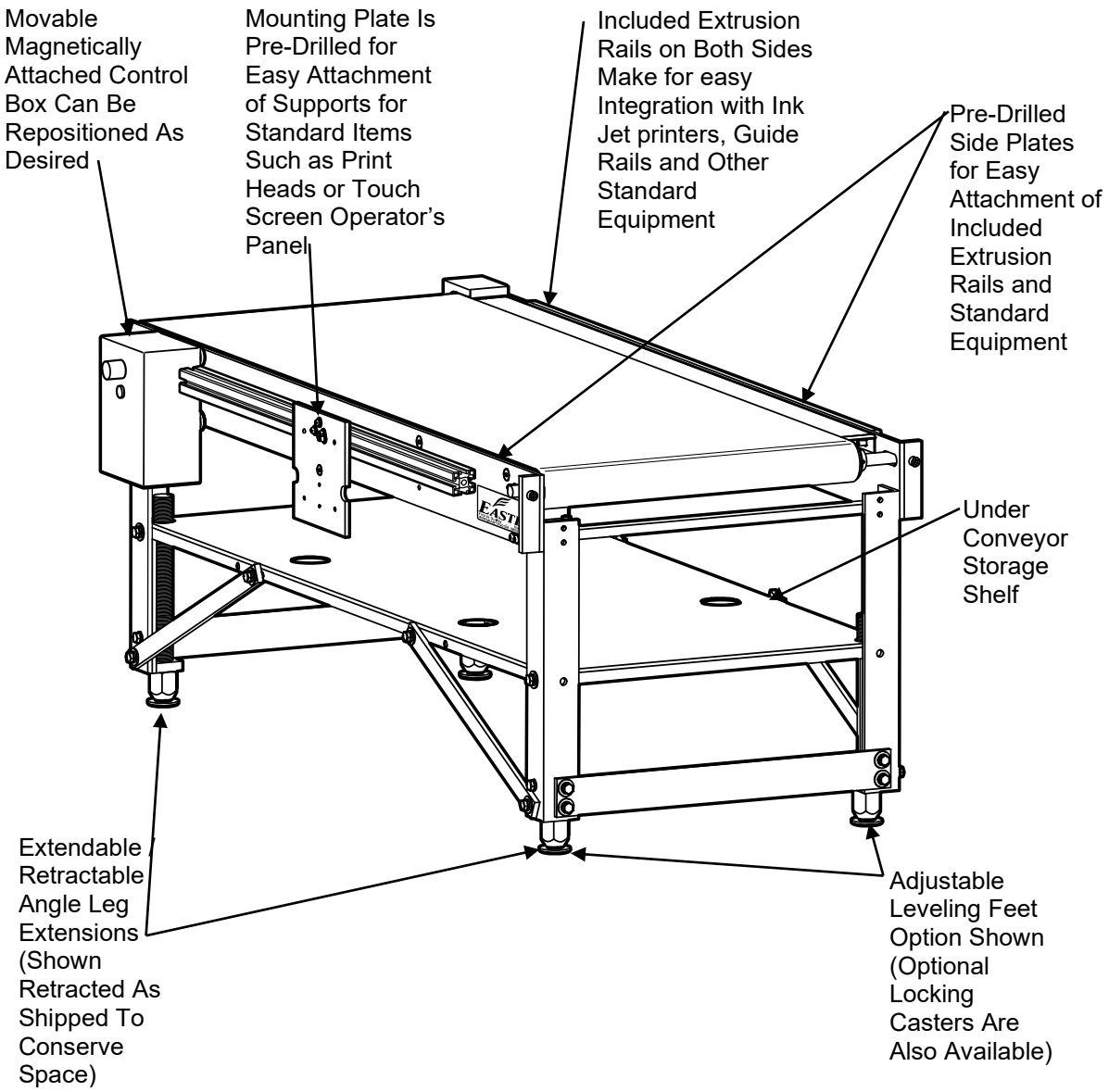
Moisture hazard. Keep equipment dry. This equipment is designed for indoor operation in a typical clean, dry factory environment, protected from rain and moisture. Do not operate the machine in any extremely wet or oily environment that may exceed operating specifications.

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 immanent as a danger message.

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

Introduction

Eastey C 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)	Weight lb./kg
C1248	12 in. × 48 in. 30.5 × 122 cm	20.2 in. 51.3 cm	Adjustable — See Table Below Based on Leg Length	48.9 in. 124.2 cm	160 lb. 72.6 kg
C1272	12 in. × 72 in. 30.5 × 183 cm	20.2 in. 51.3 cm	Adjustable — See Table Below Based on Leg Length	72 in. 183 cm	175 lb. 79.4 kg
C1848	18 in. × 48 in. 45.7 × 122 cm	26.2 in. 66.5 cm	Adjustable — See Table Below Based on Leg Length	48.9 in. 124.2 cm	175 lb. 79.4 kg
C1872	18 in. × 72 in. 45.7 × 183 cm	26.2 in. 66.5 cm	Adjustable — See Table Below Based on Leg Length	72 in. 183 cm	260 lb. 118 kg
C2430	24 in. × 30 in. 61 × 76.2 cm	32.2 in. 81.8 cm	Adjustable — See Table Below Based on Leg Length	30 in. 76.2 cm	220 lb. 99.8 kg
C2472	24 in. × 72 in. 61 × 183 cm	32.2 in. 81.8 cm	Adjustable — See Table Below Based on Leg Length	72 in. 183 cm	300 lb. 136 kg

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

- C = Conveyor. Eastey C Series variable speed conveyors 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.
- _ _ = 30, 48, or 72 — Remaining two digits indicate the nominal total length of the conveyor in inches: 30, 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

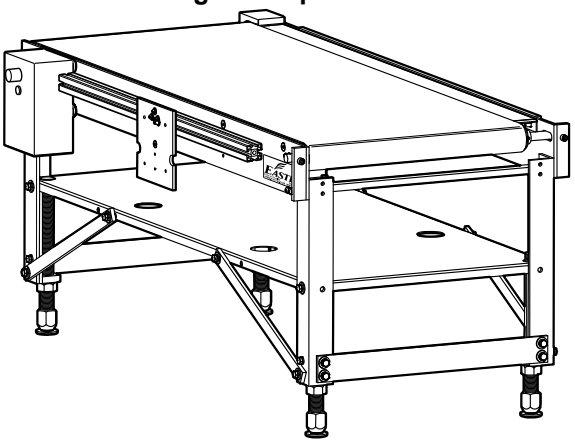
- Magnetic control box mounting allows control box to be mounted on either side of conveyor to accommodate conveyor orientation and operator convenience.
- Extrusion rail to easily mount ink jet printing systems and guide rails.
- Pre-drilled mounting plate for printer brackets (one mounting plate is 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
- ¼ inch cold rolled steel
- Optional guide rails available
- Adjustable conveyor height
- Seamless self-tracking belt
- Variable speed drive
- Safety cover over pinch points
- Smooth, consistent belt speed

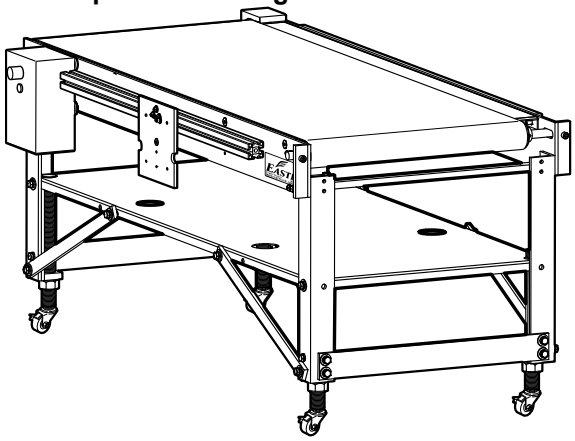
Eastey Conveyor Optional Accessories

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
Leveling Feet or Locking Casters	Choose leveling feet or locking casters when ordering;
E-Stop	Large safety mechanism to shut off conveyor immediately.
Bump Turn Bracket Available for model C2472 only	Pivots case 90° in transit to allow printing on two adjacent sides of each case in one pass along the conveyor.

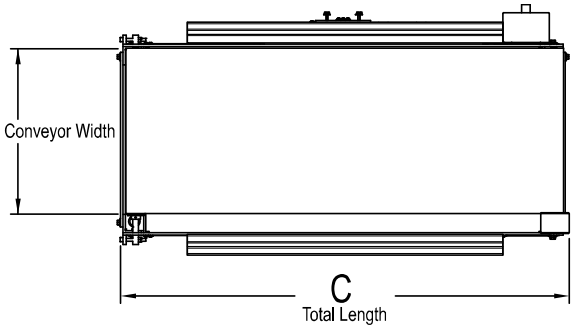
With Leveling Feet Option



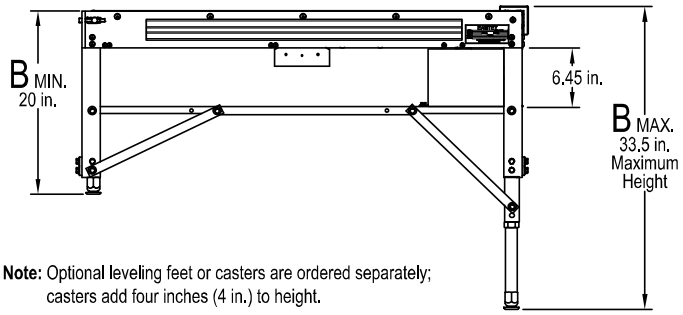
With Optional Locking Casters



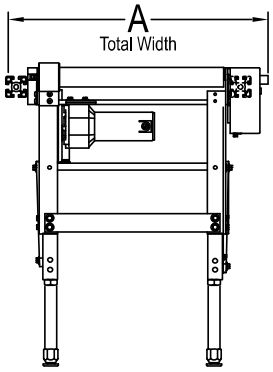
Dimensions



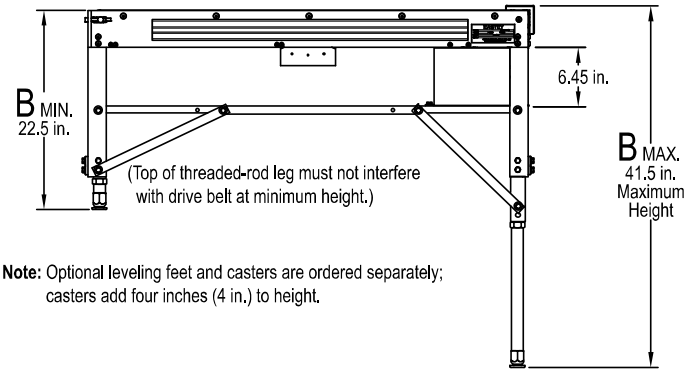
Overall Height with C0000503, 9-inch Length Leg Leveler Kit (4 Legs & Leveling Feet)



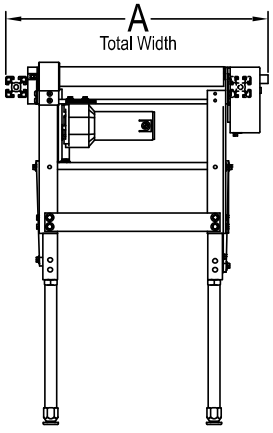
Note: Optional leveling feet or casters are ordered separately; casters add four inches (4 in.) to height.



