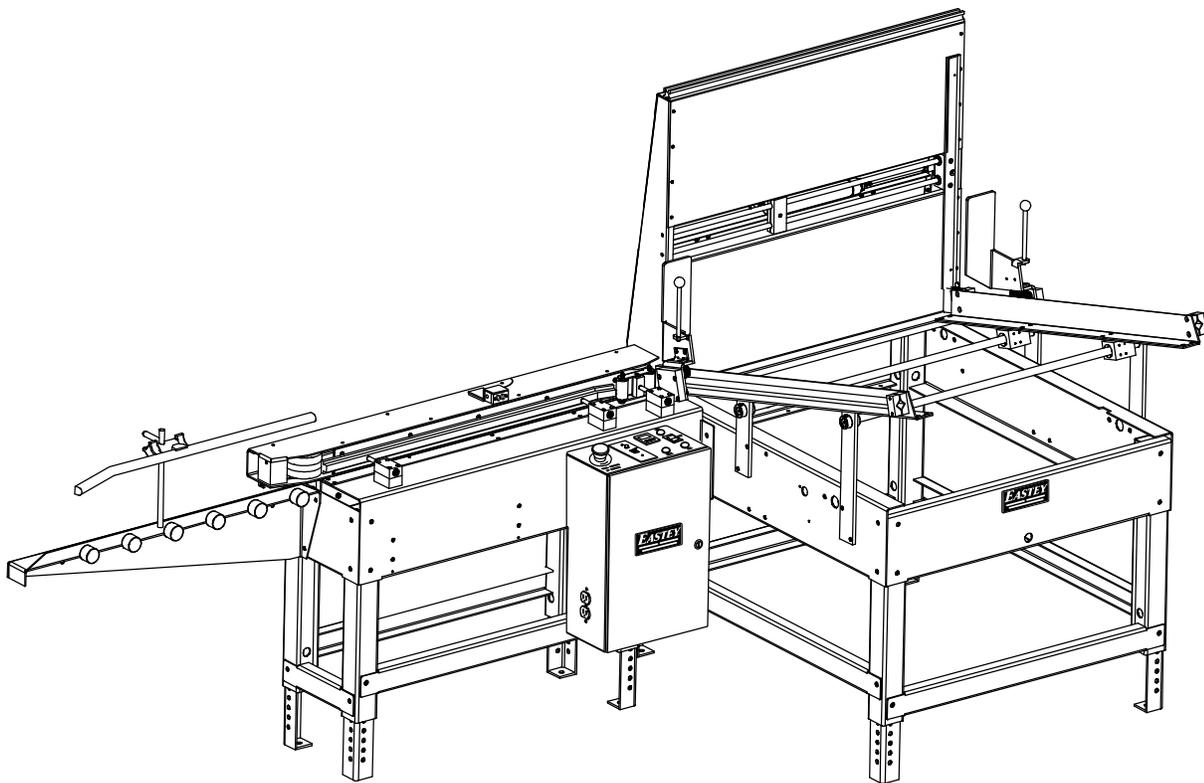# Vertical Case Transport System

User Guide

EASTEY®

Vertical Case Transport System

User Guide

Revised 04/04/2022

PN 5001688 Rev H1

Contents:

Safety

Safety Precautions

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

- The Vertical Case Transport System is a very heavy piece of equipment and will require a forklift or several people to move safely off the shipping pallet. Always use proper lifting techniques when moving this equipment.

- 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.

- Always disconnect electrical power and release air pressure before attempting maintenance for any electrical or moving parts. 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.

- Use only the specified power-supply cable. Do not use the power cable to pull or position the machine, as this will damage or break the cable.

- Do not bypass any factory-designed safety features such as guards, interlocks, switches, etc. Do not operate the machine if such modifications have been made.

- Do not attempt to operate the machine with loads that exceed the limits of use and operation in regards to weights and sizes, or with unstable loads the present a hazard of tipping or falling.

- This equipment is designed for indoor operation in a typical clean, dry factory environment. Do not operate the machine in any extremely wet or oily environment that may exceed operating specifications.

- Do not place hands or body inside the confines of the machine unless all mechanisms are securely fastened, and the air and electrical supply is shut off.

- To minimize the potential for personal injury, always be sure that the machine operators and others working on the machinery are properly trained in the correct usage of the equipment and properly instructed regarding safe operation.

- Never provide service or clear a box jam when machine is running. Always stop the machine and shut off power before servicing.

- 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 Vertical Case Transport System.

Explanation of Symbols

Caution sign or Safety Alert symbol. Indicates caution, be alert, Your safety is involved. Knowledge of safe operation is required.
Caution indicates a hazardous situation which, if not avoided, could result in minor or moderate injury or damage to equipment or surroundings.
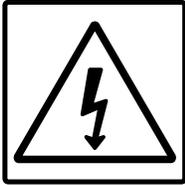
Electrical hazard. Indicates electrical danger. Only a trained electrician can uncover the electrical panel or box.

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

Introduction

VCTS Vertical Case Transfer System Overview
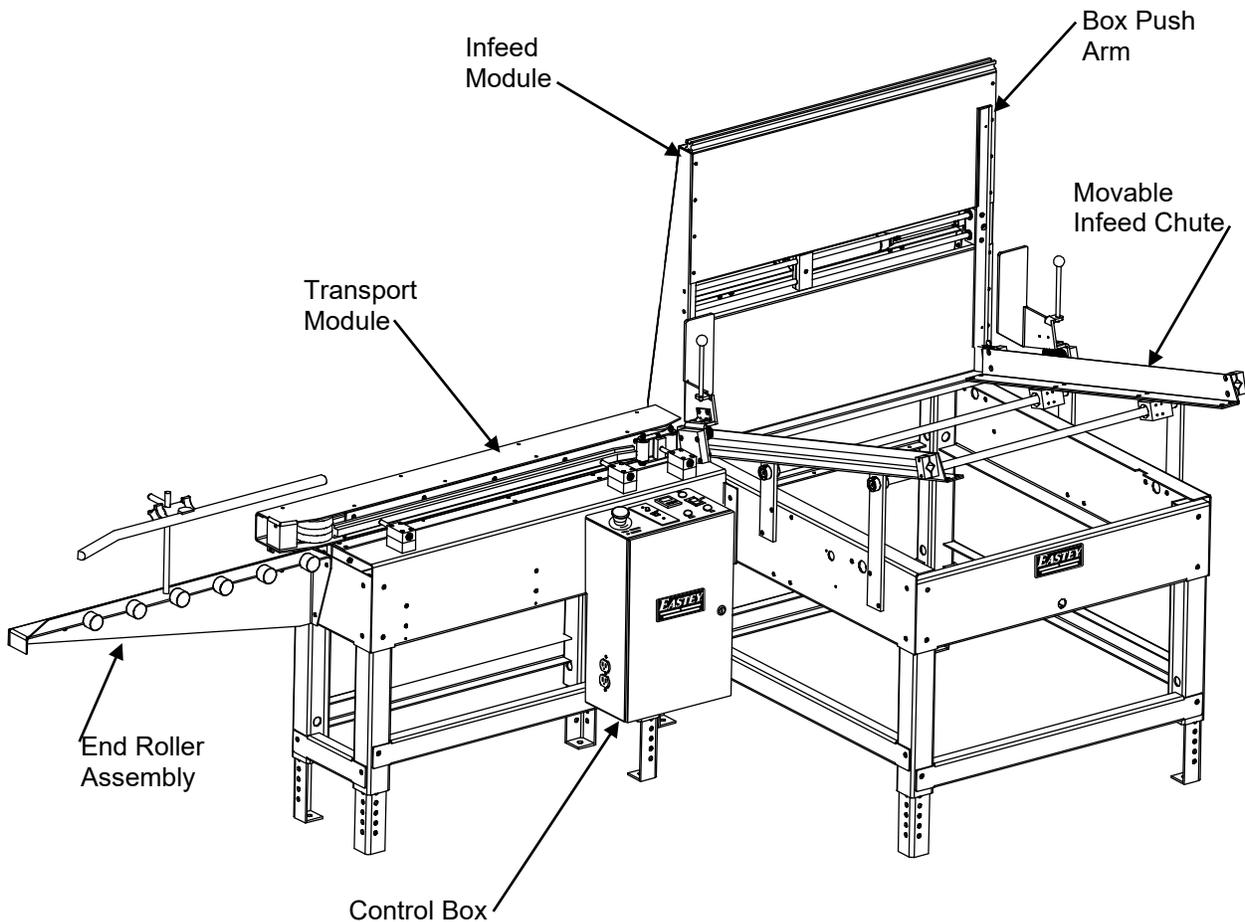
Specifications

Machine Dimensions

Model	Overall Dimensions			
	Width (A)	Height (B)		Length (C)
		Minimum	Maximum	
VCTS	46.38 in. 117.8 cm	50.86 in. 129.2 cm	58.49 in. 148.5 cm	111.02 in. 282.0 cm
VCTS-XL	46.38 in. 117.8 cm	50.86 in. 129.2 cm	58.49 in. 148.5 cm	159.29 in. 404.6 cm

Note: Machine support legs are adjustable in 1-inch increments from minimum height of ¼ inch (0.64 cm) up to 7½ inches (1.90 cm). Locking casters are provided standard and can be installed to the bottom of the support legs. When installed, locking casters add 4 inches (10.16 cm) to the machine height.

Electrical and Air

Electrical Requirements	Air Requirements
110 VAC, 60 Hz, 4.0A	80 PSI, ¼ in. NPT Fitting

Case Specifications

Box Requirements – Single-wall RSC only, minimum C flute; no trays or cartons; no square cases (i.e. 10 × 10, 14 × 14, etc. – See discussion of problem cases below.)

Input Hopper – Capacity of up to 75 flat single wall RSC, up to ½ magazine capacity

Model	Case Blank Width		Case Blank Height	
	Minimum	Maximum	Minimum	Maximum
VCTS	10.0 in. 25.4 cm	33.0 in. 83.8 cm	10.0 in. 25.4 cm	29.0 in. 73.7 cm
VCTS-XL	10.0 in. 25.4 cm	48.0 in. 121.9 cm	10.0 in. 25.4 cm	29.0 in. 73.7 cm

Case Blank

Finished Case

Overall Height 10" Min. 29" Max.

Overall Length
10" Minimum; 48" Maximum
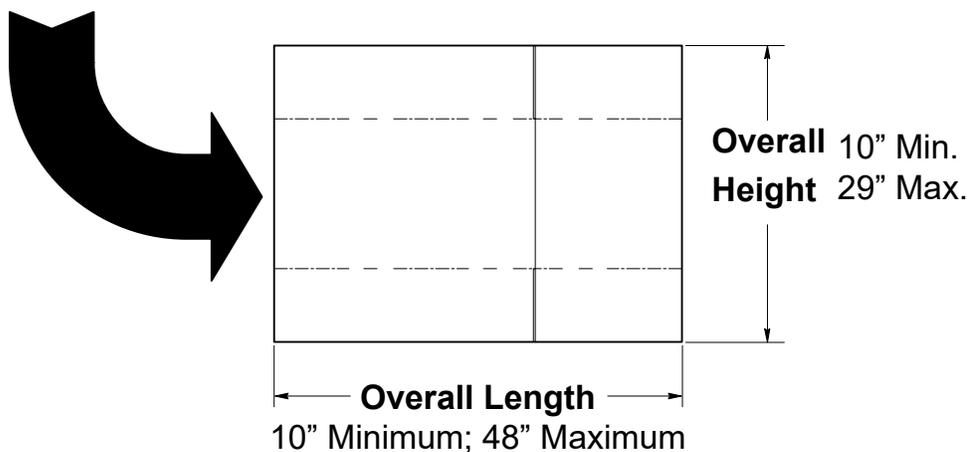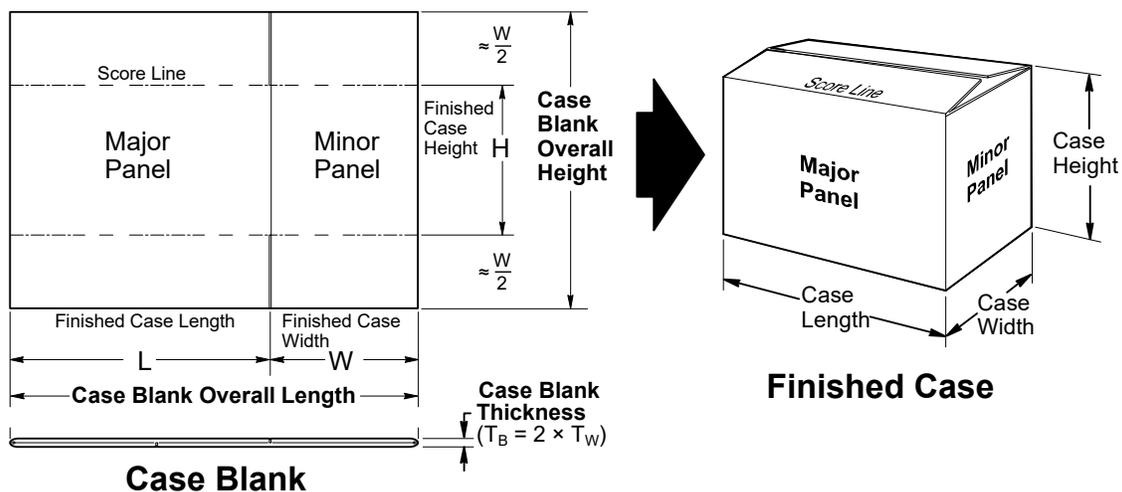
Problem Cases

Cases that pose problems for the Vertical Case Transport System are cases with a square base (case width equal to case length) because this places the vertical fold lines

for front and back coincidental, allowing the blank to fold as it is being pushed. Other problem cases include tall cases, where height of the case is greater than base dimensions. Consult with Eastey for your specific case dimensions.

Standard Features

- Designed for plug-in and go operation and low maintenance. Simple and rugged control interface for easy operation.

- Constructed of industrial strength 12-gauge steel, powder coated for durability.

- Industrial strength side belts move boxes consistently at maximum speed of 72 feet per minute (approximately 50 10 in. × 10 in. cases per minute).

- Input hopper capacity for up to 90 flat single-wall cases. Hopper width adjustment 10 in. (25.4 cm) to 33 in. (83.8 cm). Simple hopper width adjustments allow fast and easy box size changes.

- Programmable counter designed for batch operations, rate metering, and elapsed counting.

- Designed for ink jet printing system compatibility and simple integration with ink jet printers.

- Adjustable leg extensions for simple adjustment of case conveyance height.

- Heavy duty locking casters are provided and may be attached to each section to facilitate easy transport throughout the plant. (Casters are provided standard, but removed for shipping, and may be installed on-site.)

Options

- Ink Jet Printing System: high-resolution printing system capable of printing barcodes, graphics, and text.

Dimensions

Dimensions shown in inches.

17.52
12.00
2.96
46.38

Top View

Air & Electrical Connections

50.86 min.
58.11 max.
Overall
Height
(B)

26.50
26.75 min.
34.00 max.
30.75 min.
38.00 max.

35.12
40.75
35.15
111.02
Overall Length (C)

22.50
22.75 min.
30.00 max.
26.75 min.
34.00 max.

41.00
46.38
Overall Width (A)
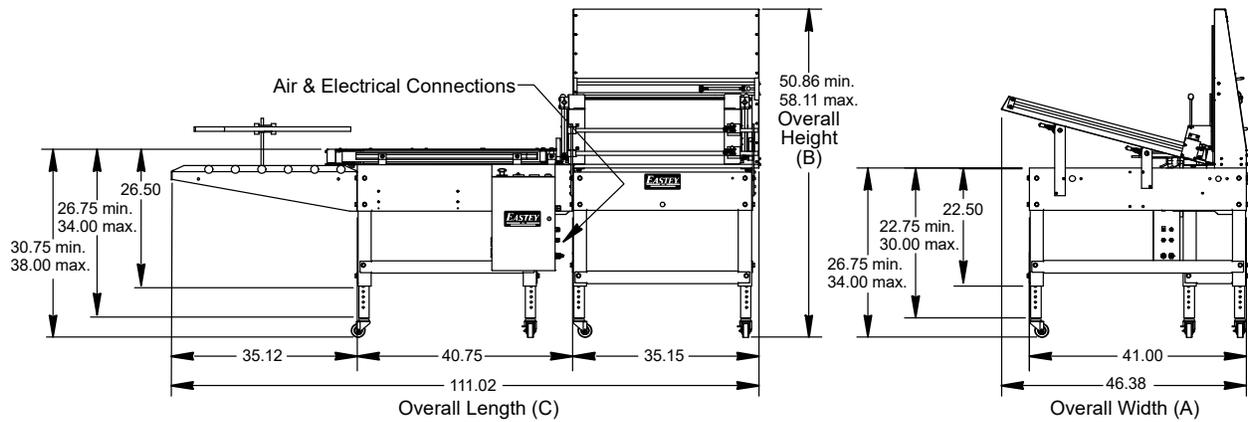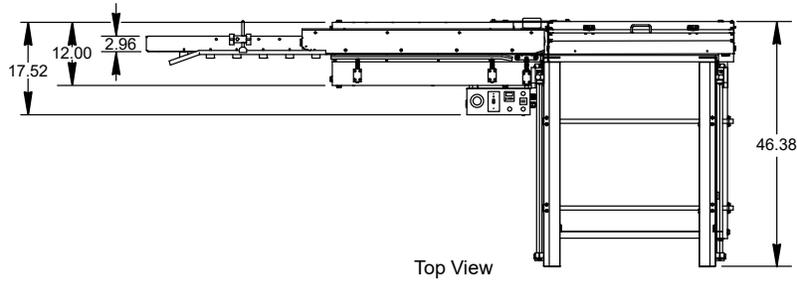
Set Up and Installation

Requirements

The Vertical Case Transport System will arrive at your facility mostly assembled and requires very little set up. There are some general recommendations and requirements for your set up area.

Air Supply

The Vertical Case Transport System requires a consistent air supply at 60-100 psi for normal operation. A ¼ inch NPT bulkhead quick-connect fitting is provided on the side of the electrical and pneumatic control box for air supply connection.

Electrical

The Vertical Case Transport System uses a standard 120VAC properly wired and grounded electrical outlet

Environment

Make sure the mounting surface is solid and level. You will need access to the feed chute and the discharge area. You will also need access to the hinged back panel if you need to adjust the push plate travel distance.

Printer

Determine what printer you will be mounting on the transport system and refer to the Printer's User Guide for mounting instructions and location.

Unpacking

The Vertical Case Transport System is shipped boxed and mounted on shipping pallets. It is mostly assembled but each of the two modules, infeed and transport, are mounted on separate pallets. Remove the cardboard packaging from the machine. The transport module is bolted to one pallet. The pneumatic infeed section on one pallet and the belt drive transport section on the other. The end roller assembly is attached to the rear of the transport module for shipping.

We suggest that you move the transport system as close to the installation area as possible before removing the modules from the shipping pallets. Remove the shipping bolts that connect the system to the pallet. There are four bolts, nuts and washers through the four legs on each module.

Caution!   The Vertical Case Transport System is a very heavy piece of equipment and will require a forklift or several people to move safely off the shipping pallet. Always use proper lifting techniques when moving this equipment.

Locking casters are provided standard with the Vertical Case Transport System and may be installed if preferred. If the locking casters are to be installed, install them on all eight legs of the Vertical Case Transport System: four on each module.

Transport Leg

Locking caster
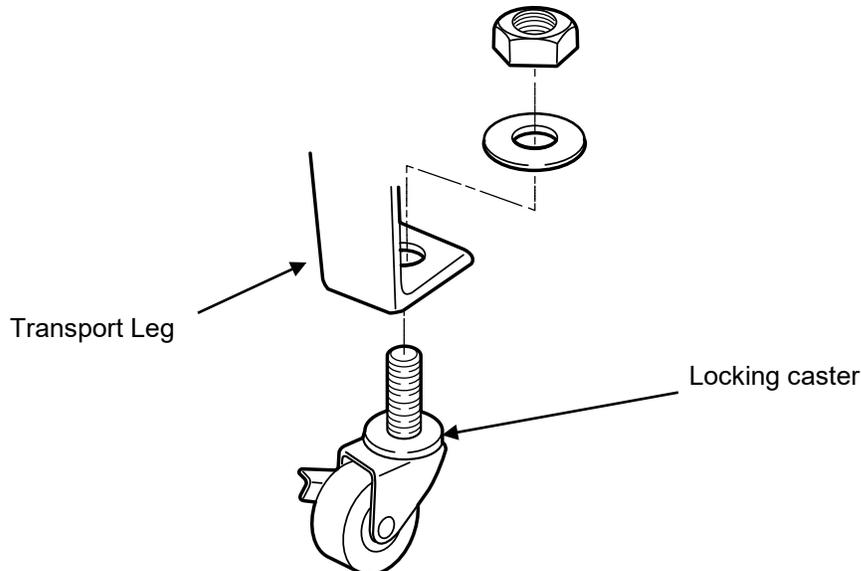
Notice: It will be necessary to raise the transport system off the floor to install the casters. Use proper equipment when lifting the transport system. Ensure the Vertical Case Transport System is secure and will not shift while the casters are being installed.

Assembly

Use the following instructions to assemble the Vertical Case Transport System.

Remove the end roller assembly from the shipping position on the back of the transport module. Line up the mounting holes and use the same nuts, bolts and washers to attach the end roller assemble to the transport module.

