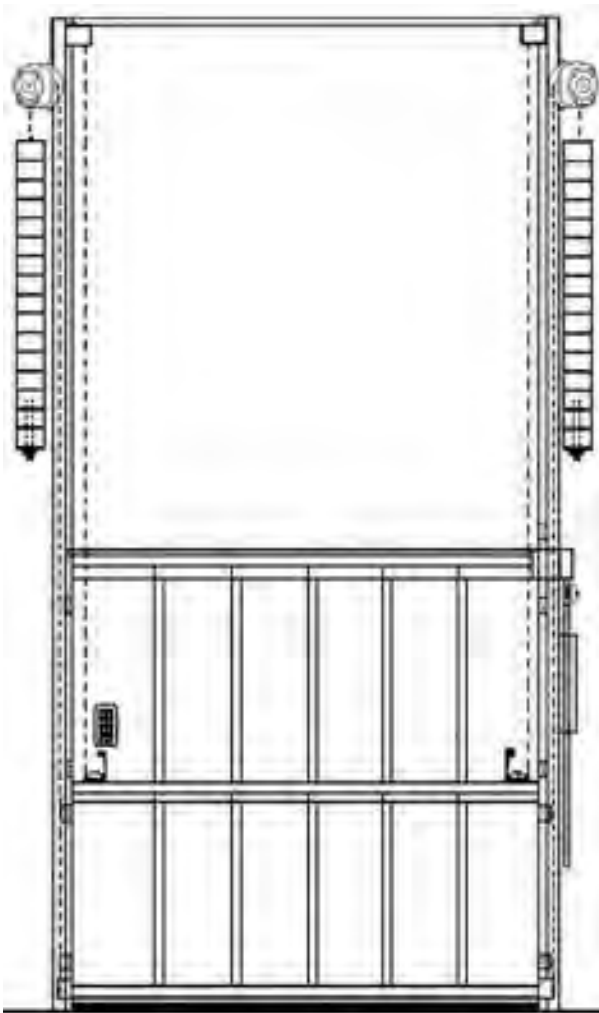




*OPENING QUALITY DOORS
AROUND THE WORLD*



JOB NAME:

JOB LOCATION:

COURION JOB #:

LIFT #:

Installation Instructions

**2-Section Slide-Up Doors
(Power and Manual)**

www.couriondoors.com

Door Installation - 2-Section Slide-Ups

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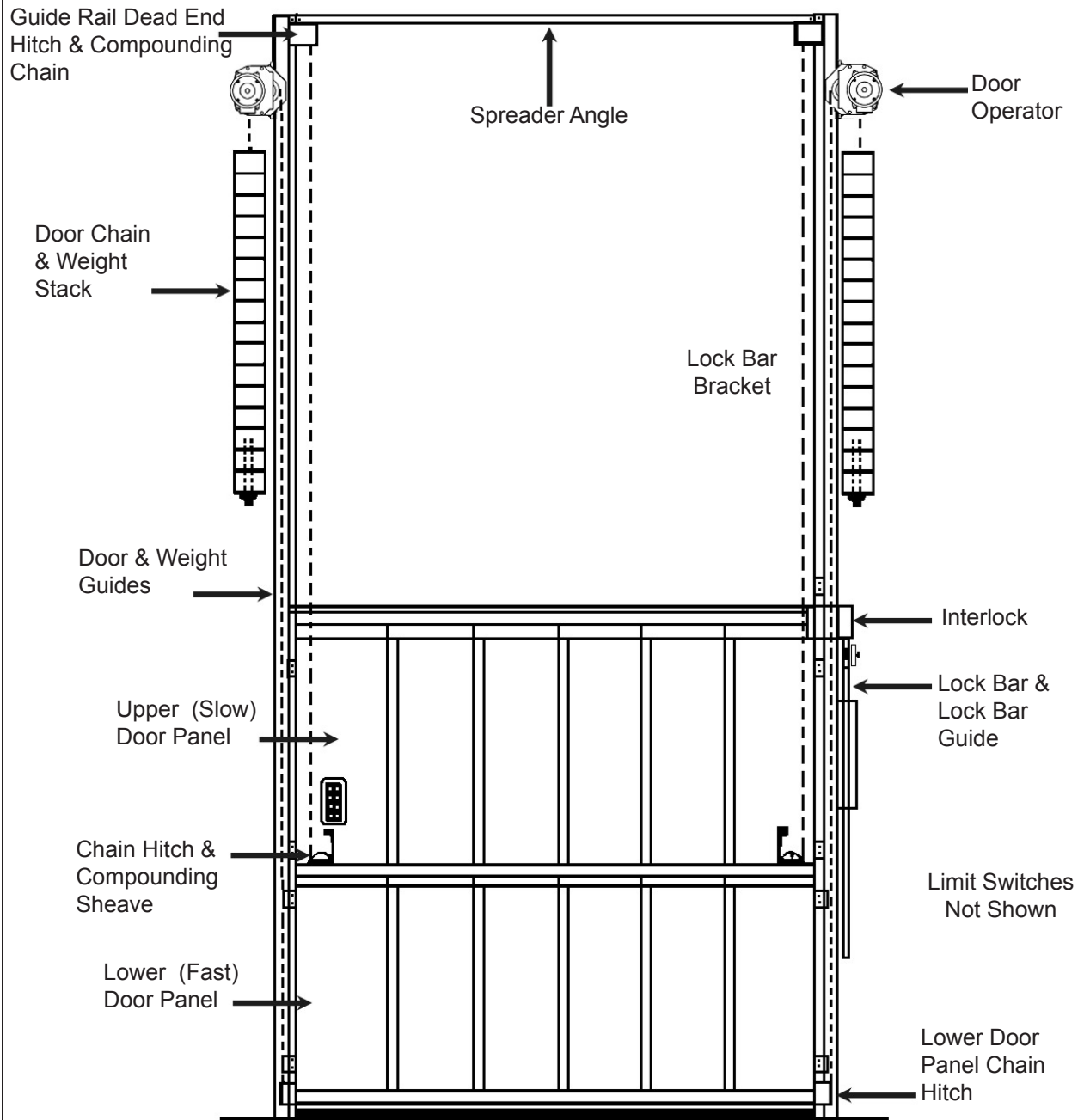
Other Documents

When applicable, the following additional documents are included with your Installation Instructions

- ☐ Courion General Layout Drawings
- ☐ Material Packing List
- ☐ Gauge Angle Detail (#S-160-2)
- ☐ Counter Weight Assembly Detail (#E-512-1)
- ☐ Car Enclosure Installation Instructions
- ☐ Retiring Cam Installation Instructions
- ☐ Car Gate Installation Instructions
- ☐ Door Control Installation and Adjustment Manual
- ☐ Wiring Diagrams
- ☐ Description of Operation
- ☐ Parts & Maintenance Manual



2-Section Slide-Up Door System - Power Operation Shown



Door Installation - 2-Section Slide-Ups

List of Tools

Below is a list of tools necessary to install and adjust your Courion Freight Door System. To insure a smooth and easy installation, please make sure you have all of these items before starting the installation.

High Speed Drill Bits

13/64" for 1/4-20 tap
17/64" for 5/16-24 tap
17/64" for 5/16-18 tap
11/32" for 3/8" hole
25/64" for lock bar installation
27/64" for 1/2-13 tap

Masonry Drill Bits

5/16" for guide hole clean out
1/2" for 1/4" sleeve anchor
3/4" for 3/8" sleeve anchor
7/8" for 1/2" expansion anchor
1" for 1/2" slugin anchor

Other Tools Required by Elevator Contractor:

- Fork lift truck
- Courion Door Cart or 2 wheel dolly or 4 wheel cart
- Plumb line and anchors (piano wire preferred)
- Clamps for guide rail installation
- Lubricant (light oil)
- Hoist of sufficient capacity to lift door panels
- Drill bit extension
- Lifting strap of sufficient capacity to lift door panels
- Chalk line
- Normal elevator constructor tools

Tools Provided by Courion:

- Door Gauge Angle (to set Door Guide Rails)
- Door Open Gauge Stick (to set DOOR FULL OPEN)
- Counter Weight Stack Props (to prop Counter Weights in FULL OPEN position)
- Upper Door Panel Props (to prop Upper Door Panel in FULL CLOSED position)



Door Installation - 2-Section Slide-Ups

Check all Materials

Verify quantity and check all items for damage immediately upon receipt. If any shortage or damage is found, please contact Courion immediately. A copy of your packing list was sent with your Courion shipment.

⇒ You must verify the quantity received with the freight bill and bill of lading immediately upon receipt of your Courion shipment.

⇒ You must inspect all items received for damage immediately upon receipt of your Courion shipment.

Freight Claims !!!

IF AN ITEM IS MISSING OR DAMAGED, HAVE FREIGHT LINE MAKE INSPECTION IMMEDIATELY AND MAKE NOTATION OF THE DAMAGE OR LOSS ON BILL OF LADING. BE SURE TO FILE YOUR FREIGHT CLAIM WITH THE FREIGHT LINE PROMPTLY. THE CARRIER WILL NOT CONSIDER A CLAIM UNLESS PROPERLY PRESENTED. YOU RISK LOSS IF YOU FAIL TO FOLLOW THE PRECAUTIONS STATED ABOVE!

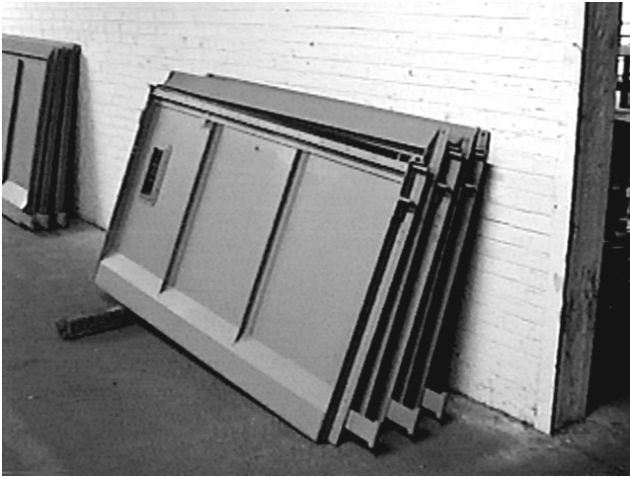
Moving Material at Job Site

Freight elevator door panels require special handling. Always transport and store the freight door panels vertically, with the heavy side down. Never transport or store the freight door panels laying flat.

- Do not open undamaged barrels or crates until ready to begin installation of the freight elevator door system.
- If installation will not begin immediately, the materials should be transported to a secure storage area.
- Always transport and store the freight door panels vertically, with the heavy side down.
- Never transport or store the freight door panels laying flat or against a post or column. _



Door Installation - 2-Section Slide-Ups



- Door Panels should always be stored with the safety meeting rails facing up.
- Sort panels by opening.

IMPORTANT: *When moving panels on job site, the heavy end should be towards the floor to eliminate top-heavy situations.*

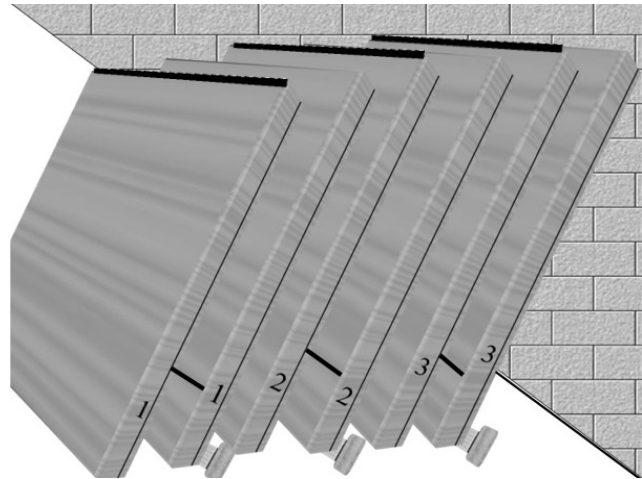
Door Numbers

Each door is identified with a number. The Courion door number corresponds with the landing designation set out in Courion GD Drawings. The Courion door number will be used throughout the job to identify mated door panels, guides and other associated hardware.

THE COURION DOOR NUMBER DOES NOT NECESSARILY MATCH THE FLOOR LEVEL DESIGNATION.

For proper identification of the panels, refer to Courion GD Drawings, and note the corresponding numbers on the side angles of the door panels.

If you intend to paint your door panels prior to installation, please identify and tag them properly for future reference.



IMPORTANT !!!

Freight door installation and maintenance is principally accomplished from the hoistway side of the opening. **For this reason, all Courion freight door equipment is marked left or right hand, as viewed from the hoistway (standing in the car looking out).** For example, an interlock mounted on the right hand side of the opening, viewed from the hoistway side, is properly identified as a right hand interlock.



Door Installation - 2-Section Slide-Ups

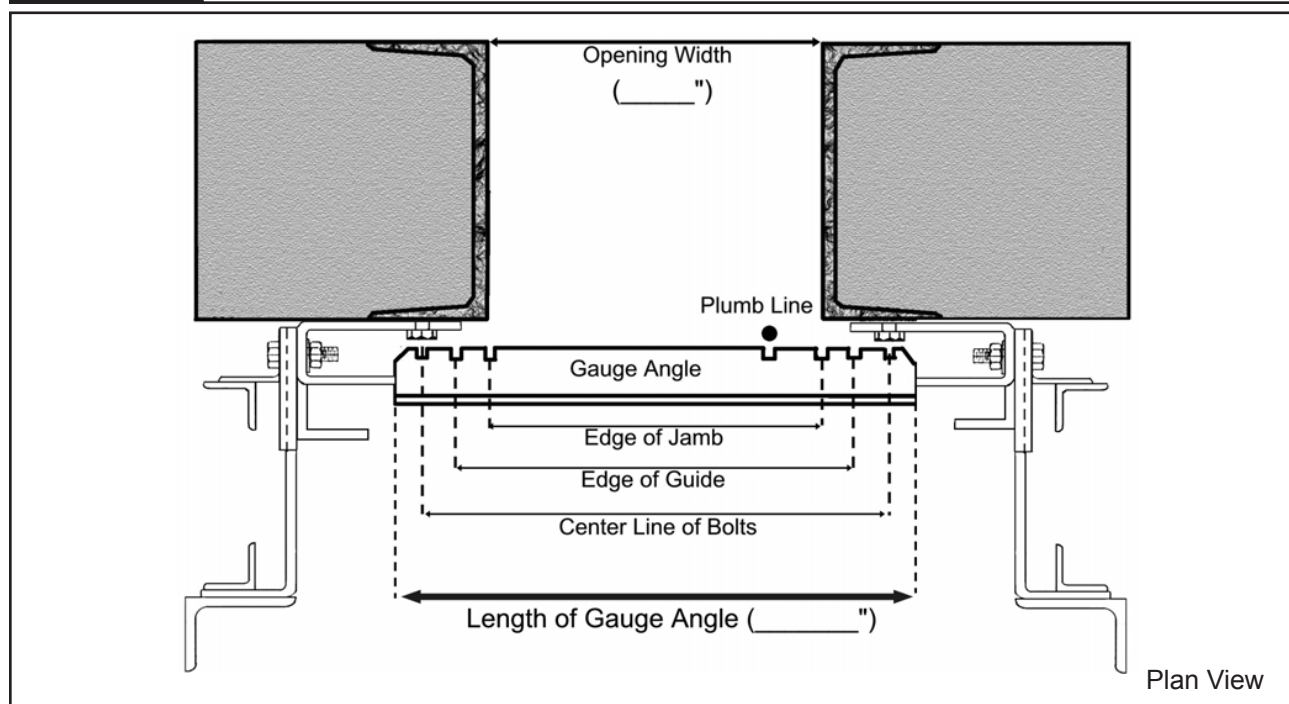
Field Survey

SAVE YOURSELF TIME !!!

No hoistway is perfect. Stop now and verify all hoistway dimensions to insure that your Courion equipment can be properly installed.