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



Note: Optional leveling feet and casters are ordered separately; casters add four inches (4 in.) to height.



VIDEO: Eastey C Series Variable Speed Conveyor Introduction

To see a video showing an overview of Eastey C-Series conveyor in operation, click the following link: https://www.youtube.com/watch?v=GcigJDSJUPA, or scan the QR code at right using the camera app on your mobile device.

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.

Attach Optional Leveling Feet or Casters

The conveyor may be ordered with leveling feet or casters. Also, two options for length of threaded leg extensions are available for varying the desired conveyor height. The feet or casters and threaded-rod leg extensions may be installed from the factory or may be shipped removed to facilitate securing the conveyor to the shipping base, If not already installed, install the leveling feet or casters and threaded-rod legs to the bottom of the conveyor legs after removing the conveyor from the shipping base.

Move Conveyor into Operating Location

Move the Eastey C 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

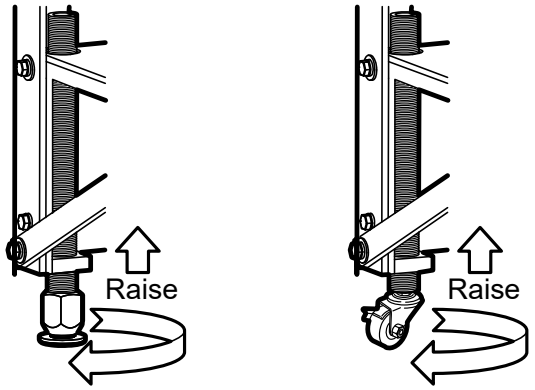
Conveyors are shipped at minimum height to conserve space during shipping so it is likely you will need to increase the conveyor height to bring it up to the desired height of your conveyor line. All four legs at the corners of the conveyor are adjustable for height and leveling, and two mechanisms allow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

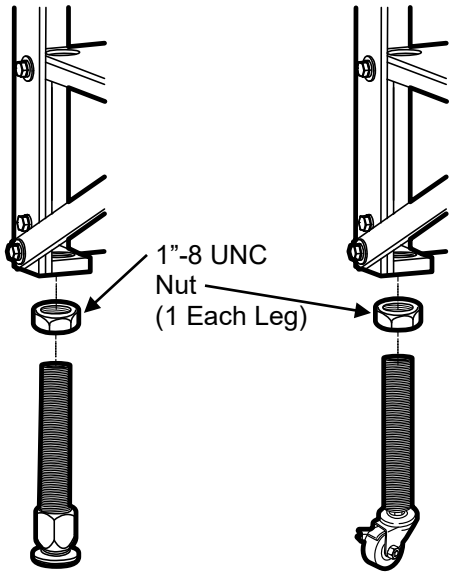
Raising the Conveyor

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 $^{7}/_{8}$ 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.

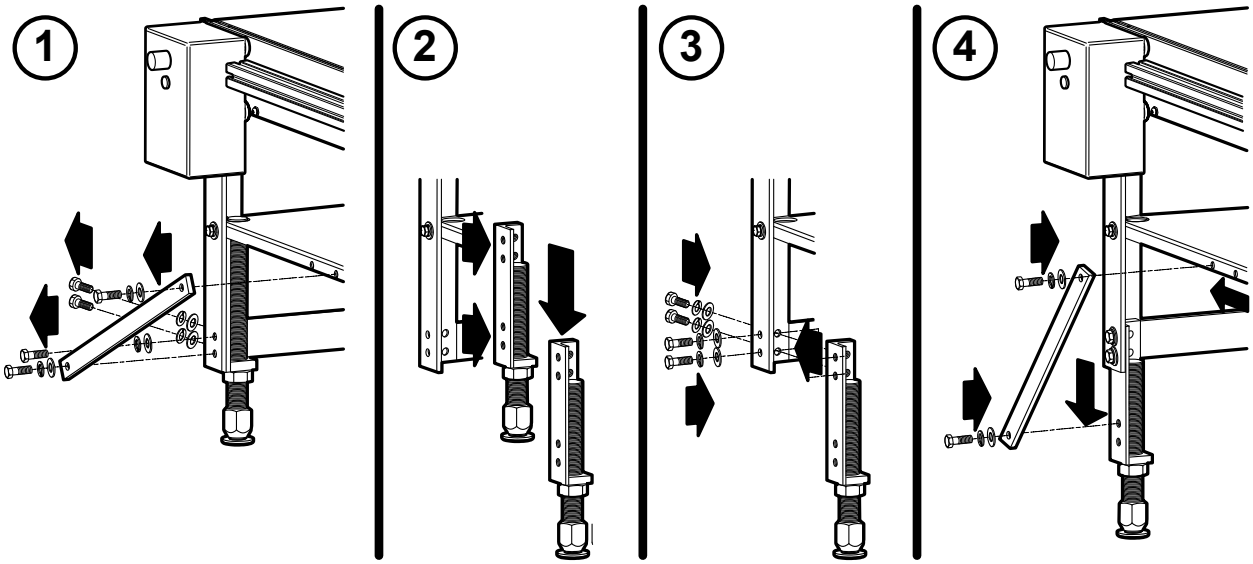


Note: An open-end wrench or channel-style wrench with a 1-½” opening is required for the 1”-8 UNC standard nuts.

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.

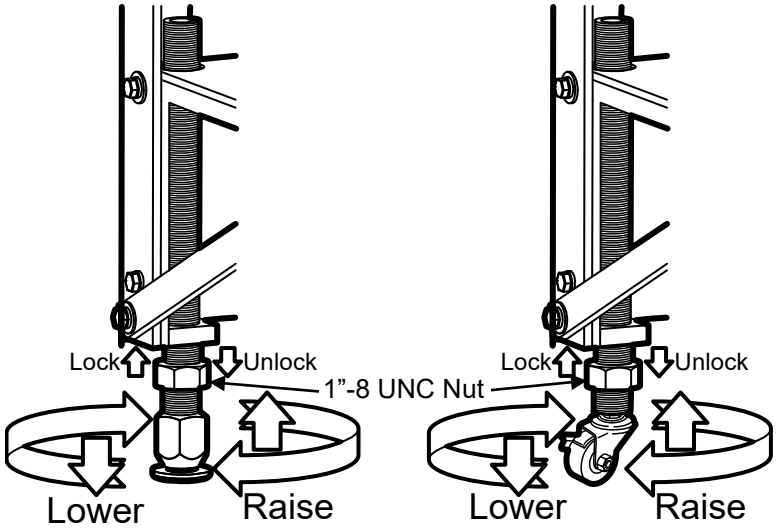


1. Temporarily remove and save the hardware that fastens the leg extension angle bracket and leg brace bar. Remove both ends of the leg brace bar, as the brace bar will be repositioned to other holes when it is refastened to the leg extension angle bracket.
2. Reposition the leg extension angle to align 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 1-½” opening is required for the 1”-8 UNC standard nuts.**

Location Requirements

When installing the Eastey C 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 infeed 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.

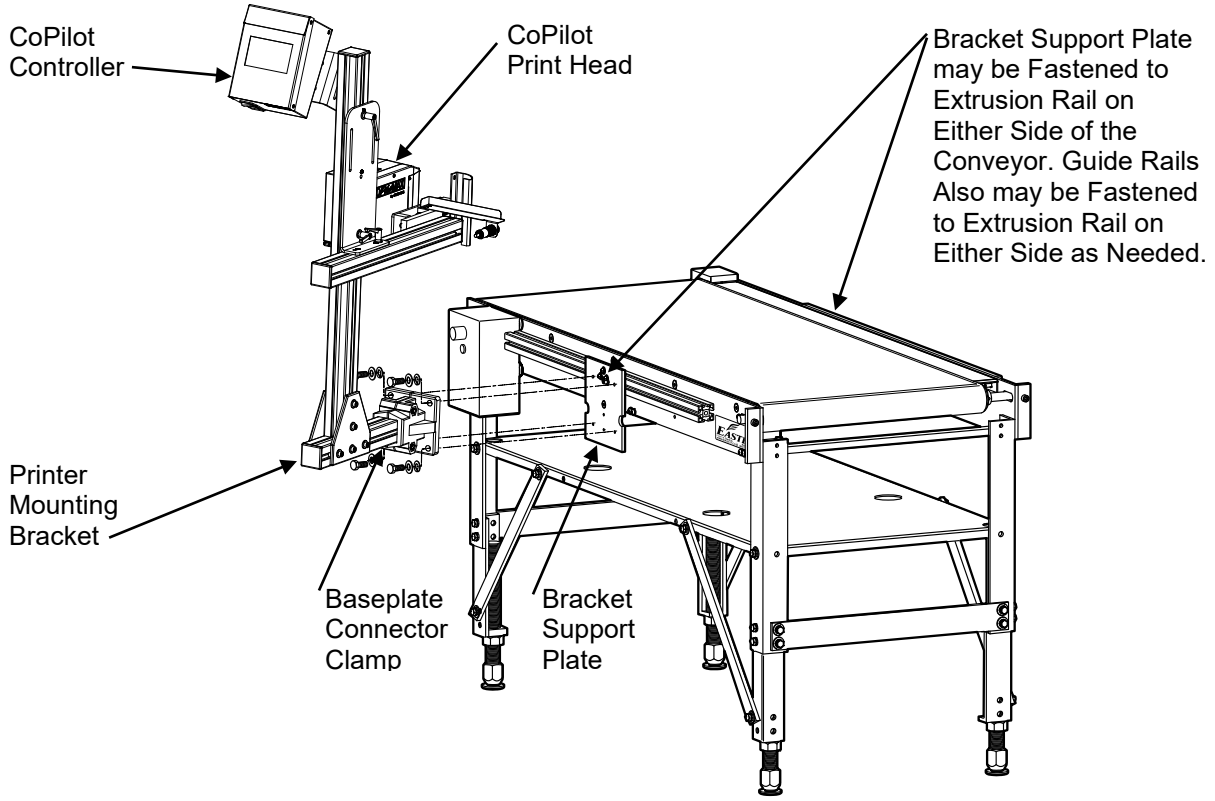
Mounting the Ink Jet Printer

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) ¼-20 × 1" hex-head bolts with flat washers and lock nuts to fasten the Baseplate Connector Clamp to the Bracket Support Plate.