End Roller Assembly
in the Shipping
Position

End Roller Assembly in
the Operating Position
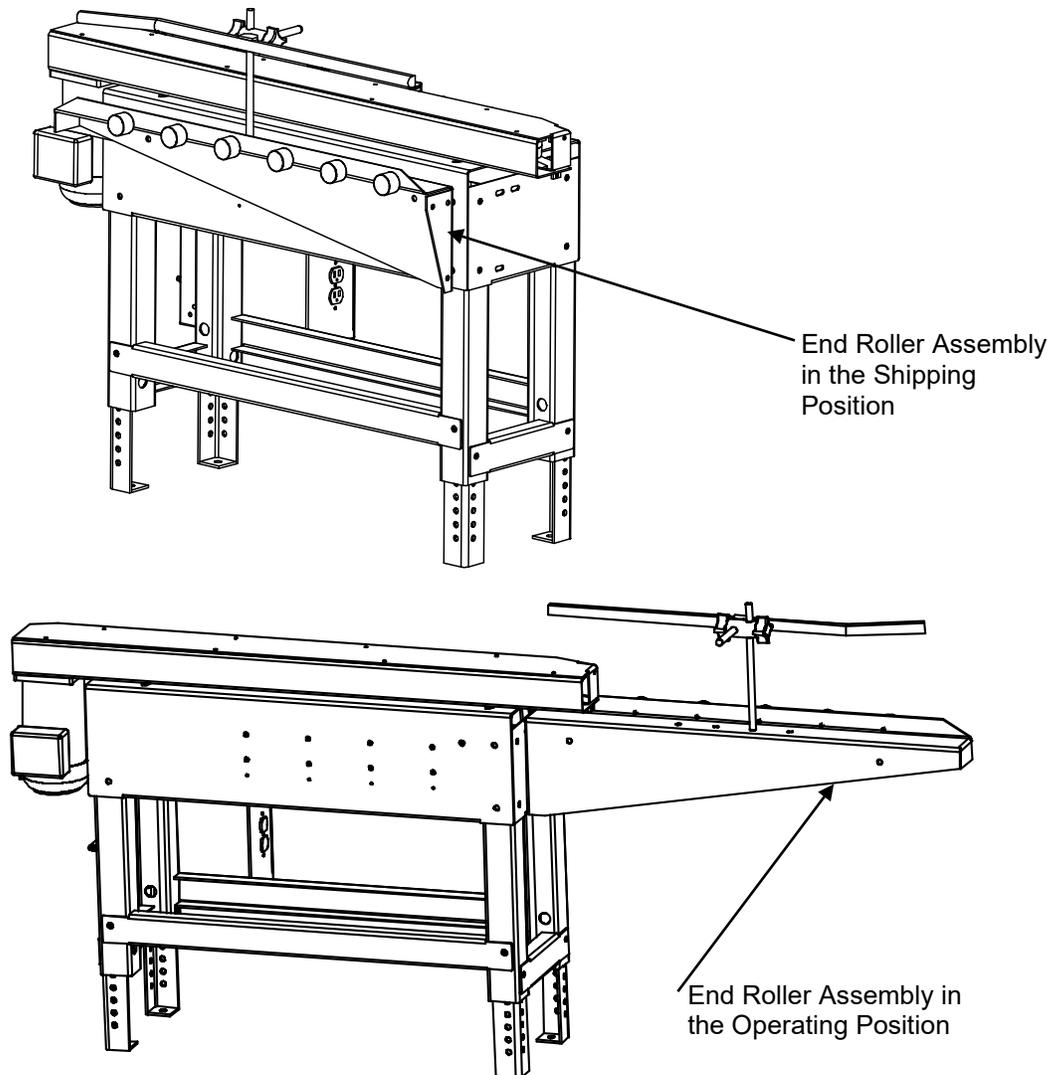
Place the Pneumatic infeed module that contains the feed chute on a flat surface. Place the belt drive transport module downstream and in line with the infeed module. Locate the connecting holes on the infeed and transport modules and use the supplied nuts, bolts and washers to attach the two modules.
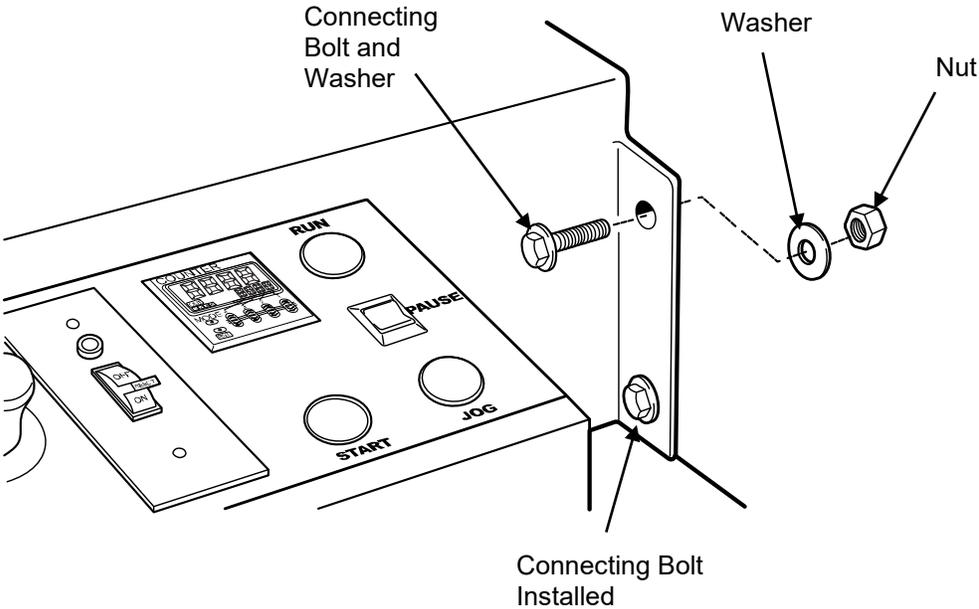
There is also a connecting strap on the back of the transport module. Attach the connecting strap to the infeed and transport modules. Position the unattached end on the infeed module and attach with supplied nuts and bolts. Below is an illustration showing the connecting strap installation.
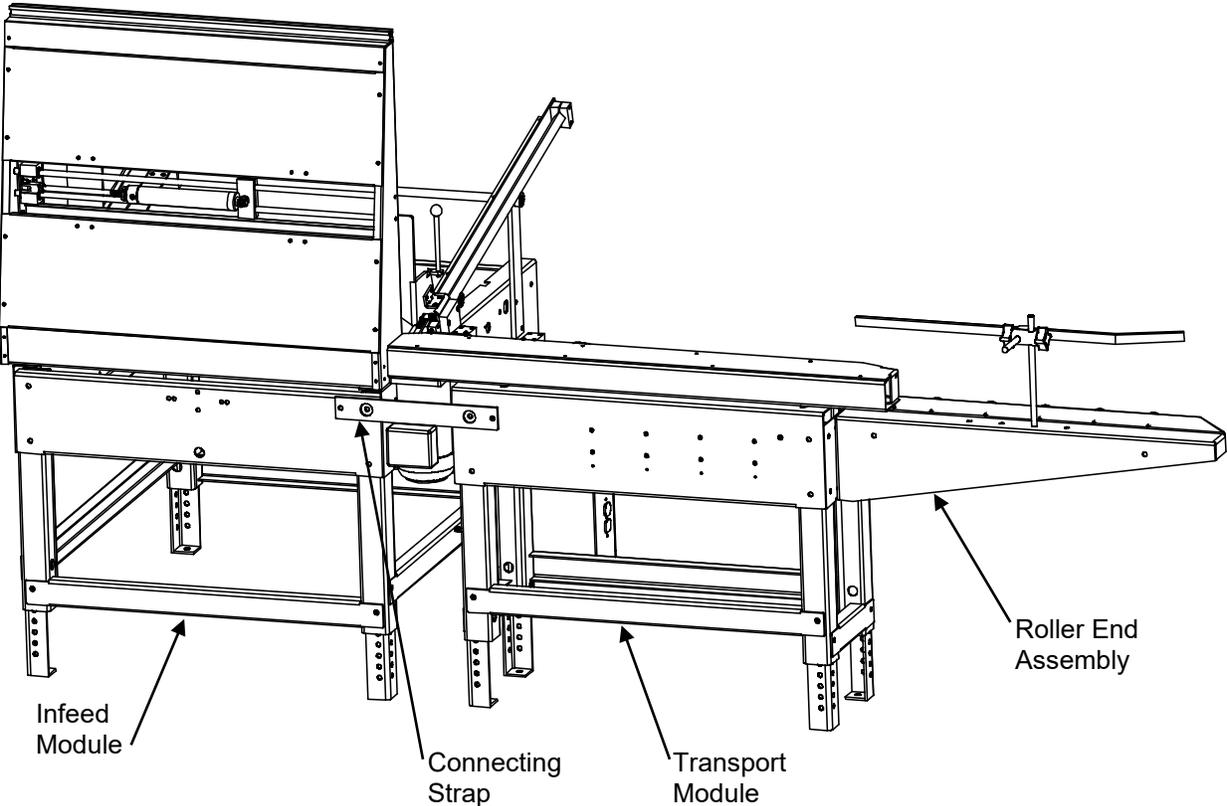
Connections

Air

Connect the two air lines from the cylinder to the two connections located on the side of the controller box. There is a hinged panel on the back of the infeed module that allows access to the cylinder. The connections are labeled "1" and "2". Connect the lines to the corresponding connectors.

Connect the line from your air supply to the quick connect air line fitting located on the side of the controller box.
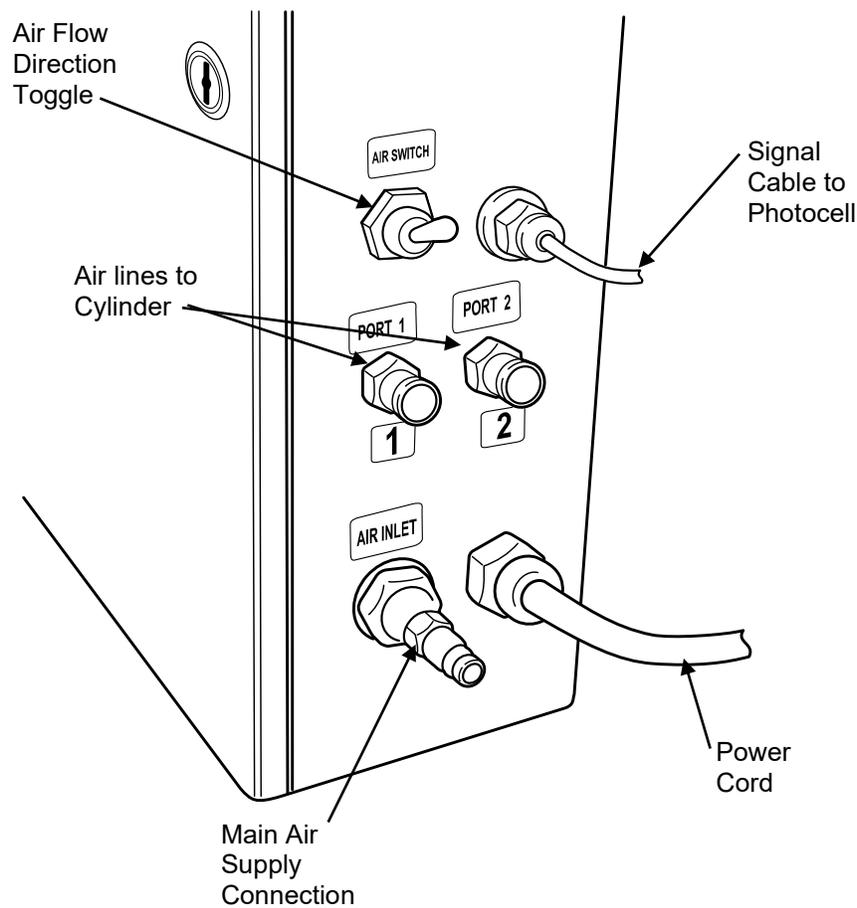
Electrical

Plug the power cord into a properly wired and grounded electrical outlet.

Adjustments

Before operation there are a few size adjustments.

Feed Chute Width

This is a very simple adjustment. Lift up both of the red lever stops located beneath the movable feed chute. Slide the movable feed chute to accommodate the box size. Make sure there is a small $1/8$" gap between the box and the movable feed chute. This is to ensure proper movement down along the chutes while running the machine. If there is not enough clearance, boxes will jam and not feed smoothly. Close the red lever stops to lock the chute in place. Maximum box width for the vertical case transport system is 32 inches.

> **WARNING!**   Minimum box size is 10 inches. Boxes smaller than this may cause damage to moving parts on the machine.
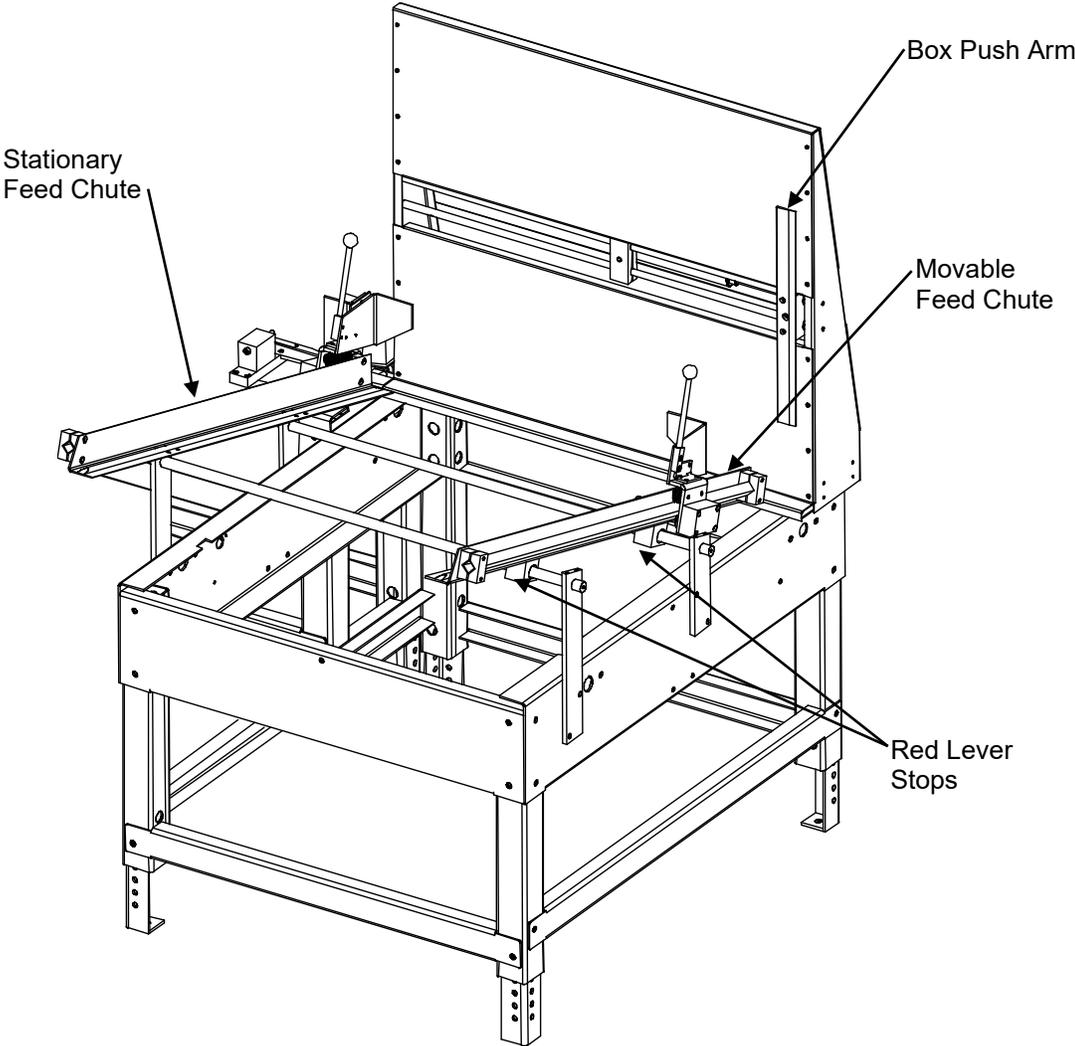
Push Plate Control Arm Travel Distance

Open the hinged panel on the back of the infeed module to access the push plate actuating air cylinder. A $5/16$-inch Allen wrench is required to loosen the socket head cap screw and guide rail brackets to allow adjustment of the air cylinder travel distance, or to reverse the cylinder position if necessary.

Lift Up Rear
Access Panel

Air
Cylinder

Socket Head
Cap Screw

$5/16$-inch Allen
Wrench

Guide Rail
Brackets
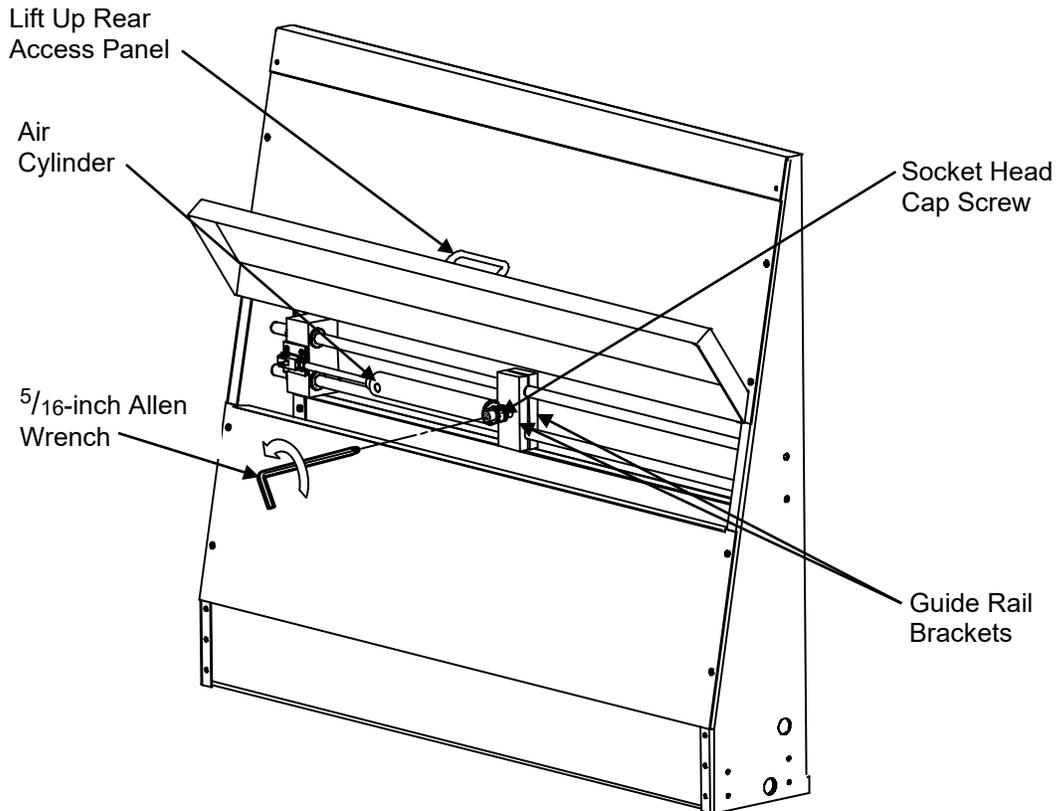
Coarse Adjustment (Large or Small Boxes)

The air cylinder may be reversed for different box size ranges. If you are loading boxes that are greater than 21-½ inches you will want the air cylinder to be on the right side as you face the back of the machine. If you will be loading boxes that are smaller than 21-½ inches you will want the air cylinder positioned on the left end of the control arm as you face the machine.

> **Note:**   You may need to disconnect the main air supply line to the machine if repositioning the cylinder is too difficult.

Toggle switch position for coarse adjustment

There is a toggle switch located on the side of the control box. This toggle switch is used to control the direction of air flow to the air cylinder. For boxes longer than 21 ½" move the toggle to the up position. For boxes shorter than 21 ½" move the toggle switch to the down position.

If you need to reverse the air cylinder position, use a $^5/_{16}$-inch Allen wrench to loosen the socket head cap screw securing the air cylinder and guide rail brackets just enough so the brackets can be rotated and pass between the guide rails. Reverse the cylinder direction and re-secure the brackets to the guide rails. **Tighten the socket head cap screw.**

Control Arm Left
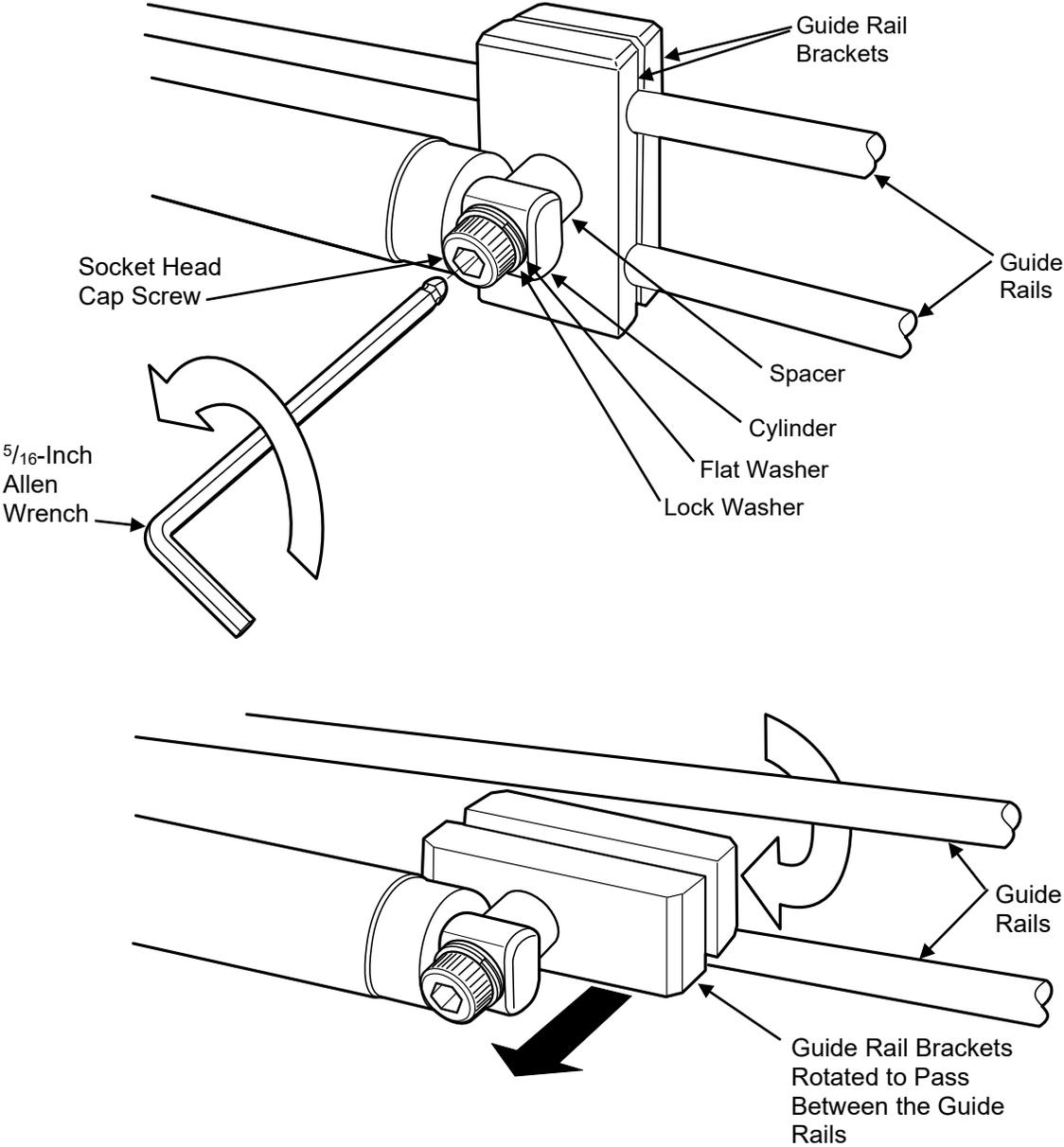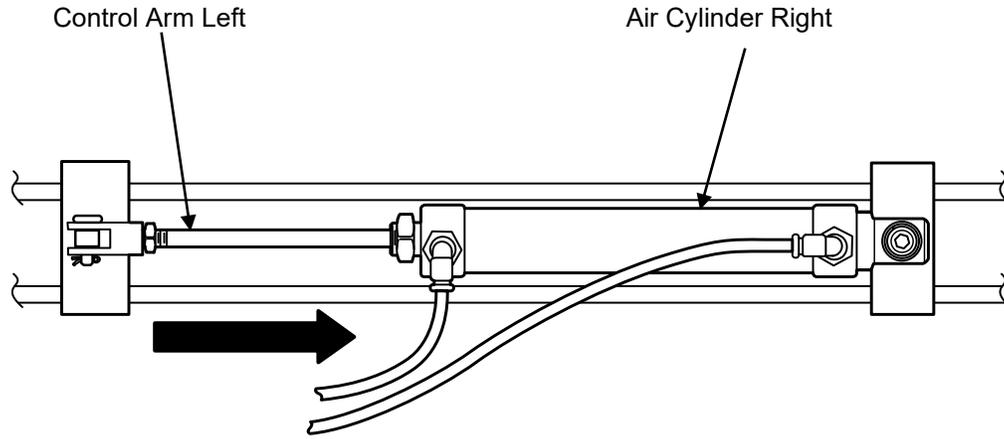
Air Cylinder Right

Orientation for Boxes Larger Than 21-½"

Air Cylinder Left

Control Arm Right
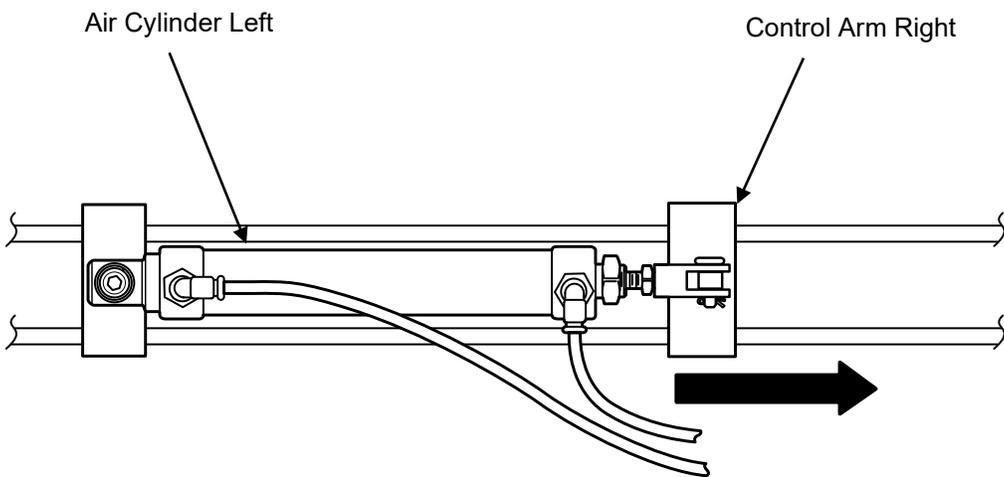
Orientation for Boxes Smaller Than 21-½"

Fine Adjustment

When the air cylinder and control rod are in the proper orientation for box size you will have to move the air cylinder along the guide rails. Loosen the socket head cap screw and move the air cylinder on the guide rails so the box push arm will travel 3/8" to 1/2" past the edge of the box when the cylinder rod is completely extended. When making adjustments for smaller boxes do not adjust the box push arm closer to 8" from the edge of the infeed module back panel.