Step 1

Locate the guide rail gauge angle provided by Courion. Before starting the field survey, verify the guide rail gauge angle dimensions to that noted on Courion Gauge Angle Drawing S-160-2.



The guide rail gauge angle contains three (3) factory-made marks at each end:

- **Mark 1** (towards the center of the opening) indicates the edge of the jamb.
- **Mark 2** (center) is the edge of the guide.
- **Mark 3** is the center of the bolt hole.

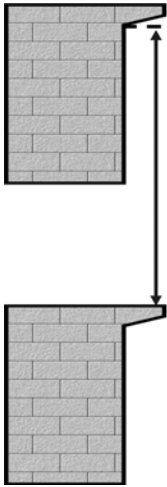
These three (3) marks, along with a plumb line, are used to survey the hoistway and insure proper opening width for Courion equipment.



Door Installation - 2-Section Slide-Ups

Step 2

Using Courion General Layout Drawings, verify the CLEAR floor-to-floor heights in the hoistway.



Verify the required clear space above the Opening for your Slide-Up Door.

- Using a tape measure, verify that the actual CLEAR floor-to-floor heights are the same as that reflected on Courion's General Layout Drawings.

- If the required clear space above the Opening is the same or greater, proceed to Step 3.

- If the required clear space above the Opening is ***less than required***, call Courion immediately.

Step 3

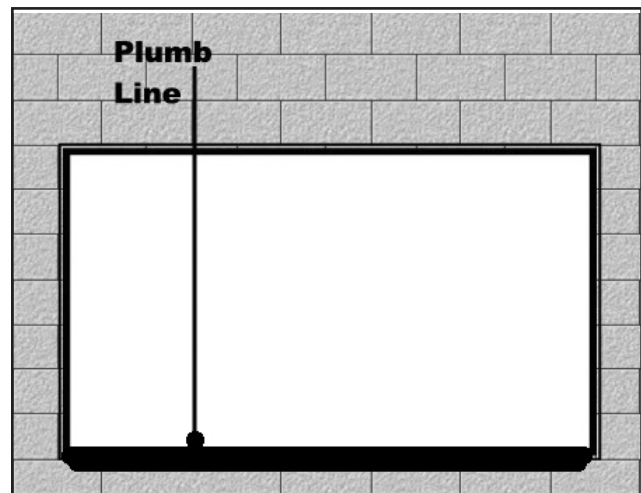
Drop a plumb line from above the Opening to the Extended Sill and verify the distance from the plumb line to each jamb.

NOTE: Plumb line material can be cotton mason string, piano wire, or small diameter wire cable; the choice depends on the building height, and other building conditions.

- Drive a steel drift pin into mortar joint above the Opening and approximately 6" (150mm) in from one jamb.

- Drop a plumb line to the Extended Sill and secure to the drift pin.

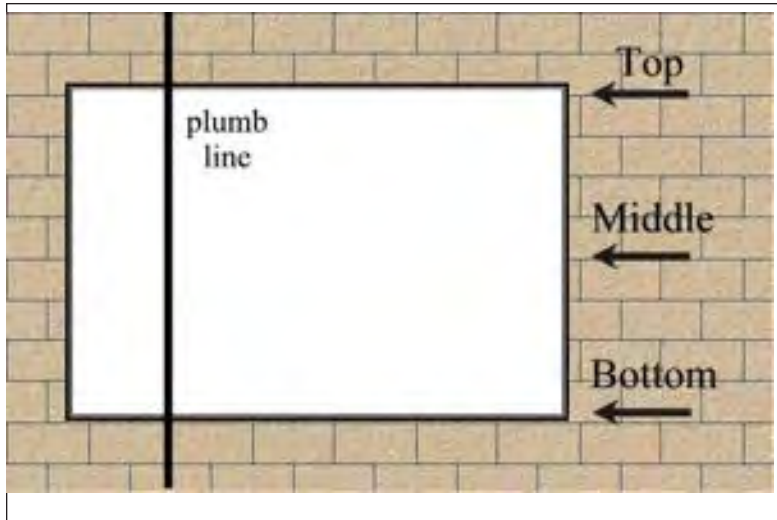
- Suspend weight from bottom of plumb line so that it hangs plumb. When line is stationary, anchor the lower end on the Sill.



Door Installation - 2-Section Slide-Ups

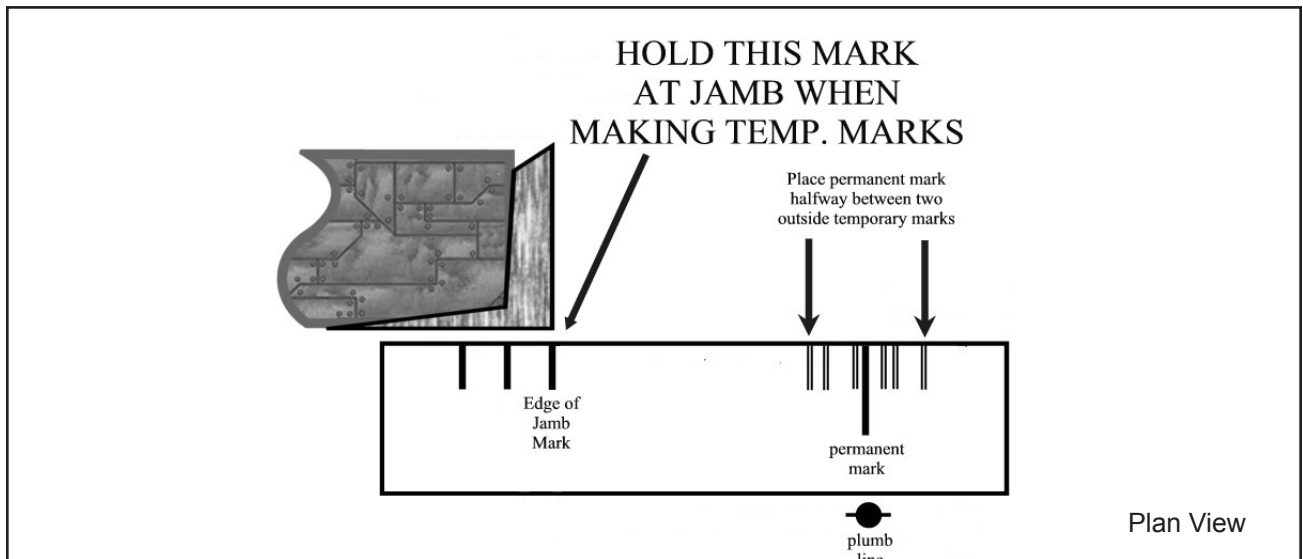
Step 4

At the top, middle, and bottom of each opening, make a temporary mark on the GUIDE RAIL GAUGE ANGLE at the plumb line. Upon completion, make a permanent mark on the GUIDE RAIL GAUGE ANGLE at the halfway point between the two outside temporary plumb line marks.



■ At the top, middle, and bottom of each opening, align the EDGE OF JAMB mark on the GUIDE RAIL GAUGE ANGLE with the edge of jamb and make a temporary chalk mark on the GUIDE RAIL GAUGE ANGLE at the plumb line.

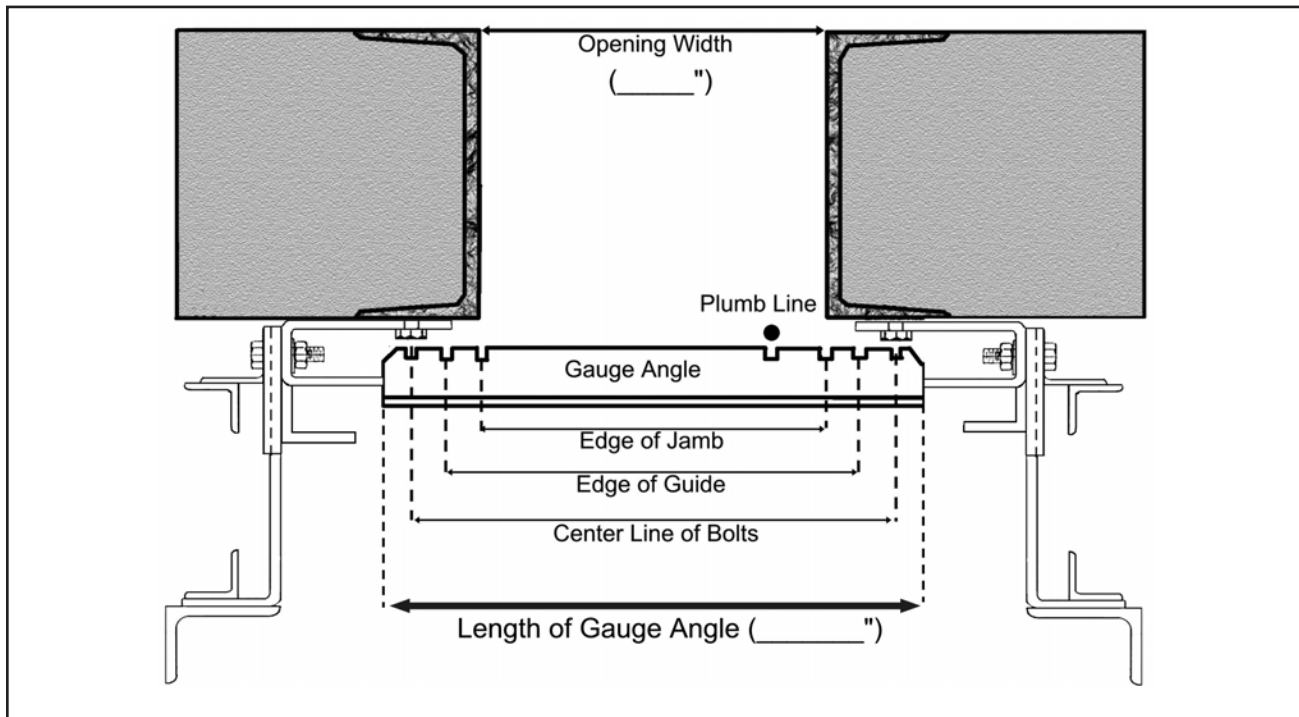
■ After marking the GUIDE RAIL GAUGE ANGLE at each landing, make a permanent mark on the GUIDE RAIL GAUGE ANGLE at the halfway point between the two outside chalk plumb line marks.



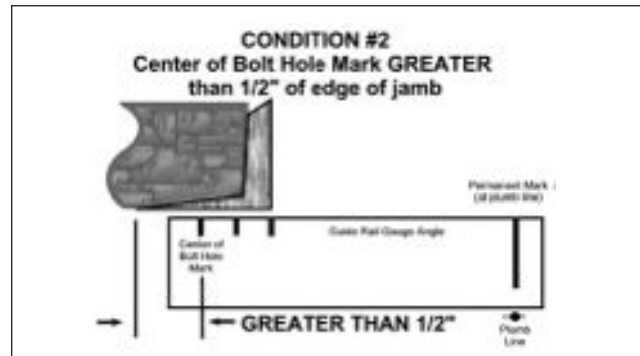
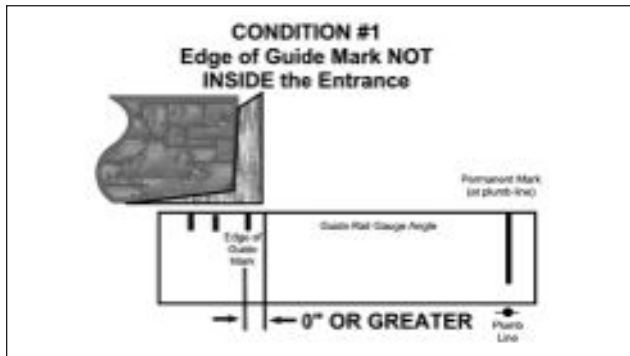
Door Installation - 2-Section Slide-Ups

Step 5

At each opening, align the permanent plumb line mark on the GUIDE RAIL GAUGE ANGLE with the plumb line. While holding the GUIDE RAIL GAUGE ANGLE level, verify on both sides of the hoistway: (1) the EDGE OF GUIDE mark does not fall inside the entrance at either side of the hoistway, and (2) the CENTER OF BOLT HOLE mark does not fall closer than 1/2" to the outside of the edge of jamb.



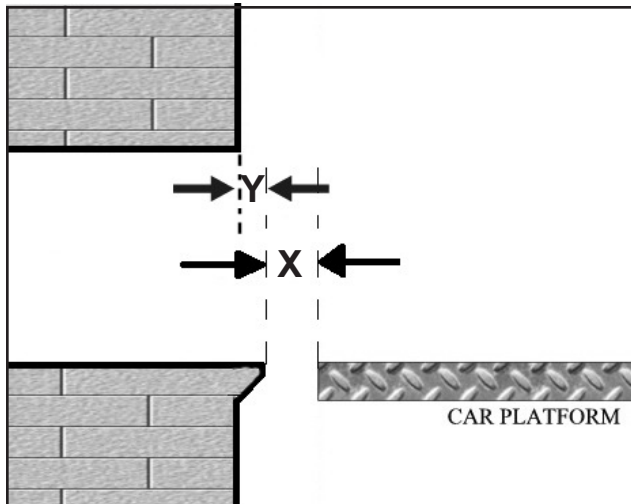
IF YOU HAVE EITHER OF THE FOLLOWING CONDITIONS, STOP AND CALL COURION IMMEDIATELY.



Door Installation - 2-Section Slide-Ups

Step 6

Verify that the Sill Extensions (Y) and the distance from the car platform to the entrance sill (X) is the same across the face of the Opening at each landing and per Courion's General Layout Drawings..



IMPORTANT! The Sill Extension (Y) must not be less than shown on Courion's General Layout Drawings and the Car-to-Sill (X) dimension must not be less than 1/2"

■ Verify that the Sill Extensions (Y) are per Courion's General Layout Drawing and the same across the face of the Opening. the Sill Extension must not be less than that indicated on Courion's General Layout Drawings.

■ Verify that the Car-to-Sill (X) at each Landing is the same as Courion's General Layout Drawing and the same across the face of the Opening. This dimension must not be less than 1/2" (13mm).

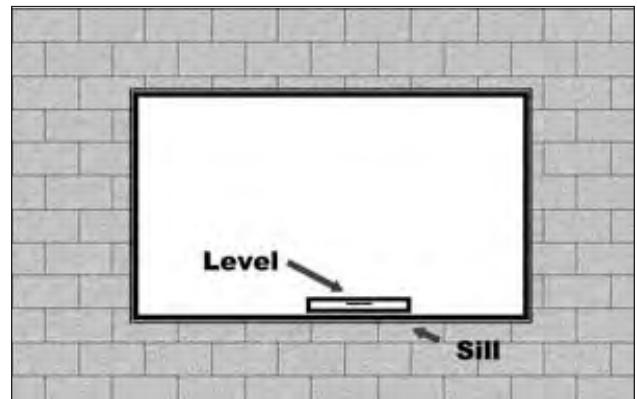
■ If the jambs are not plumb, use the shortest distance from the car platform to the entrance sill as the plane for guide rail installation.

Step 7

At each opening, verify that all sills are level.

■ Using a level, verify that all sills within the hoistway are level.

■ Sills must be level to a tolerance of 1/8" (3mm) for every 8' (2,440mm).



REMEMBER - AN INCORRECT HOISTWAY = BAD INSTALLATION

If after completing the field survey, it is determined that the existing hoistway is incorrect or different from that depicted in Courion GD Drawings, stop and contact Courion.

DO NOT ASSUME RESPONSIBILITY FOR AN INCORRECT HOISTWAY



Door Installation - 2-Section Slide-Ups

Guide Rails

Proper and accurate installation of the Guide Rails is essential to a successful installation of your Courion Freight Doors. Read and understand this entire section before beginning installation.