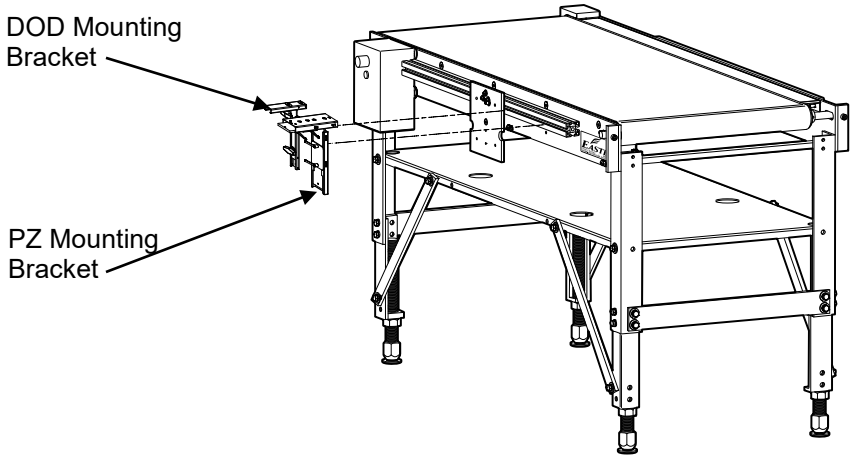


Note **The above example shows a CoPilot Max system on 2005061 kit. Other printers can be mounted in a similar way.**

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

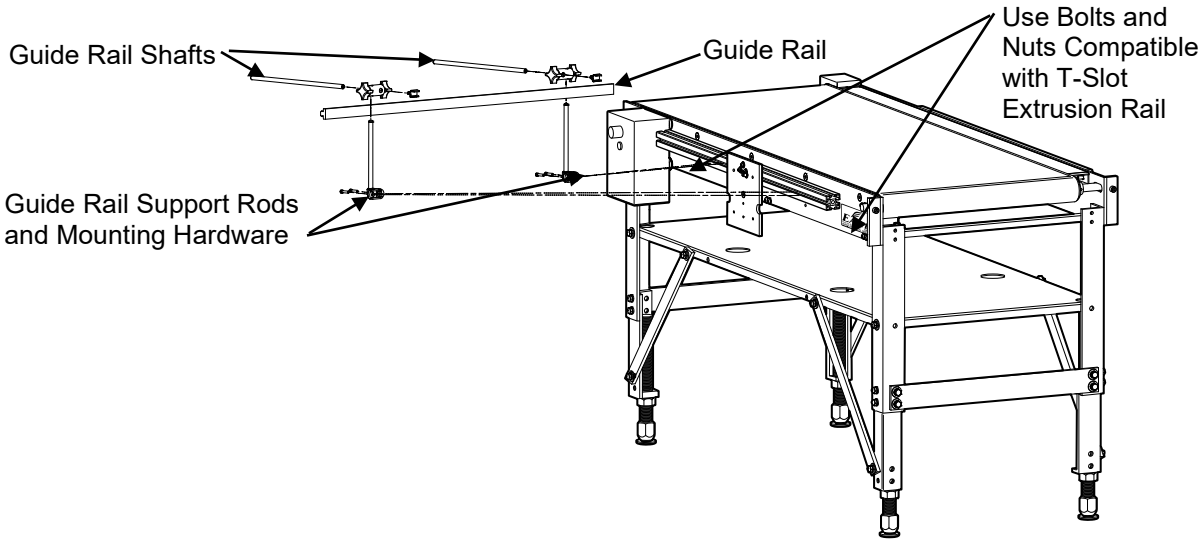
For a Squid Ink PZ or DOD printer, fasten the applicable mounting bracket to the Variable Speed Conveyor extrusion rails as shown in the illustration below. **Refer to the User Guide that came with your printer for mounting instructions.**



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 (For Guide Rail Kits)

Extrusion rails are provided on both sides for attaching a Guide Rail to either or both sides of the conveyor.

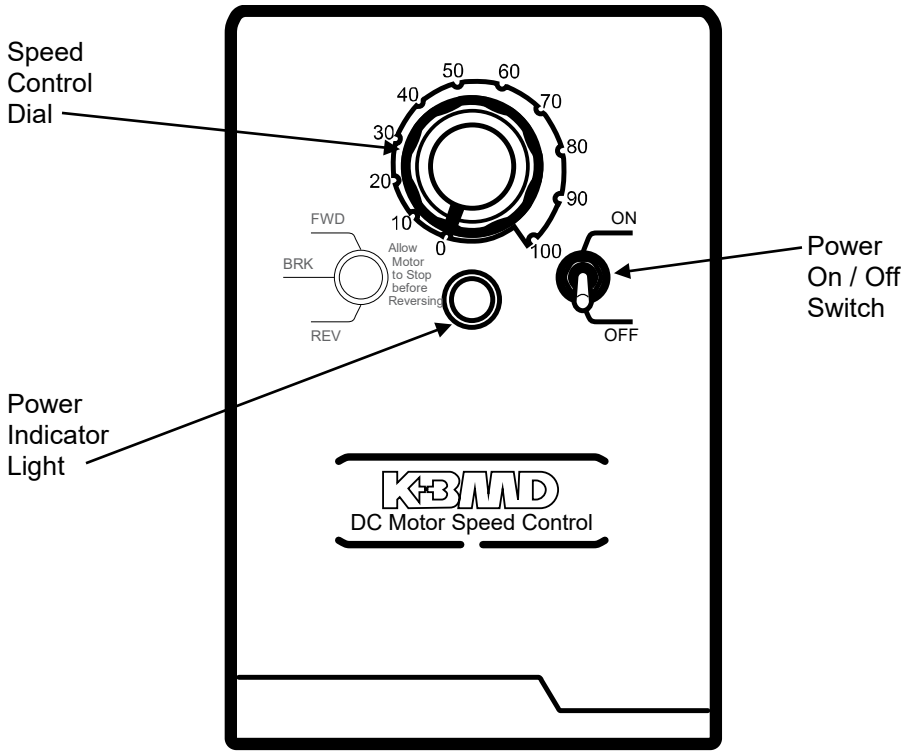


Operation

VIDEO: Eastey C Series Variable Speed Conveyor Operation
To see a video showing an Eastey C-Series conveyor in operation with an Eastey case sealer, click the following link: https://www.youtube.com/watch?v=-MxnHHn31Qw, or scan the QR code at right using the camera app on your mobile device.

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.



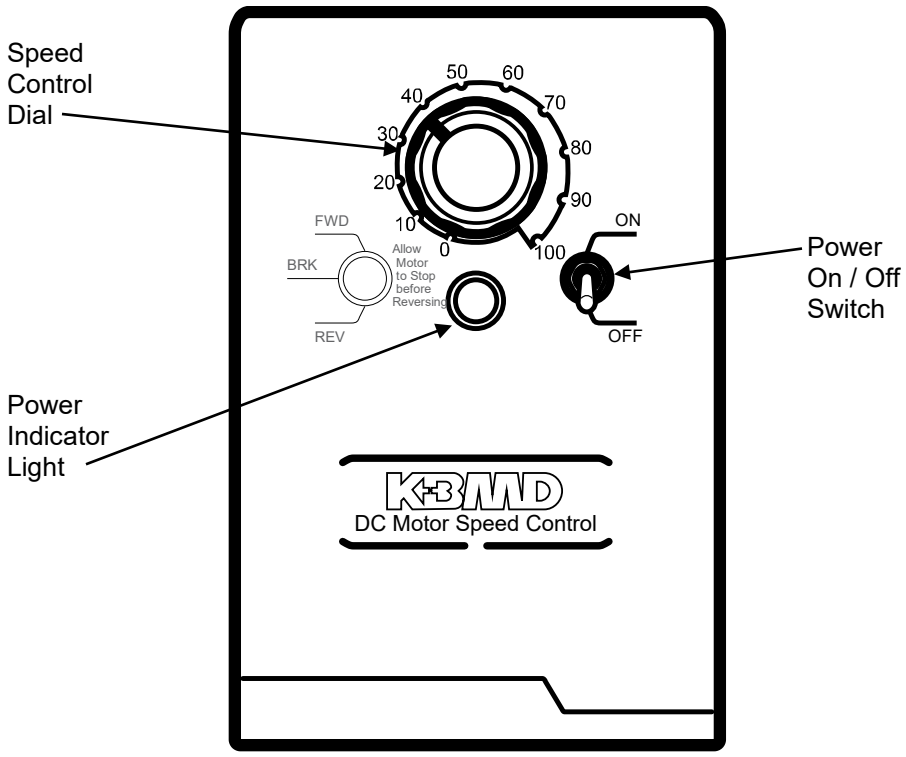
Toggle the Power Switch to the On position. The Power indicator light will illuminate.

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.