Note: The cylinder control rod will naturally be in the fully extended position if the machine is hooked up to air pressure.

Box Push Arm
3/8" to 1/2" Beyond
Box Edge

Box Edge

BOX
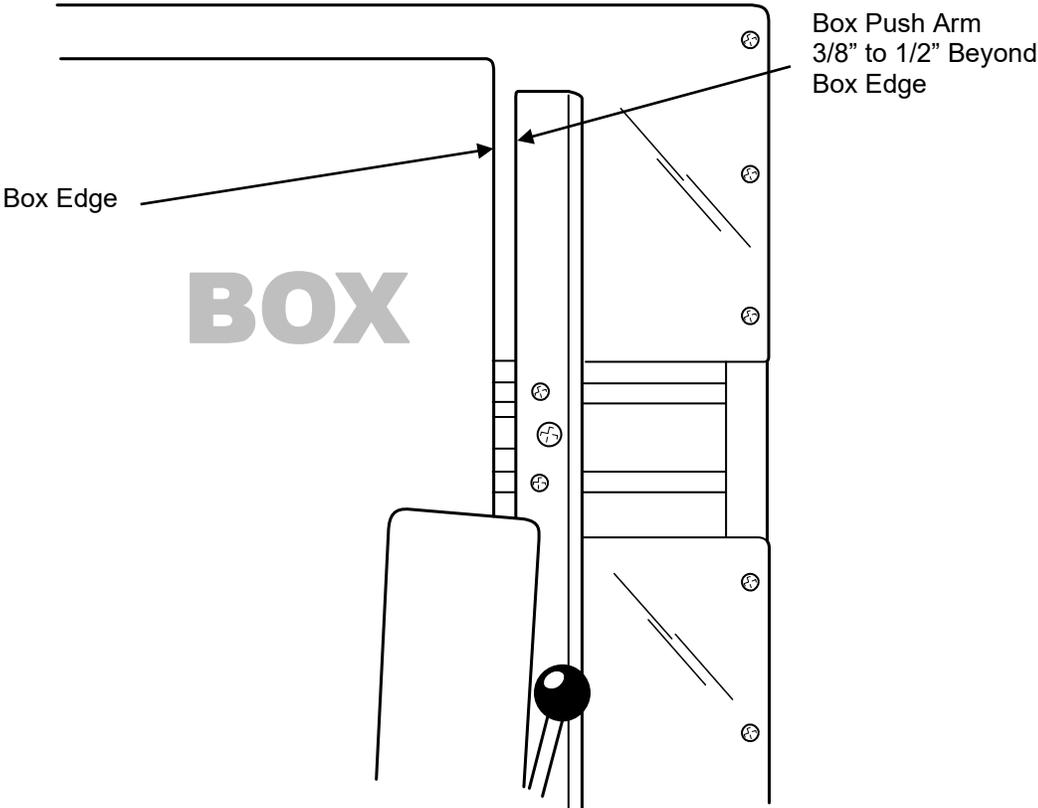
End Bar Adjustment

Adjust the end bar to correspond to the box size. You want the end bar to be positioned so it drops the box correctly onto your rolling stock or cart. There are adjustments to move the end bar horizontally, vertically and in and out.

End Kick Out
Bar

End Roller
Assembly
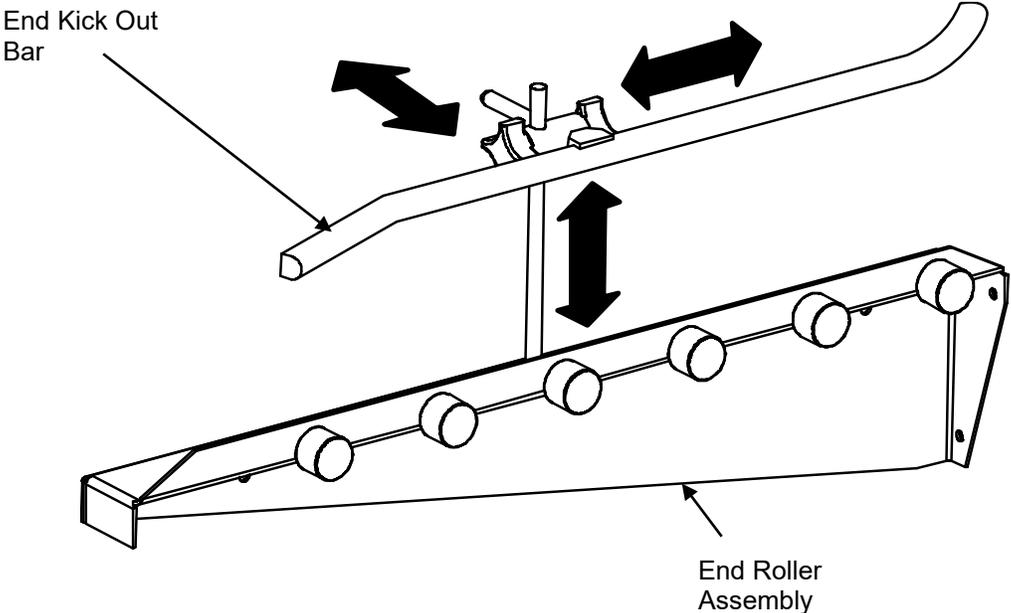
Kick Delay Adjustment

The Kick Delay time adjustment is located on the PCL located inside the control box. Remove the control box cover to gain access to the PCL

Kick delay may need to be adjusted for small boxes.
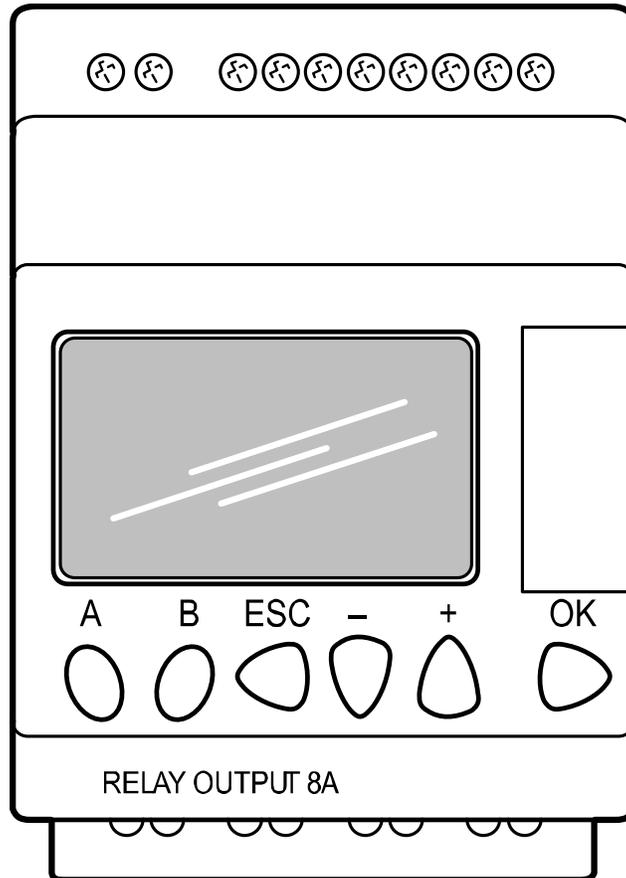
Kick delay programming steps

- Press button "A" or "B" to toggle between kick delay and photo eye delay.

- Press "OK" on value needed to be changed.

- To increase or decrease the values press the (+) or (-) buttons. Each 1/10 equals 1/10 of a second.

Air Pressure

The air pressure is pre-set at the factory and should not have to be changed. If you do have a need to adjust the air pressure to the cylinder there is a pressure regulator located inside the control box. Once again, the air pressure is pre-set and, in most circumstances, should not have to be changed.

Mounting the Ink Jet Printer

There are mounting holes predrilled that allow you to mount a variety of printing systems on the Vertical Case Transport System. **Refer to the User Guide that came with your printer for mounting instructions.** There are also two 110-120VAC 15 Amp electrical outlets on the side of the control box that can be used to provide service to the mounted printers.

Caution: Electrical outlets are hot whenever the machine is powered up!

The illustrations below show an example of attaching the mounting bracket for the Squid Ink CoPilot printer. Your printer configuration may be different.

Attention: Do not use electrical outlets for high amperage equipment. This may cause damage to the electrical components. The installed outlets are low amperage output, specifically for printers only!

Example of VCTS Transport Module with Squid Ink CoPilot Mounting Bracket

CoPilot Mounting Bracket

Place Bracket Support Plate to inner wall of Transport Module base, as shown, to provide added stiffness in mounting area.

Note: The Bracket Support Plate is pre-drilled and tapped for installation of four (4) ¼-20 × 1" hex-head bolts, flat washers, and lock washers to fasten the Baseplate Connector Clamp through the side of the Transport Module to the Bracket Support Plate.

Bracket Support Plate

Detail View

Base Side Plate

Baseplate Connector Clamp

Printer Mounting Bracket

For CoPilot printer bracket mounting, place the reinforcement plate to the inner wall of the side plate of the transport module base frame as shown in the illustration above.

Operation

Loading

Loading General

Tilt the handles to one side and slide them up the rails until behind the last box. Maximum load capacity is approximately 3/4 the length of the feed chutes.

Movable
Feed Chute

Red Lever
Stop

Move Paddles
to the Side
Position

Stationary
Feed Chute
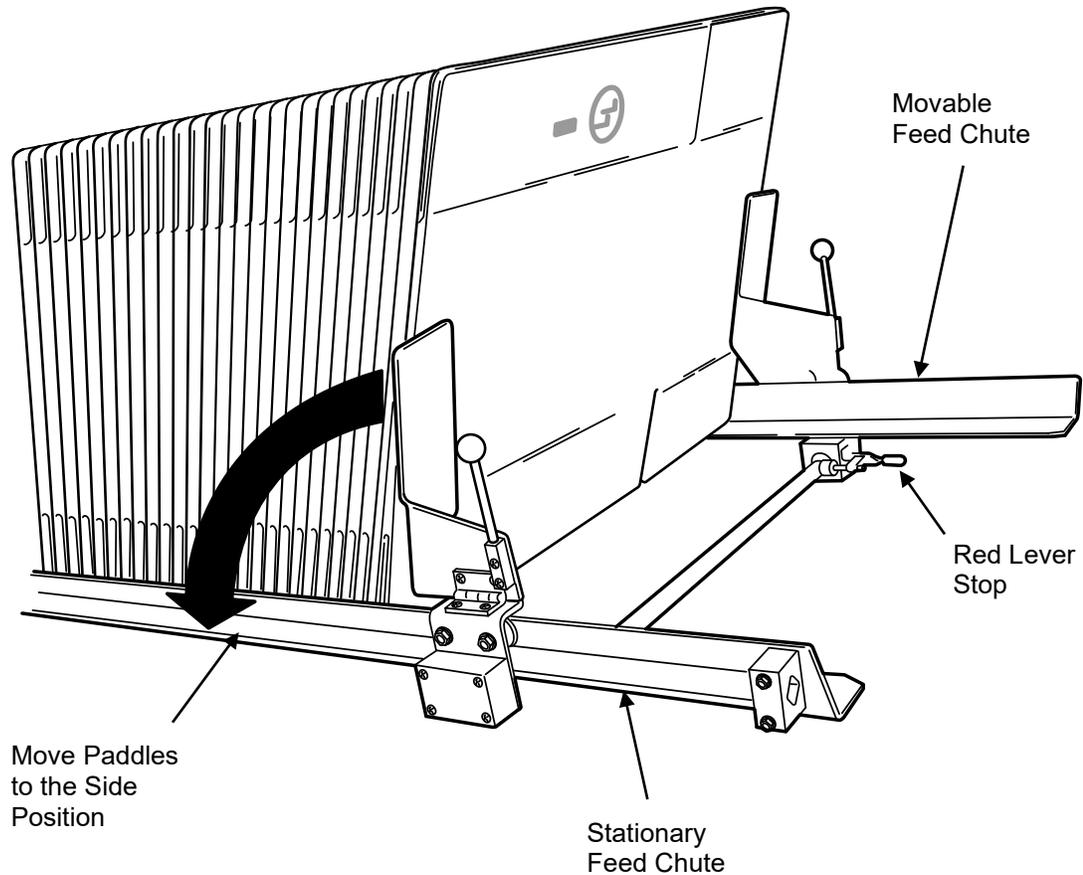
Loading During Operation

It is easy to load the feed chute hopper while the machine is running. Simply load boxes onto the feed chutes behind the paddles. Tilt the handles to the side and move them up the rails behind the last box. Make sure the paddles are behind the last box and tilt them back up to the run position. Make sure the paddles are returned to the upright run position.

Loading Tips

- The boxes need the weight of the paddles behind them to feed in correctly.

- Do not overload the feed chute.

- Do not squeeze or push the boxes in tightly.

Paddles in "Run" Position

Movable Feed Chute

Stationary Feed Chute
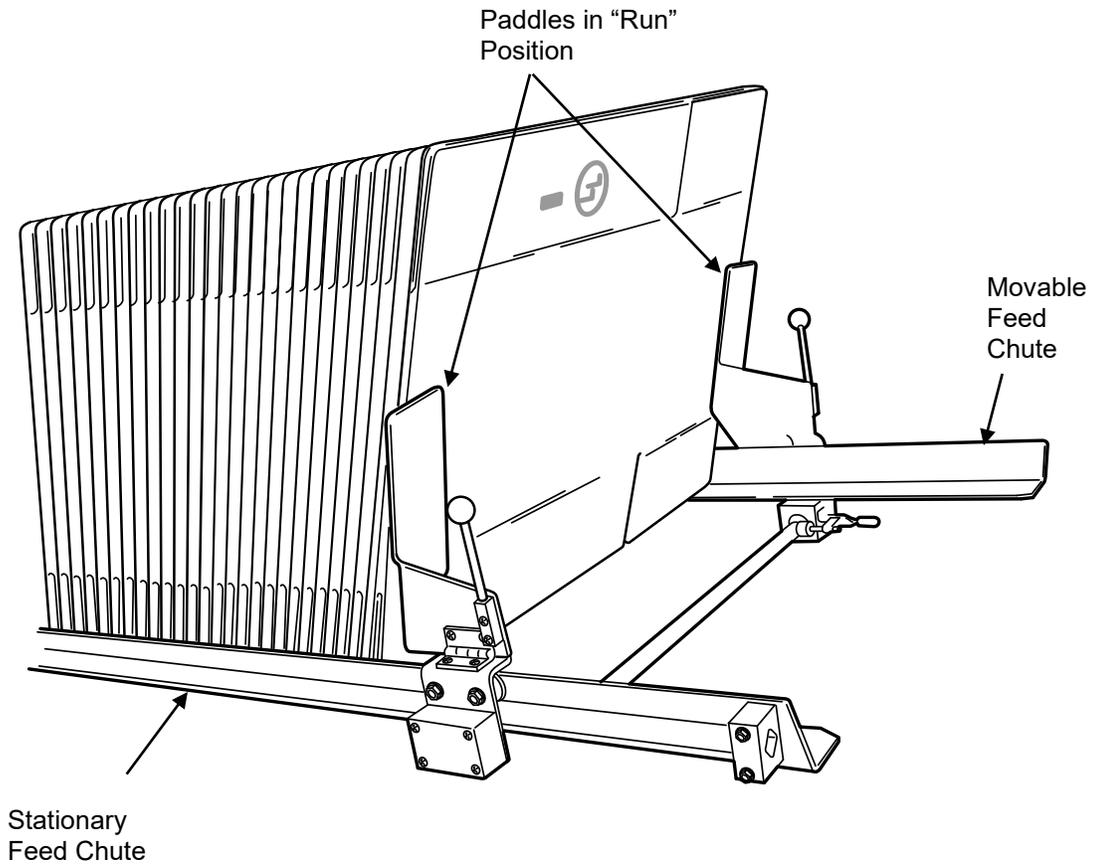
Attention: Boxes must be folded flat and in relatively good condition when loaded into the feed chute. Ripped, torn or otherwise mangled boxes will not feed or transport properly and can cause damage to the Vertical Case Transport.

Box Through Catch

The "Box Through Catch" is a small bracket that when adjusted correctly allows only one box at a time to be captured by the belt. Loosen the locking screw on the bracket and adjust it to the current box width. Add an additional 1/8" – 1/4" clearance between the box through catch and the box. Retighten the locking screw to secure the bracket at the required distance.
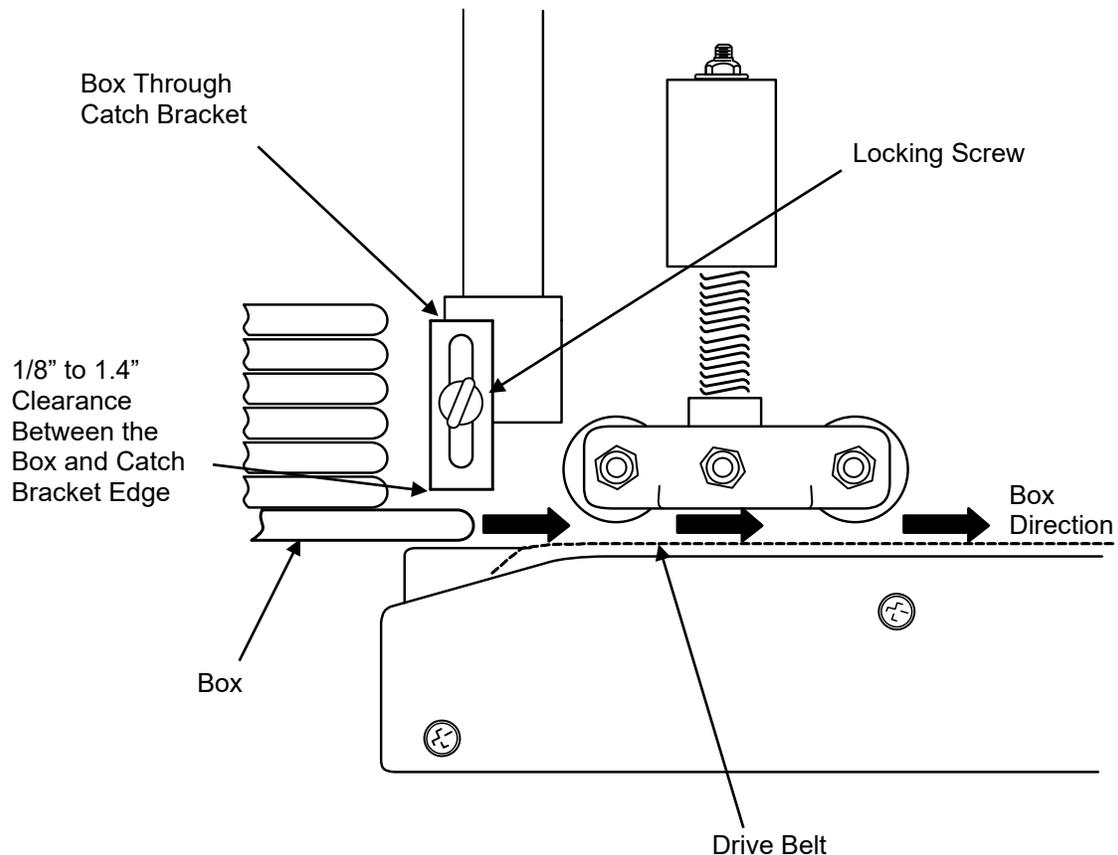
> **Note:**   The box through catch is a very important adjustment. You may want to recheck and fine tune this adjustment as you begin operation.

There is also a box through catch located on the opposite end of the boxes on the movable feed chute.

Box Push Bar Spacer for Double Wall Boxes

If you will be transporting double wall boxes you will want to install the plastic spacer behind the box push bar. To install the plastic spacer simply remove the 3 screws on the push bar. Position the plastic spacer under the metal push bar and replace the screws.

Note: The spacer is not needed for single wall boxes. If installed while transporting single wall boxes it may feed multiple boxes and cause the machine to jam.