Parts and Hardware ■ Guide Rails (shipped in pairs) ■ Door Guide Mounting Hardware (Hardware Kit #50) ■ Guide Rail Spreader Angle ■ Guide Rail Lugs and Mounting Hardware (Hardware Kit #60)

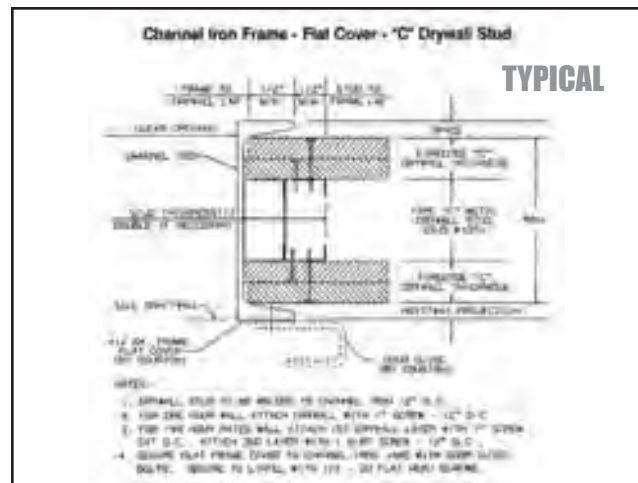
Guide Rail Identification and Setup: Courion Guide Rails are manufactured and shipped in pairs (left and right) for specific landings. For proper identification of the Guide Rails, refer to Courion's GD Drawings and note the corresponding numbers on the side angles of the Guide Rails. **BE SURE TO INSTALL THE GUIDE RAILS AT THEIR PROPER OPENING.**

Drywall Frame Installation

If you have drywall frames, Courion drywall frame covers must be installed during Guide Rail Installation.

■ The hoistway entrance must be framed as illustrated on Figure GD-1.1. It is the elevator contractor's responsibility to maintain coordination with the various trades to insure that the drywall frames are properly installed.

■ Once the drywall frames have been properly installed, the 14 gauge flat frame covers (with attached UL labels) must be installed under the guide rails during guide rail installation. A separate piece for application across the head of the entrance is also included.

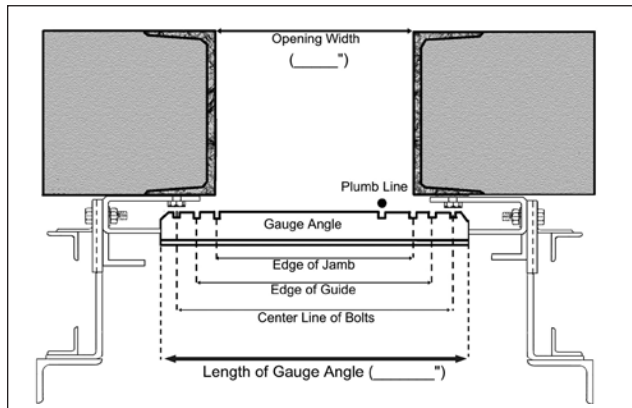


Door Installation - 2-Section Slide-Ups

Step 1

Door Guide Columns are designed to sit on the extended sill inside the hoistway. Side to side placement of the Door Guide Columns is determined using the **GUIDE RAIL GAUGE ANGLE** and plumb line.

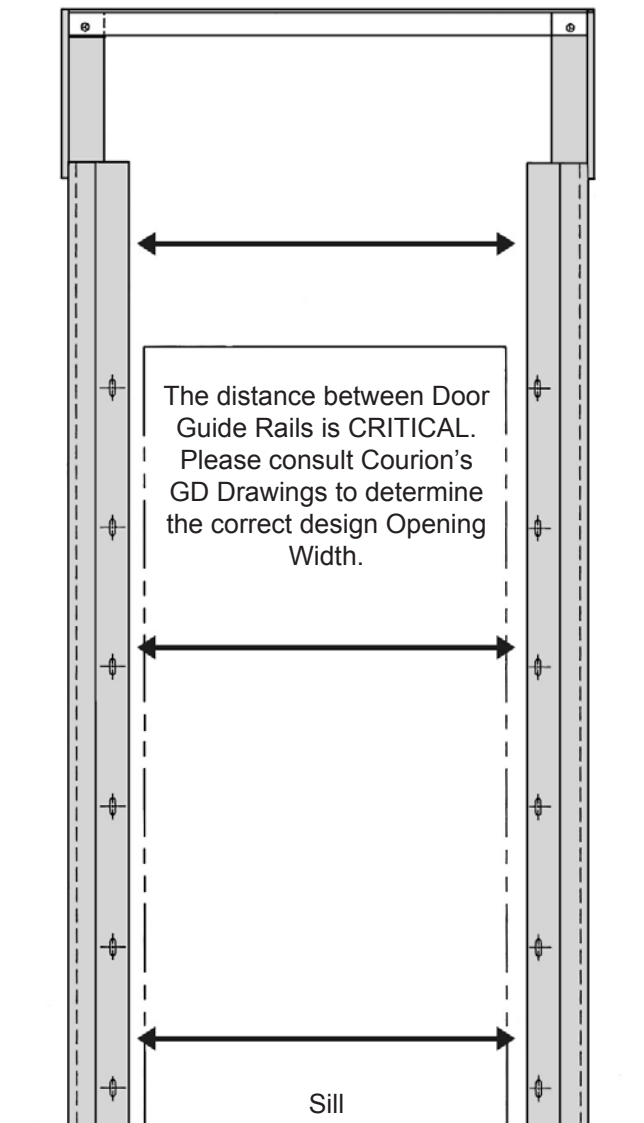
- Clamp the guide rail into position. Check the side to side position of the rail at several places along its length by aligning the permanent mark you made on the **GUIDE RAIL GAUGE ANGLE** with the plumb line.



- Drill 11/32" diameter hole at the top of every slot on the guide rail within the entrance frame and every fourth slot outside the entrance frame. Apply a small amount of lubricant to the threads of the 3/8-16 self-tapping bolts found in **HARDWARE KIT #50** and insert into holes.

IMPORTANT! DO NOT USE WASHERS UNDER THE HEAD OF THE GUIDE RAIL BOLTS.

- Use Guide Lugs in **HARDWARE KIT #60** to secure guide rails extending beyond the steel entrance frames.



Door Installation - 2-Section Slide-Ups

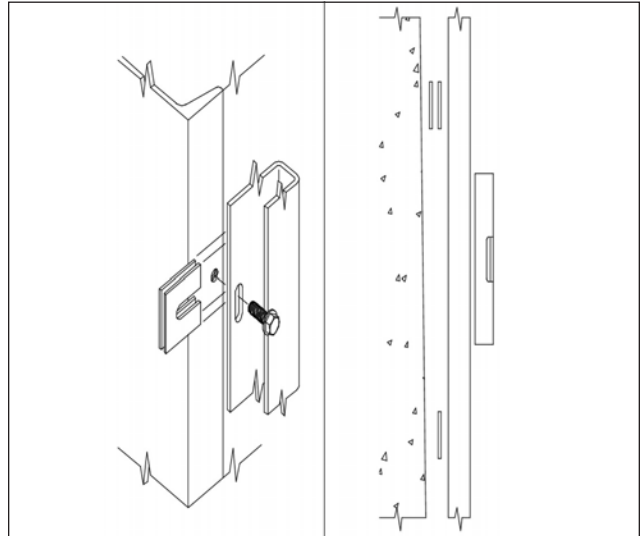
Step 2

Using the plumb line and level, verify that the guide rail is plumb and true.

■ Should the guide rails vary in and out from the jamb, it will be necessary to shim behind the guide rail to insure the rail is plumb and true.

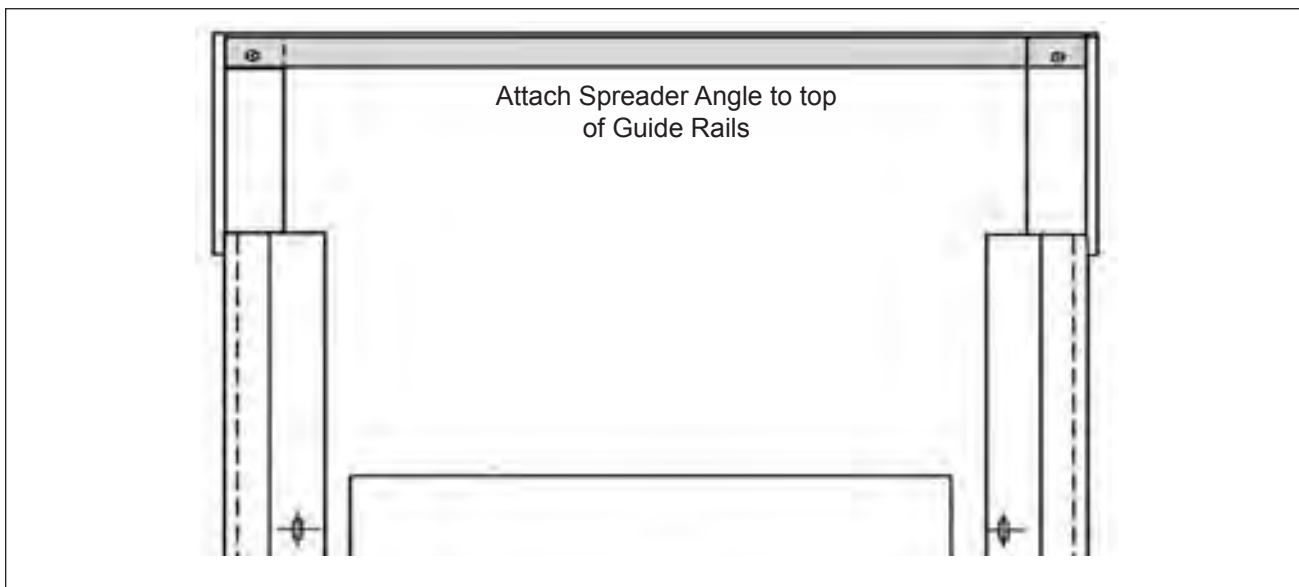
■ Slotted shims and Kicker shims are provided as part of HARDWARE KIT #50. Each kit provides enough hardware for one (1) opening.

IMPORTANT: Excessive shimming of the door guides may void the entrance fire rating and may cause your installation to fail inspection.



Step 3

When applicable, attach the Door Guide Spreader Angle to the top of the Door Guide Column with hardware provided by Courion.



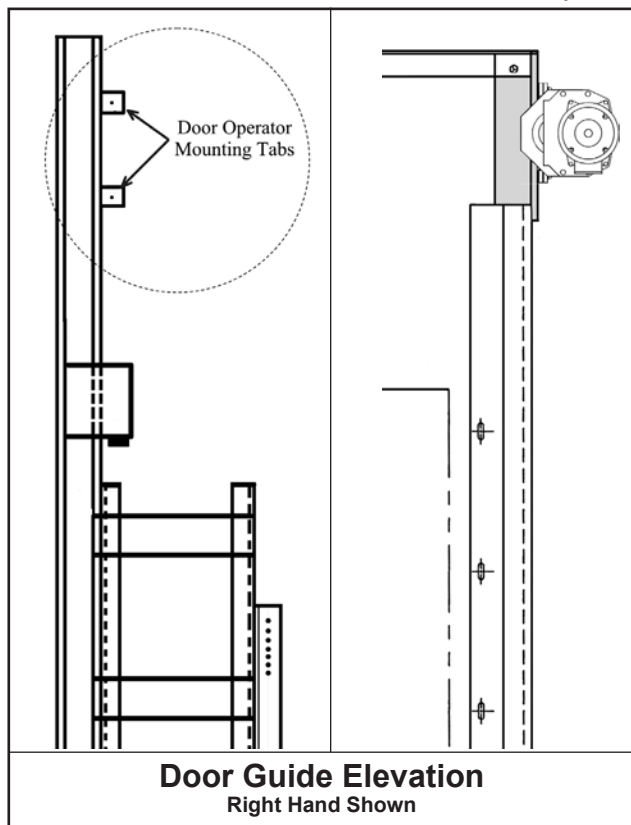
Door Installation - 2-Section Slide-Ups

Door Operator or Sheave

Using the hardware provided by Courion, mount a Door Operator (power operation) or Sheave (manual operation) to the Door Operator Mounting Tabs on each side of the opening.

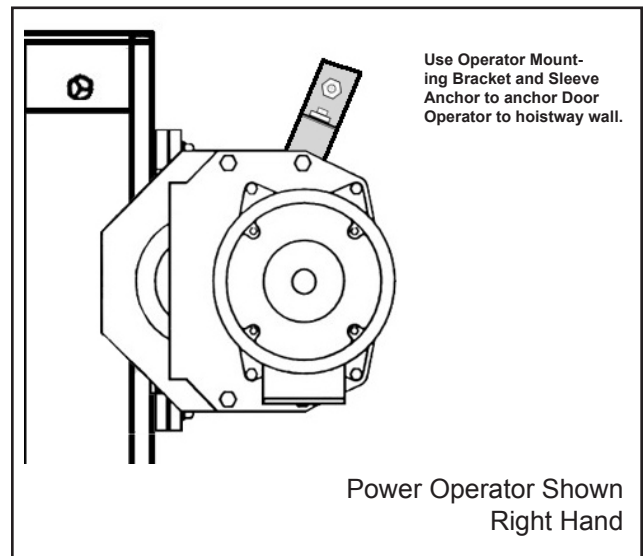
Parts and Hardware ■ Door Operators or Sheaves (1 Right Hand and 1 Left Hand per opening) ■ Hardware Kit #30 (strapped to Operator)

Door Operator or Sheave Identification and Setup If Door Operators or Sheaves are numbered, be sure to use each Door Operator or Sheave at its respective Opening.



■ Attach the **OPERATOR MOUNTING BRACKET** found in Hardware Kit #30, to the outside corner of the Door Operator using one of the four (4) bolts holding the operator castings together. Attach the other end of the **OPERATOR MOUNTING BRACKET** to the front hoistway wall, using the sleeve anchor found in Hardware Kit #30.

■ Using the hardware found in **Hardware Kit #30**, bolt the Door Operators or Sheaves to the pre-drilled holes in the Operator Mounting Angles located at the top of the Guide Rails. Door Operators or Sheaves should be set absolutely parallel with Doors and Guides.



Door Installation - 2-Section Slide-Ups

Door Panels

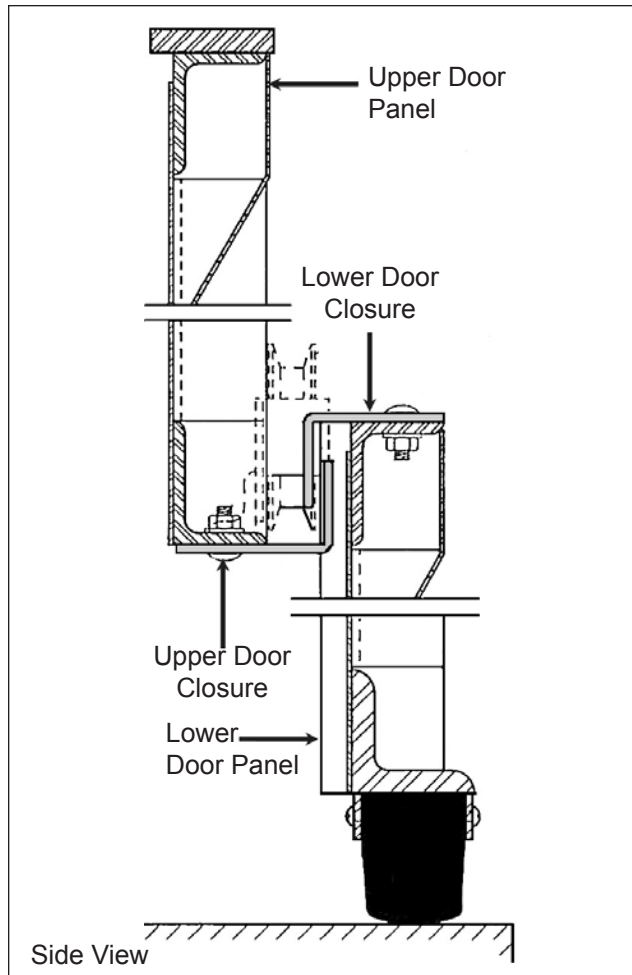
Install the 2-Section Slide-Up Door Panels and Guide Shoes at each Opening.