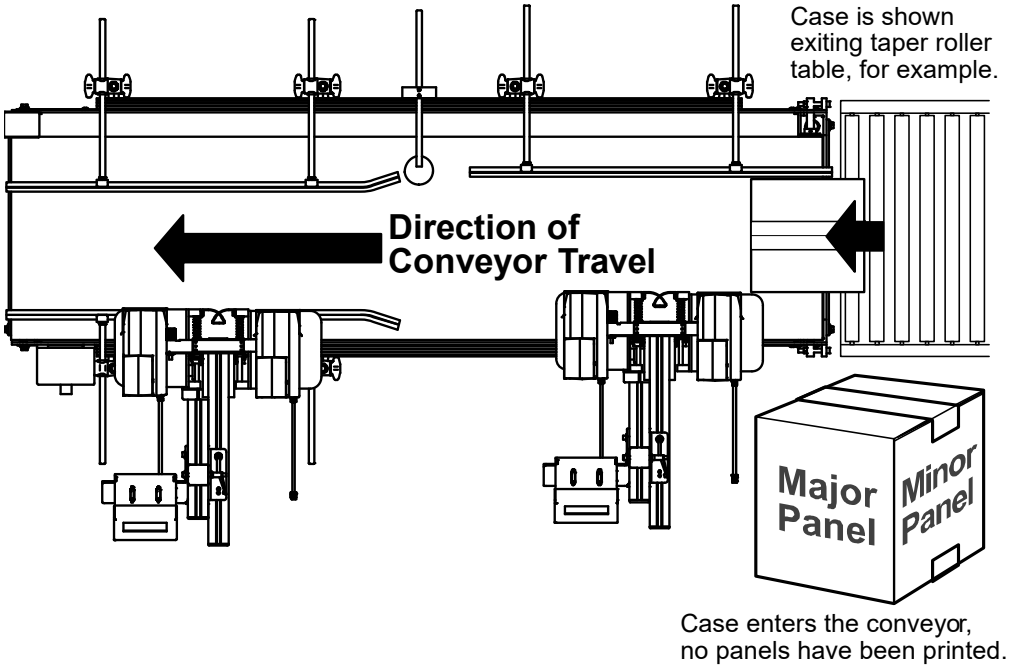
Optional Bump Turn Operation

The bump turn kit option is available for the model C2472 Conveyor only. The purpose of the bump turn bracket is to pivot or rotate the case 90° as it travels the length of the conveyor, so that two print heads positioned along the same side of the conveyor can be used to print messages on two adjacent panels of the case.

VIDEO: C Series Conveyor With Optional Bump Turn Operation
To see a video showing an Eastey C-Series conveyor in operation with brackets set up for bump turn operation, click this link: https://www.youtube.com/watch?v=Zj0zcC00nKc, or scan the QR code at right using the camera app on your mobile device.

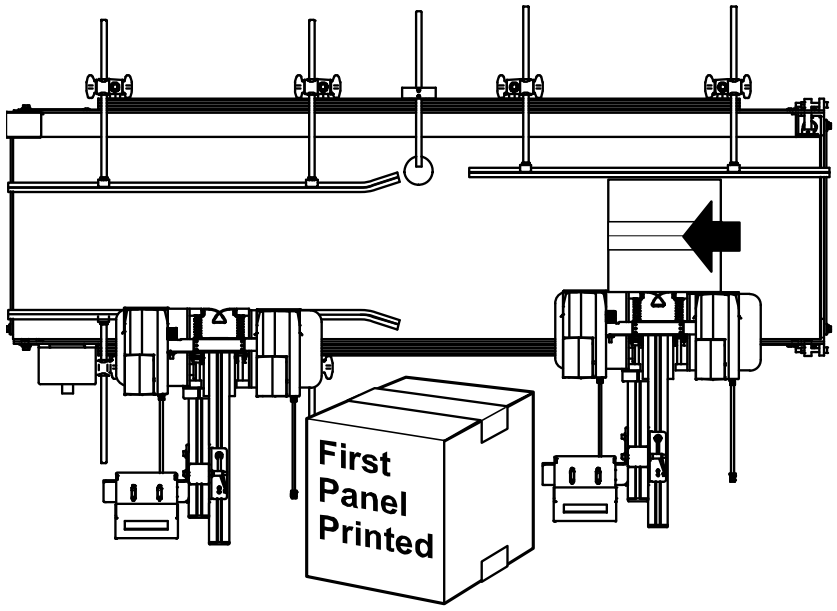
If the conveyor is equipped with the optional bump turn bracket, the bump turn operates like this.

1. The case is placed on the infeed end of the conveyor blank, with no sides printed. A case entering the infeed end of a conveyor from an industrial tape sealer will be oriented as shown in the following illustration, with the tape sealed seam parallel to the direction of conveyor travel.



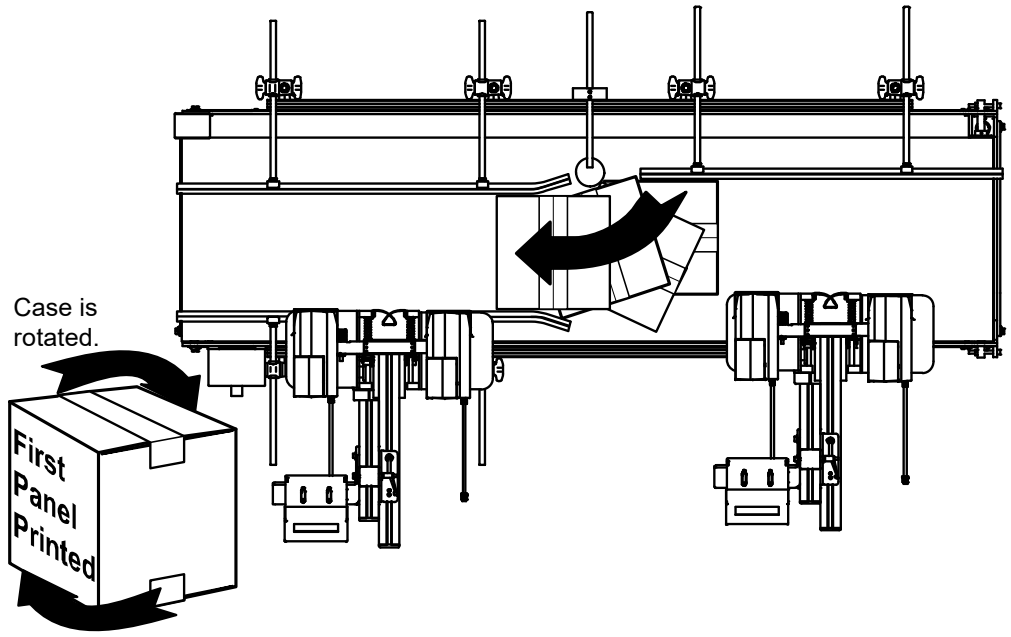
The two adjacent panels of the case shown here are the panels that will be presented to each of the two printers, in turn, to be printed as the case moves along the conveyor.

2. As the conveyor moves the case past the first print head, the print head is adjacent to the major panel of the case and prints the major panel.

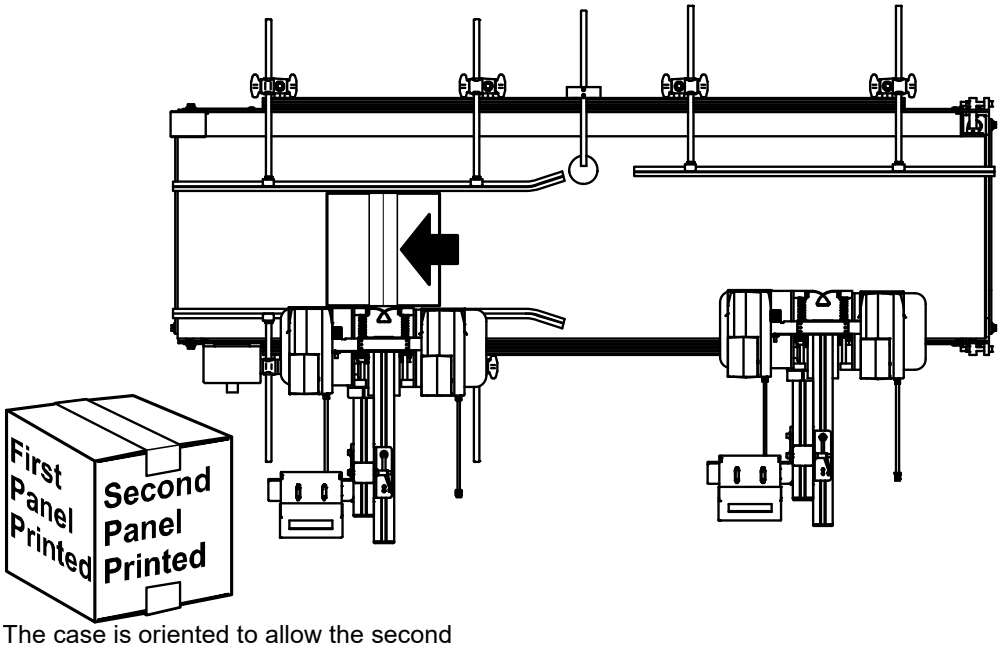


As the case passes the first print head,
the first print head prints the side panel.

3. As the conveyor moves the case along, the case comes in contact with the bump turn disk. The bump turn disk catches the case off-center, causing the case to pivot, as shown, to present the adjacent minor panel to the second print head.

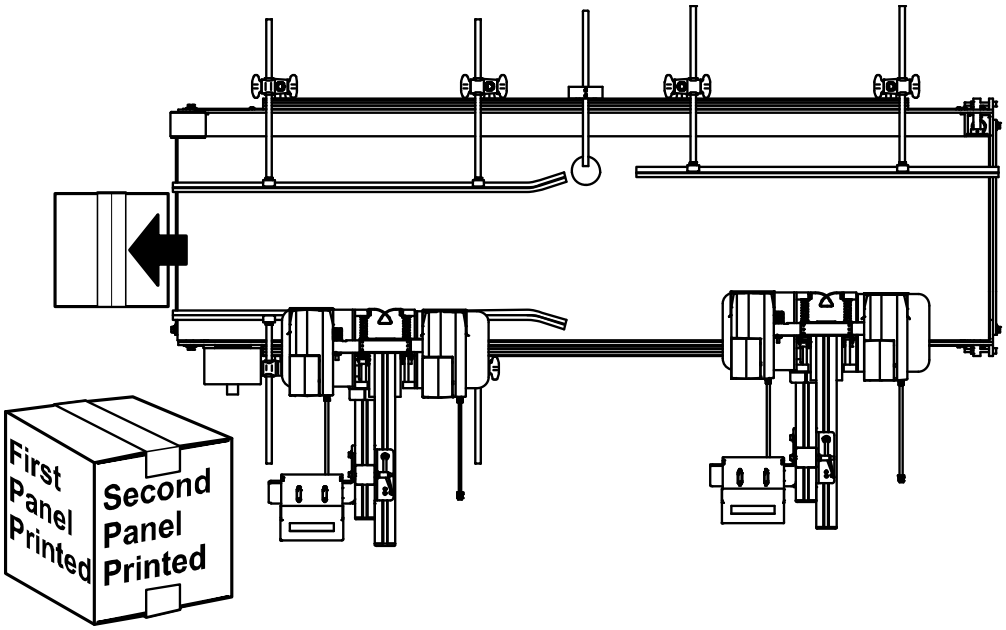


4. The second print head prints the minor panel of the case.



The case is oriented to allow the second print head to print on the end panel.