Box Push Arm

Plastic Spacer

Double Wall BOX

3 Mounting Screws
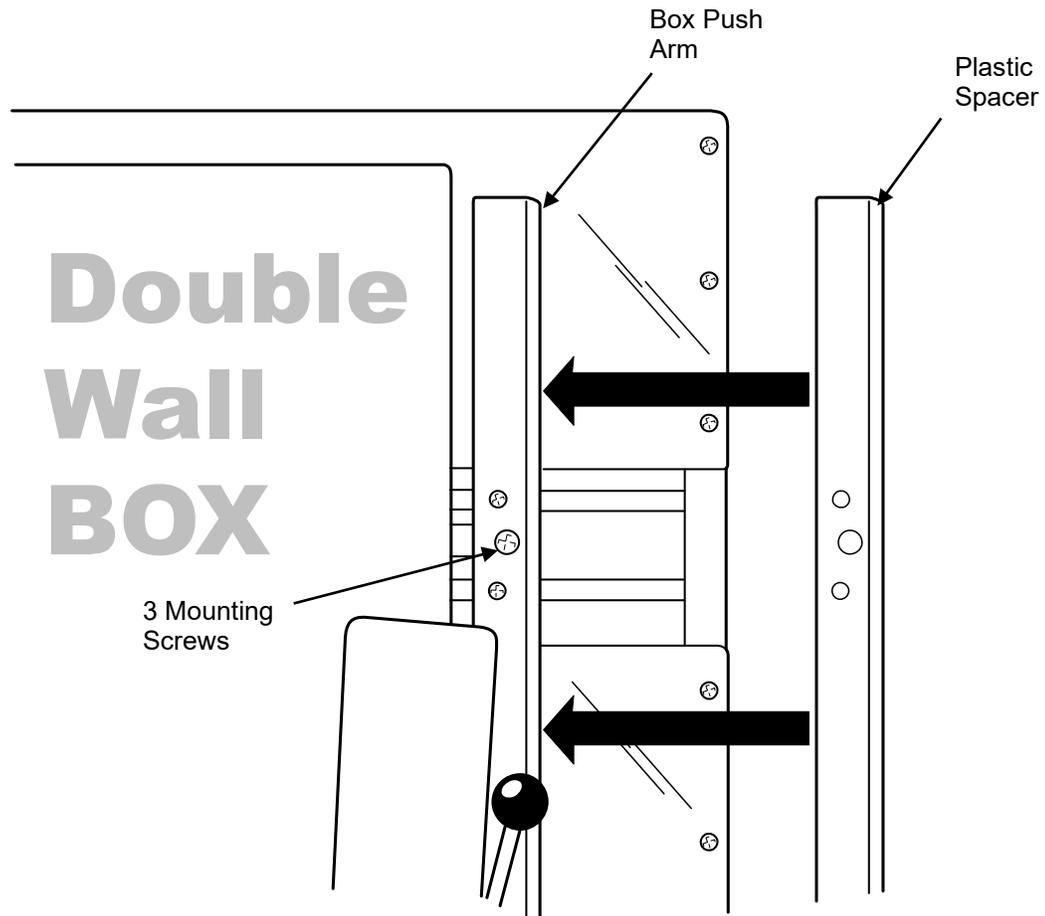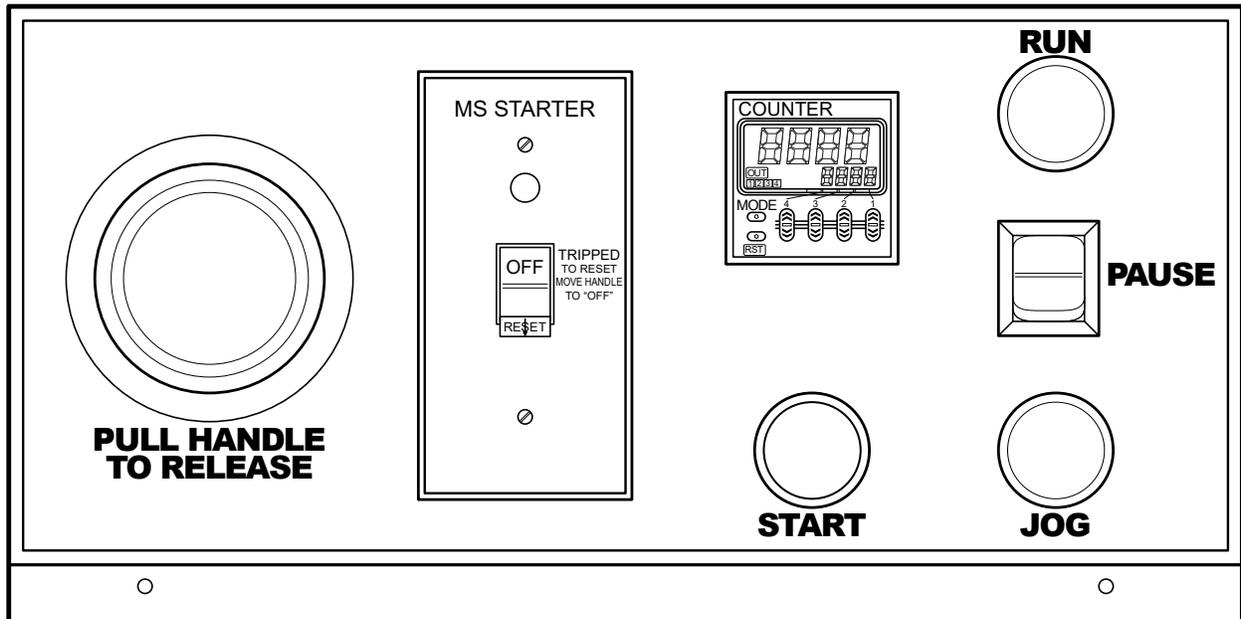
Control Panel

Power Up

On the control panel switch the power switch to the "ON" position. Make sure the "Emergency Stop" is not depressed. If so, pull the E-Stop knob to release it.

Counter

A programmable counter is located on the control panel.
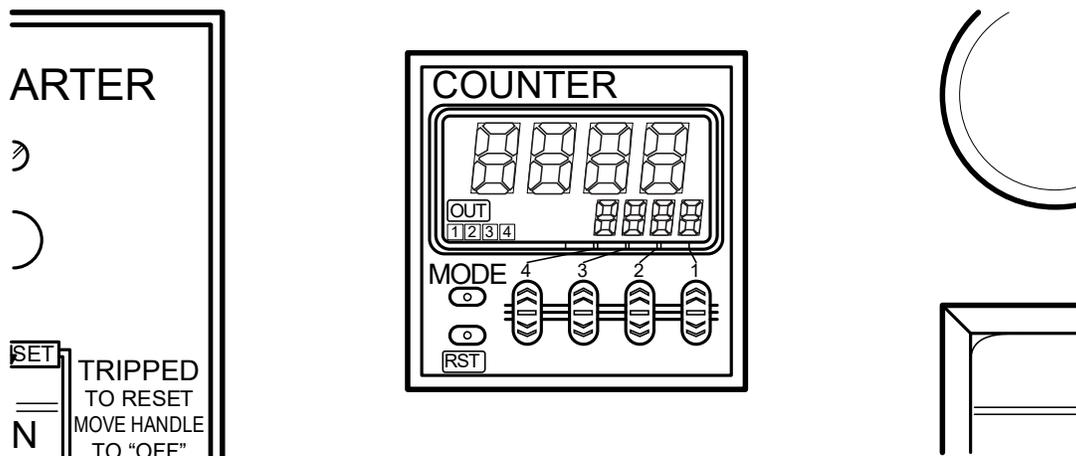
The counter will record the number of boxes that have been advanced through the transport system. You can also program the counter to stop after a set number of boxes.

Programming the Counter

You can set the number of boxes you want to transport.

To begin programming the counter, press the up or down arrow key located on the counter for the digit you want to change. Change the value with the up or down arrow keys. To reset the counter, press the "RST" key.

ARTER

SET
TRIPPED
TO RESET
MOVE HANDLE
TO "OFF"
N

COUNTER

OUT
1 2 3 4

MODE
RST

RST
(Reset)
Key

Thousands   Hundreds   Tens   Ones
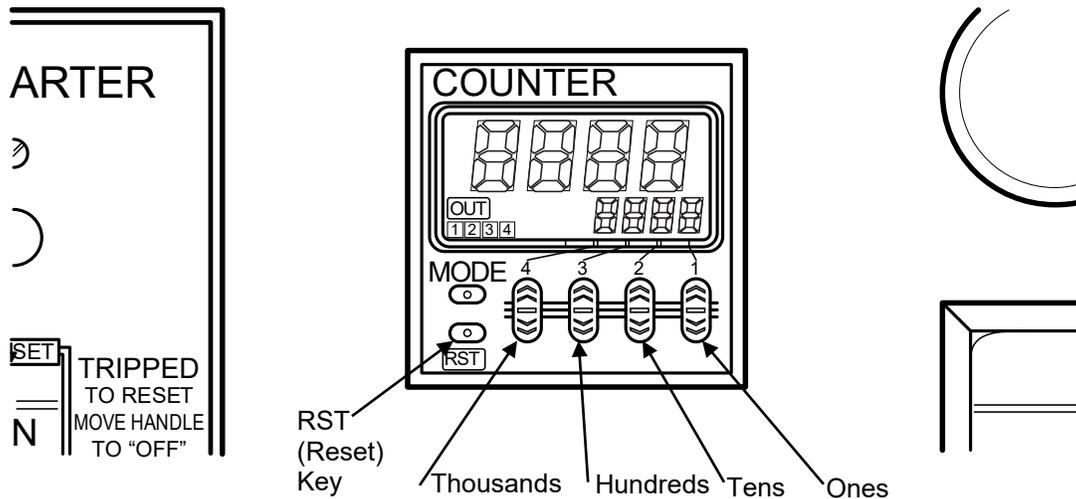
Rocker Switch

There is a three-position rocker switch located between the lights labeled "RUN" or "JOG".
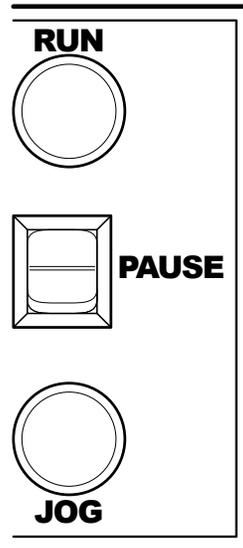
Run
If the rocker switch is set to the "RUN" position the transport will begin moving boxes and continue when the "START" button is pressed.

Jog
If the rocker switch is set to the "JOG" position only one box at a time will be advanced each time the "START" button is pressed.

Pause
If the rocker switch is in the neutral or "Pause" position no boxes will be advanced when the "START" button is pressed.

> **Note:** While in the "PAUSE" position the belt will continue to run.

Maintenance

Cleaning

Clean the system daily or on a scheduled basis: When running the VCTS, cardboard box dust will accumulate on the system. It is recommended that the dust be blown/wiped off regularly so that it does not interfere with the photo eye, bearings, slides surfaces, and bushings.

Belt Tracking and Wear

Periodically check the belt drive system. Look for wear on the belt surface as well as the belt tracking. The belt surface should have a rough top and the belt should not be rubbing on the top or bottom of the drive housing.

   a) Loosen ½" nut on bottom side of idler wheel.

   b) Using a $^7/_{16}$" wrench, adjust bottom screw for tension and top screw for tracking.

   c) Do not over tighten belt, this could cause motor failure.

   d) Track the belt slightly towards the top of idle wheel.

   e) Use a ¾" wrench to tighten the ½" nut below idle wheel.

Lubrication

Lubricate shafts and bushings periodically, depending on usage and cardboard dust accumulation. Shafts for chute and box pusher should be lightly oiled with silicone spray or other lubricant.

Air filter

Check internal air filter in the control cabinet periodically.

Fasteners

Check all nuts and bolts to ensure that they are tight.

If Cartons Do Not Feed Correctly

Check to ensure proper alignment of carton on chutes.

Check that the pusher bar is coming completely past the edge of the box before stroke.

Ensure socket head cap screw securing the cylinder and guide rail brackets is tightened.

Check chute spacing: leave $^1/_8$" space between the end of the box and the inside wall of the chute. This will allow the boxes to move freely.

Check that the box weight arms are moving freely on the box chute rails. If they need to be adjusted do the following:

1. Remove the counter weights (4 screws)
2. Using a ½" wrench adjust the bottom V-guide wheel nut. This is an eccentric nut (offset-hole center).
3. Turn the nut slightly to tighten or loosen the V-guide wheels on the rail.
4. Reassemble the counter weight on the bracket.

Check the air pressure.

Ensure the photo eye is properly mounted and "seeing" the box.

Check that the box stop spacers are properly adjusted to the box size.

Check the in-feed roller assembly for position on belt.

- Replace the spring as needed.
- Replace the idle wheels as needed.
- Move the assembly in the slotted holes to adjust spacing.

Replacing the Drive Belt

Belt Cover
Screws

Belt Cover

Belt
Tracking
Bolt

Belt
Tension
Bolt

Loosen
Large Nut Located
Under Bottom Plate
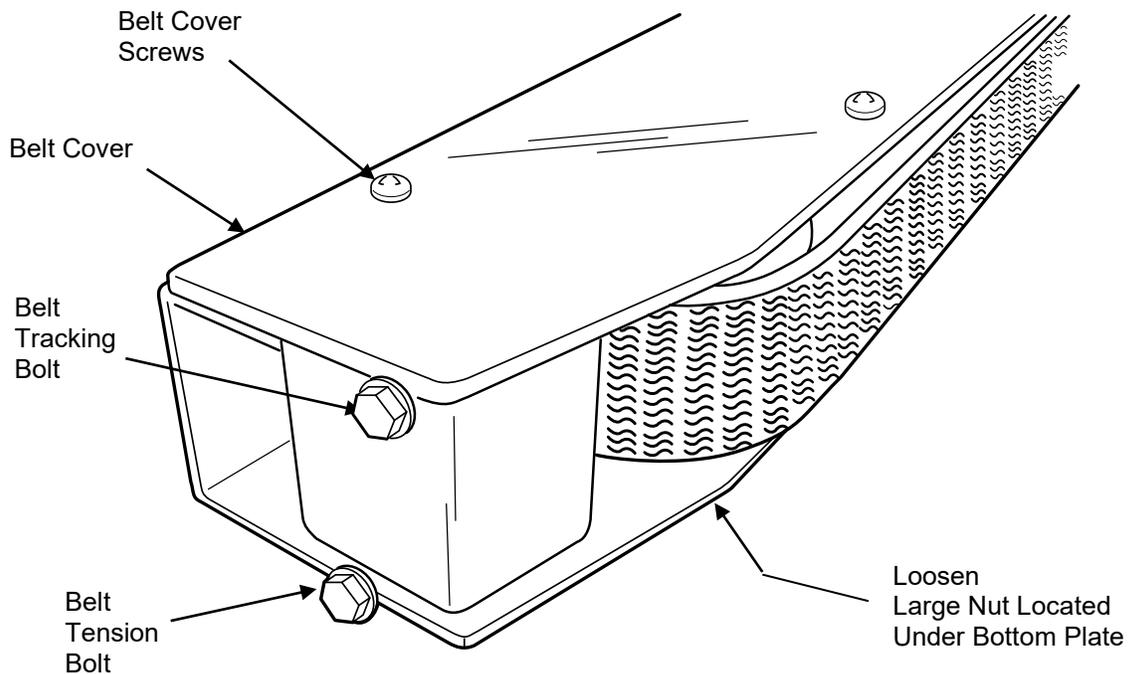
Remove all the belt cover screws completely.

Remove the belt tracking bolt.

To allow the tension pulley to move loosen the large nut located under the belt tension pulley.

Loosen the tension adjustment bolts so tension on the drive belt is relaxed.

Remove the belt from the pulleys.

Install the new belt around the pulleys.

Using the belt tension adjustment bolt put tension back on the belt.

Replace the belt tracking bolt.

Replace the drive belt cover and drive belt cover screws.

Parts List

Vertical Case Transport System

Front View
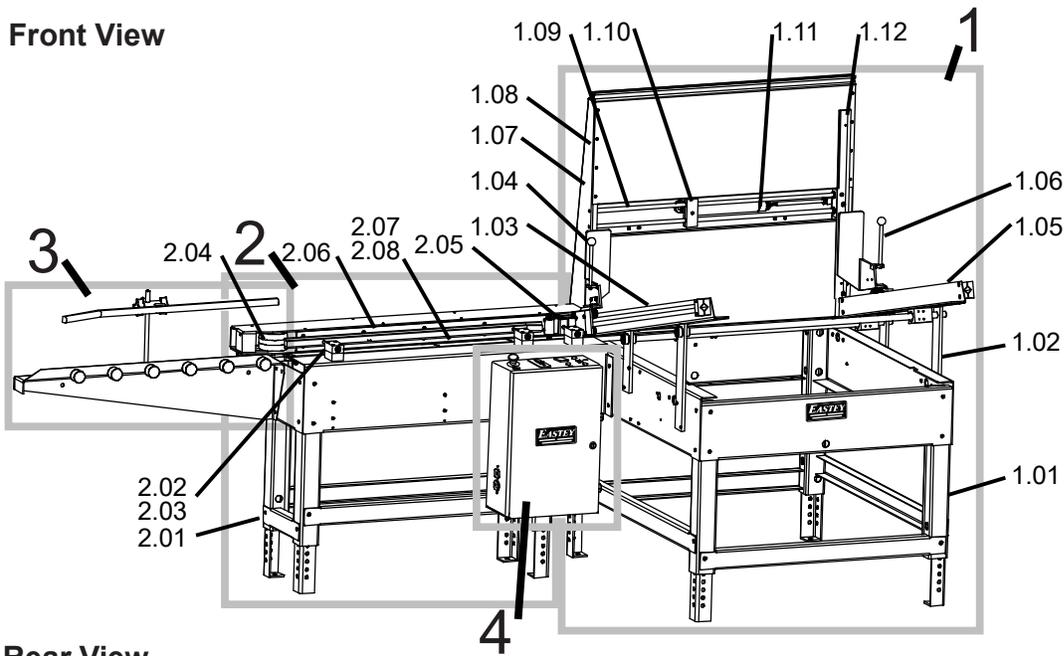
Rear View
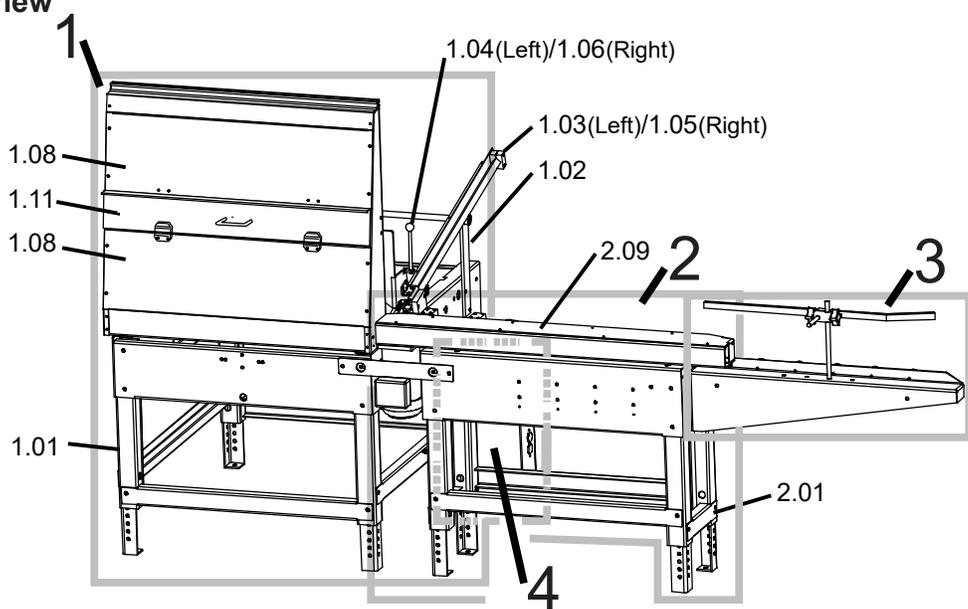
ITEM	PART NO.	DESCRIPTION	PAGE
1	5010001	Infeed Module (Includes items 1.01 through 1.12 listed next page.)	36
2	5010002	Transport Module / Print Station (Includes items 2.01 through 2.09.)	36
3	5010003	End Roller & Guide Rail Assembly	58
4	5003022-UL	Electrical / Pneumatic Enclosure Control Panel & External Connections Electrical / Pneumatic Enclosure Internal Components	59 61

ITEM	PART NO.	DESCRIPTION	PAGE
1	5010001	Infeed Module (Includes items 1.01 through 1.12 listed below.)	35
1.01	5010001	Infeed Module Base Frame	37
1.02	5010001	Infeed Module Chute Support Straps and Shafts	38
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2	5010002	Transport Module / Print Station (Includes items 2.01 through 2.09 below.)	35
2.01	5010002	Transport Module / Print Station Base Frame	49
2.02	5010002	Transport Module / Print Station Slide Contact Spring Support Blocks	50
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2.05	5010002	Transport Module / Print Station Side Belt Motor and Drive Pulley	53
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2.08	5010002	Transport Module / Print Station Side Belt Attach Washers and Nuts	56
2.09	5010002	Transport Module / Print Station Side Belt Attach Cover	57
3	5010003	End Roller & Guide Rail Assembly	58
4	5003022-UL	Electrical / Pneumatic Enclosure Control Panel & External Connections Electrical / Pneumatic Enclosure Internal Components	59 61

Infeed Module Base Frame (1.01)
5010001
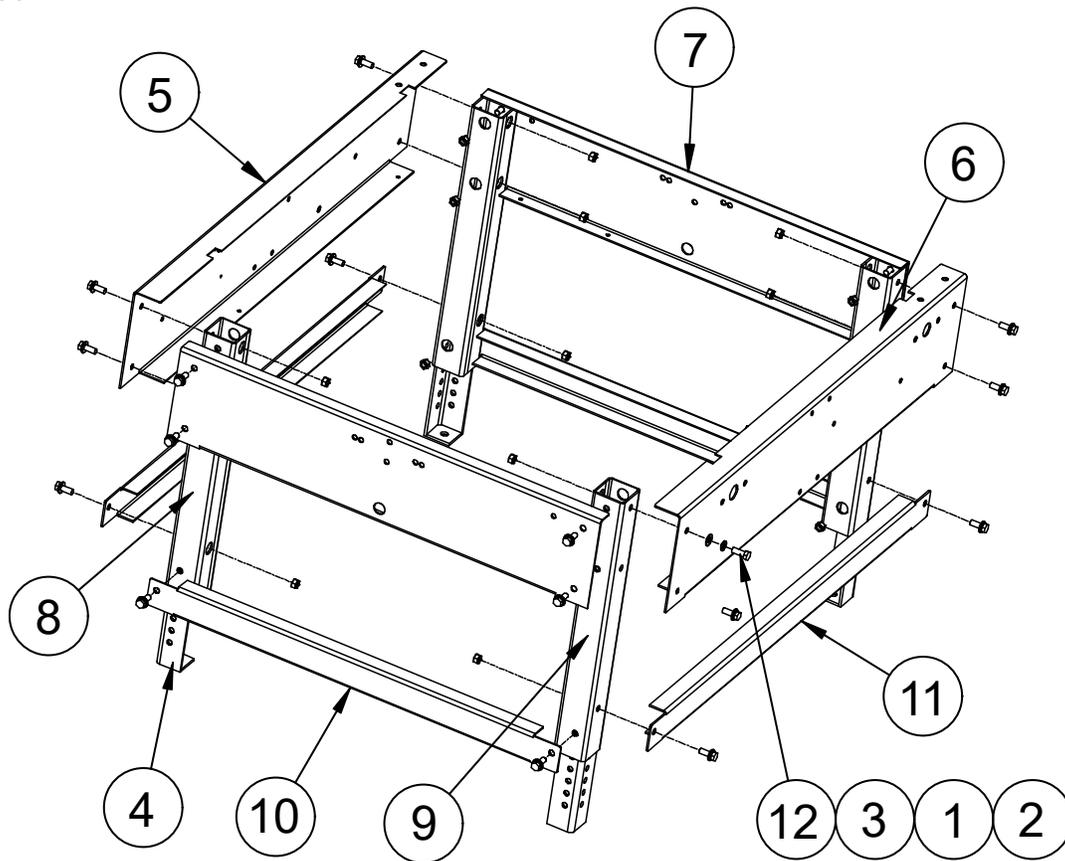
ITEM	PART NO.	DESCRIPTION	Q'TY
1	055029-022	Washer – Flat 3/8 Zinc	24
2	055307-062	NUT – HEX 3/8 – 16 NI	24
3	055310-042	WASHER – SPLIT 2/8 NI	24
4	5000195	FAB / WELD – LEG EXTENSION	4
5	5000548	FAB – SIDE FRAME, LEFT, SB	1
6	5000549	FAB – SIDE FRAME, RIGHT, SB	1
7	5000551	FAB – REAR FRAME	2
8	5000552	FAB – LEG (R/L)	2
9	5000553	FAB – LEG, LEFT REAR	2
10	5000554	FAB – BRACE, FRONT	2
11	5000555	FAB – BRACE, SIDE	2
12	5000791	SCREW – HH 3/8 – 16 × 1 NI	24