Parts and Hardware ■ Door Panels ■ Upper and Lower Door Closures ■ Upper and Lower Door Closure Hardware Kit (1 per pair of Door Panels) ■ Door Shoe Kit ■ Upper Door Panel Props (to prop Upper Door Panel in FULL CLOSED position)

Door Panel Identification and Setup: For proper identification of the Door Panels, refer to Courion's GD Drawings and note the corresponding numbers on the side angles of the Door Panels. **BE SURE TO INSTALL EACH SET OF DOOR PANELS AT ITS PROPER OPENING.**

Step 1

Using the fasteners provided in the Upper and Lower Door Closure Hardware Kit, attach the Upper and Lower Door Closures to the Upper and Lower Door Panels prior to placing Door Panels in the Guide Rails.



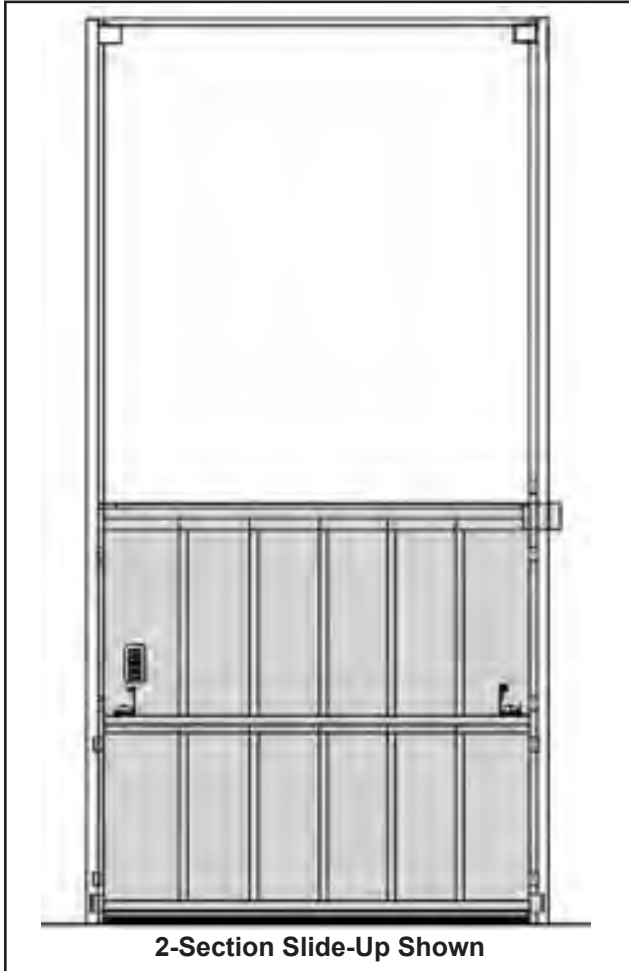
■ Prior to placing the Upper and Lower Door Panels in the Guide Rails, attach the Upper and Lower Door Closures to the Door Panels using the fasteners found in the Upper and Lower Door Closure Hardware Kit.



Door Installation - 2-Section Slide-Ups

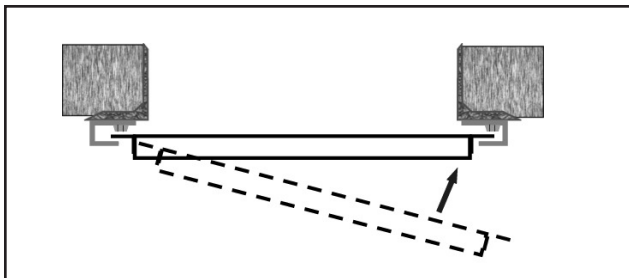
Step 2

Set the Upper (Slow) Door Panel in the FRONT DOOR GUIDE by inserting the shoe angle of the Door Panel at one side and swinging the opposite side into place. Using the Upper Door Panel Props lift and clamp the Upper Door Panel in the **FULL CLOSED** position.



IMPORTANT! Be sure the hoist, hoist support, hoist chains, slings, straps, and any other accessories used to hoist the Door Panels into position are capable of safely supporting the Door Panels. Carefully inspect each component of the hoisting system for damage or wear before use.

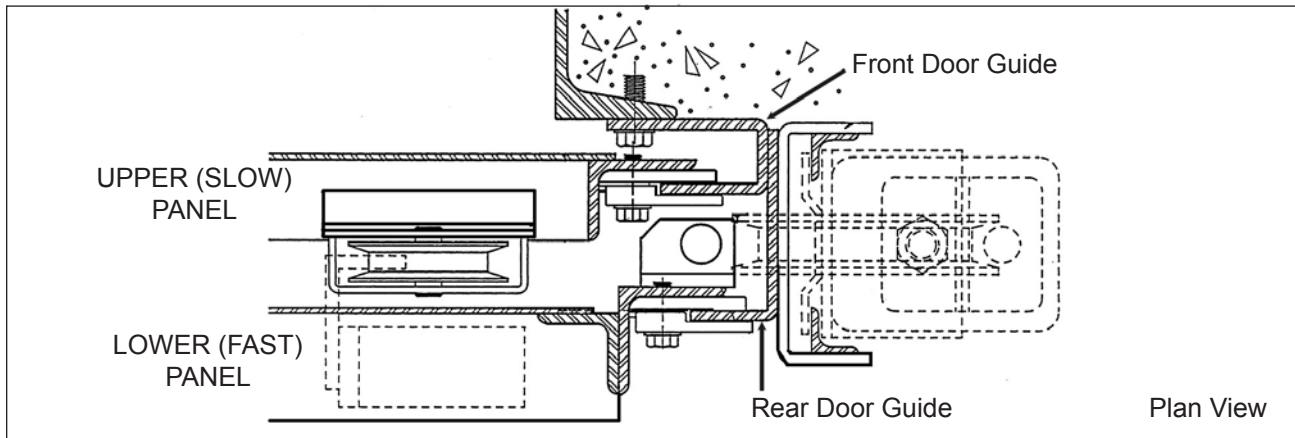
- Place Door Panel in upright position on floor using wooden blocks beneath the side angles to guard against damage and injury.
- Wrap lifting straps around Door Panel and carefully swing Door Panel into Position.
- Center the Door Panel between the Guide Rails and check for flatness of the Door Panel, as explained in Step 3 below.



Door Installation - 2-Section Slide-Ups

Step 3

Set the Lower (Fast) Door Panel in the REAR DOOR GUIDE. Allow Lower Door Panel to rest on the Sill.



Step 4

Courion certifies the flatness of every Door Panel prior to shipment. However, shipping and job site handling may produce some twist or bow in the Door Panel. Check each Door Panel for flatness prior to proceeding with installation.



- Push the Door Panel against the guide bolts. If both side angles on the Door Panel are flat against all the guide bolts, twist is not present. You may proceed with installation.

- If both side angles are not flat against the guide bolts, the door panel has some twist that must be removed before continuing with the installation of the Door Panel.

- If twist exists, one method of removing it is as follows:

While the Door Panel is still hanging from the hoist, place a block at one corner of the Door Panel between the edge of the panel and the elevator platform. Grip the Door Panel at the corner diagonally opposite the blocked corner and apply pressure to the upper edge of the panel opposite the observed twist.

NOTE: If it appears that the twist cannot be removed from the Door Panel, contact Courion immediately.

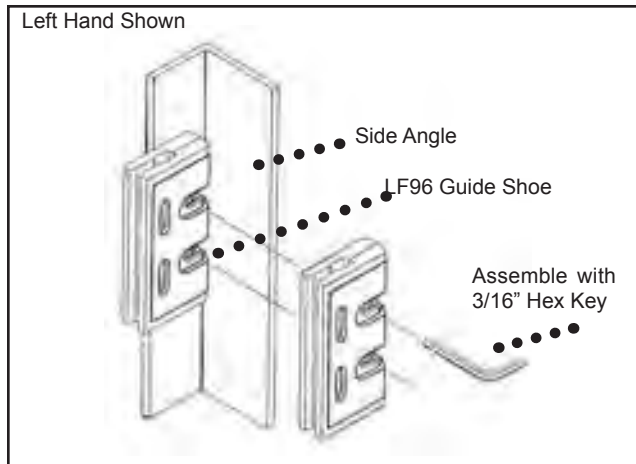


Door Installation - 2-Section Slide-Ups

Step 5

Install four (4) GUIDE SHOES in the pre-drilled tapped holes on each Door Panel's side angle.

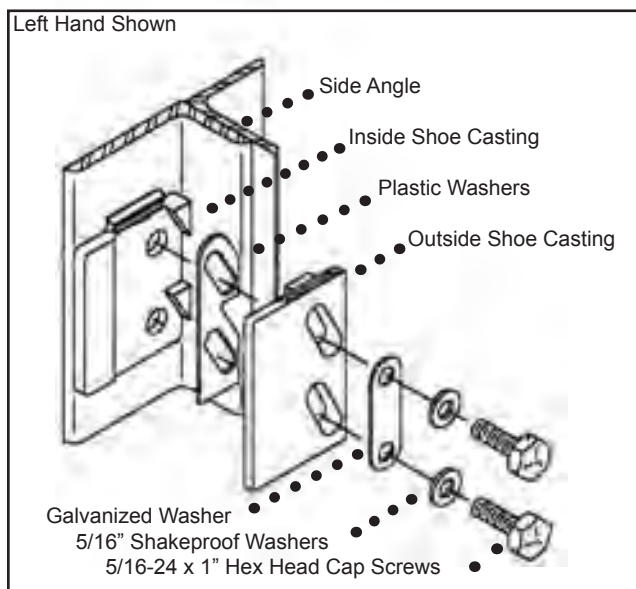
If You Have Courion's LF96 Guide Shoes



■ Using the pre-drilled and tapped holes provided in the Door Panel side angle, loosely attach four (4) **LF96 GUIDE SHOES**.

IMPORTANT! Install the Guide Shoes with the bolts loosely tightened. The Guide Shoes will be adjusted and tightened after the door chains have been installed.

If You Have Courion's Cast Guide Shoes



■ Using the pre-drilled tapped holes provided in the Door Panel side angle, install four (4) **CAST GUIDE SHOES**.

IMPORTANT! Install the Guide Shoes with the bolts loosely tightened. The Guide Shoes will be adjusted and tightened after the door chains have been installed.

NOTE: Inside and Outside Shoe Castings must be installed as shown or castings will move away from door and cause door to jam.



Door Installation - 2-Section Slide-Ups

Chains & Weight Stack

Install the Compounding Chains, Door Chains and Counterweight Stack on both sides of the opening and adjust and tighten Guide Shoes to limit side play of the Door Panels.

Parts and Hardware ■ Door Chains with Chain Bolts (two (2) per opening) ■ Compounding Chains (two (2) per opening) ■ Weight Rods (two (2) per opening) ■ Weight Shoes (four (4) per opening) ■ Door Weights ■ Chain Rod Hardware ■ Chain Shackle ■ Door OPEN Gauge ■ Door Weight Stack Props

Chain Rod and Chain Identification and Setup: Before beginning the Chain and Weight Stack installation, please insure that all prior Installation Steps have been completed. For proper identification of the Door Chains, Weight Rods, and Door Weights, refer to Courion's GD Drawings and note the corresponding numbers on the specific parts. **BE SURE TO INSTALL AT ITS PROPER OPENING.**

Step 1

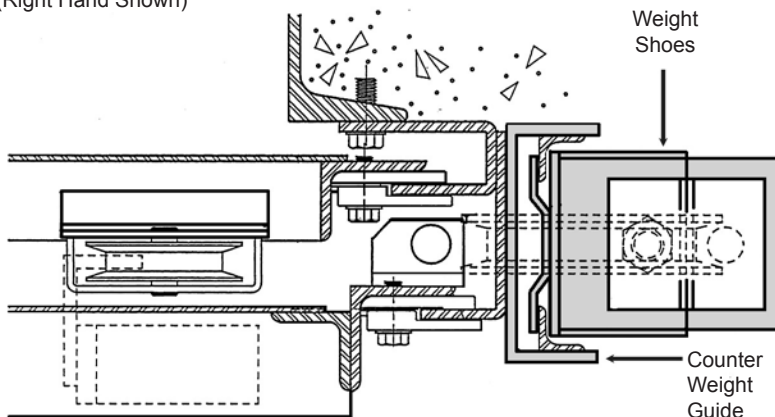
With the Weight Rod resting on the floor next to the Counterweight Guide, assemble the Door Panel Weight Stack. **REMEMBER!** Fit the Weight Shoes onto the Weight Rod and the Counterweight Guide during the stacking process.

■ With the Weight Rod resting on the floor next to the Counter weight Guide (which is attached to the Door Guide), assemble the Door Panel Weight Stack.

■ As you assemble the Door Panel Weight Stack, the Weight Shoes should slide down over the Weight Guide and the Weight Rod so that the completed Weight Stack Assembly is fixed to the Counterweight Guide.

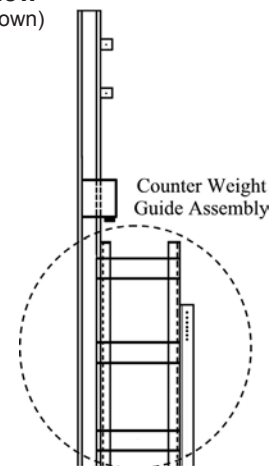
Plan View

(Right Hand Shown)

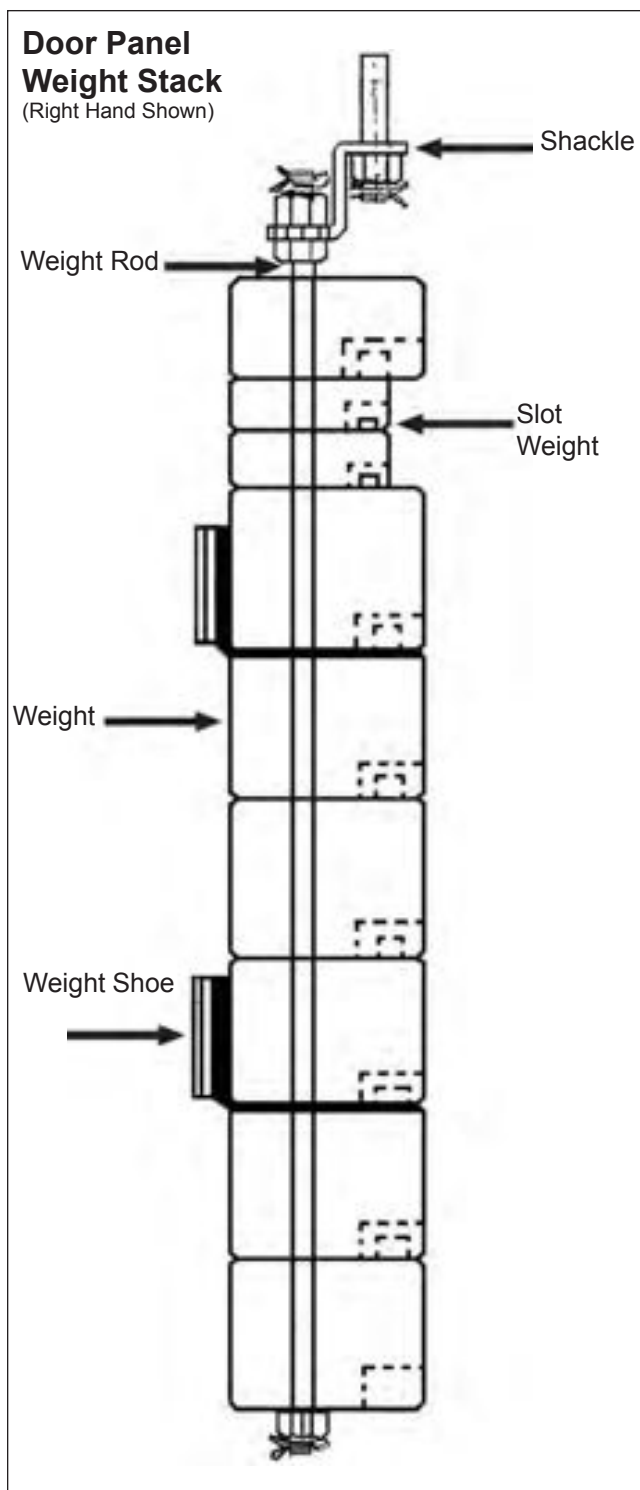


Elevation View

(Right Hand Shown)



Door Installation - 2-Section Slide-Ups



Assemble the Counterweight Stack per the Counterweight Assembly Drawing E-512-1A attached to these Installation Instructions.