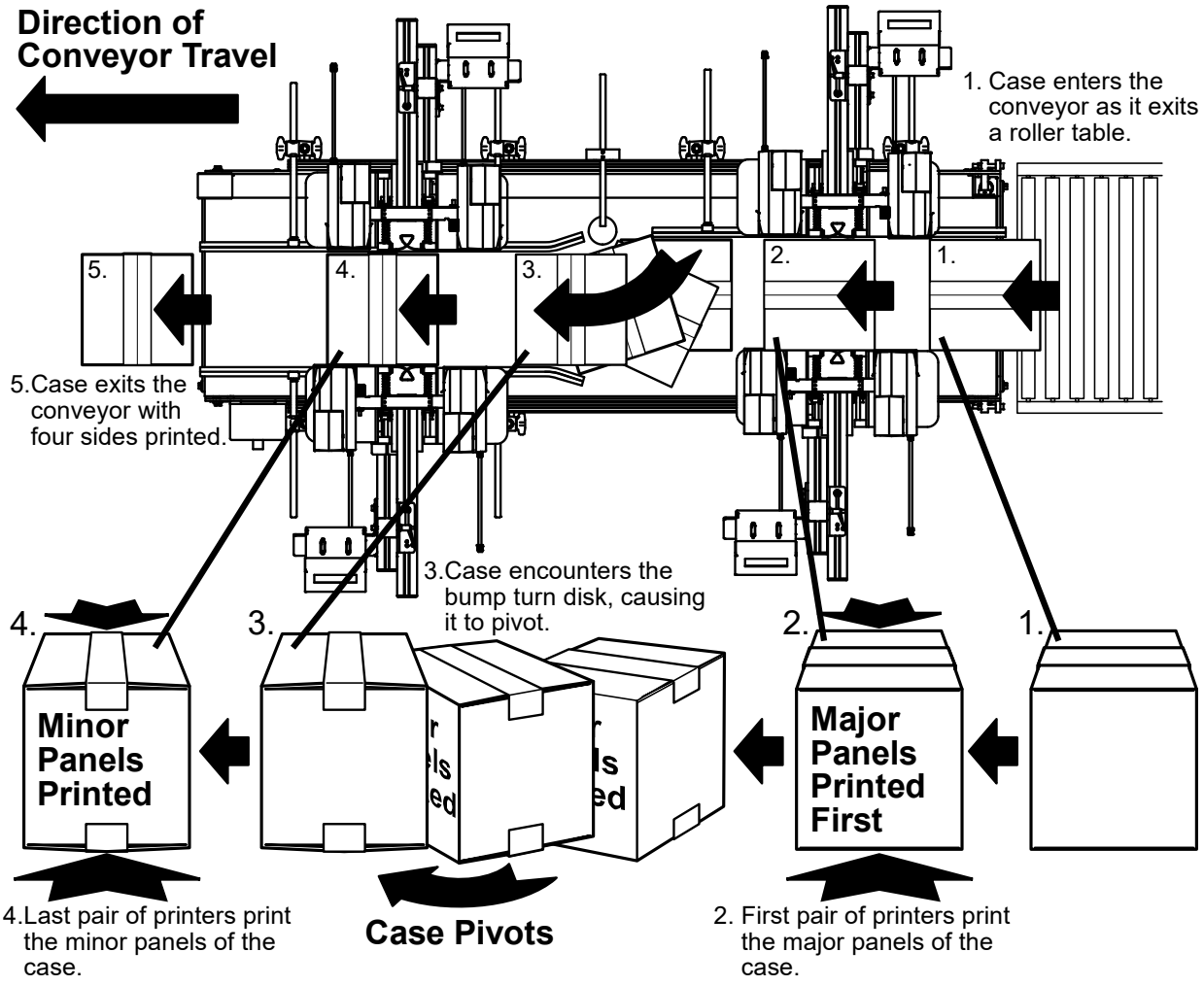
5. The case exits the exit end of the conveyor with two adjacent panels printed.



The case exits the conveyor, both adjacent panels, side and end, have been printed.

Doubling the number of print heads to four, placing two print heads along each side, makes it possible to print all four sides in one pass of the length of the conveyor.

With four print heads configured as shown, both major panels are printed first, and then the case is pivoted as it encounters the bump turn and both minor panels are printed.



Adjustments

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

WARNING: Unless otherwise specifically stated, before performing any adjustments, maintenance, or repairs, power off the system, disable the power source, and do the same for all connected equipment consistent with logout/tagout best practices.
See https://www.osha.gov/control-hazardous-energy or scan the QR code at right using the camera app on your mobile device.

Height Adjustment and Leveling

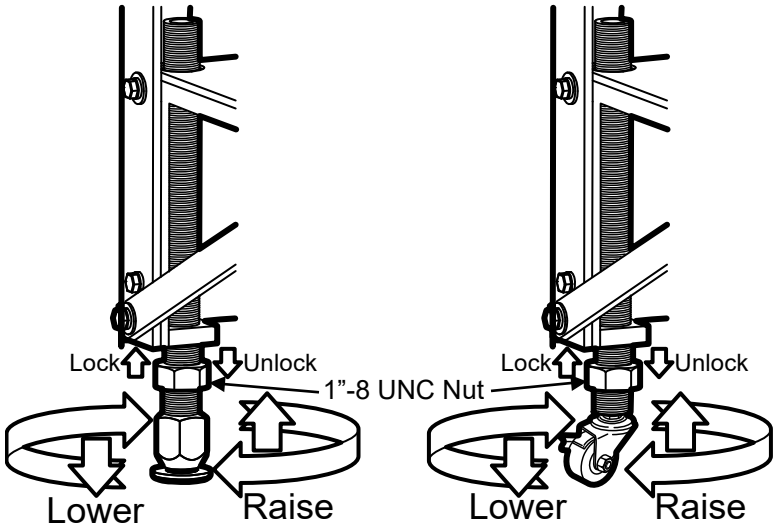
All four legs at the corners of the conveyor are adjustable for height and leveling, and two mechanisms allow for height adjustment: threaded-rod legs and leg-extension angle brackets.

Threaded-rod legs: threaded-rod legs are adjustable for their total length (less approximately 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 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.

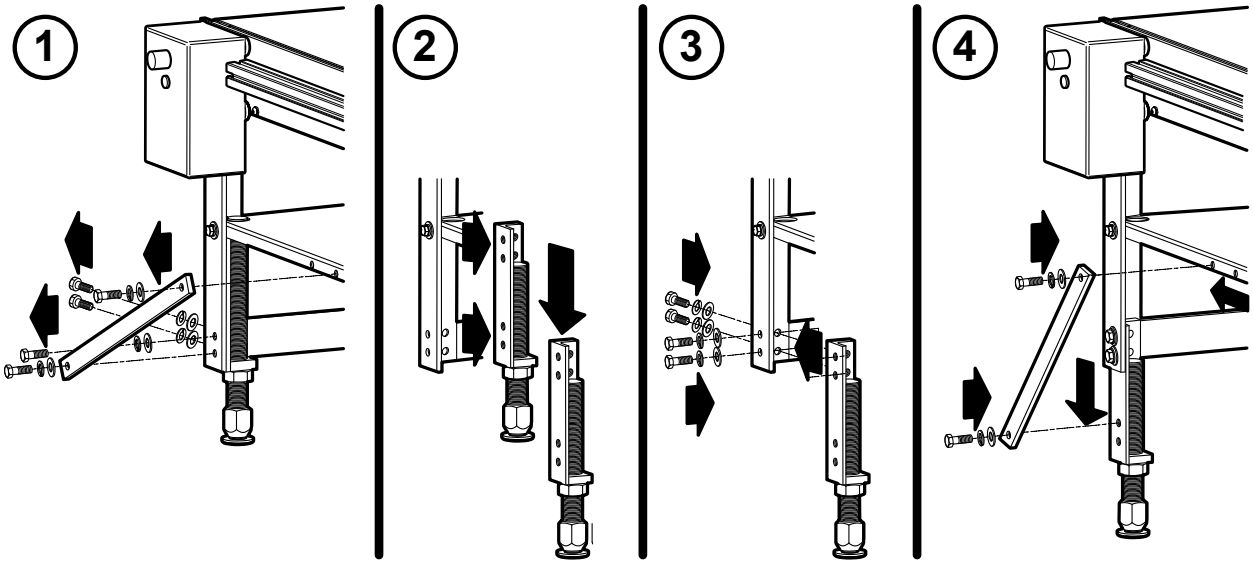


Note: **An open-end wrench or channel-style wrench with a 1-½” opening is required for the 1”-8 UNC standard nuts.**

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.



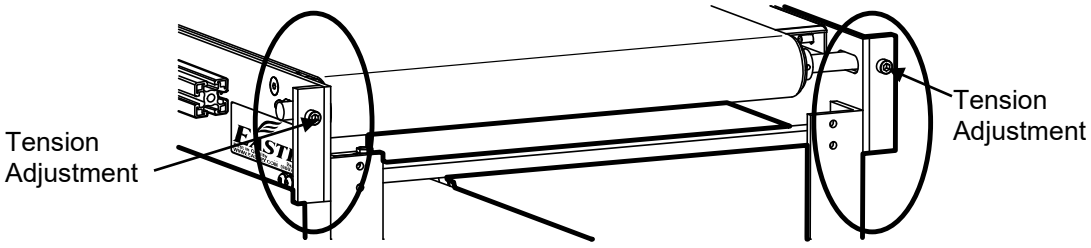
1. Temporarily remove and save the hardware that fastens the leg extension angle bracket and leg brace bar. Remove both ends of the leg brace bar, as the brace bar will be repositioned to other holes when it is refastened to the leg extension angle bracket.
2. Reposition the leg extension angle to align 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 Belt Tension Adjustment

VIDEO: C-Series Conveyor Tension Adjustment
To see a video showing conveyor belt tension adjustment for the Eastey C-Series conveyor, click this link: https://www.youtube.com/watch?v=7LGnIZRyOV4, or scan the QR code at right using the camera app on your mobile device.