Infeed Module Chute Support Straps and Shafts (1.02)
5010001
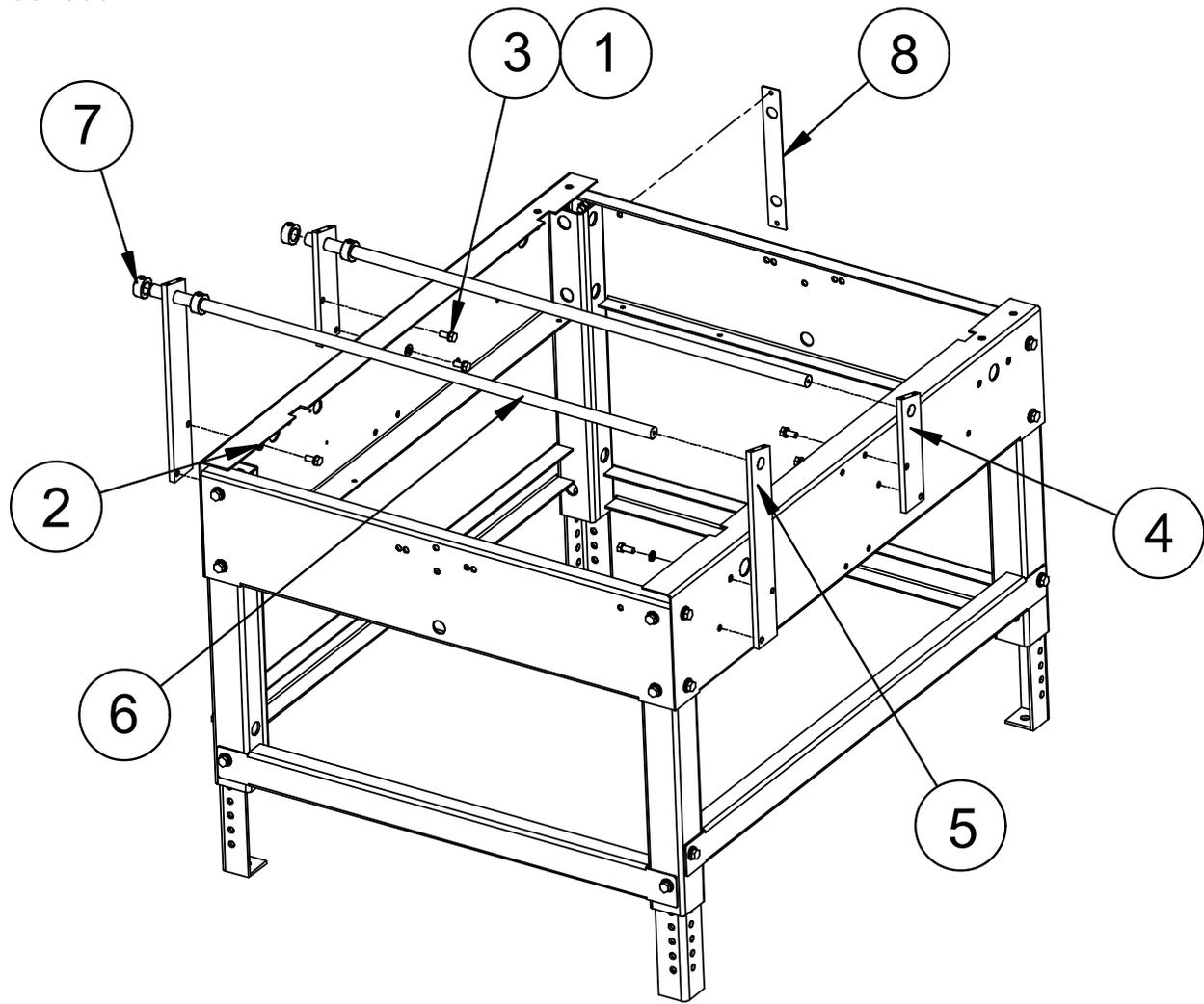
ITEM	PART NO.	DESCRIPTION	Q'TY
1	055293-056	SCREW – HH 5/16 - 18 × ¾ ZINC	8
2	5000333	WASHER – FLAT 5/16, ZINC	8
3	5000339	WASHER – 5/16 SPLIT, ZINC	8
4	5002027	MACH – FRONT SLIDE BRACE	2
5	5002028	MACH – REAR SLIDE BRACE	2
6	5002029	LINEAR SHAFT ¾" O.D.	2
7	5002034	COLLAR CLAMP SET SCREW ¾" I.D.	4
8	5003027	FAB – REAR SUPPORT BRACKET	1

Infeed Module Left Side Chute (1.03)
5010001
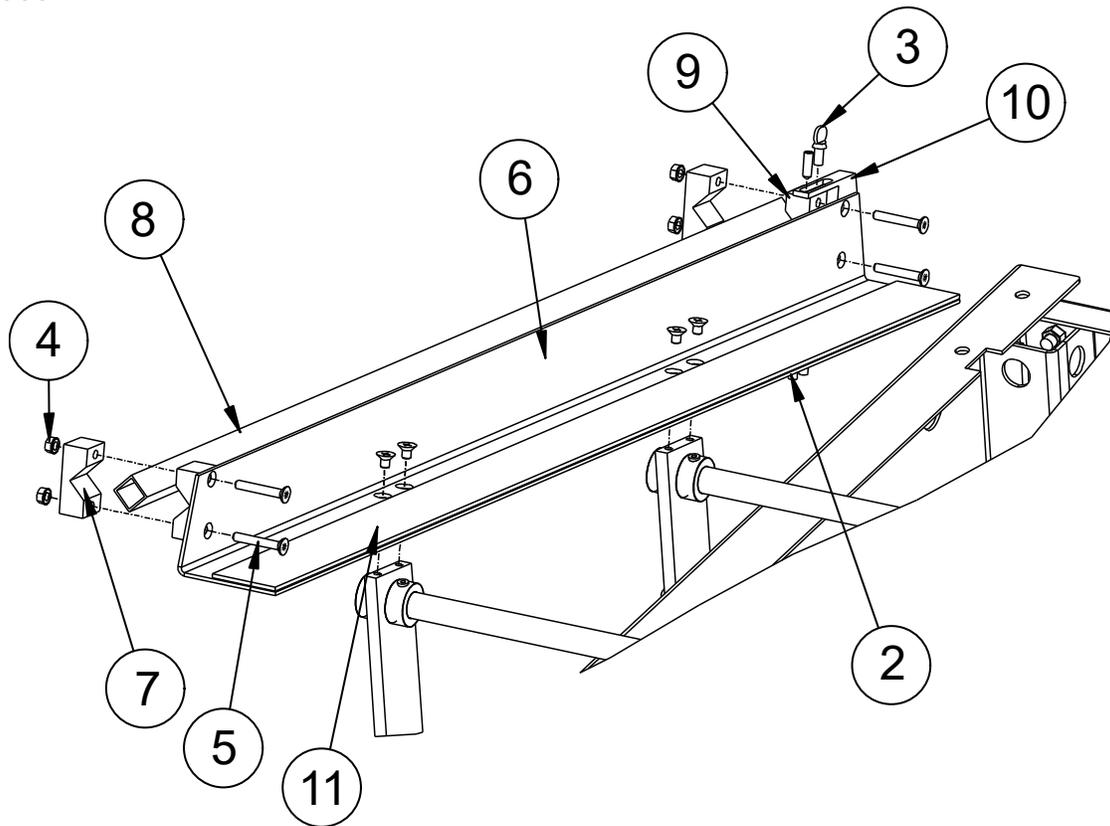
ITEM	PART NO.	DESCRIPTION	Q'TY
1	055020-099	SCREW – FH ¼-20 × ¾ SST PH	4
2	055298-081	SCREW – SET 10-32 × 5/16 ALN BLK	3
3	086348-001	SCREW –THUMB, SHOULDER ¼-20 × 0.5	1
4	102448-004	NUT – KEP, M6, ZINC	4
5	5000786	SCREW – FH, M6×20, DIN 7991, SKT-BLK	4
6	5002001	FAB – CARTON FEED CHUTE	1
7	5002004	MACH – SIDE SLIDE BLOCK	3
8	5002005	FAB – SIDE GUIDE TUBE 0.75" × 0.75"	1
9	5002007	MACH – SIDE SLIDE BLOCK, MOD	1
10	5002053	MACH – BOX STOP	1
11	5003021	FAB – BOTTOM CARTON SLIDE	1

Infeed Module Left Slide Guide (1.04)

5010001
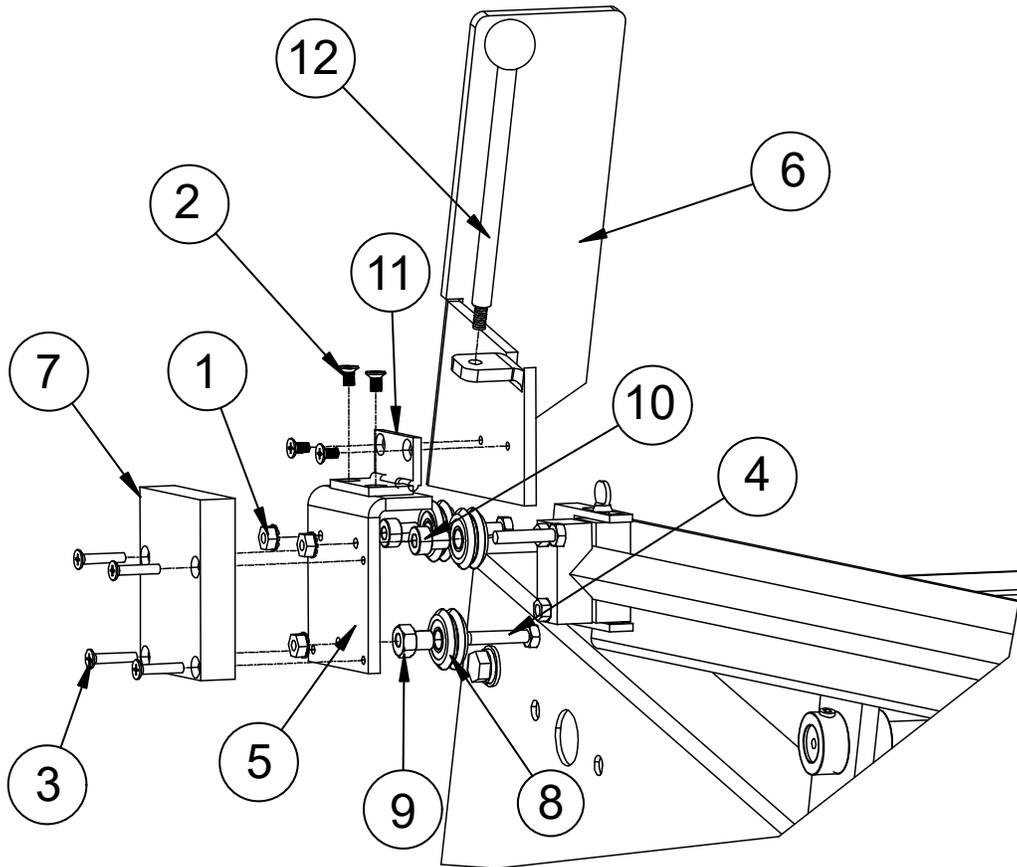
ITEM	PART NO.	DESCRIPTION	Q'TY
1	054982-006	NUT – KEP ¼-20 NC ZINC	3
2	055020-085	SCREW – FH 10-32 × 3/8 SST PH(82)	4
3	055020-094	SCREW – FH 10-32 × 1 SST PH	4
4	055293-044	SCREW – HHC, ¼-20 × 1", SS	3
5	5002003	FAB – SIDE SLIDE GUIDE PLATE	1
6	5002015	FAB – LEFT BOX SUPPORT	1
7	5002030	MACH – SIDE RAIL WEIGHT	1
8	5002036	V-BEARING – DUA-L-VEE	3
9	5002037	BUSHING – ECCENTRIC DUA-L-VEE	1
10	5002038	BUSHING – CONDENTRIC DUA-L-VEE	2
11	5002039	DOOR HINGE SST, SURFACE MNT	1
12	5002041	FAB – BOTTOM CARTON SLIDE	1

Infeed Module Right Side Chute (1.05)
5010001
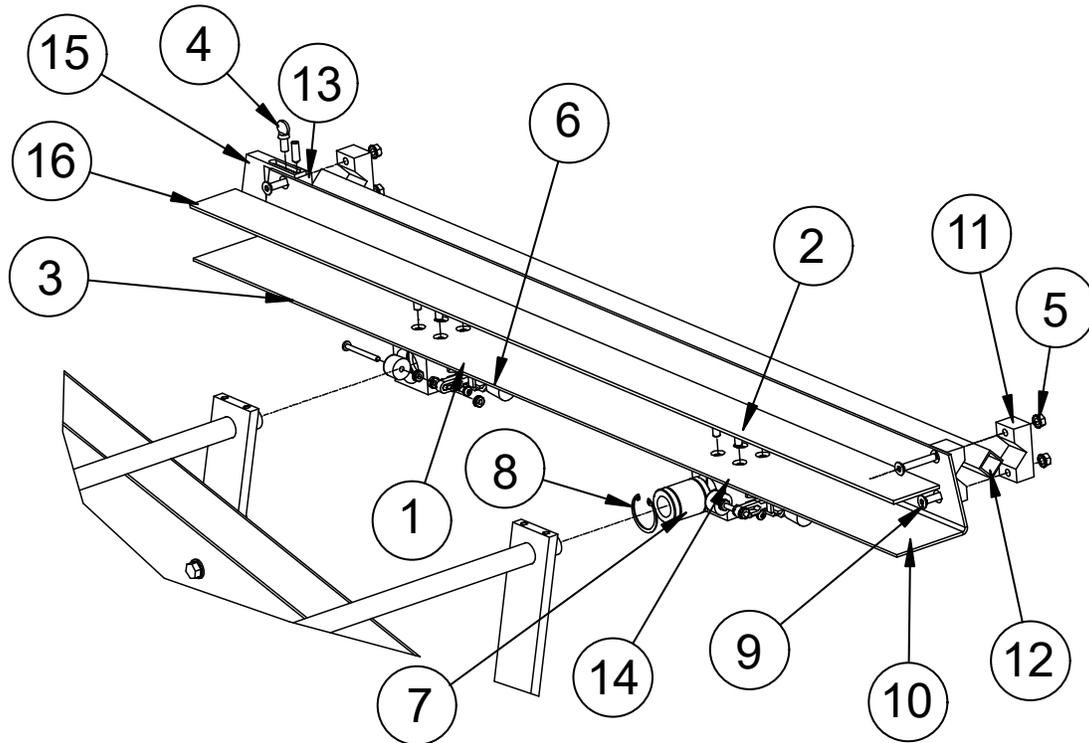
ITEM	PART NO.	DESCRIPTION	Q'TY
1	054979-097	SCREW – PH 8-32 × 3/8 PH SEMS INT	8
2	055020-100	SCREW – FH ¼-20 × ¾" SST PH	8
3	055298-081	SCREW – SET 10-32 × 5/16 ALN BLK	3
4	086348-001	SCREW – THUMB, SHOULDER ¼-20 × 0.5"	1
5	102448-004	NUT – KEP, M6, ZINC	4
6	113825-002	MOD – TOGGLE HOLD DOWN CLAMP	2
7	5000520	BEARING – LINEAR BALL ¾" I.D.	2
8	5000521	RETANING RING	4
9	5000786	SCREW – FH, M6×20, DIN 7991, SKT - BLK	4
10	5002001	FAB – CARTON FEED CHUTE	1
11	5002004	MACH – SIDE SLIDE BLOCK	3
12	5002005	FAB –SIDE GUIDE TUBE 0.75" × 0.75"	1
13	5002007	MACH – SIDE SLIDE BLOCK, MOD	1
14	5002026	MACH – BUSHING BLOCK, SLIDE RAIL	2
15	5002053	MACH – BOX STOP	1
16	5003021	FAB – BOTTOM CARTON SLIDE	1

Infeed Module Right Slide Guide (1.06)
50010001
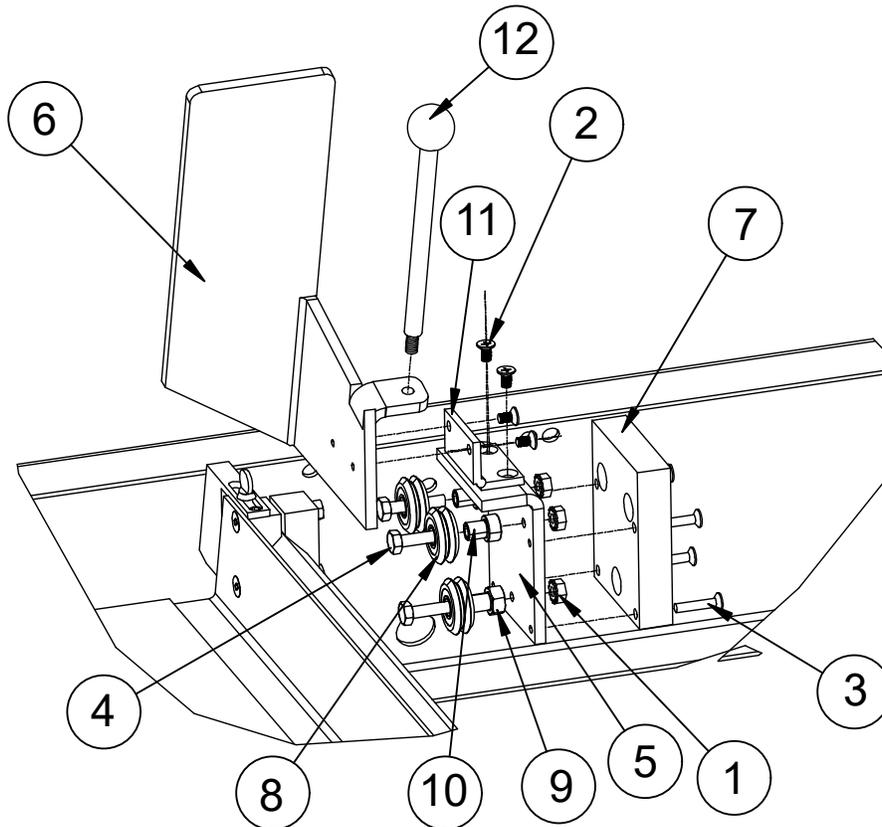
ITEM	PART NO.	DESCRIPTION	Q'TY
1	054982-006	NUT – KEP ¼-20 NC ZINC	3
2	055020-085	SCREW – FH 10-32 × 3/8" SST PH(82)	4
3	055020-094	SCREW – FH 10-32 × 1" SST PH	4
4	055293-044	SCREW – HHC, ¼-20 × 1", SS	3
5	5002003	FAB – SIDE SLIDE GUIDE PLATE	1
6	5002016	FAB – RIGHT BOX SUPPORT	1
7	5002030	MACH – BLOCK, SIDE RAIL WEIGHT	1
8	5002036	V-BEARING – DUA-L-VEE	3
9	5002037	BUSHING – ECCENTRIC DUA-L-VEE	1
10	5002038	BUSHING – CONCENTRIC DUA-L-VEE	2
11	5002039	DOOR HINGE SST, SURFACE MOUNT	1
12	5002041	HANDLE –KNOB, 4" LONG, 5/16-18 THREAD	1

Infeed Module Upper Frame (1.07)
5010001
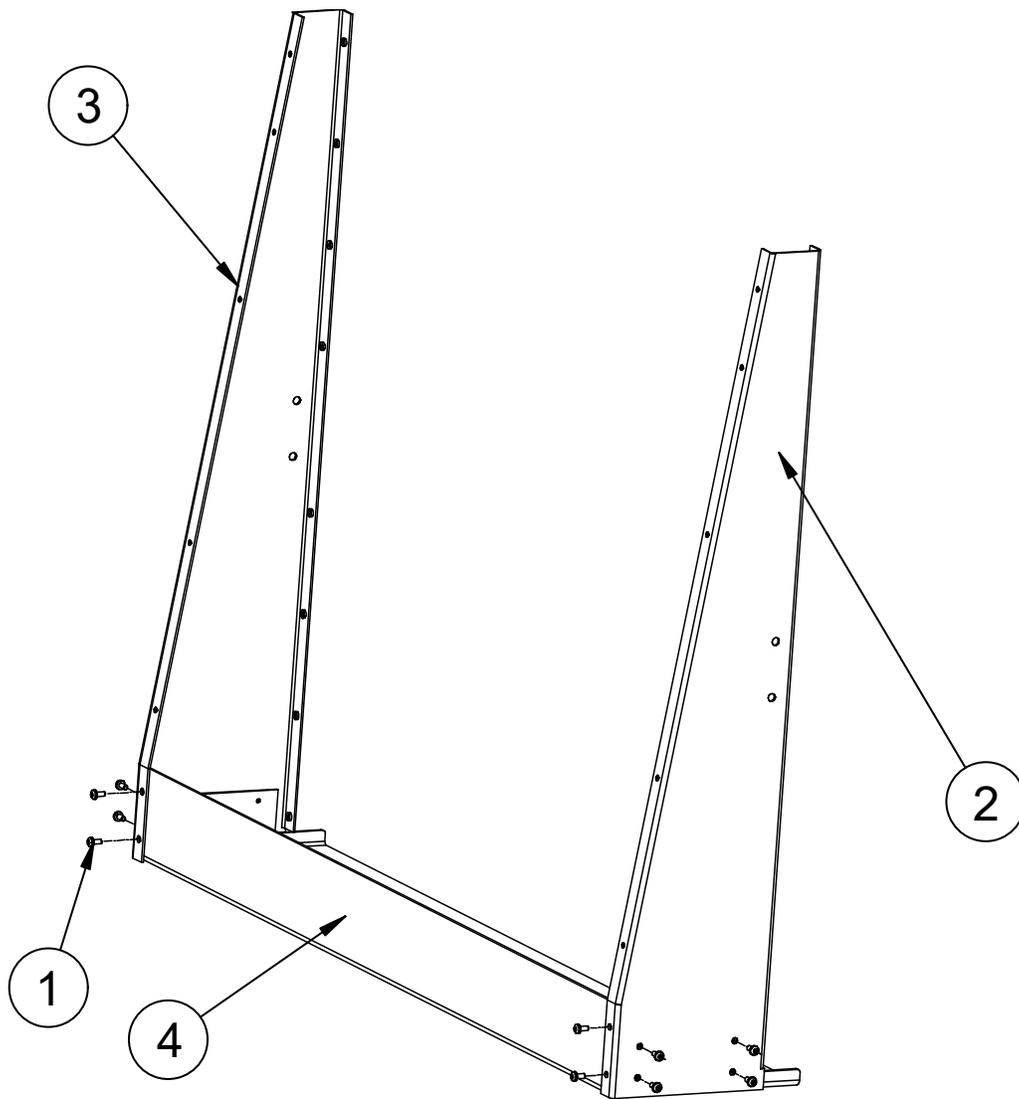
ITEM	PART NO.	DESCRIPTION	Q'TY
1	054979-097	SCREW – PH 8-32 × 3/8 PH SEMS INT	12
2	5002010	FAB – LEFT SIDE BRACE, INFEED	1
3	5002011	FAB – RIGHT SIDE BRACE, INFEED	1
4	5002014	FAB – BOX BRACE, INFEED	1