REMEMBER! Fit the Weight Shoes onto the Weight Rod and the Counterweight Guide during the stacking process..

IMPORTANT! Make sure the SHACKLE is securely attached to the WEIGHT ROD with all cotter pins in place, before attaching the WEIGHT ROD to the DOOR CHAIN.



Door Installation - 2-Section Slide-Ups

Step 2

With the Upper Door Panel propped and clamped in the **FULL CLOSED** position, thread the Compounding Chain around the Upper Door Panel Compound Sheave. Attach one end of the Compounding Chain to the Dead End Hitch at the top of the Door Guide and the other end to the Lower Door Panel Chain Hitch

- Mount the Chain Hitches to the top of the Lower Door Panel.

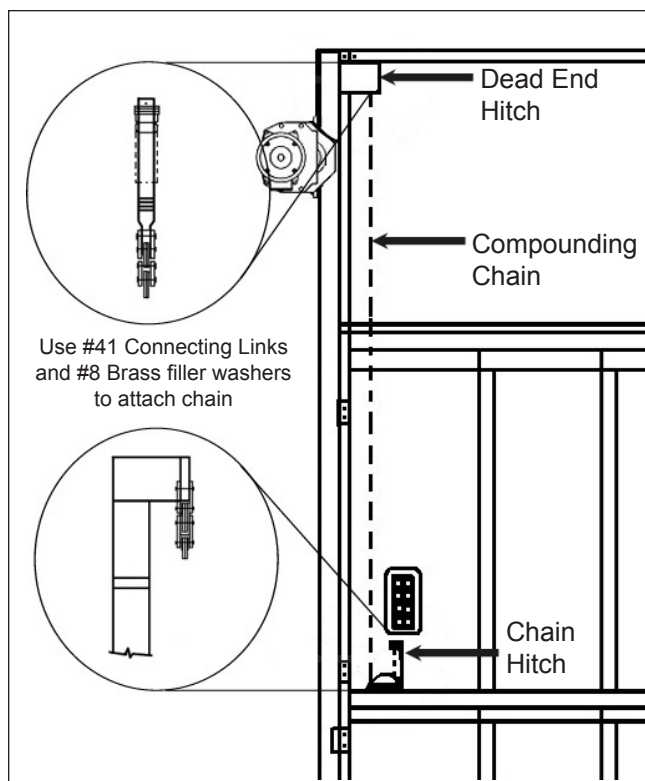
- Insert the Chain Bolt on the Compounding Chain into the Dead End Hitch at the Top of the Door Guide.

- Thread the Compounding Chain through the Upper Door Panel Compounding Sheave and then attach to the Lower Door Panel Chain Hitch.

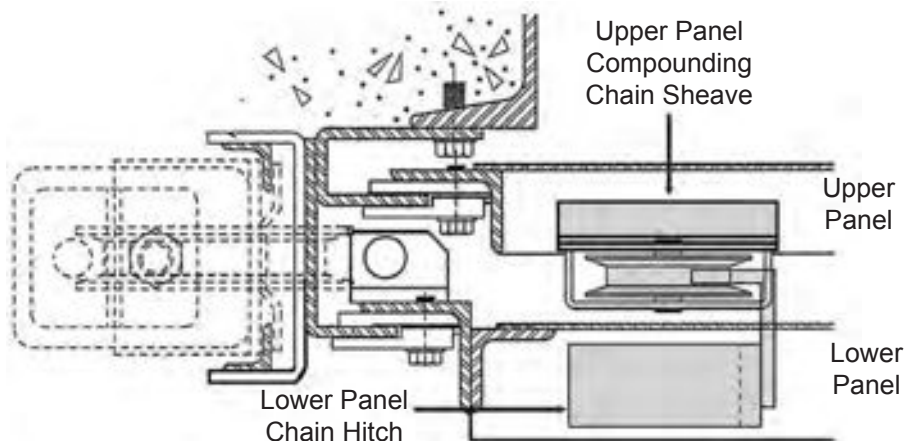
- Adjust the Compounding Chain length to hold the Upper Door Panel in the **FULL CLOSED** position.

- Remove all slack from the Compounding Chain with the Door Panels in the **FULL CLOSED** position.

- Repeat for opposite side.



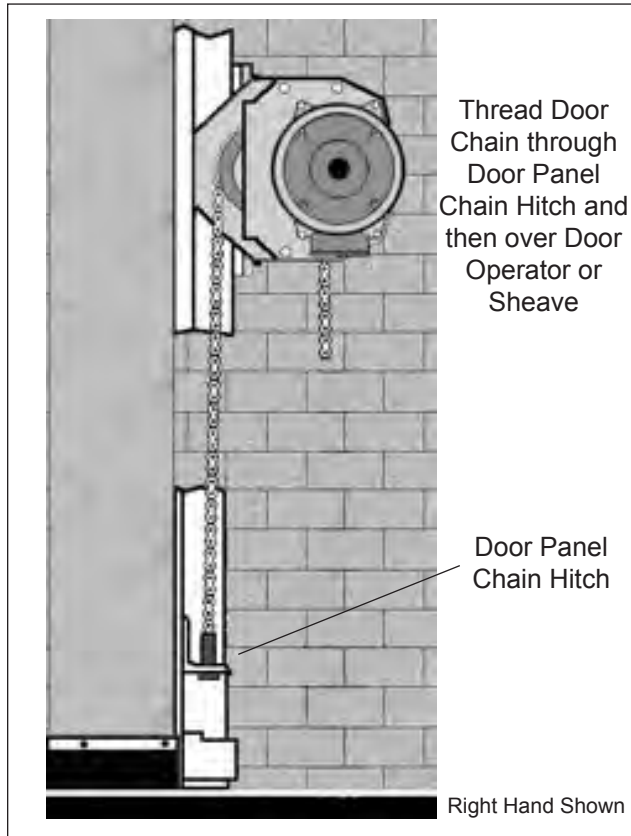
Plan View
Left Hand Shown



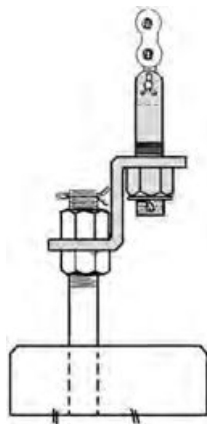
Door Installation - 2-Section Slide-Ups

Step 3

Using the Counterweight Prop Sticks provided by Courion, hoist the Weight Stack into the DOOR FULL CLOSED position and attach the Door Chain to the Counter Weight Stack Shackle.



Counterweight Stack Shackle



- Using the Counter weight Prop Sticks provided by Courion, hoist the Weight Stack into the DOOR FULL CLOSED position.

- Thread the DOOR CHAIN through the Door Panel CHAIN HITCH and then over the DOOR OPERATOR SHEAVE.

- Mark and cut the Chain to the nearest link that will attach to the Counterweight Stack Shackle..

- Attach the Door Chain to the Counterweight Stack Shackle.

- Adjust the Door Chain length to just lift the Weight Stack off of the Counterweight Prop Stick when the Lower Door Panel is in the FULL CLOSED position.

- Repeat for opposite side.

- Check position of the Door Panel and Counterweight Stack in FULL OPEN position.



Door Installation - 2-Section Slide-Ups

Step 4

Adjust the Door Shoes to limit side play to about 1/16" (2mm)

- Adjust and tighten the Door Panel Guide Shoes to allow free movement of the Door Panel.
- The Guide Shoes should be adjusted to limit side play to about 1/16" (2mm).

USE CAUTION WHEN TIGHTENING DOOR PANEL GUIDE SHOES. EXCESSIVE FORCE CAN STRIP THREADS IN DOOR SIDE ANGLES.

USE CAUTION WHEN OPERATING THE PANELS FOR THE FIRST TIME. IF YOU INSTALLED CENTER LATCHES EARLIER, ADJUST THE BOLTS ON THE PANELS TO SLIDE SMOOTHLY INTO THESE LATCHES WHEN THE DOOR PANELS COME TO THE FULLY CLOSED POSITION.

Step 5

Adjust the CHAIN BOLT at the Dead End Hitch to insure that the Upper Door Panel reaches the FULL CLOSED position.

- Apply pressure to the DOOR PANELS to be sure that the Door Panels are in the FULL CLOSED position.
- Adjust the Hex Nuts on the CHAIN BOLT at the Dead End Hitch until the Upper Door Panel is in the FULL CLOSED position.



Door Installation - 2-Section Slide-Ups

THE FOLLOWING SECTION APPLIES TO POWER OPERATED JOBS WITH “P SERIES” AND “X SERIES” INTERLOCKS ONLY! IF YOU HAVE A DIFFERENT STYLE INTERLOCK OR MANUALLY OPERATED DOORS, PLEASE SKIP THIS SECTION AND PROCEED TO THE NEXT APPROPRIATE SECTION OF THESE INSTRUCTIONS.

Interlock & Lock Bar (Power)

IMPORTANT! Doors must be properly adjusted BEFORE installing Interlocks and Lock Bars. Make sure your doors operate freely and reach FULL OPEN and FULL CLOSE during manual operation.

Parts and Hardware: ■ P or X Series Interlocks ■ Interlock Mounting Hardware Kit #130 ■ Lock Bar Bracket ■ Lock Bar Mounting Hardware ■ Lock Bar ■ Lock Bar Mounting Hardware 141 ■ Lock Bar Guide ■ Lock Bar Guide Mounting Hardware

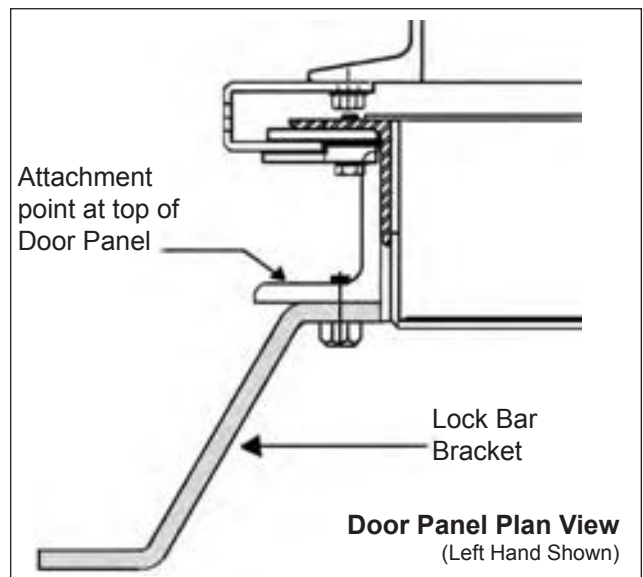
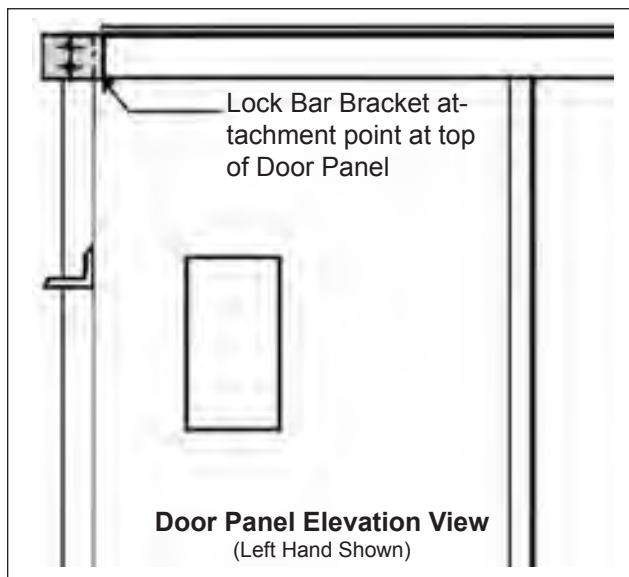
Interlock Identification and Set Up: Please consult Courion's General Layout Drawings to confirm the correct side of the Opening that the Interlock will mount.

IMPORTANT! IF YOU HAVE EMERGENCY UNLOCKING DEVICES (PULL CHAIN BOXES)

- At landings requiring an Emergency Unlocking Device (EUD or pull chain box) an “EUD friendly” style interlock is used. Please consult Courion's General Layout Drawings to determine the correct side and style of Interlock to be used at each opening.

Step 1

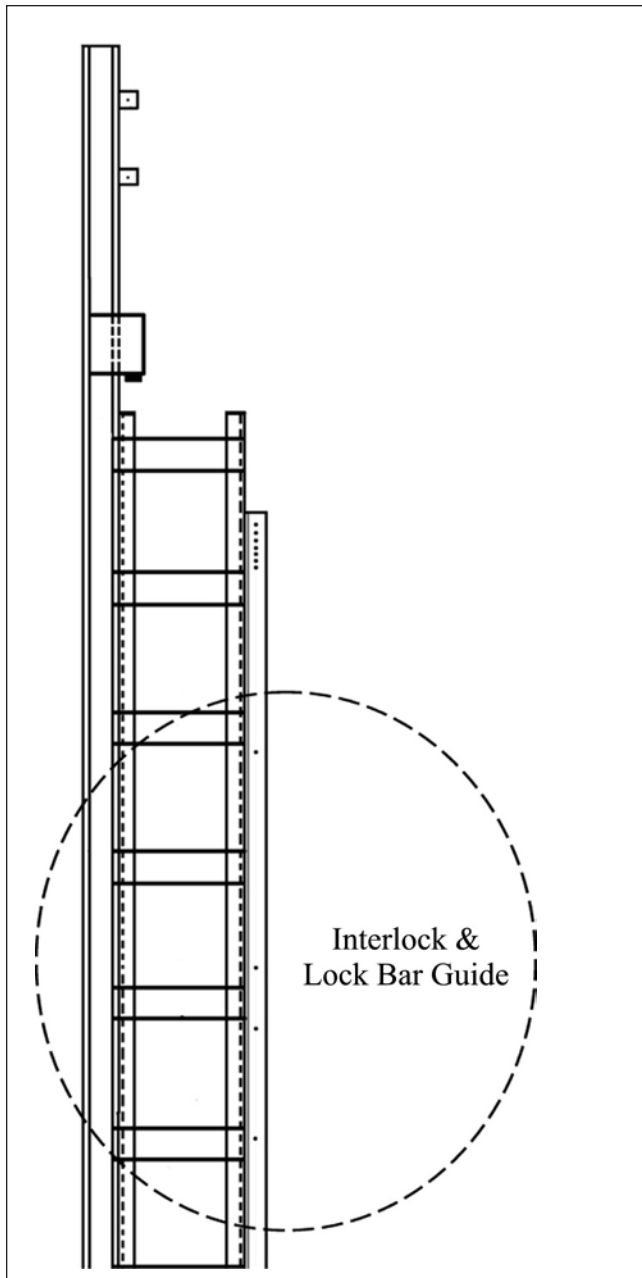
Using the Lock Bar Bracket Mounting Hardware provided by Courion, attach the Lock Bar Bracket to the Interlock side of the Door Panel. Lock Bar mounting location may vary slightly from location illustrated.