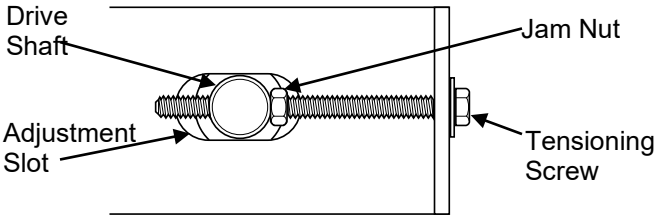
Adjustment of conveyor tension is made by tightening or loosening the conveyor tension adjustment screws. There is a tension adjustment screw on each side of the conveyor at the right and left ends of the idler shaft. Jam nuts secure the tension adjustment.



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.



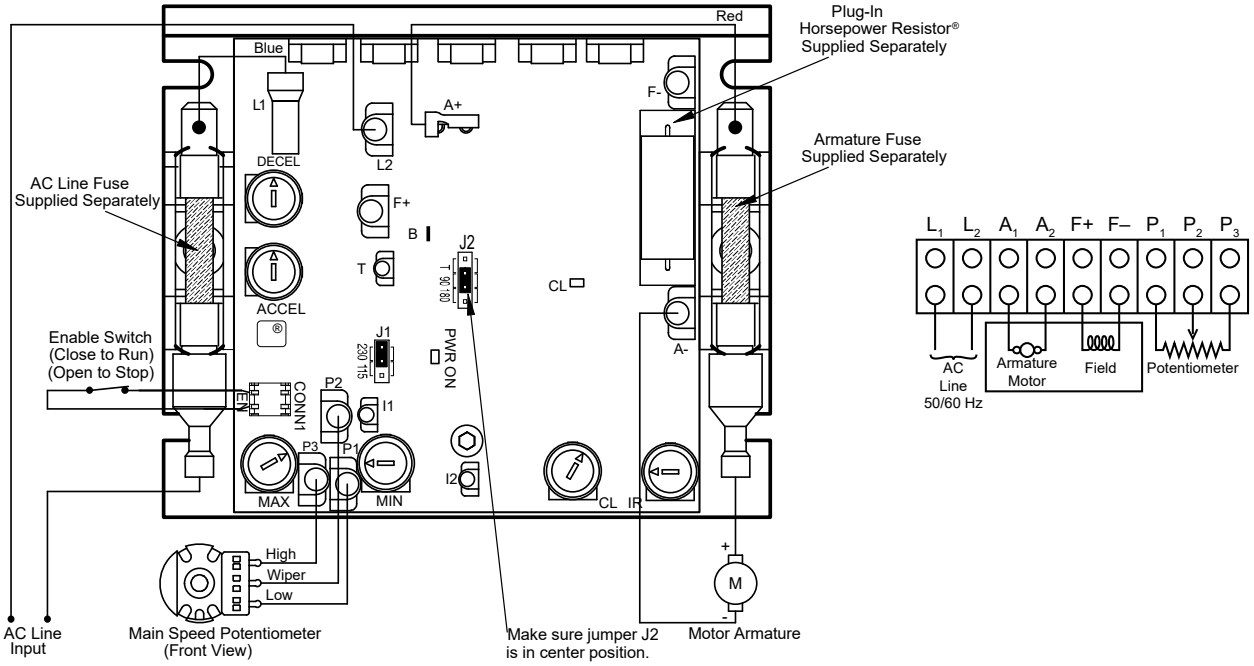
2. Use a wrench on the screw head to adjust tension.
   - Turn the adjustment screw counterclockwise to loosen tension.
   - Turn the adjustment screw clockwise to increase tension.
3. Ensure tracking of belt is centered between frames so the belt does not wear on either side frame. The belt will pull 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)

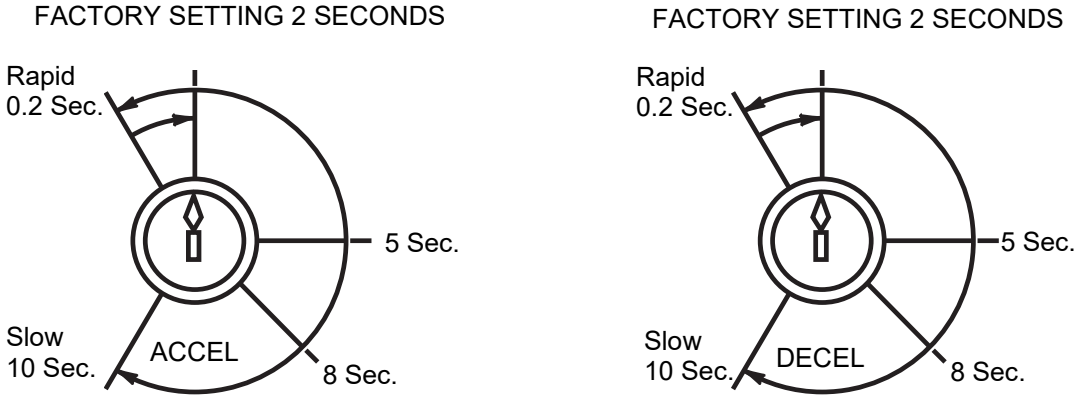


For more information refer to the *KBMM™ Installation and Operation Manual* (provided by the D.C. board manufacturer).

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 ½) 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 ¾ HP on 120V AC, and 1-½ 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 C 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.

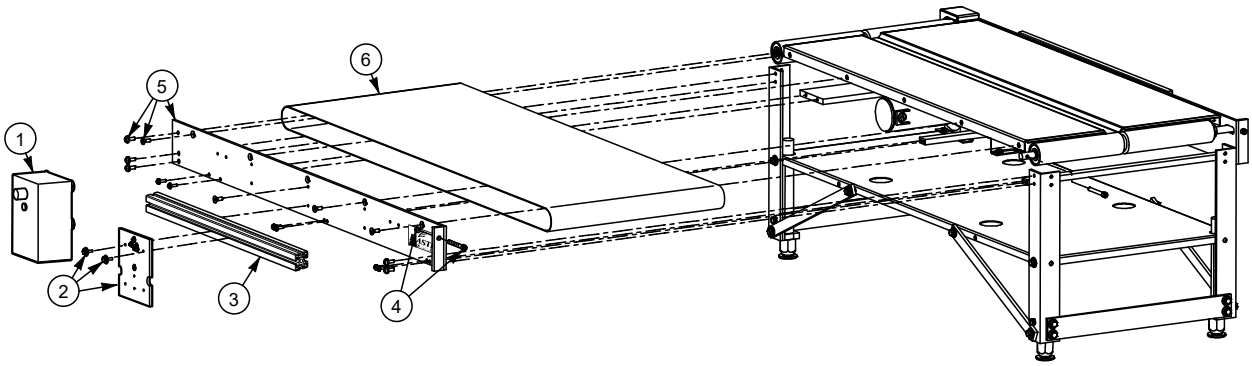
WARNING: Unless otherwise specifically stated, before performing any adjustments, maintenance, or repairs, power off the system, disable the power source, and do the same for all connected equipment consistent with logout/tagout best practices.
See https://www.osha.gov/control-hazardous-energy or scan the QR code at right using the camera app on your mobile device.

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.

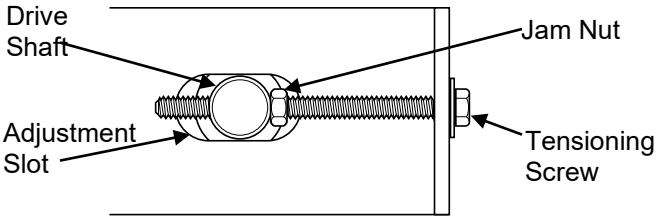
2. Remove attaching socket head cap screws and mounting plate (2) and side extrusion rail (3). Set aside mounting plate (2) and extrusion rail (3) and retain attaching hardware for re-use.

3. Loosen conveyor tension adjustment and jam nut (4) 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 (5) from the side from which you are removing the belt, and retain for re-use.

5. With the belt loose, carefully slide the belt (6) out the open side, off 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 (6) in place, re-use existing hardware to reattach the side rail (5) and reassemble the belt tensioning mechanism (4), running the adjustment screw through the side rail flange, through the jam nut, and through the roller shaft.



7. Fasten the side extrusion rail (3) and mounting plate (2) to the side rail, re-using existing hardware. Place magnetically mounted control box (1) near either end of the side rail or where desired.