Infeed Module Upper Frame Cover Panels (1.08)
5010001
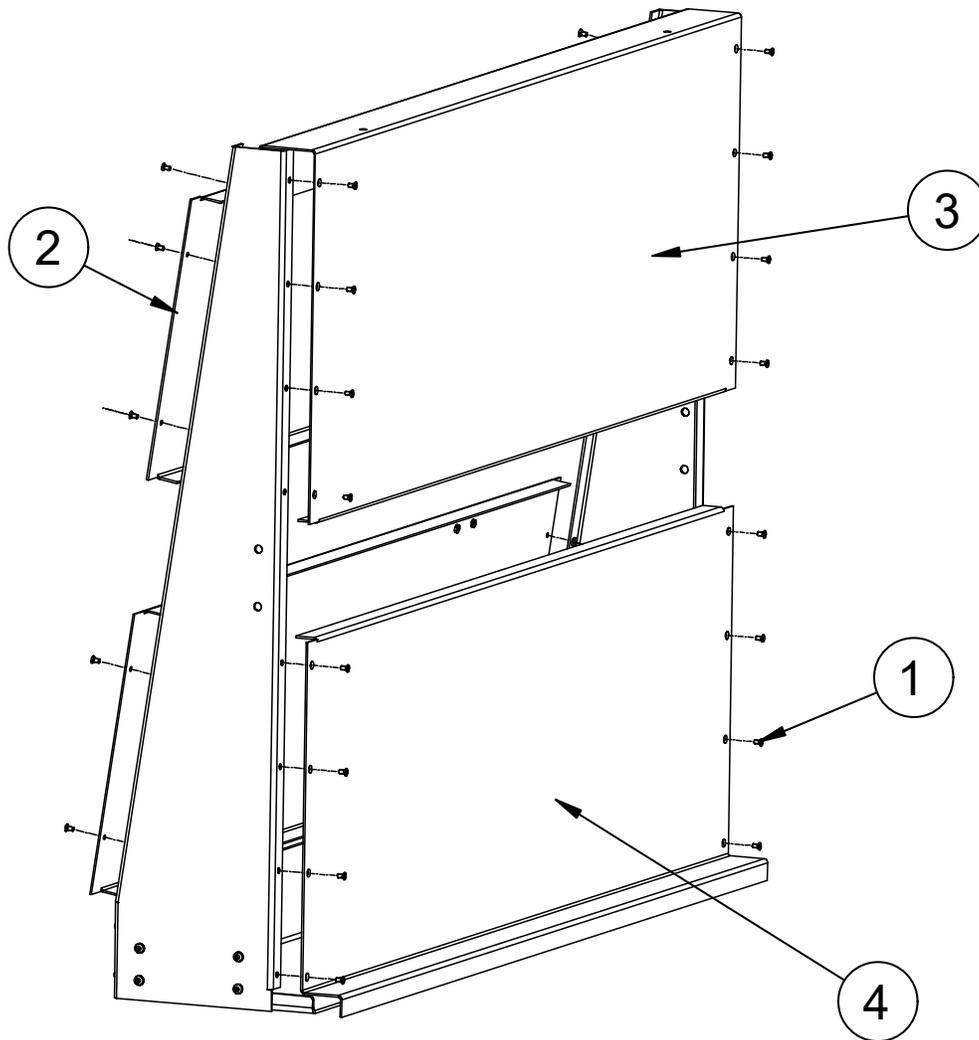
ITEM	PART NO.	DESCRIPTION	Q'TY
1	055020-052	SCREW – FH 6-32 × ¼ SST PH (100)	26
2	5002008	FAB – BACK UPPER COVER	2
3	5002012	FAB – TOP FRONT FRAME, INFEED	1
4	5002013	FAB – BOTTOM FRONT FRAME, INFEED	1

Infeed Module Guide Shafts and Bushing Block (1.09)
5010001
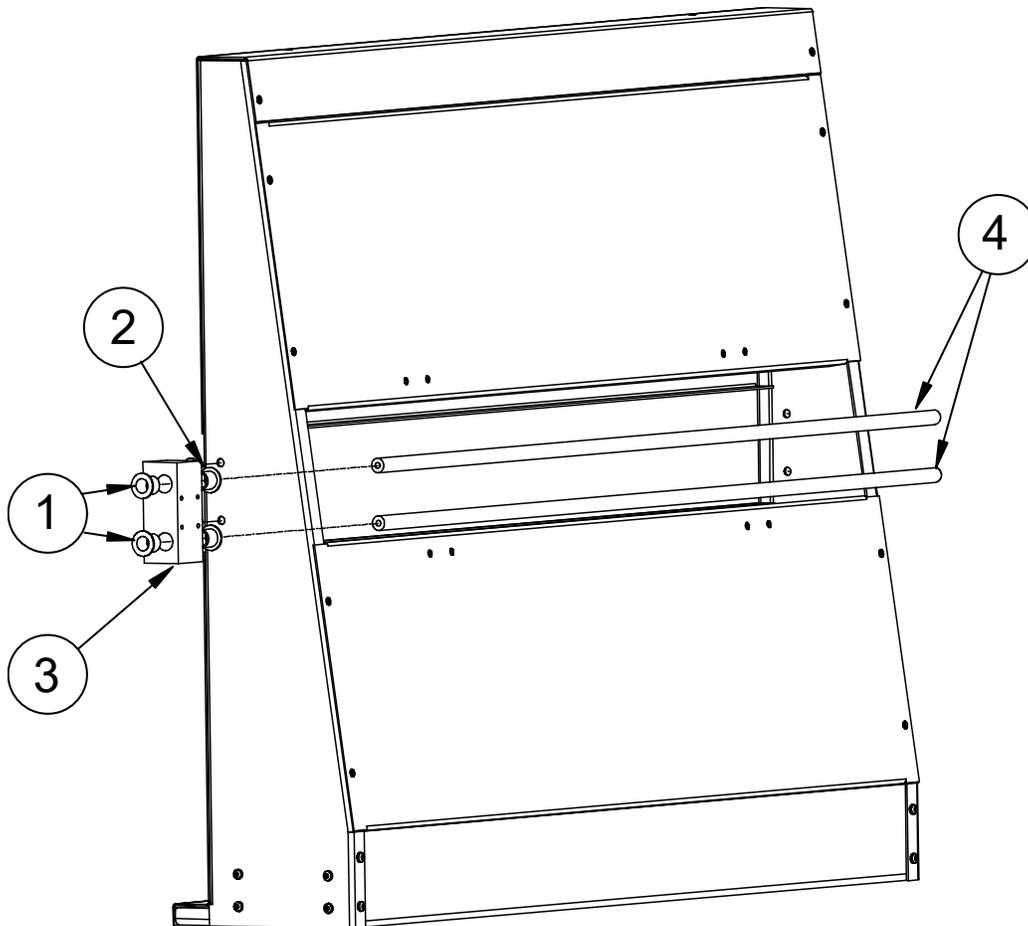
ITEM	PART NO.	DESCRIPTION	Q'TY
1	054979-141	SCREW – PH ¼-20 × ½ NI PH EXT	4
2	5000816	BUSHING – FLANGE	4
3	5002021	MACH – BLOCK, PUSH BAR	1
4	5002024	MACH – SHAFT GUIDE	2

Infeed Module Air Cylinder and Locking Bracket (1.10)
5010001
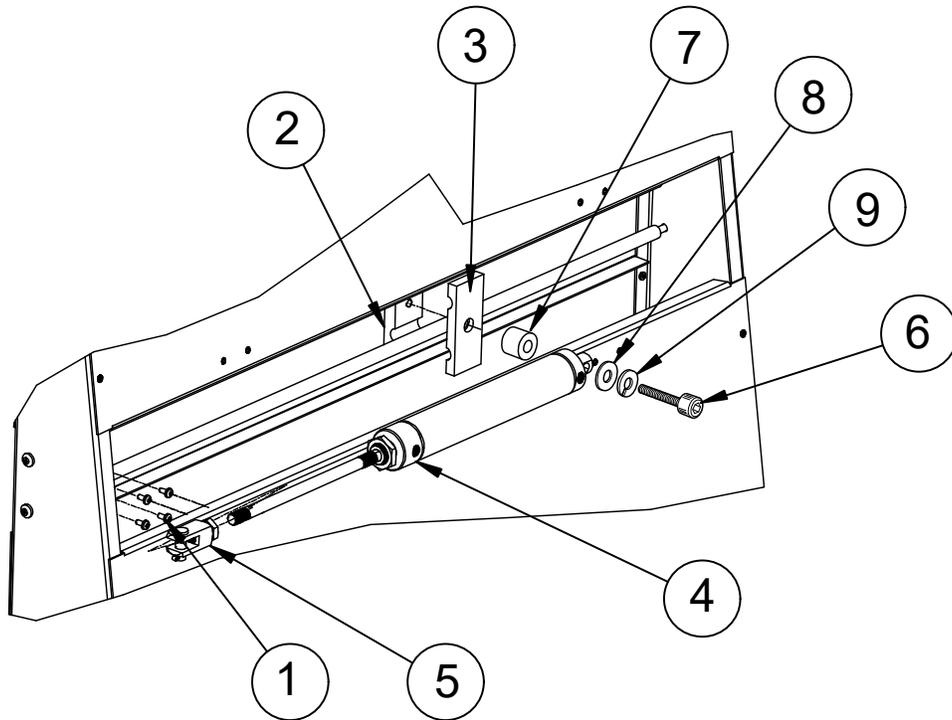
ITEM	PART NO.	DESCRIPTION	Q'TY
1	054979-097	SCREW – PH 8 - 32 × 3/8 PH SEMS INT	4
2	5002022	MACH – AIR CYLINDER BRACKET FRONT	1
3	5002023	MACH – AIR CYLINDER LOCKING BRACKET REAR	1
4	5002040	AIR CYLINDER, 7" STROKE, 1-½" BORE	1
5	5002043	ROD CLEVIS FOR 1-½" BORE CYLINDER	1
6	5000970	3/8"-16 × 2-1/2" SST SOCKET HEAD CAP SCREW	1
7	5003052	SPACER – ¾" O.D. × ¾" LONG	1
8	4605065	3/8" FLAT WASHER	1
9	055310-042	3/8" LOCK WASHER	1

Infeed Module Air Cylinder Cover Door Assembly (1.11)
5010001
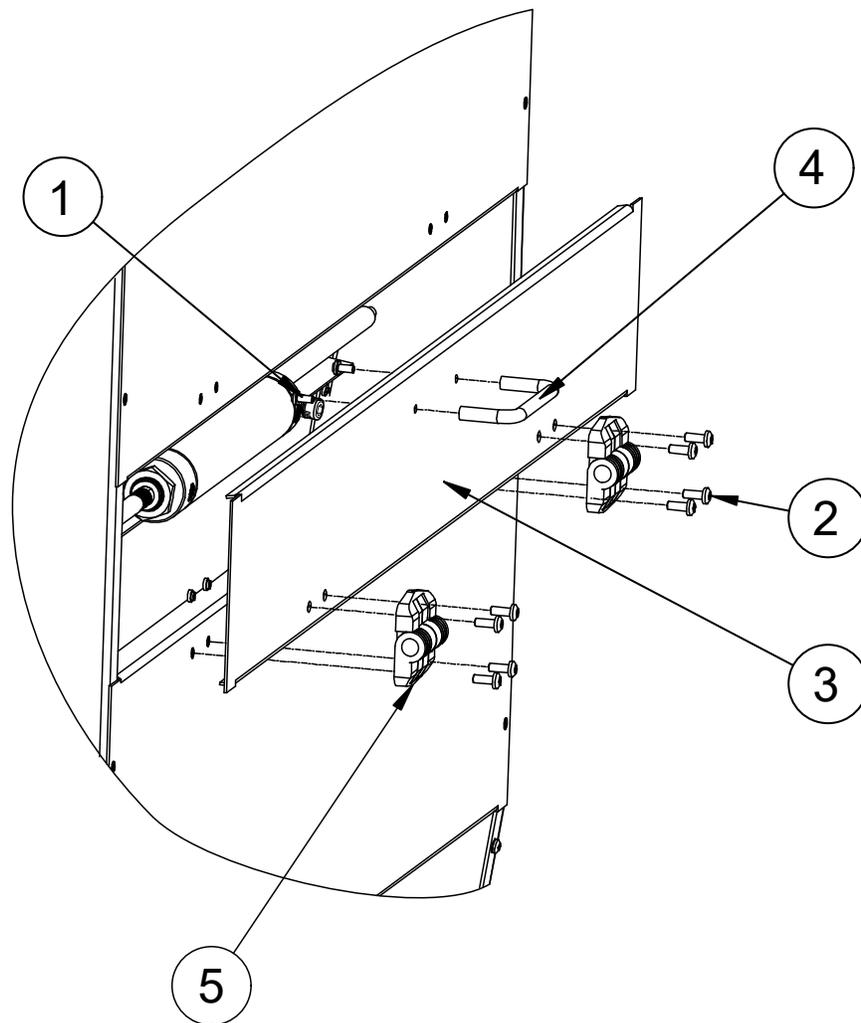
ITEM	PART NO.	DESCRIPTION	Q'TY
1	054979-097	SCREW – PH 8-32 × 3/8 PH SEMS INT	2
2	054979-123	SCREW – PH 10-32 × 0.5 PH SS SEMS - IN	8
3	5002018	FAB – BACK MIDDLE COVER	1
4	5002035	PULL HANDLE – ROUND, THREADED	1
5	5002049	FRICTION HINGE SURFACE MOUNT	2

Infeed Module Upper / Lower Frame Attach Push Bar (1.12)
5010001

NOTE: Item number (8) is provided with every VCTS.

NOTE: Screws (1) must be installed with thread locking compound applied
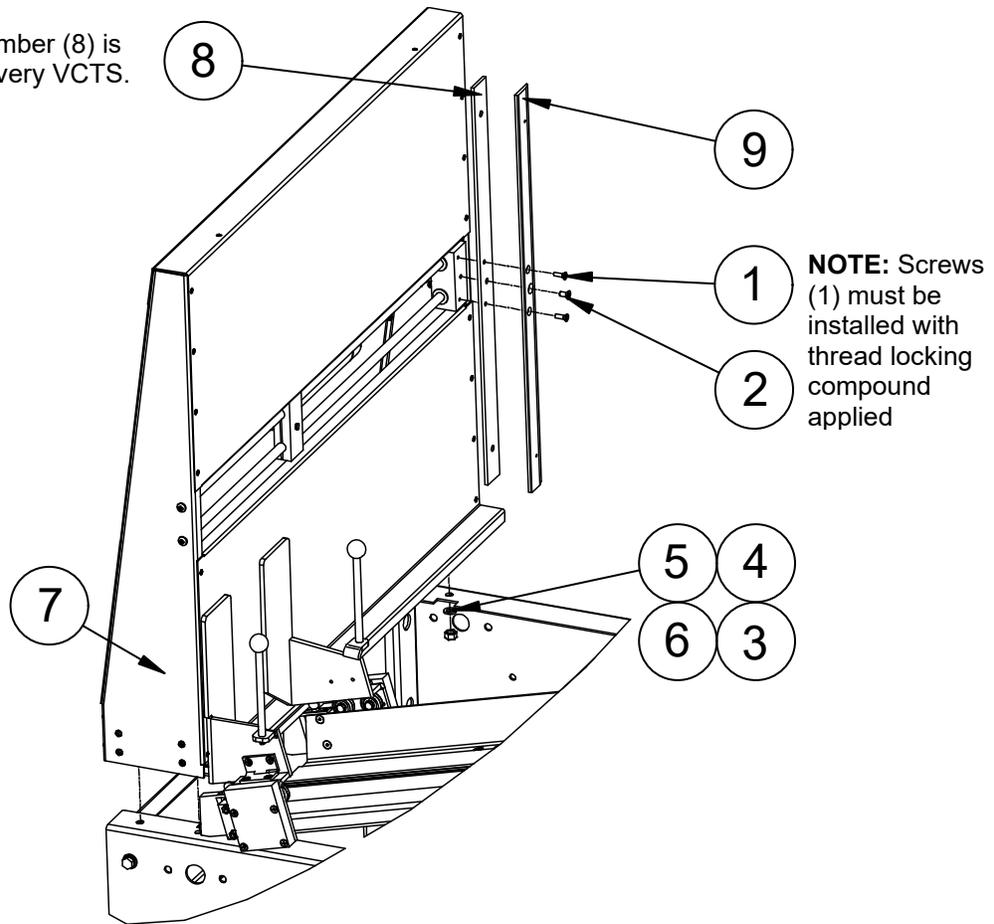
ITEM	PART NO.	DESCRIPTION	Q'TY
1	055020-088	SCREW – FH, 10-32 × ½, SST, PH(82)	2
2	055020-100	SCREW – FH, ¼-20 × ¾" SST PH	1
3	055029-022	WASHER – FLAT 3/8 ZINC	4
4	055307-062	NUT – HEX 3/8-16 NI	4
5	055310-042	WASHER – SPLIT 3/8 NI	4
6	5000791	SCREW – HH 3/8-16 × 1 NI	4
7	5002009	ASSY – VCTS BOX FRAME	1
8	5002019	FAB – BOX PUSHER FILLER	1
9	5002020	MACH – BAR, BOX PUSHER	1

Transport Module / Print Station Base Frame (2.01)
5010002
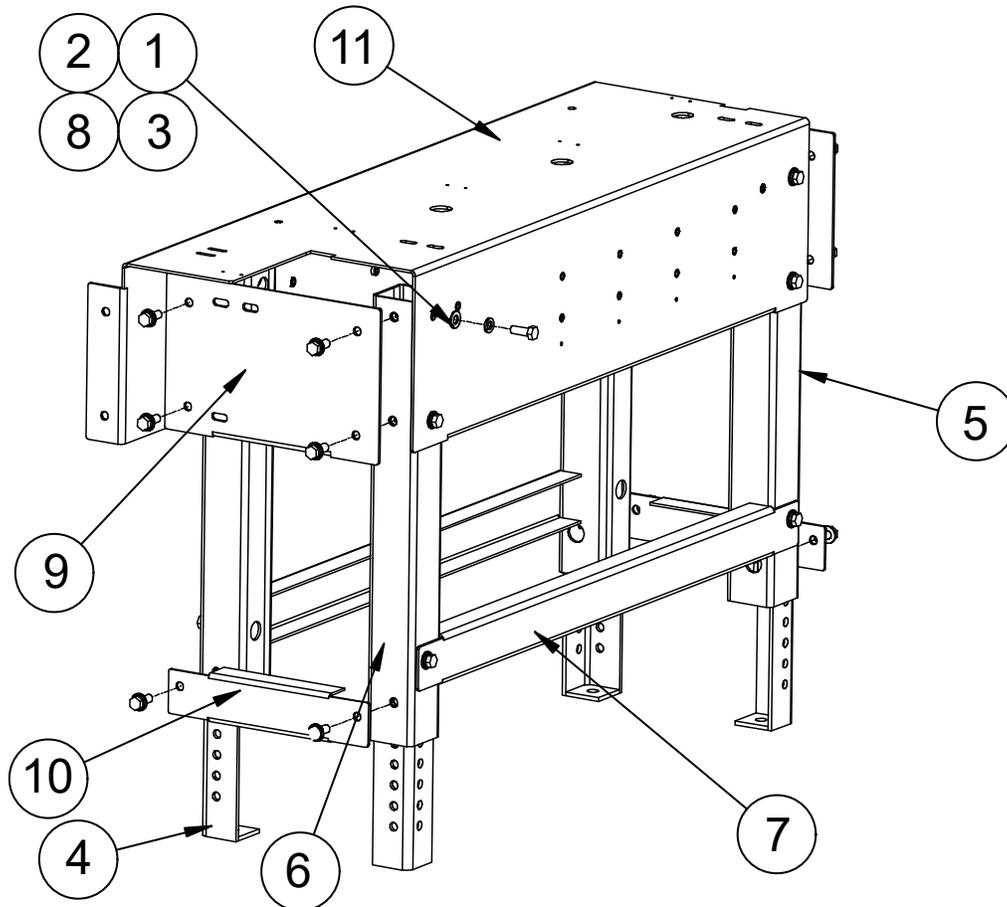
ITEM	PART NO.	DESCRIPTION	Q'TY
1	055029-022	WASHER – FLAT, 3/8 ZINC	24
2	055307-062	NUT – HEX, 3/8-16 NI	24
3	055310-042	WASHER – SPLIT 3/8 NI	24
4	5000195	FAB/WELD – LEG EXTENSION	4
5	5000552	FAB – LEG (R/L)	2
6	5000553	FAB – LEG, LEFT REAR	2
7	5000554	FAB – BRACE, FRONT	2
8	5000791	SCREW – HH 3/8-16 × 1 NI	24
9	5003003	FAB – FRAME, BRACE, END, VCTS	2
10	5003004	BRACE – FRONT	2
11	5003012	FAB – FRAME, PRINT STATION	1

Transport Module Side Contact Spring Support Blocks (2.02)
5010002
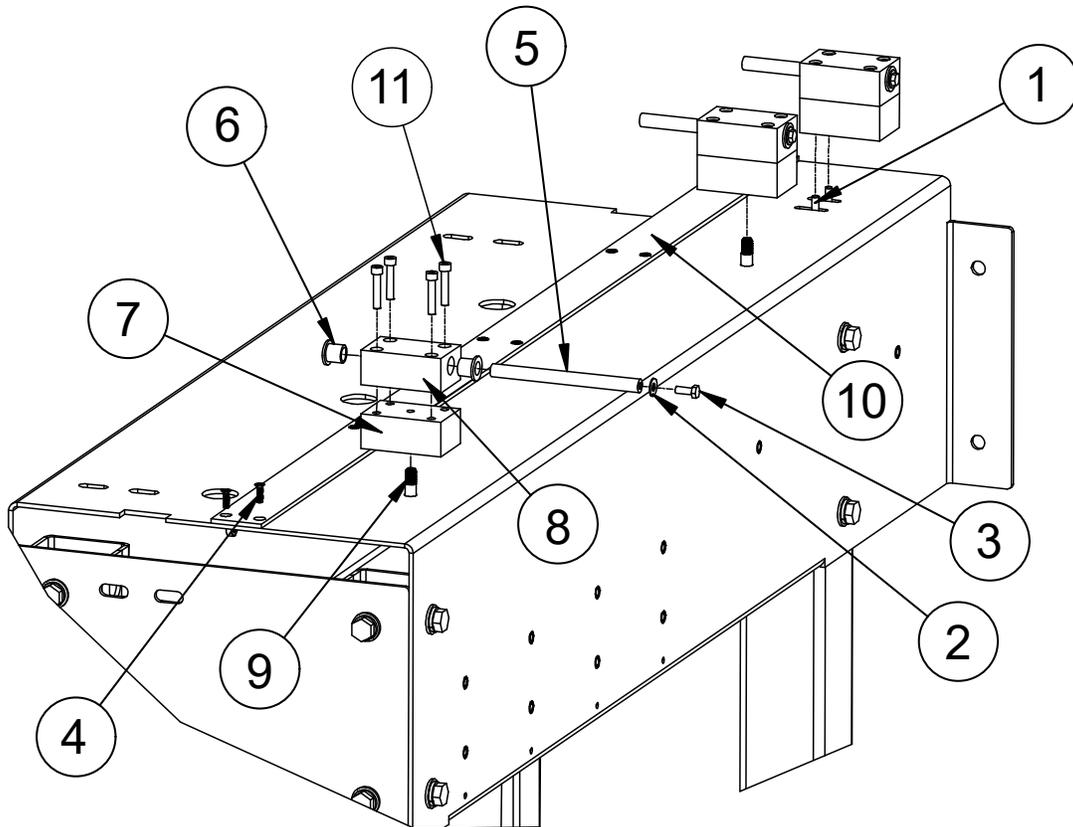
ITEM	PART NO.	DESCRIPTION	Q'TY
1	054979-123	SCREW – PH, #10-32 × 0.5 PH SS SEMS - IN	2
2	055029-011	WASHER – FLAT, #10 SST 0.031 THICK	3
3	055293-025	SCREW – HH @10-32 × ½ ZINC	3
4	1600072	SCREW – PHP SS, 6-32 × ½ BLACK	10
5	5000065	MACH – SPACER, HEAD PLATES 3"	3
6	5000868	BUSHING – FLANGED 3/8" I.D., ½" O.D.	6
7	5003000	MACH – DRIVE, SUPPORT BLOCK	3
8	5003001	MACH – BLOCK, SIDE DRIVE	3
9	5003024	SCREW – SHOULDER ¼-20 × ½ SHOULDER	2
10	5003026	FAB – PRINT STATION BOX SLIDE	1
11	5003028	SCREW – SHC 10-32 × 1" BLACK	12