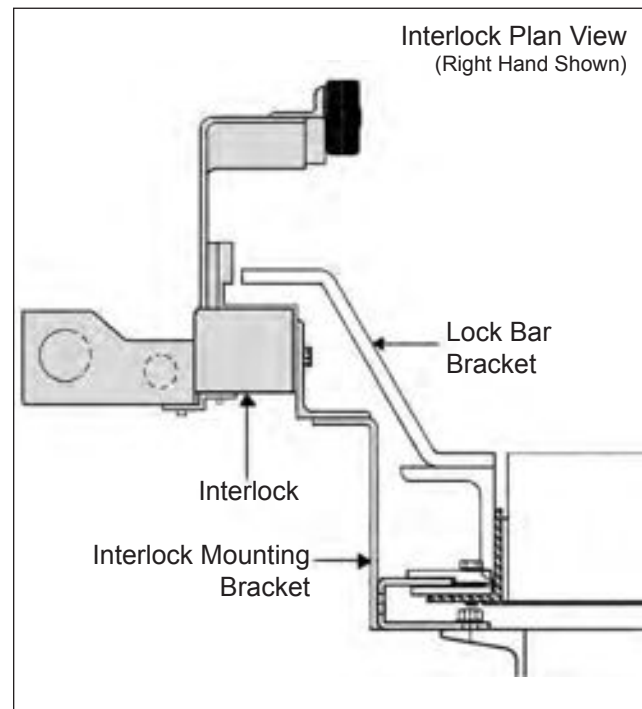
Door Installation - 2-Section Slide-Ups

Step 2

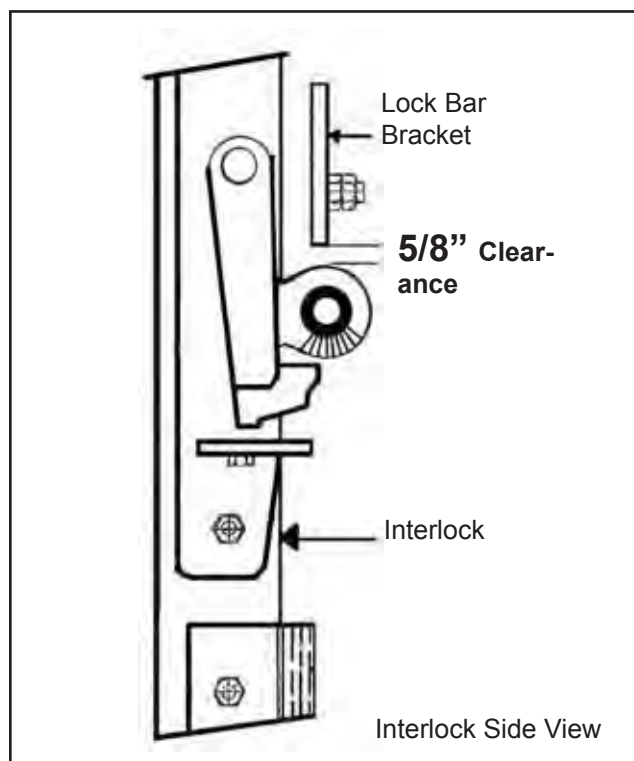
Mount the Interlock to the Interlock Mounting Bracket on the Interlock side of the hoistway using the pre-drilled holes and hardware provided by Courion. **NOTE:** With Slide-Up Doors, the Interlock is mounted in an inverted position.



- Attach the Interlock to the Interlock Mounting Bracket using the pre-drilled holes and Interlock Mounting Hardware.
- Make sure the Interlock is parallel to the Lock Bar Bracket and tighten securely.



Door Installation - 2-Section Slide-Ups



- With the Door Panel in the FULL CLOSED position, adjust the Interlock vertically so that the LEVER ARM RACHET is approximately **5/8" (16mm)** below the Lock Bar Bracket.

Step 3

Attach the LOCK BAR GUIDE to the Interlock Mounting Bracket BELOW the Interlock. The LOCK BAR GUIDE keeps the LOCK BAR from swinging out and deflecting.

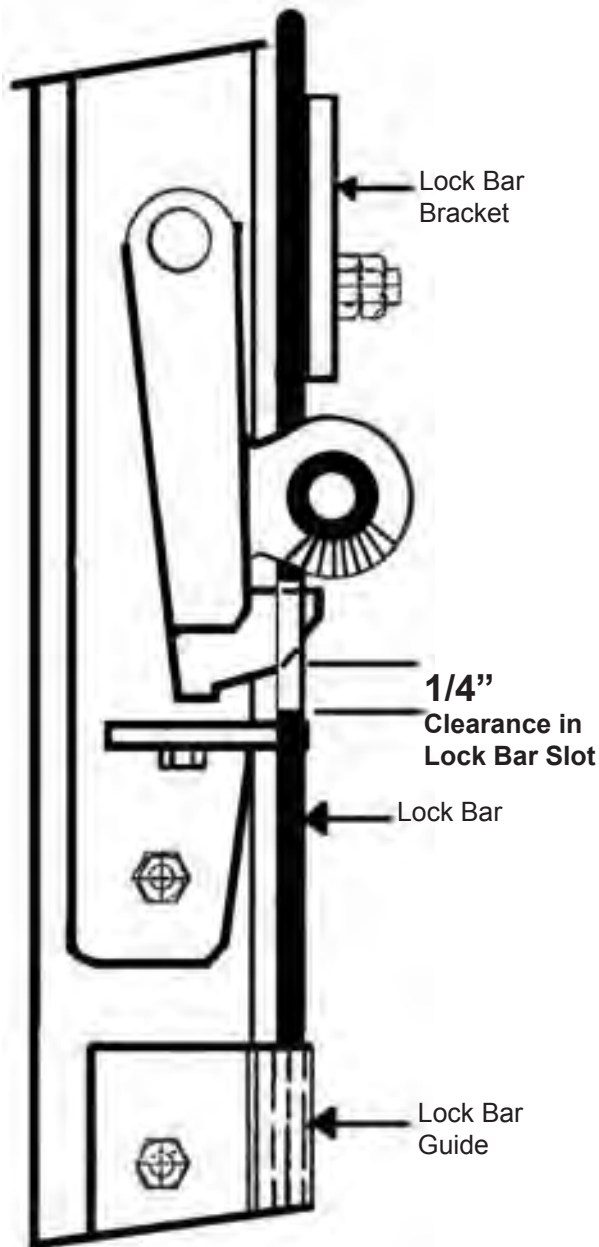
- Mount the LOCK BAR GUIDE to the Interlock Mounting Bracket using the pre-drilled holes below the Interlock.
- The LOCK BAR GUIDE is an "L" shaped welded steel tube and acts as a rectangular funnel for the LOCK BAR. The wide end of the rectangular shape should be facing up.



Door Installation - 2-Section Slide-Ups

Step 4

Install the LOCK BAR using the LOCK BAR BOLT provided by COURION



Interlock Side View

■ With the Door Panels in the FULL CLOSED position, hold the INTERLOCK lever arm open (depressed) and slide the LOCK BAR up through the Interlock Bar Guide and Lock Bar Guide.

■ Release the Interlock Lever Arm so that the Locking Dog drops into the rectangular hole in the LOCK BAR.

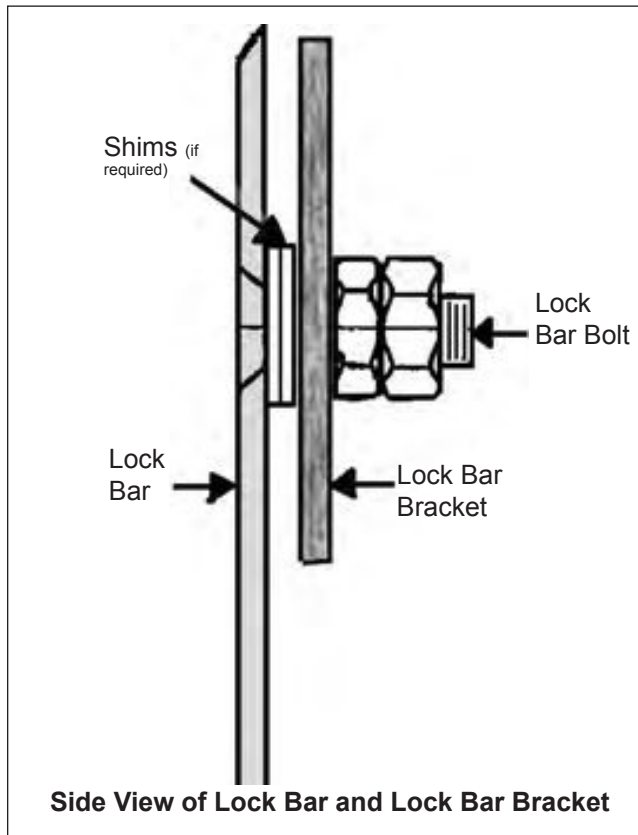
NOTE: The chamfered end of the LOCK BAR must face the INTERLOCK.

■ Center the LOCK BAR left-to-right in the Lock Bar Guide so that the LOCK BAR runs through the Lock Bar Guide freely when the Door Panel move up and down.

■ Move the LOCK BAR so that there is a **MAXIMUM** clearance of 1/4" (6mm) between the top of the Locking Dog and the top edge of the rectangular hole in the LOCK BAR.



Door Installation - 2-Section Slide-Ups



■ When satisfied with the LOCK BAR position, drill a 25/64" hole through the LOCK BAR BRACKET and LOCK BAR. Locate the hole in the center of the LOCK BAR and about 1" (25mm) down from the top of the LOCK BAR BRACKET.

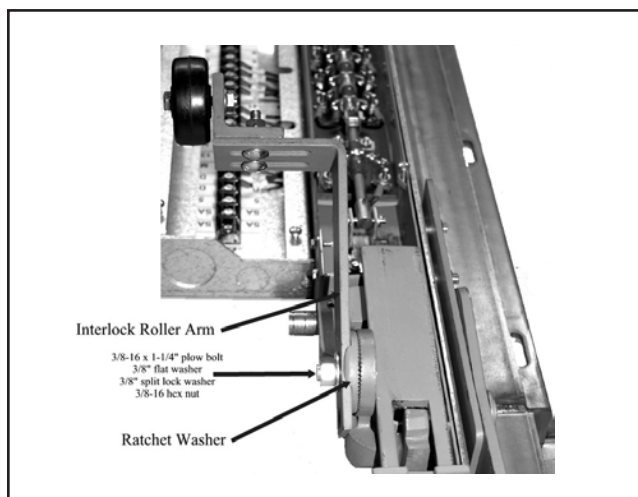
■ Remove the LOCK BAR and countersink the hole for a 3/8" flat head machine screw. Countersink the same side of the LOCK BAR as the chamfered ends.

■ Attach the LOCK BAR to the LOCK BAR BRACKET using the LOCK BAR BOLT provided by Courion. **THE LOCK BAR SHOULD PIVOT ON THE 3/8" MOUNTING SCREW.**

■ Shim the LOCK BAR to the LOCK BAR BRACKET with 3/8" flat washers, if required, for smooth operation of the LOCK BAR through the Lock Bar Guide.

Interlock Roller Arm

Install the INTERLOCK ROLLER ARM using the hardware found in Hardware Kit #230.



■ Attach the INTERLOCK ROLLER ARM to the Interlock using the Ratchet Washer, 3/8-16 x 1-1/4" plow bolt, 3/8" flat washer, 3/8" split lock washer, and 3/8"-16 hex nut found in Hardware Kit #230.

■ Rotate the INTERLOCK ROLLER ARM away from the car line before tightening. The INTERLOCK ROLLER ARM will be adjusted after the retiring cam is in place on the Car.



Door Installation - 2-Section Slide-Ups

“P” Series Inter- lock Adjustment

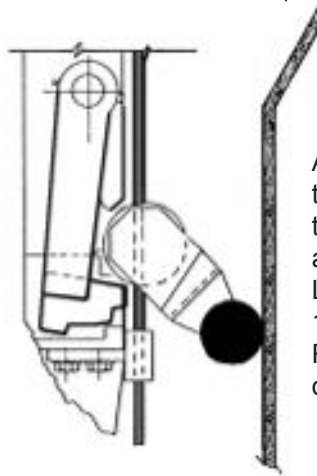
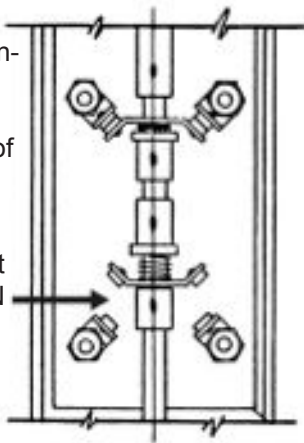
The correct adjustment of the Roller Arm on the “P” Series Interlock is critical to the proper operation of your Courion Interlock. Make these adjustments **AFTER** the Retiring Cam is in place on the Car.

Adjustment for the INTERLOCK ROLLER ARM and Contact Position when Doors are UNLOCKED

Interlock contact is OPEN and Elevator cannot run - Zone contact is CLOSED and Door Operator can function.

Top Contacts are for zoning motors. The number of contacts varies depending on the type of Control

Interlock Contact
is OPEN

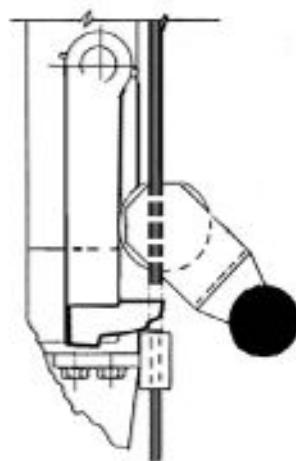
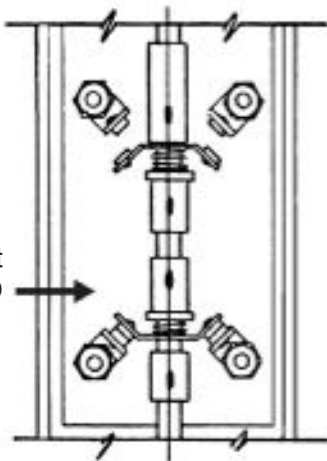


Adjust Roller Arm so that clearance between the LOCK BAR and the INTERLOCK LOCKING DOG is 1/8" to 1/4" when Roller Arm is resting on the Cam.

Adjustment for the INTERLOCK ROLLER ARM and Contact Position when Doors are LOCKED.

Interlock contact is CLOSED and Elevator can run - Zone contact is OPEN and Door Operators cannot function

Interlock Contact
is CLOSED



1/4" MAXIMUM
When the Door Panels are in the FULL CLOSED position, there should be a MAXIMUM clearance of 1/4" (6mm) between the bottom of the LOCKING DOG and the bottom edge of the rectangular hole in the LOCK BAR



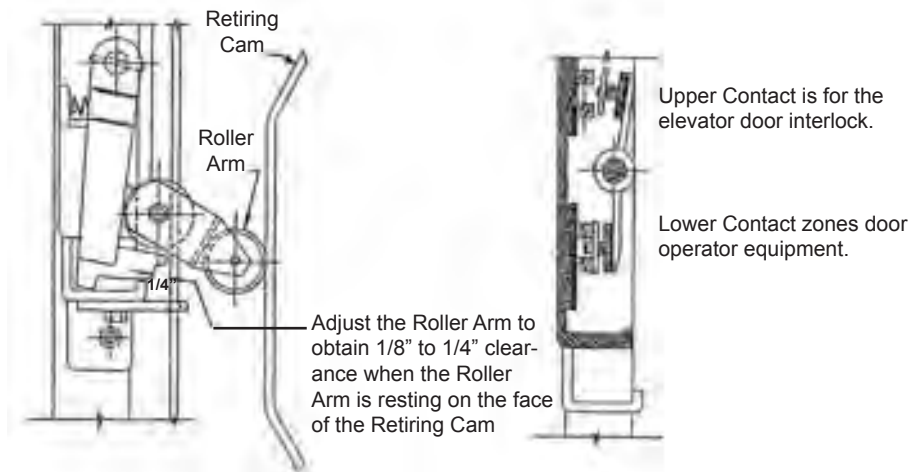
Door Installation - 2-Section Slide-Ups

"X" Series Inter- lock Adjustment

The correct adjustment of the Roller Arm on the "X" Series Interlock is critical to the proper operation of your Courion Interlock. Make these adjustments **AFTER** the Retiring Cam is in place on the Car.