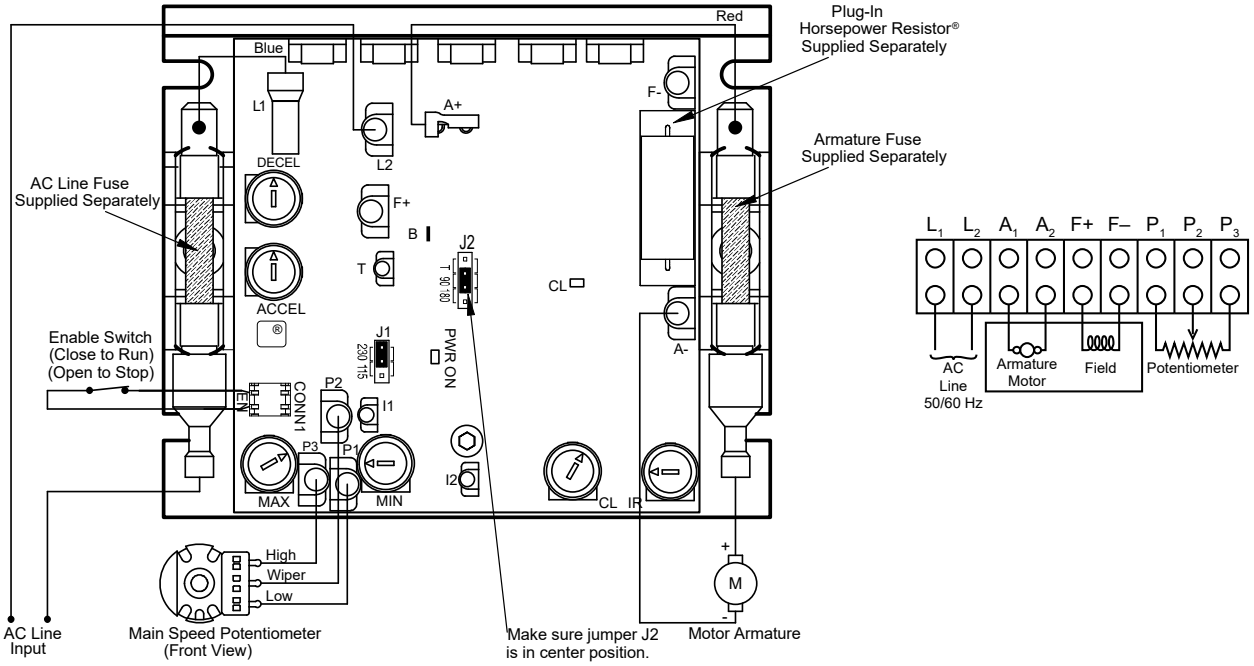
When reassembly is complete, check the conveyor to make sure it will not catch or snag on any parts. Plug in and turn on the conveyor to resume operation. Perform the Conveyor Belt Tension Adjustment described in the Adjustments section to adjust the conveyor to correct tension and make sure the belt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

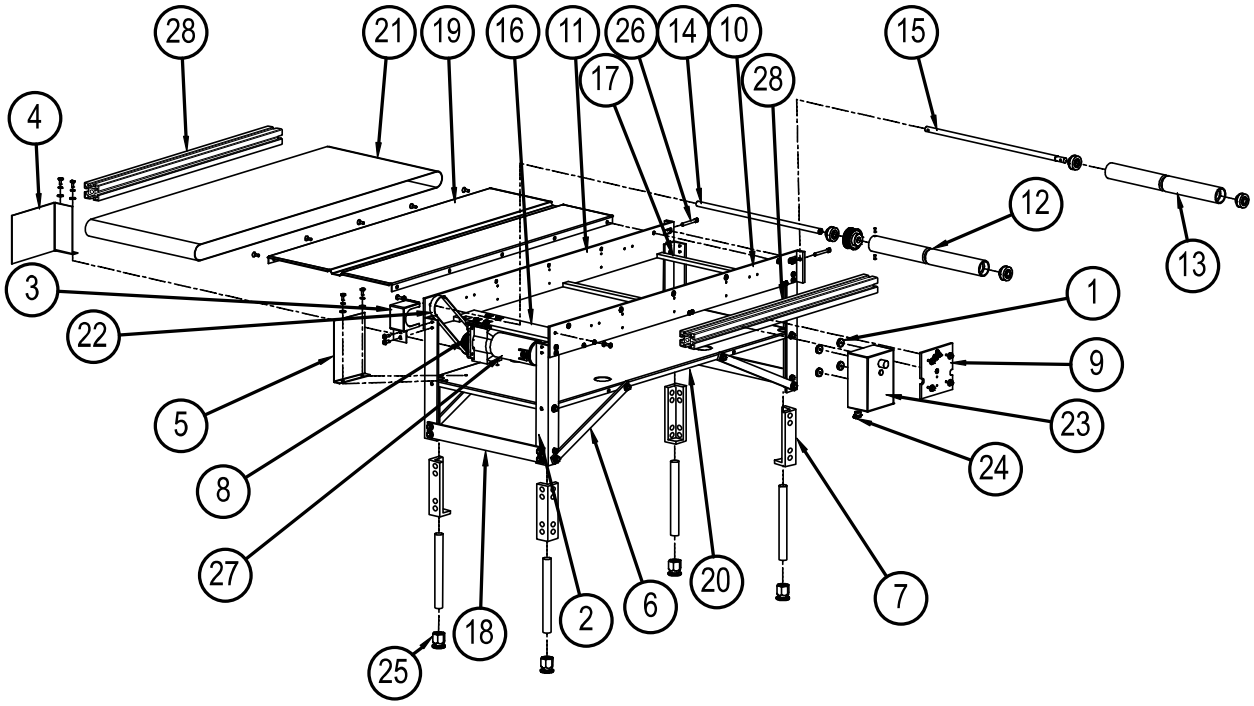
Problem	Possible Cause	Corrective Action
1. Motor does not run; Power On, Indicator not lit.	1. Power switch is in Off position, or 2. AC voltage is not brought to L1 and L2 terminals. 3. Blown line fuse	1. Toggle power switch to On position; or 2. Correct wiring to control box. 3. Replace line fuse 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.	1. Speed control knob set to 0 (zero). 2. Defective motor. 3. Plug-in Horsepower Resistor® not installed. 4. Blown armature fuse.	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.	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.	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
4. Erratic motor performance.	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	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.
5. Motor continues to run when speed control knob is set to	1. Minimum speed trim pot not set to full counter-clockwise position. 2. IR comp trim pot set too high.	1. Readjust minimum speed trim pot. 2. Lower IR comp trim pot setting.
6. Motor runs in wrong direction.	Armature leads reversed.	Correct and reconnect armature leads.

Parts List

Conveyor — C1248, C1272, C1848, C1872, C2430 & C2472



ITEM	C1248	C1272	C1848	C1872	C2430	C2472	PART NUMBER	DESCRIPTION	QUANTITY
1	✓	✓	✓	✓	✓	✓	2003009	Magnet, Disk, 1” O.D. ¼” Thk. 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	✓	✓	✓	✓	✓	✓	C0000520	Printer Mounting Kit, All Models	1

ITEM	C1248	C1272	C1848	C1872	C2430	C2472	PART NUMBER	DESCRIPTION	QUANTITY
10	✓		✓				C0048001	Conveyor Side Plate, Left, C1248 & C1848 Models	1
10					✓		C0030001	Conveyor Side Plate, Left, C2430 Model	1
10		✓		✓		✓	C0072001	Conveyor Side Plate Left, C1272, C1872, C2472 Models	1
11	✓		✓				C0048002	Conveyor Side Plate, Right, C1248 & C1848 Models	1
11					✓		C0030002	Conveyor Side Plate, Right, C2430 Model	1
11		✓				✓	C0072002	Conveyor Side Plate, Right, C1272, C1872, C2472 Models	1
12	✓	✓					C1200001	Assembly, Drive Roller, C1248 & C1272 Models	1
12			✓	✓			C1800001	Assembly, Drive Roller, C1848 & C1872 Models	1
							C2400001-1	Assembly, Drive Roller, C2430 Model Only	1
12						✓	C2400001	Assembly, Drive Roller, C2472 Model Only	1
13	✓	✓					C1200002	Assembly, Idler Roller, C1248 & C1272 Models	1
13			✓	✓			C1800002	Assembly, Idler Roller, C1848 & C1872 Models	1
					✓		C2400002-1	Assembly, Idler Roller, C2430 Model Only	1
13						✓	C2400002	Assembly, Idler Roller, C2472 Model Only	1
14	✓	✓					C1200003	Shaft, Drive Roller, C1248 & C1272 Models	1
14			✓	✓			C1800003	Shaft, Drive Roller, C1848 & C1872 Models	1
14					✓	✓	C2400003	Shaft, Drive Roller, C2430 & C2472 Models	1
15	✓	✓					C1200004	Shaft, Idler Roller, C1248 & C1272 Models	1
15			✓	✓			C1800004	Shaft, Idler Roller, C1848 & C1872 Models	1
15					✓	✓	C2400004	Shaft, Idler Roller, C2430 & C2472 Models	1
16	✓	✓					C1200005	Motor Mount Plate, C1248 Models	1
16			✓	✓			C1800005	Motor Mount Plate, C1848 Models	1
16					✓	✓	C2400005	Motor Mount Plate, C2430 & C2472 Models	1
17	✓	✓					C1200006	Cross Bar, C1248 & C1272 Models	2
17			✓	✓			C1800006	Cross Bar, C1848 & C1872 Models	2
17					✓	✓	C2400006	Cross Bar, C2430 & C2472 Models	2
18	✓	✓					C1200007	Cross Brace, Lower, C1248 & C1272 Models	2

ITEM	C1248	C1272	C1848	C1872	C2430	C2472	PART NUMBER	DESCRIPTION	QUANTITY
18			✓	✓			C1800007	Cross Brace, Lower, C1848 & C1872 Models	2
18					✓	✓	C2400007	Cross Brace, Lower, C2430 & C2472 Models	2
19	✓						C1248001	Conveyor Pan 12W × 48L, C1248 Model Only	1
19		✓					C1272001	Conveyor Pan 12W × 72L, C1272 Model Only	1
19			✓				C1848001	Conveyor Pan 18W × 48L, C1848 Model Only	1
19				✓			C1872001	Conveyor Pan 18W × 72L, C1872 Model Only	1
19					✓		C2430001	Conveyor Pan 24W × 30L, C2430 Model Only	
19						✓	C2472001	Conveyor Pan 24W × 72L, C2472 Model Only	1
20	✓						C1248002	Brace For Base, C1248 Model Only	1
20		✓					C1272002	Brace For Base, C1278 Model Only	1
20			✓				C1848002	Brace For Base, C1848 Model Only	1
20				✓			C1872002	Brace For Base, C1872 Model Only	1
20					✓		C2430002	Brace For Base, C2430 Model Only	1
20						✓	C2472002	Brace For Base, C2472 Model Only	1
21	✓						C1248501	Conveyor Belt, 12 × 48 Conveyor, C1248 Model Only	1
21		✓					C1272501	Conveyor Belt, 12 × 72 Conveyor, C1272 Model Only	1
21			✓				C1848501	Conveyor Belt, 18 × 48 Conveyor, C1848 Model Only	1
21				✓			C1872501	Conveyor Belt, 18 × 72 Conveyor, C1872 Model Only	1
21					✓		C2430501	Conveyor Belt, 24 × 30 Conveyor, C2430 Model Only	1
21						✓	C2472501	Conveyor Belt, 24 × 72 Conveyor, C2472 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
28	✓		✓				C0048005	T-Slot Rail for Printers C1248 & C1848 Models	2