Transport Module Side Contact Springs and Slide Bar (2.03)
5010002
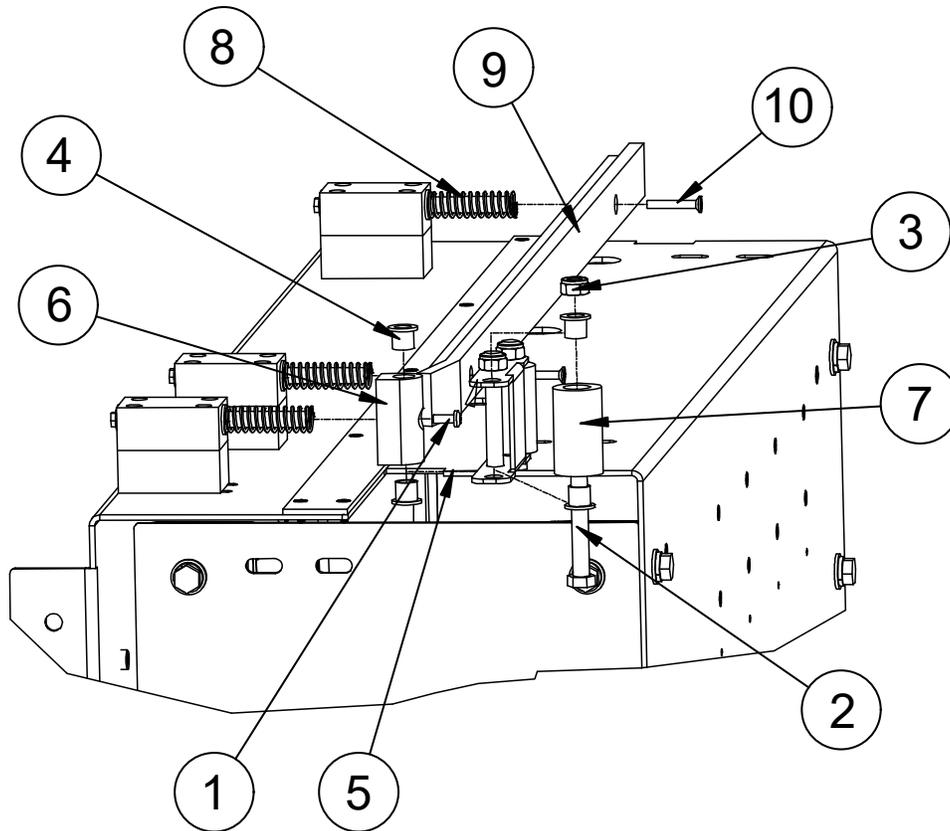
ITEM	PART NO.	DESCRIPTION	Q'TY
1	054979-123	SCREW – PH 10-32 × 0.5 PH SS SEMS - IN	1
2	055293-072	SCREW – HH 3/8-16 × 2-3/4 CAD	3
3	1605029	NUT – HEX NYLOCK 3/8-16	3
4	5000868	BUSHING – FLANGED 3/8" I.D., ½" O.D.	6
5	5002045	FAB – ROLLER BRACKET	1
6	5002046	FAB – PIVOT BRACKET	1
7	5003014	IDLE ROLLER, RUBBER	2
8	5003015	SPRING – COMP, 2" × 0.072WD × 0.6" O.D.	3
9	5003017	MOD – BOX GUIDE – 5" LONG SST/UHMW	1
10	5003023	SCREW – FH, #10-32 × ½, SST, PH(82)	2

Transport Module Side Belt Housing and Idler Pulley (2.04)
5010002
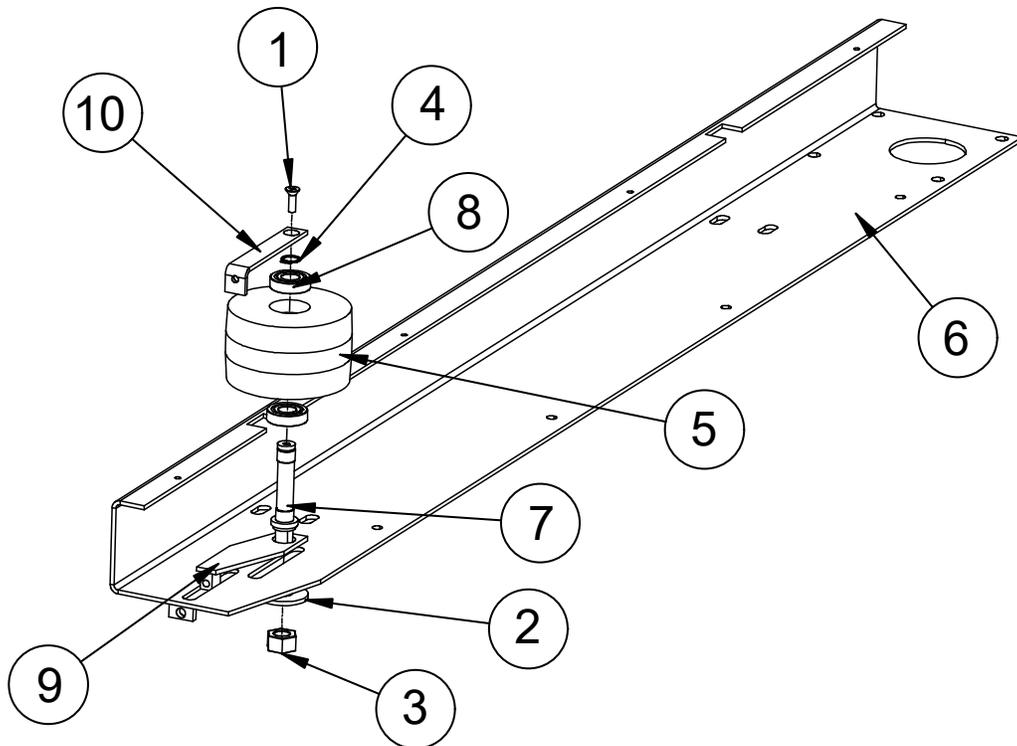
ITEM	PART NO.	DESCRIPTION	Q'TY
1	055020-088	SCREW – FH, #10-32 × ½, SST, PH (82)	1
2	055029-025	WASHER – FLAT ½ CS CAD	1
3	055307-069	MUT – HEX ½-13 ZINC	1
4	5000340	RING, RETAINING, 3/8 SHAFT	1
5	5000419	MACH – SB IDLER ROLLER PULLEY	1
6	5000527	FAB – DRIVE FRAME, LEFT	1
7	5000533	MACH – SB IDLER ROLLER SHAFT	1
8	5000604	BEARING – SB IDLER ROLLER	2
9	5000702	FAB/WELD – BELT TENSION BRACKET, L	1
10	5000928	FAB – BELT TRACKING BRACKET	1

Transport Module Side Belt Motor and Drive Pulley (2.05)
5010002
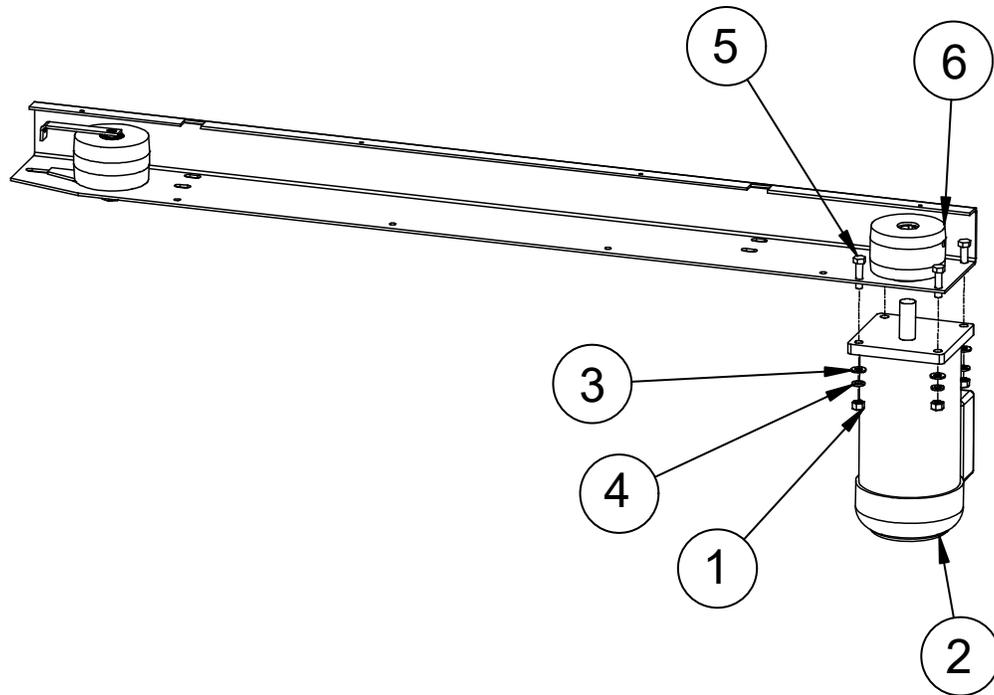
ITEM	PART NO.	DESCRIPTION	Q'TY
1	055307-055	NUT – HEX, 5/8-18 ZINC	4
2	5000311	SIDE BELT GEAR MOTOR	1
3	5000333	WASHER – FLAT 5/16, ZINC	4
4	5000339	WASHER – 5/16 SPLIT, ZINC	4
5	5000803	SCREW – HH 5/16-18 × 1 ¼ SST	4
6	5000807	ASSY – SB DRIVE ROLLER	1

Transport Module Side Belt Backing Channel and Slide Strip (2.06)
5010002
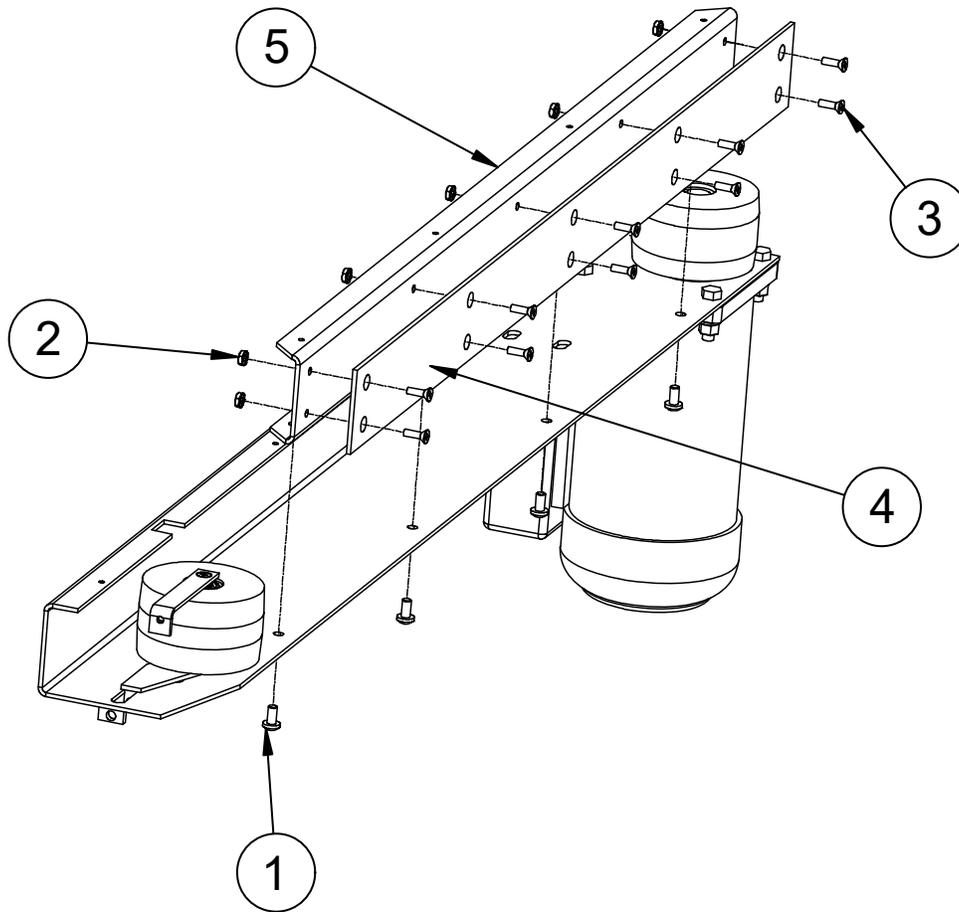
ITEM	PART NO.	DESCRIPTION	Q'TY
1	054979-141	SCREW – PH ¼-20 × ½ NI PH EXT	4
2	054982-005	NUT – KEP 10-32 NC ZINC	10
3	055020-088	SCREW – FH, 10-32 × ½, SST, PH(82)	10
4	5000540	FAB – BELT STRIP	1
5	5000541	FAB – STRIP BRACKET	1

Transport Module Side Belt Attach Screws and Washers (2.07)

5010002
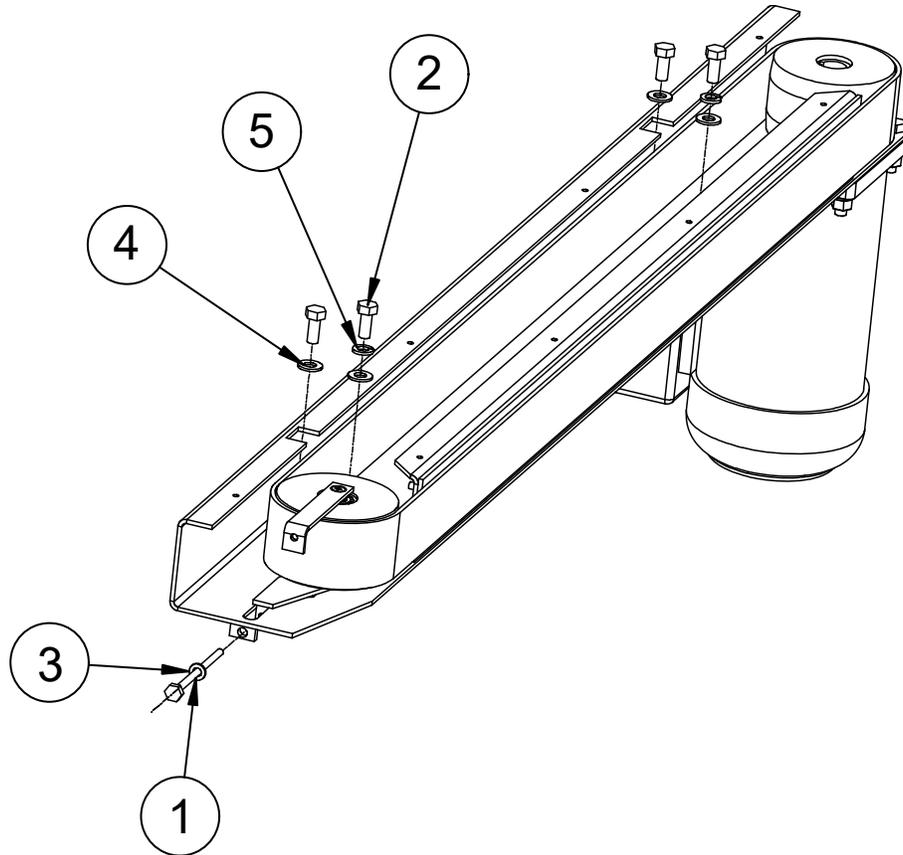
ITEM	PART NO.	DESCRIPTION	Q'TY
1	055293-049	SCREW – HH ¼-20 × 3-½ TAP BOLT	1
2	055293-056	SCREW – HH 5/16-18 × ¾ ZINC	4
3	100694-001	WASHER – FLAT, M6, DIN 125 A	1
4	5000333	WASHER – FLAT, 5/16, ZINC	4
5	5000339	WAAHER – 5/16 SPLIT, ZINC	2
6	5000853	BELT (SET) – SIDE, EZ SB	1

Transport Module Side Belt Attach Washers and Nuts (2.08)

5010002
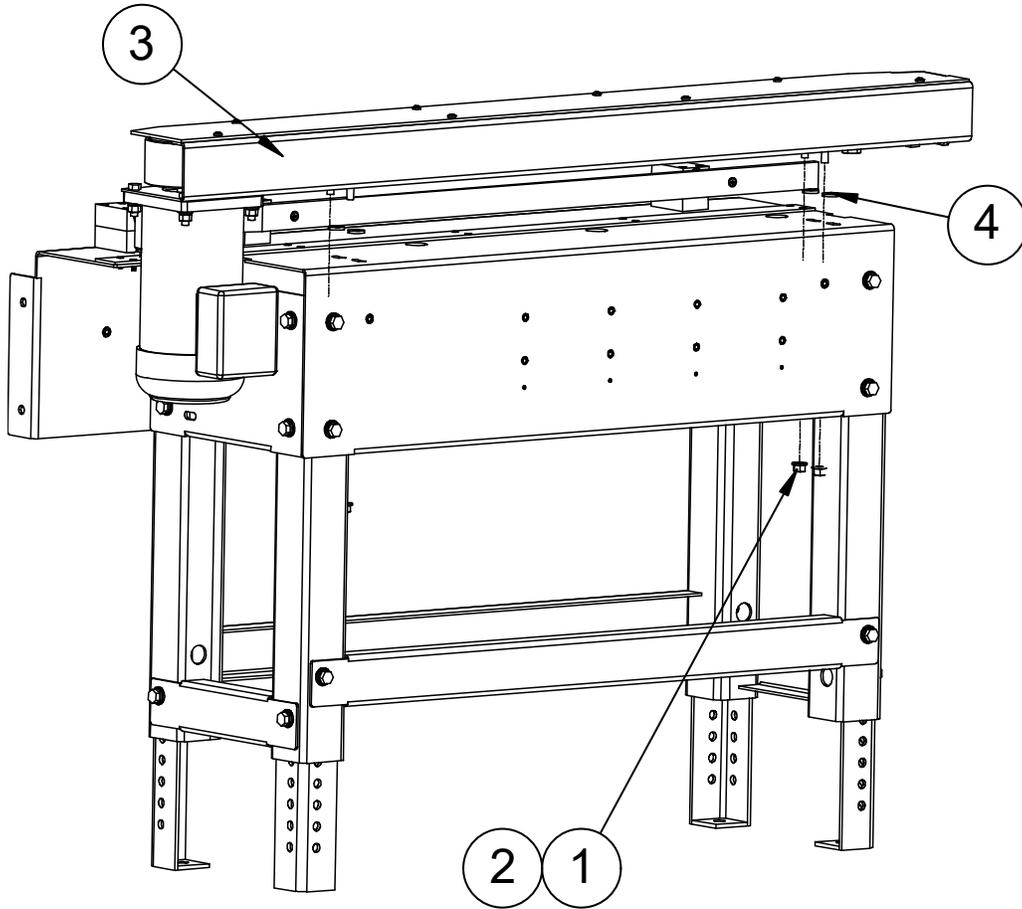
ITEM	PART NO.	DESCRIPTION	Q'TY
1	055307-055	NUT – HEX, 5/16-18 ZINC	4
2	5000333	WASHER – FLAT 5/16 ZINC	4
3	5000402	ASSY – SIDE BELT DRIVE LEFT	1
4	5003025	WASHER – FENDER 5/16" FLAT	4

Transport Module Side Belt Cover and Attaching Hardware (2.09)

5010002
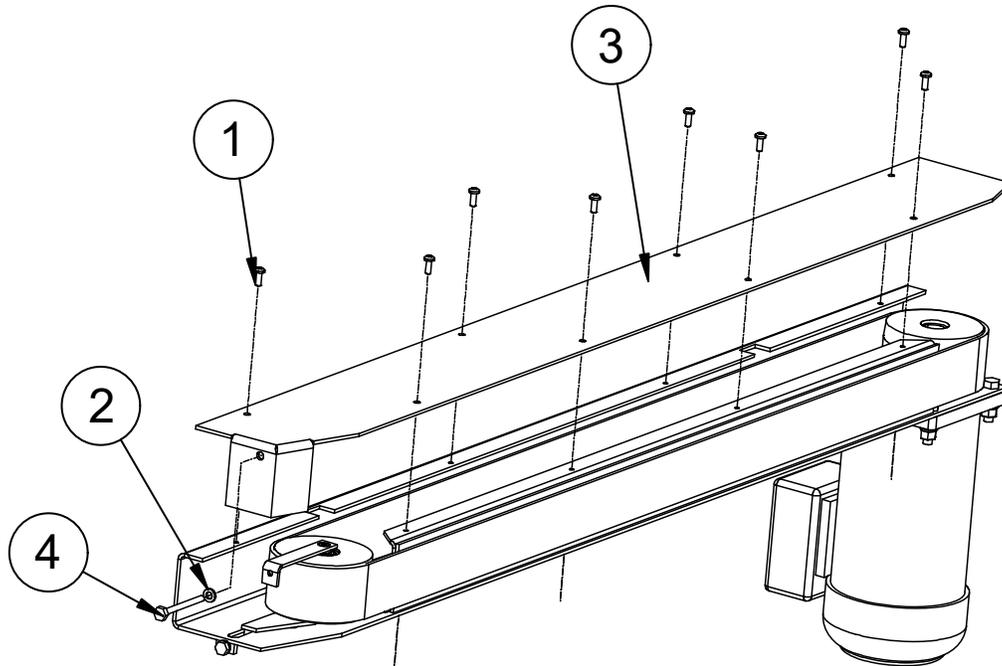
ITEM	PART NO.	DESCRIPTION	Q'TY
1	059479-123	SCREW – PH #10-32 × 0.5 PH SS SEMS - IN	18
2	100694-001	WASHER – FLAT, M6, DIN 125 A	1
3	5000529	FAB – DRIVE COVER, LEFT	1
4	5000804	SCREW – HH ¼-20 × 3-½ TAP BOLT	1

End Roller and Exit Guide Rod Assembly (3)