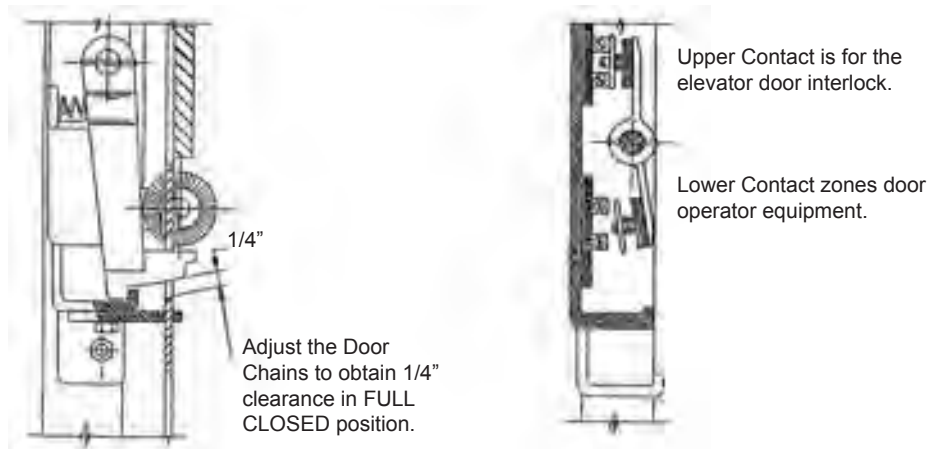
Adjustment for the INTERLOCK ROLLER ARM and Contact Position when Doors are UNLOCKED

Interlock Contact is OPEN and Elevator cannot run - Zone contact is CLOSED and Door Operator is functional.



Adjustment for the INTERLOCK ROLLER ARM and Contact Position when Doors are LOCKED.

Interlock Contact is CLOSED and Elevator can run - Zone contact is OPEN and Door Operator cannot function



Door Installation - 2-Section Slide-Ups

THE FOLLOWING SECTION APPLIES TO MANUAL OPERATED JOBS WITH HG STYLE INTERLOCKS ONLY! IF YOU HAVE A DIFFERENT STYLE INTERLOCK OR POWER OPERATED DOORS, PLEASE SKIP THIS SECTION AND RETURN TO THE PRIOR SECTION OF THESE INSTRUCTIONS.

HG Interlock (Manual)

IMPORTANT! Doors must be properly adjusted BEFORE installing Interlocks and Lock Bars. Make sure your doors operate freely and reach FULL OPEN and FULL CLOSE during manual operation.

Parts and Hardware ■ HG-1 Lock and Contact or HG-2 Interlock ■ Lock-Out Rod ■ Lock-Out Rod Holder ■ Switch Cam ■ Interlock Mounting Hardware Kit #131 ■ Lock-Out Rod Holder & Switch Cam Hardware Kit #142

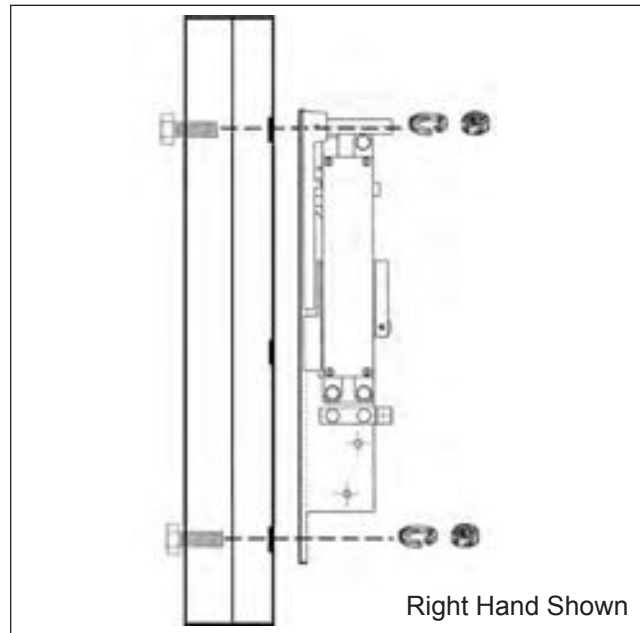
Interlock Identification and Set Up: Please consult Courion's General Layout Drawings to confirm the correct side of the Opening that the Interlock will mount. **IF YOU HAVE EMERGENCY UNLOCKING DEVICES (PULL CHAIN BOXES)** - At landings requiring an Emergency Unlocking Device (EUD or pull chain box) an EUD friendly Interlock is used. Please consult Courion's General Layout Drawings to determine the correct side and style of Interlock to be used at each opening.

Step 1

Using hardware found in Hardware Kit #131, attach the INTERLOCK to the Interlock Mounting Bracket using the pre-drilled holes provided by Courion.

■ Mount the INTERLOCK to the Interlock Mounting Bracket using the pre-drilled mounting hole and mounting hardware provided by Courion in Hardware Kit #131.

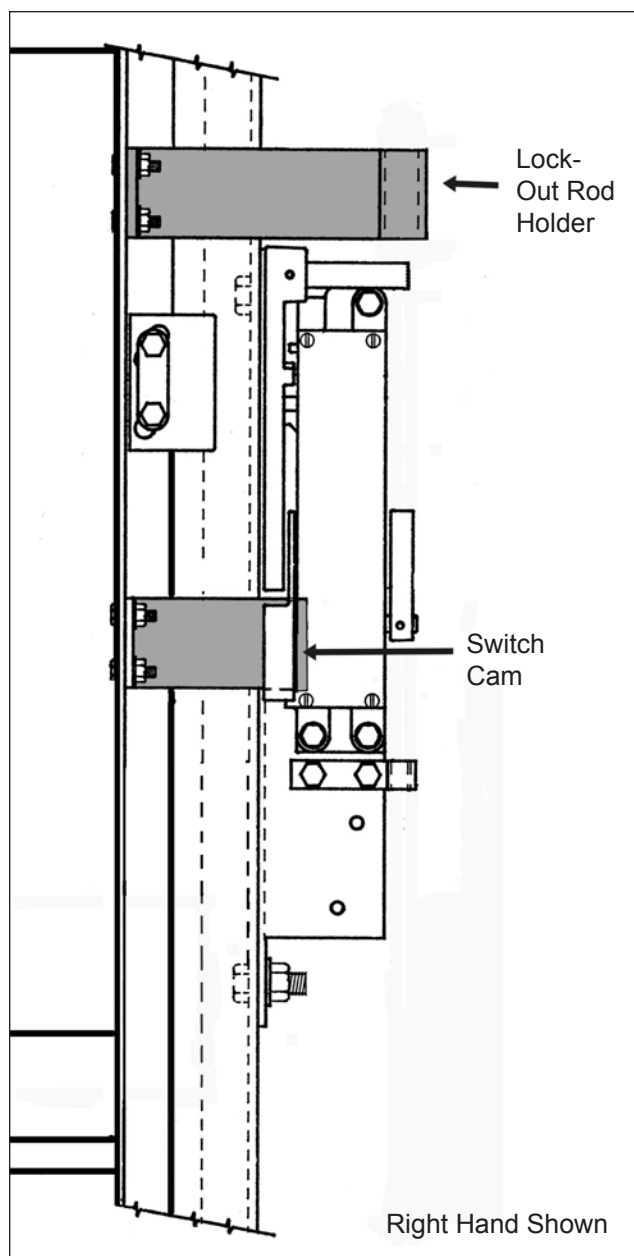
■ Make sure the INTERLOCK is parallel with the Door Guide Rails.



Door Installation - 2-Section Slide-Ups

Step 2

Using hardware found with the SWITCH CAM AND LOCK-OUT ROD HOLDER, attach the SWITCH CAM and LOCK-OUT ROD HOLDER to the side angle of the Slide Up Door Panel using the pre-drilled holes provided by Courion.



IMPORTANT!

Your SWITCH CAM AND LOCK-OUT ROD HOLDER may look different from these pictures. If so, please see the additional instructions included in your Installation Packet.

■ Using the Switch Cam mounting hardware attach the SWITCH CAM to the side angle of the Slide Up Door Panel using the pre-drilled holes provided by Courion.

■ Using the Lock-Out Rod Holder mounting hardware, attach the LOCK-OUT ROD HOLDER to the side angle of the Slide Up Door Panel using the pre-drilled holes provided by Courion.

IMPORTANT. Make sure to align the SWITCH CAM so that it enters the INTERLOCK without binding when the doors are in the FULL CLOSED position.



Door Installation - 2-Section Slide-Ups

Step 3

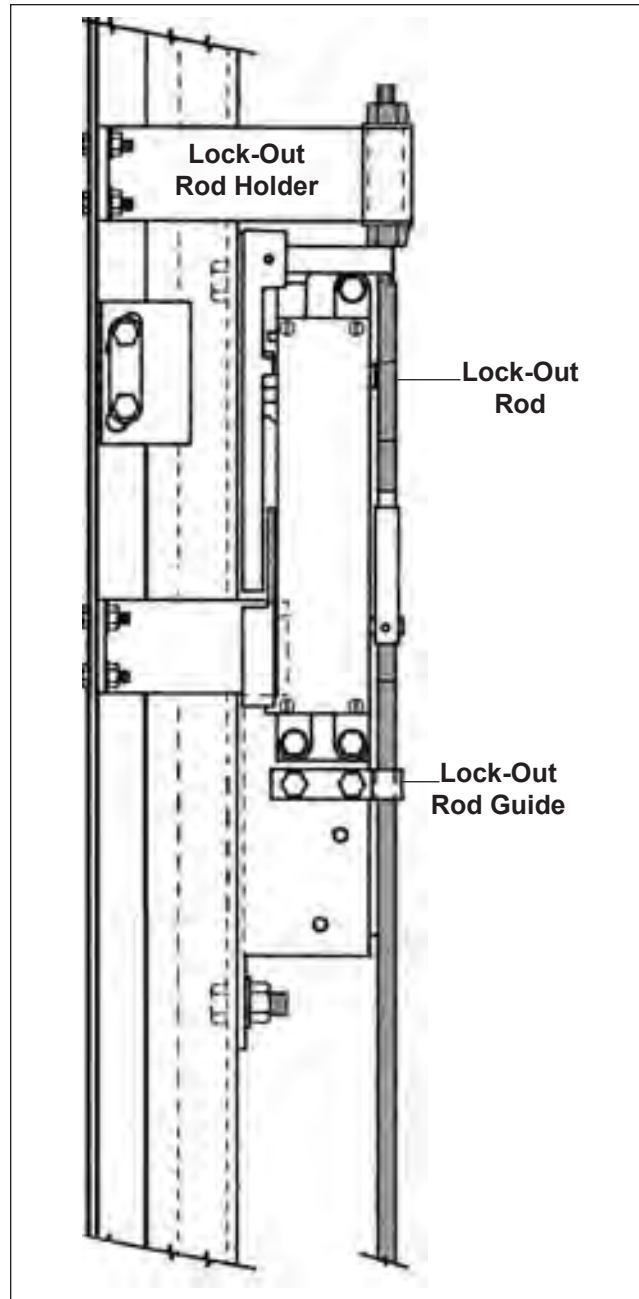
Slide the LOCK-OUT ROD down through the LOCK-OUT ROD GUIDE and then up through the LOCK-OUT ROD HOLDER. Using hardware found with the LOCK-OUT ROD HOLDER, secure the LOCK-OUT ROD.

- Thread one (1) 1/2-13 hex nut and flat washer on to the top of the LOCK-OUT ROD. Hex nut and flat washer must be low enough on LOCK-OUT ROD to allow threaded end to extend past LOCK-OUT ROD HOLDER.

- Slide the LOCK-OUT ROD down through the LOCK-OUT ROD GUIDE and then slide the LOCK-OUT ROD up through the LOCK-OUT ROD HOLDER.

- Thread one (1) 1/2"-13 hex nut and flat washer on to the top of the LOCK-OUT ROD to secure LOCK-OUT ROD in the LOCK-OUT ROD HOLDER

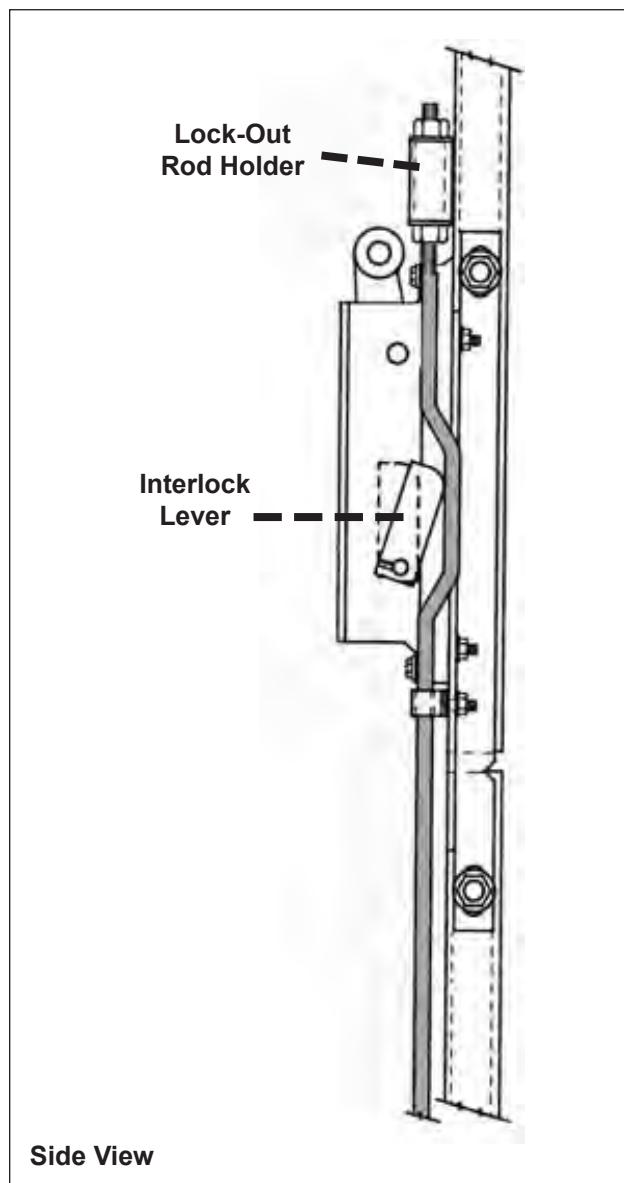
IMPORTANT. Make sure that LOCK-OUT ROD is parallel to the Interlock and Guide Rail.



Door Installation - 2-Section Slide-Ups

Step 4

With the Slide Up Door Panel in the FULL CLOSED position, align the LOCK-OUT ROD so that the Interlock Lever rests within the indentation of the LOCK-OUT ROD. Use the 1/2"-13 hex nuts that secure the LOCK-OUT ROD to the LOCK-OUT ROD HOLDER to adjust the position of the LOCK-OUT ROD.



- Position the Door Panels in the FULL CLOSED position.

- Align the LOCK-OUT ROD so that the Interlock Lever rests within the indentation of the LOCK-OUT ROD.

- Use the 1/2"-13 hex nuts that secure the LOCK-OUT ROD to the LOCK-OUT ROD HOLDER to adjust the position of the LOCK-OUT ROD.

IMPORTANT: Using the set screw on the Interlock Lever, adjust the Interlock Lever so that the contacts within the Interlock or Lock & Contact make-up **ONLY** when the Door Panel is in the FULL CLOSED position.