ITEM	C1248	C1272	C1848	C1872	C2430	C2472	PART NUMBER	DESCRIPTION	QUANTITY
28					✓		C0030005	T-Slot Rail for Printers C2430 Model Only	2
28		✓		✓		✓	C0072005	T-Slot Rail for Printers C1272, C1872 & C2472 Models	2

Option / Accessory Kits — C1248, C1272, C1848, C1872, 2430 & C2472

C1248	C1272	C1848	C1872	C2430	C2472	PART NUMBER	DESCRIPTION
				✓		C0000550	Guide Kit, 30 in. L. T-Slot – 1 Side, C2430 Model Only
✓		✓				C0000551	Guide Kit. 48 in. L. T-Slot – 1 Side, C1248 & C1848
	✓		✓		✓	C0000552	Guide Kit, 72 in. L. T-Slot – 1 Side, C1272, C1872 & C247
✓		✓				C0000501	Guide Kit, 48 in. L. 1-1/4 in. Wide / One Side, C1248 & C1848
	✓		✓		✓	C0000511	Guide Kit, 72 in. L. 1-1/4 in. Wide / One Side, C1272, C1872 & C2472
✓	✓	✓	✓	✓	✓	C0000500	Caster Kit, Eastey Conveyor, (4 Legs and Casters) All Models
✓	✓	✓	✓	✓	✓	C0000503	Leg Leveler Kit 9-in. legs, Eastey Conveyor, (4 Legs & Leveling Feet)
✓	✓	✓	✓	✓	✓	C0000504	Leg Leveler Kit 17-in. legs, Eastey Conveyor, (4 Legs & Leveling Feet)

E-Stop Kit, Option for All Models C0000553

ITEM	C1248	C1272	C1848	C1872	C2430	C2472	PART NUMBER	DESCRIPTION	QUANTITY
1	✓	✓	✓	✓	✓	✓	SA000520	E-Stop Push / Twist N.C.	1
2	✓	✓	✓	✓	✓	✓	EP000565	Palm Button N / C Contact	1
3	✓	✓	✓	✓	✓	✓	ET820017	Enclosure Junction Box EA	1
4	✓	✓	✓	✓	✓	✓	ESC00577	Legend Plate Stop	1
5	✓	✓	✓	✓	✓	✓	ESC00563	Power Cord 18-3 SO Cord	7ft
6	✓	✓	✓	✓	✓	✓	EAST1004	Romex Connector 3/8”	2
7	✓	✓	✓	✓	✓	✓	EAST0326	Connector Closed End	1

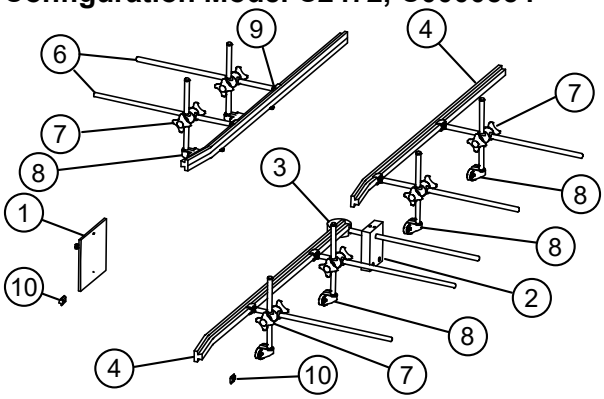
ITEM	C1248	C1272	C1848	C1872	C2430	C2472	PART NUMBER	DESCRIPTION	QUANTITY
8	✓	✓	✓	✓	✓	✓	2006063	T-Nut Slider 10mm M6	2
9	✓	✓	✓	✓	✓	✓	2006305	SCREW, SHC, M6 × 16 SS	2

Bump Turn Option Kits — C2472 Only

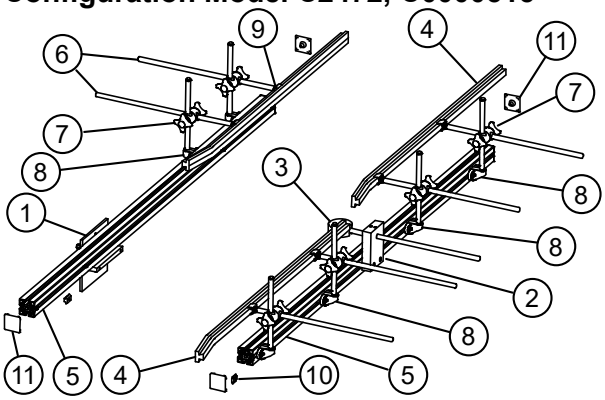
Optional Kit for Current Conveyor Configuration C2472, C0000554; and
Optional Retrofit Kit for Earlier Configuration C2472, C0000515

Kits for the Bump Turn option are available only for the C2472 model conveyors. Two kits are available one for current model conveyors (C0000554), and another for earlier model conveyors (C0000515). Earlier model conveyor configurations did not include T-slot side rail extrusions along each side plate of the conveyor. T-slot side rail extrusions are included in the retrofit kit (C0000515) for earlier model conveyors, but not included in the kit (C0000554) for the current model because in the current configuration the T-slot side rail extrusions are already mounted onto the side plates of the conveyor.

Bump Turn Kit Option for Current Configuration Model C2472, C0000554



Bump Turn Retrofit Kit for Earlier Configuration Model C2472, C0000515

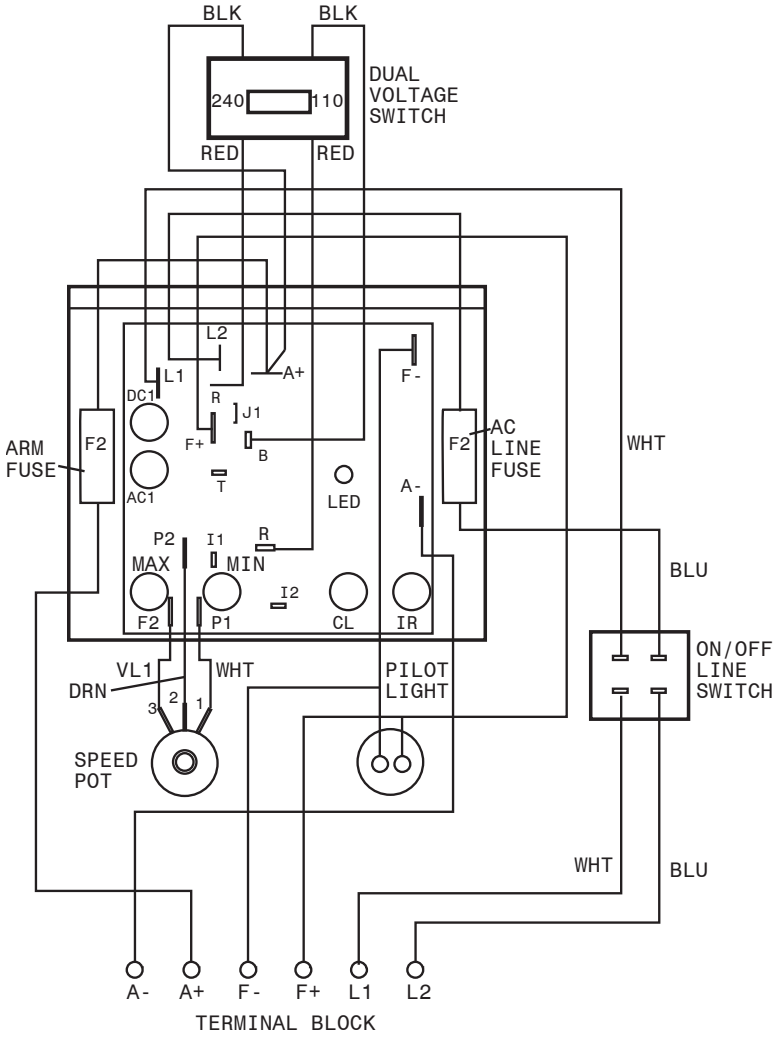


ITEM	PART NUMBER	DESCRIPTION	C0000515	C0000554
1	C0000520	Printer Mounting Kit T-Slot — Includes Printer Mounting Plate and Spacer and Attaching Hardware	2	1
2	C0000030	Bump Turn Mounting Bracket	1	1
3	C0000031	Bump Turn Plastic End	1	1
4	C0000032	Guide Rail for Bump Turn	3	3
5	C0072005	T-Slot Rail for Printers HD 80/20 Rail 57” L	2	—

ITEM	PART NUMBER	DESCRIPTION	C0000515	C0000554
6	5004011	Shaft ½” O.D. × 16” Long, Threaded End	7	7
7	5004014	Block Dual Shaft Mount ½” O.D.	4	6
8	C0000400	Mounting Rod T-Style 8”	4	6
9	C0000401	Rail Clamp	4	6
10	2006063	T-Nut Slider 10mm M6	16	16
11	C0000402	End Cap for HD80/20 T-Slot Rail for Printers	4	—
12	XH217	Bolt $^{5}/_{16}$-18 × 1” Socket Head Cap Screw	1	1
13	XH036	Bolt ¼-20 × 1 Hex Head Cap Screw	8	8
14	XH114	Screw ¼-20 × 1 Flat Head Cap Screw	8	8
15	XH120	Screw ¼-20 × ½” Flat Head Socket Cap Screw	4	4
16	2006103	Screw M6 × 20 SS	2	2
17	2006035	Screw M6 × 16 SS	12	12
18	XH114	Screw ¼-20 × 1” Flat Head Cap Screw	8	8
19	XH120	Screw ¼-20 × ½” Flat Head Socket Cap Screw	—	4
20	XH318	Set Screw ¼-20 × ½”	2	2

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).

ITEM	C1248	C1272	C1848	C1872	C2472	PART NUMBER	DESCRIPTION	QUANTITY
1	✓	✓	✓	✓	✓	ET000081	DC MOTOR CONTROL RESISTOR 0.1 OHM	1
2	✓	✓	✓	✓	✓	ET000185	FUSE 2.5 AMP CERAMIC	1

Warranty Statement

Eastey C 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
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

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Customer Support

Eastey Technical Service

For help setting up or operating the Eastey C 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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