5010003
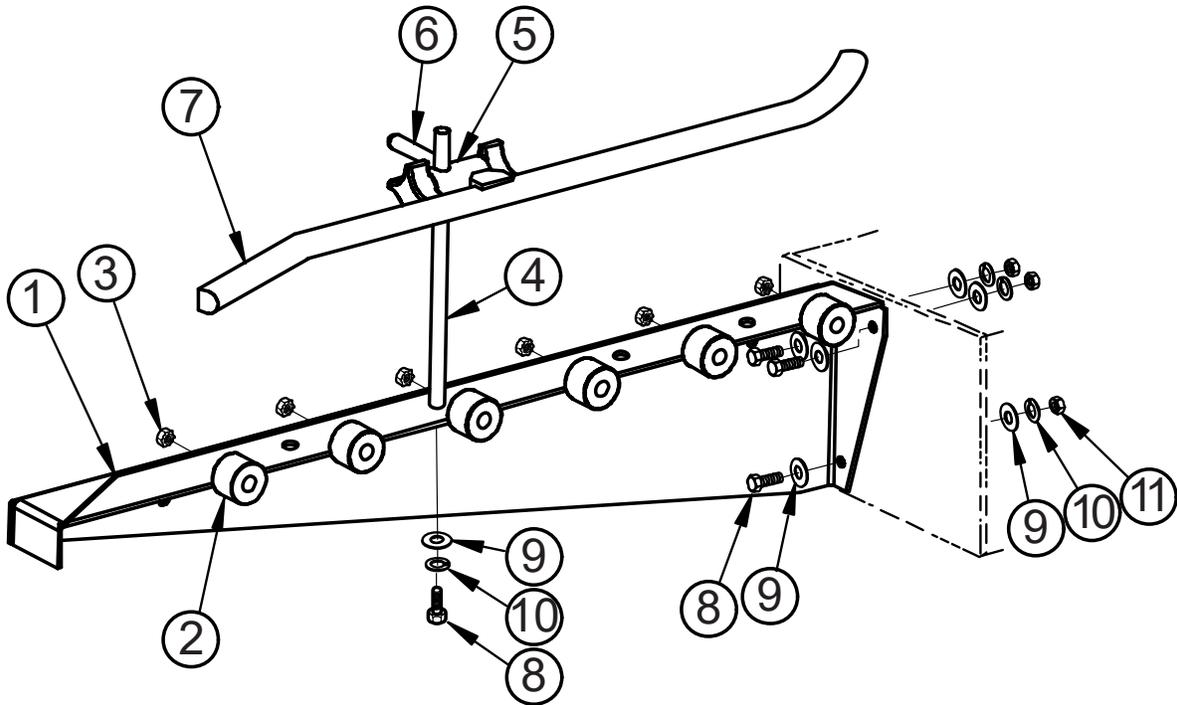
ITEM	PART NO.	DESCRIPTION	Q'TY
1	5004010	FAB / WELD – FRAME, ROLLER SECTION	1
2	5000043	ROLLERS, BELT GUIDE	6
3	054982-006	NUT – KEPS ¼-20 NC ZINC	6
4	5004011	SHAFT – ½" O.D. × 16" LNG, THRD END	1
5	5004014	BLOCK – DUAL SHAFT MOUNT ½" O.D.	1
6	5004012	CLAMP – WITH SHAFT GUIDE RAIL MOUNT	1
7	5004013	PLASTIC GUIDE RAIL WITH SST CORE	1
8	0055293-056	SCREW–HH 5/16-18 × ¾ ZINC	4
9	5000333	WASHER–FLAT 5/16 ZINC	7
10	5000339	WASHER–5/16 SPLIT, ZINC	7
11	055307-055	NUT–HEX 5/16-18 ZINC	3

Electrical / Pneumatic Enclosure with Control Panel and External Connections (4)

5003022-UL
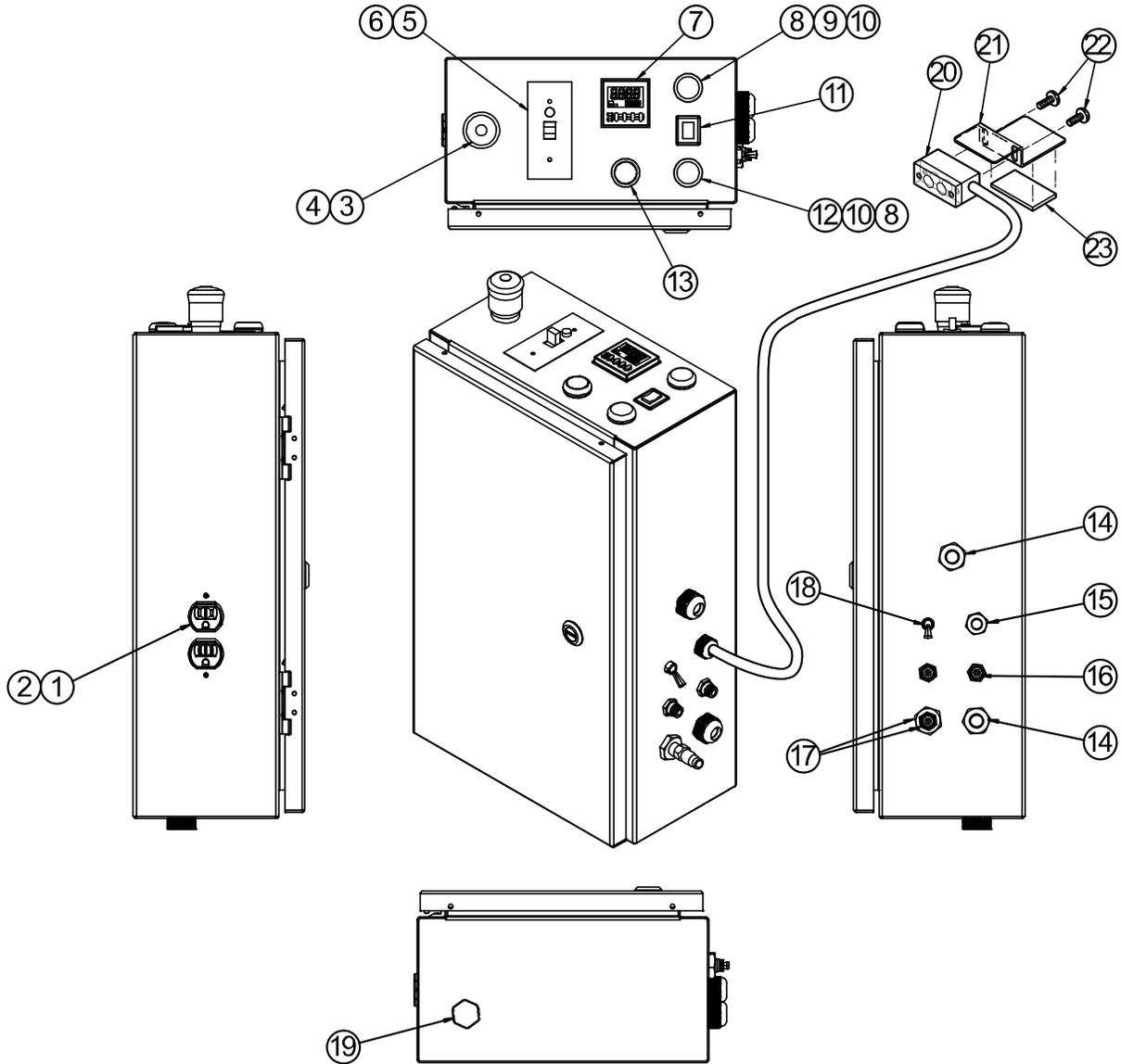
ITEM	PART NO.	DESCRIPTION	REFERENCE	Q'TY
1	5005169	125V AC RECEPTACLE WIRING MODULE	31A327	1
2	5005170	RECEPTACLE	31A336	1
3	5005171	22 MM, RED, PULL-TO-RELEASE BUTTON	M22-PV	1
4	5005172	22MM NO CONTACT BLOCK	M22-K10	1
5	5000039	MANUAL MOTOR STARTER, 2-POLE	MST02DN1P	1
6	5000042	HEATER FOR TYPE MS STARTER	MSH8-8A	1

ITEM	PART NO.	DESCRIPTION	REFERENCE	Q'TY
7	5005173	1-STAGE PRE-SET COUNTER	H7CX-A4-N AC 10	1
8	5005174	INDICATOR LIGHT HOUSING	M22-L-X	2
9	5005175	2MM GREEN INDICATOR LENS	M22-XL-G	1
10	5005176	12-30V AC/DC WHITE LED	M22-LED-W	2
11	106820-001	ROCKER SWITCH	2504-11E	1
12	5005177	22MM AMBER INDICATOR LENS	M22-XL-A	1
13	5005178	NON-ILL MOM PB SIL-BZL FLUSH GRN 1NO	M22-D-G-K10	1
14	5005179	.394-.551 NM BK CORD CONN ½"	T-B CCNTPT12B	2
15	5005180	CABLE GLAND, NPT ½", 5-12 MM	70074427	1
16	5003047	QBS-1/4T-U, BUSH B/ HEAD CO.	564750	2
17	5005181	¼ NPT BULKHEAD	28-301	1
17		¼ AIR QUICK CONNECT		
18	5003042	3-WAY TOGGLE	C040501	1
19		½" BREATHER VENT	300-004	1
20	5000524	PHOTO EYE WITH CABLE	RAN PHOTO 001	1
21	5003029	FAB – PHOTO EYE BRACKET		1
22	2003224	SCREW, FHP, 4-40 × 3/16 SS		2
23	5003058	MAGNETIC STRIP ADHESIVE BACK		1"

Electrical / Pneumatic Panel Internal Components (4)

5003022-UL

Section View

Section View

Wiring/Cable Management
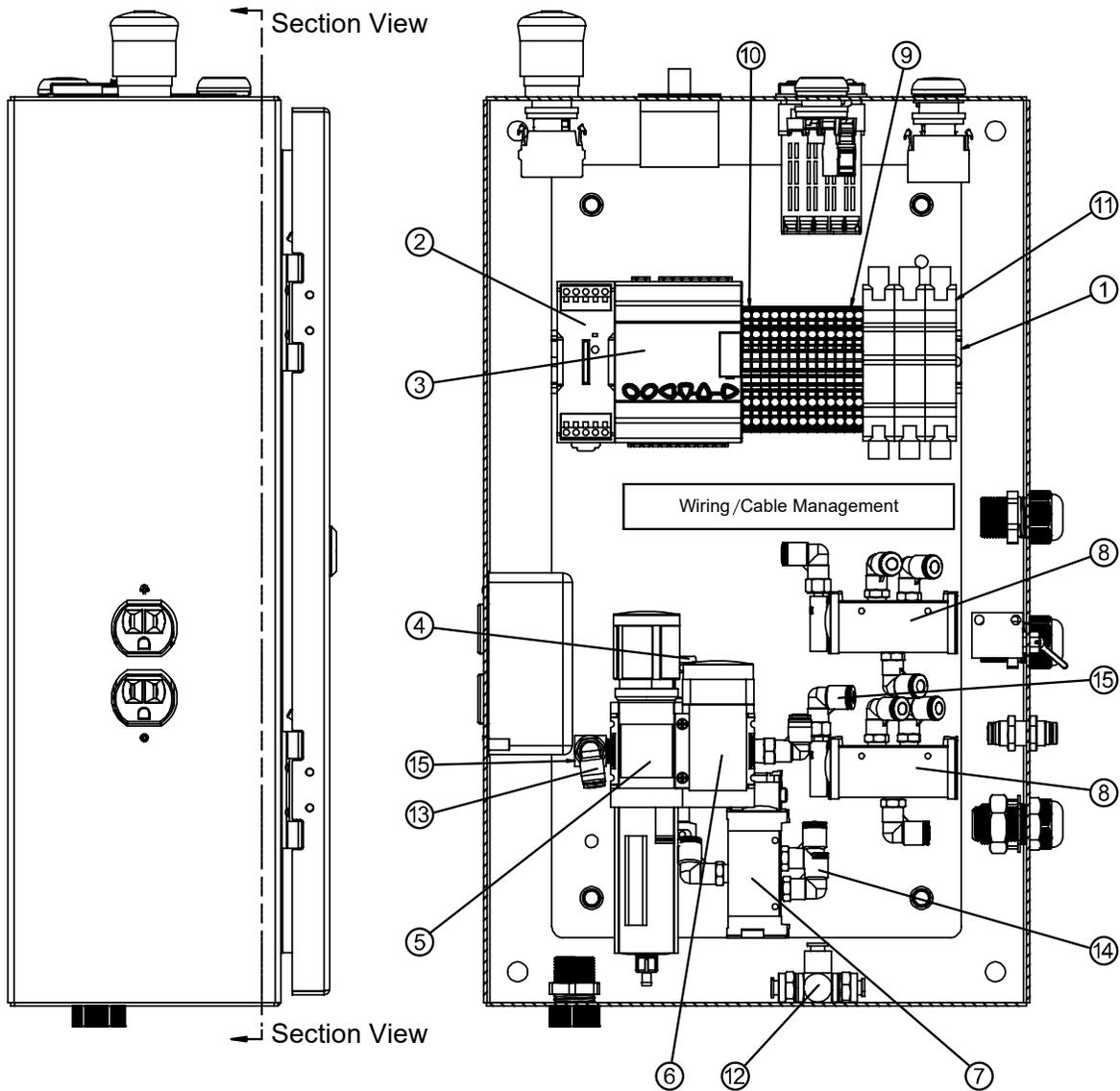
ITEM	PART NO.	DESCRIPTION	REFERENCE	Q'TY
1	5005182	DIN RAIL	210-112	1
2	5005183	POWER SUPPLY, 60W, 24VDC	S8VK-S06024	1
3	5000514	MILLENIUM 3, CD12 CONTROLLER	88970041	1
4	5005184	MS4-WP, MOUNTING BRACKET	532184	1
5	5005185	MS4N-LFR-1/4-D6-E-R-M, FILTER REG.	527694	1
6	5005186	MS4N-DL-1/4-1/4" NPT, SOFT START	531991	1
7	5005187	VUVG-LK14-M52-AT-G18-1H2L-S, SOLENOID VALVE	8042563	1

ITEM	PART NO.	DESCRIPTION	REFERENCE	Q'TY
8	5005188	VUWG-L14-M52-M-G18, PNEUMATIC VALVE	574262	2
9	5005189	GROUND TERMINAL BLOCK	2002-1407	2
10	5005190	4 CONN. 22-12 AWG TERMINAL BLOCK	2002-1401	11
11	5005191	1-POLE CC FUSE HOLDER	811-410	3
12	5003049	SHUTTLE VALVE, 1/8" PORTS	SV11-1/4 PL-66	1
13	5005192	¼ TO ¼ PUSH-IN L FITTING	5533295	1
14	5005193	1/8-1/4 PUSH-IN L FITTING	533235	10
15	5005194	BRASS ELBOW	28-157S	1
15	5005195	5MM TO ¼" PUSH-IN L FITTING	533231	2

Appendix A: Electrical

Appendix B: Air Diagram

Pos. No.	Location	Label	Part No.	Reference
1	/1.2			527694
2	/1.2			533191
3	/1.1			G1
4	/1.3	M1		8042563
5	/1.4			574262
6	/1.4			Q4
7	/1.5		5003049	SV11-¼-PL-66
8	/1.5		5003049	SV11-¼-PL-66
9	/1.3			R3
10	/1.3			R6
11	/1.4			R12
12	/1.4			R13
13	/1.4			R14
14	/1.4			R15
15	/1.6			M1
16	/1.2			C040501
17	/1.4			263424_3
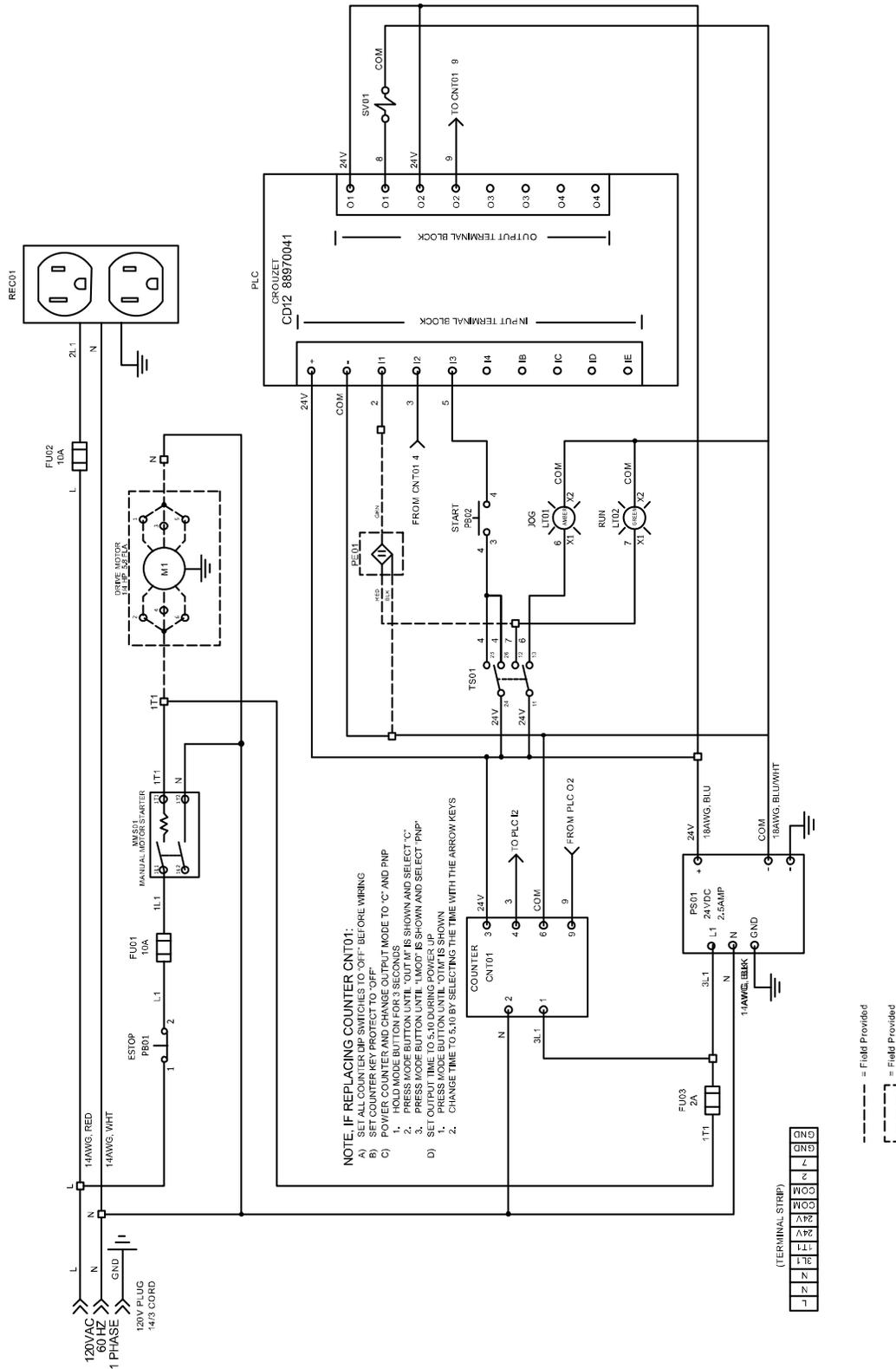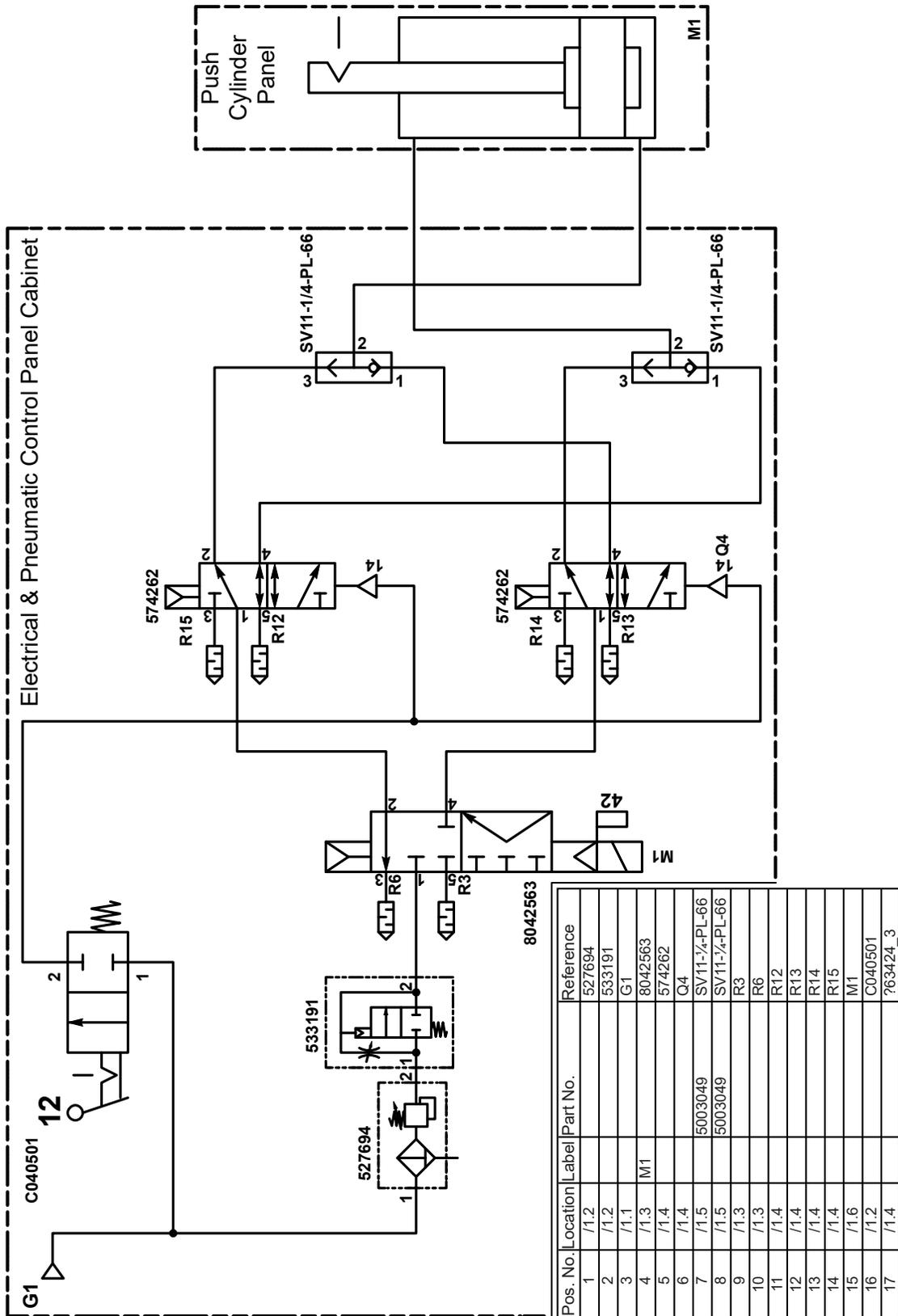
Warranty Statement

Vertical Case Transport System

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

        Gear reducer: 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.)

Transport Performance and Printing Quality

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

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

Customer Support

Eastey Technical Service

For help setting up, operating or maintaining the Eastey Enterprises Vertical Case Transport 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

Thanks again for your purchase of Eastey products. We are pleased to be a part of your packaging and marking needs.