Door Installation - 2-Section Slide-Ups

Limit Switch (Power)

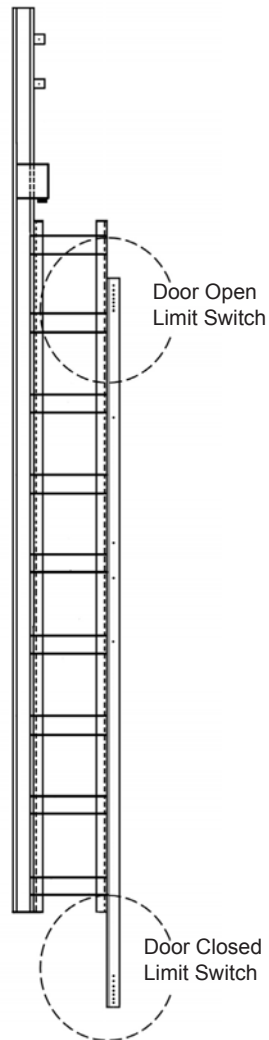
THE FOLLOWING SECTION APPLIES TO POWER OPERATED JOBS ONLY! IF YOU HAVE MANUALLY OPERATED DOORS, PLEASE SKIP THIS SECTION AND PROCEED TO THE NEXT APPROPRIATE SECTION OF THESE INSTRUCTIONS.

Parts and Hardware: ■ Two (2) Door Limit Switches per Opening ■ Limit Switch Mounting Hardware Kit

Step 1

Using the pre-drilled mounting holes found on the Interlock Mounting Plate, mount the DOOR CLOSED LIMIT SWITCH to the Interlock Mounting Plate facing DOWN and the DOOR OPEN LIMIT SWITCH facing UP.

Guide Rail Side Elevation
(Right Hand Shown)



IMPORTANT! Doors, Interlocks, and Lock Bars must be properly adjusted BEFORE installing the Limit Switches. Make sure your doors operate freely and reach FULL OPEN and FULL CLOSE during manual operation.

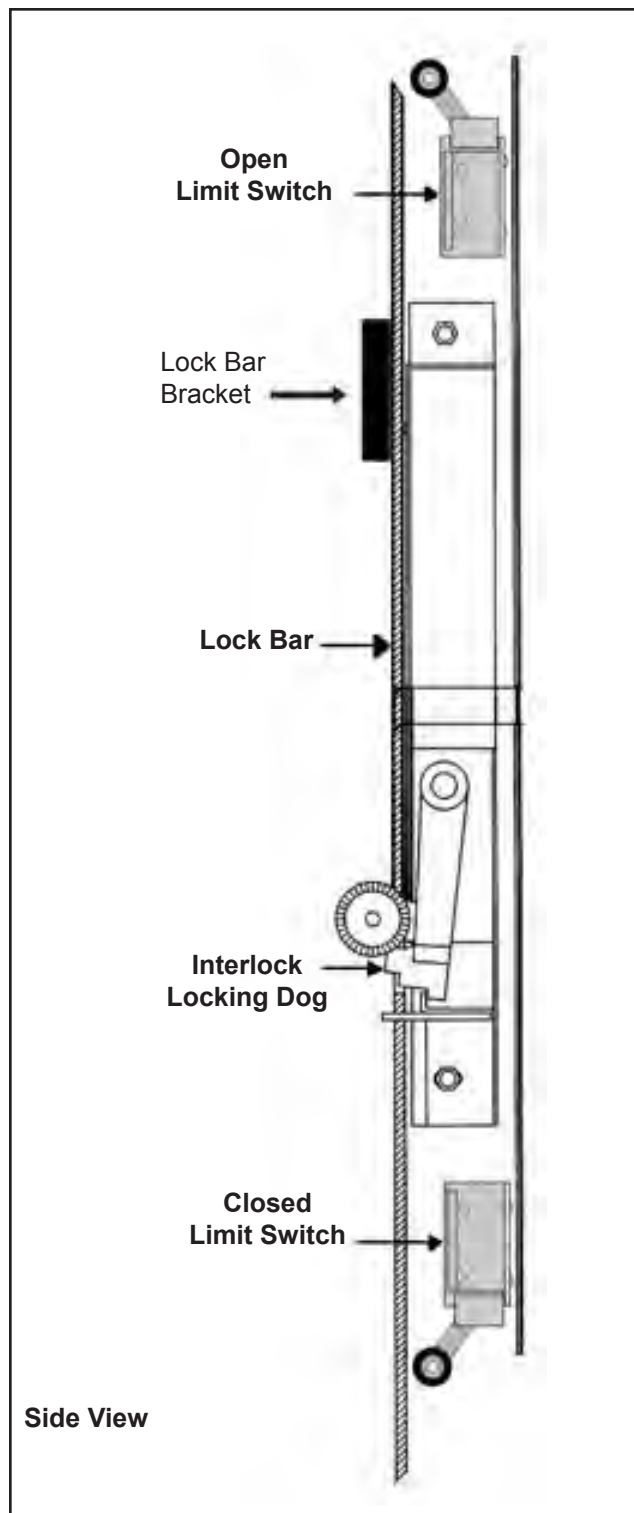
■ Near each end of the INTERLOCK MOUNTING PLATE are a series of holes punched on 1" (25mm) centers for mounting the DOOR CLOSED and DOOR OPEN LIMIT SWITCHES. The incremental holes are used to provide placement adjustment of the switches.

■ Using the hardware provided by Courion, mount the CLOSED LIMIT SWITCH and OPEN LIMIT SWITCH to the INTERLOCK MOUNTING PLATE.

NOTE: Lock Bars and Lock Bar Guides must be set so they do not bind the limit switches.



Door Installation - 2-Section Slide-Ups



OPEN LIMIT SWITCH (located above the Interlock with roller up): Pull the Doors to FULL OPEN position. Adjust the OPEN LIMIT SWITCH so that the upper edge of the LOCK BAR engages the switch when the door panels are approximately 6" (152mm) from FULL OPEN.

CLOSED LIMIT SWITCH (located below the Interlock with roller down): Pull the Doors to the FULL CLOSED position. Adjust the CLOSED LIMIT SWITCH so that the lower edge of the LOCK BAR engages the switch when the top of the door panel is approximately 6" (152mm) from FULL CLOSED.



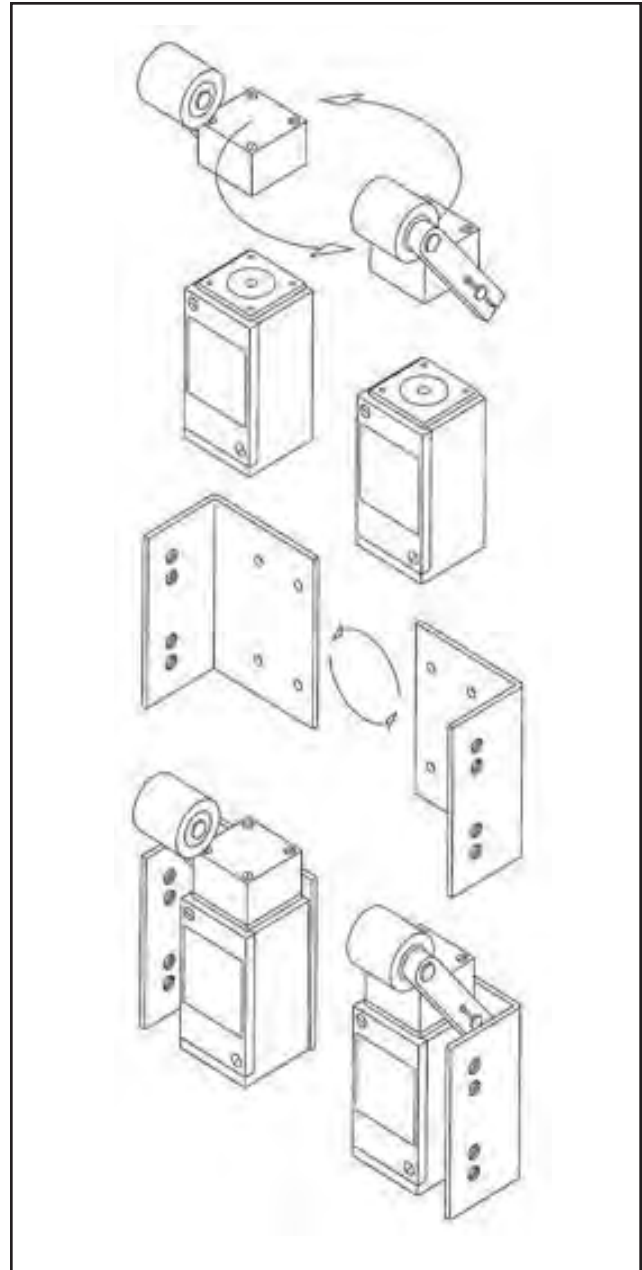
Door Installation - 2-Section Slide-Ups

Step 2

Courion's DOOR LIMIT SWITCHES are ambidexterous. You may be required to switch the handing of your limit switch to meet the requirements of your hoistway.

If you are required to change the handing of your Courion DOOR LIMIT SWITCH, please complete the following simple steps:

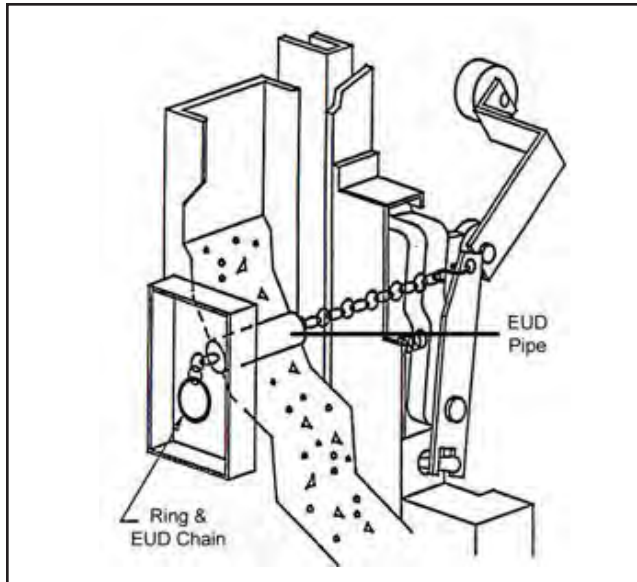
- Remove the DOOR LIMIT SWITCH from the DOOR LIMIT SWITCH MOUNTING BRACKET by removing the two (2) #10-32 x 5/8" pan head machine screws from the back of the bracket.
- Remove the screws that attach the Switch Roller Head to the Switch Body and turn the Switch Roller Head 180 degrees. Re-attach the Switch Roller Head to the Switch Body.
- Loosen the Roller Arm and rotate it to the correct position.
- Re-attach the DOOR LIMIT SWITCH to the DOOR LIMIT SWITCH MOUNTING BRACKET using the two (2) #10-32 x 5/8" pan head machine screws that were removed in Step 1 above.



Door Installation - 2-Section Slide-Ups

Emergency Unlocking Device

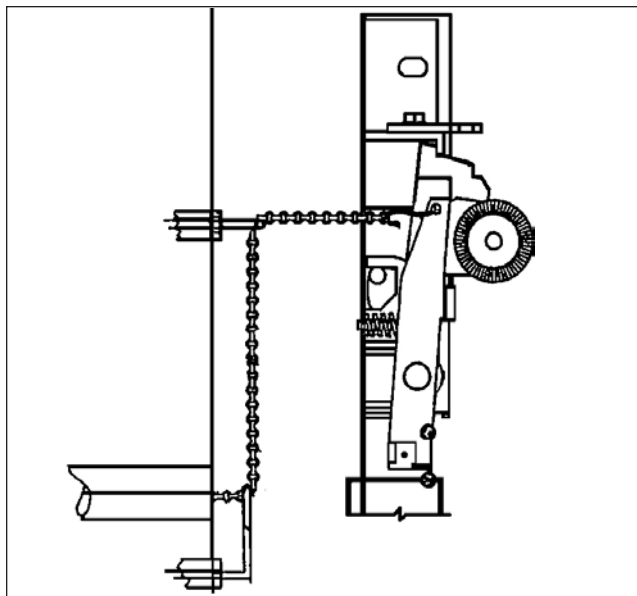
When applicable, install the Emergency Unlocking Device (EUD). Please refer to Courion's General Detail (GD) Drawings and note the designated floors for the EUD installation.



- Drill a 5/8" (16mm) hole through the hoistway wall. This hole should be aligned as closely as possible to the hole in the top of the Interlock Roller Arm.

- Install 1/2" (13mm) EUD pipe through the hoistway wall. Attach EUD box to EUD pipe on hall side using thin hex nut. Attach large washer on the pipe on the hoistway side, followed by a thin hex nut.

- Hold EUD box in plumb position and then, using lower hole in EUD box, drill necessary mounting holes and fix the EUD box in position.



- Thread EUD chain through the EUD pipe from the hall/box side. Using an "S" hook, attach the EUD chain to the hole at the top of the Interlock Roller Arm.

- Pinch "S" hook closed with pliers.

CHAIN DROP - Depending on the configuration of your equipment, an EUD Chain Drop may be required. If so, install the eyebolts provided by Courion to meet your hoistway requirements.

EUD OPERATION: Operation of the Interlock by the pull chain unlocks the Freight Doors when the car is not present at the landing. For this reason, please limit access to the Emergency Unlocking Device (EUD) keys.



For Immediate Help Call 1-800-533-5760

Door Installation - 2-Section Slide-Ups

**Web
Straps**

Attach a Door Panel Web Strap to each Lower Door Panel and secure Web Strap in the Web Strap Hitch.



Door Installation - 2-Section Slide-Ups

Final Check

You have completed the mechanical portion of the installation. Before proceeding to the next step, please check the following items.

- ✓ Inspect all DOOR GUIDE RAILS to insure that all mounting hardware is tight and secure. Apply a small amount of light oil to the DOOR GUIDES.
- ✓ Manually open and close your DOORS to insure that they move freely in the Door Guide Rails and that the Door Operators/Sheaves turns freely.
- ✓ Inspect the Door Counterweight Stack to insure that it is secure in the Counterweight Guide Rails and moves freely during the Door operation. Make sure all cotter pins are in place on the Counterweight Stack Chain Rod.
- ✓ Adjust the Door Shoes to limit side play to 1/16" (2mm). **USE CAUTION WHEN TIGHTENING DOOR PANEL GUIDE SHOES. EXCESSIVE FORCE CAN STRIP THREADS IN THE DOOR PANEL SIDE ANGLE.**
- ✓ Adjust the CHAIN BOLT at the Counterweight Stack and Dead-End Hitch to insure that the Door Panel reaches the FULL OPEN and the FULL CLOSED position.
- ✓ With the Doors in the FULL CLOSED position, insure that the MAXIMUM clearance between the LOCKING DOG and the bottom edge of the rectangular hole in the LOCK BAR is no more than 1/4" (6mm).
- ✓ Adjust the OPEN LIMIT SWITCH so that the upper edge of the LOCK BAR engages the switch when the door panel is approximately 6" (152mm) from FULL OPEN.
- ✓ Adjust the CLOSED LIMIT SWITCH so that the lower edge of the LOCK BAR engages the switch when the door panel is approximately 6" (152mm) from FULL CLOSED.



For Immediate Help Call 1-800-533-5760

Door Installation - 2-Section Slide-Ups

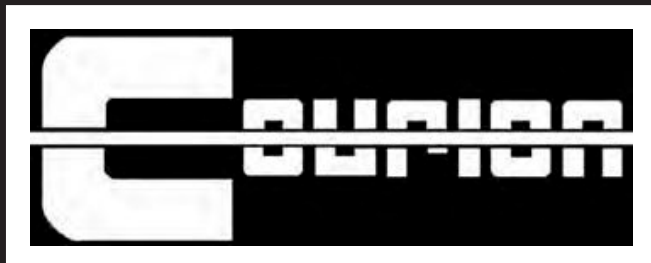


For Immediate Help Call 1-314-533-5700

Door Installation - 2-Section Slide-Ups



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