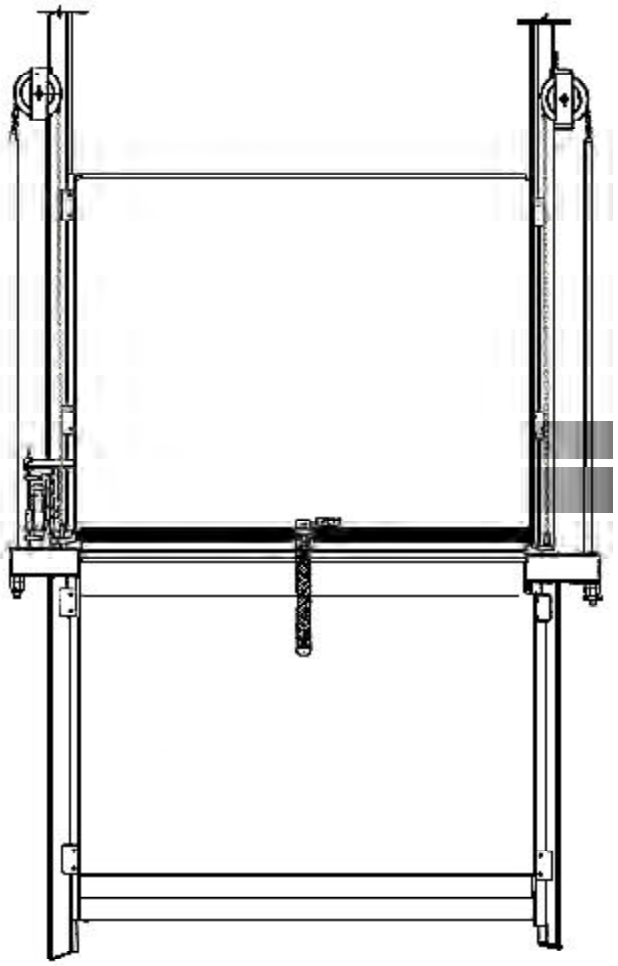
OPENING QUALITY DOORS
AROUND THE WORLD



JOB NAME:
JOB LOCATION:
COURION JOB #:
LIFT #:

Freight Door Installation Instructions - HG Series

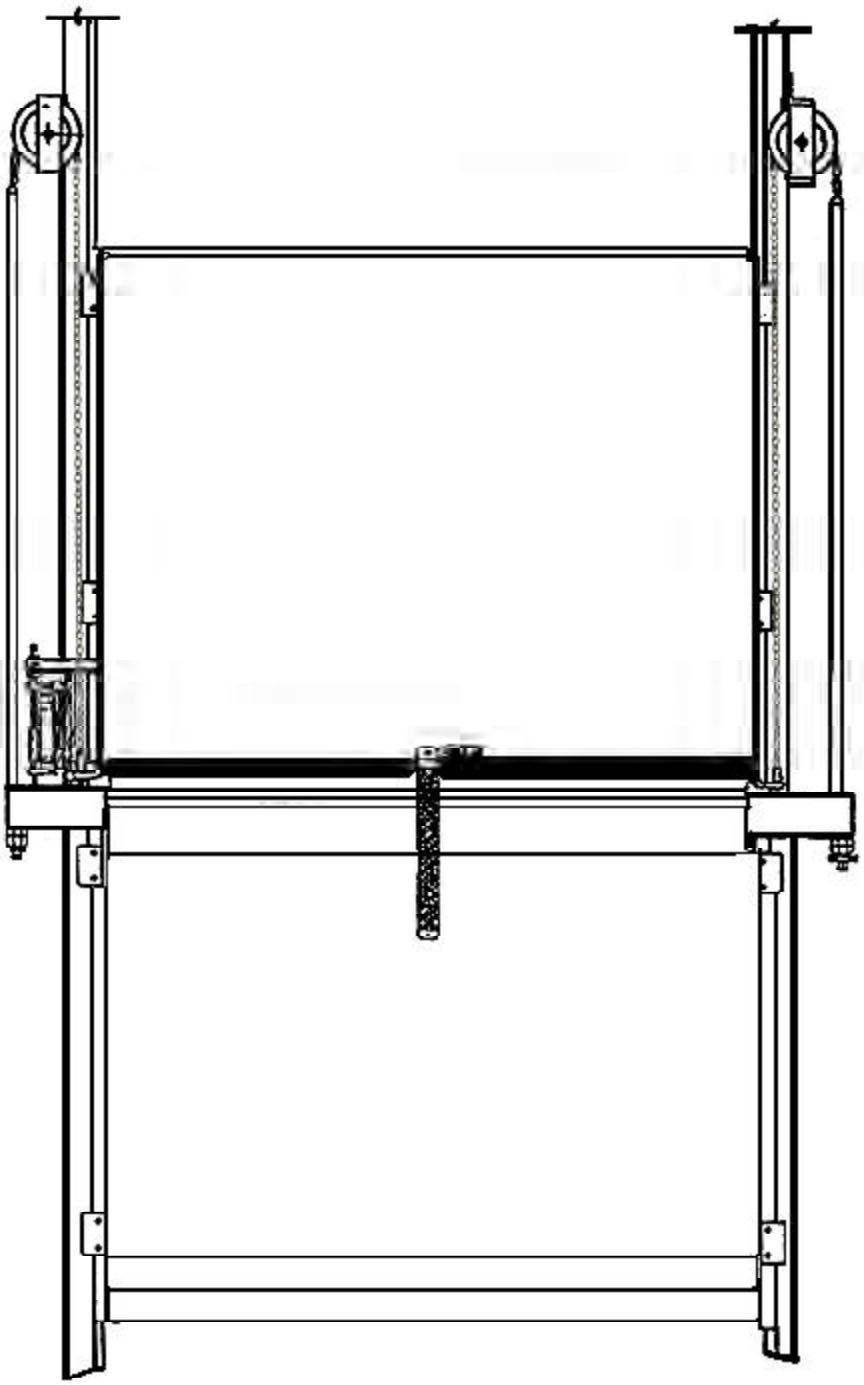
www.couriondoors.com

Door Installation - HG Series

Table of Contents

These instructions are intended to provide the information necessary to properly install your new Courion HG Style Freight Door System. Courion strongly suggests that these instructions be thoroughly understood before you start your installation.

The Courion HG Freight Door System



Door Installation - HG Series

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:

- Guide Rail Gauge Angle (located in Guide Rail Crate)
- Door Open Gauge Stick (located in Guide Rail Crate)

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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 is inside Box #1 of 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.

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• Upper panels should always be stored with the safety meeting rails facing up.

• Sort panels by opening, and store in pairs with the upper panel behind the lower panel.

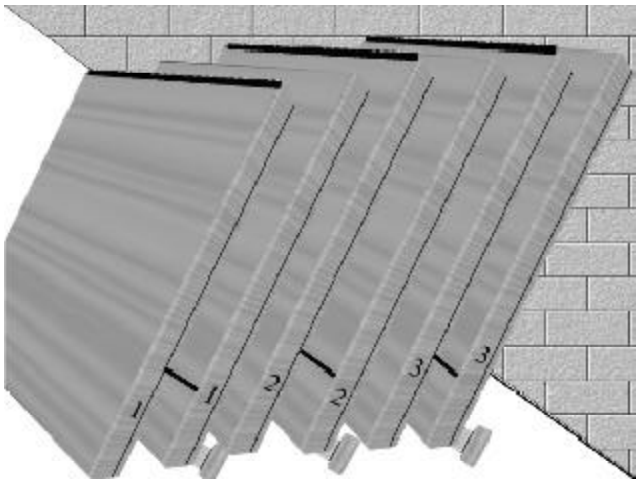
IMPORTANT: ***When moving panels on job site, the heavy end should be towards the floor to eliminate top-heavy situations.***

Door Numbers

Each door is identified with a number. The Courion door number corresponds with the landing designation set out in Courion Drawing GD-1.2. 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 Drawing GD-1.2, and note the corresponding numbers on the side angles of the upper and lower panels.

If you intend to paint your door panels prior to installation, please identify and tag them properly for future reference. **Each set of upper and lower panels is sized and balanced for a particular opening and cannot be mixed with other Courion doors.**



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.

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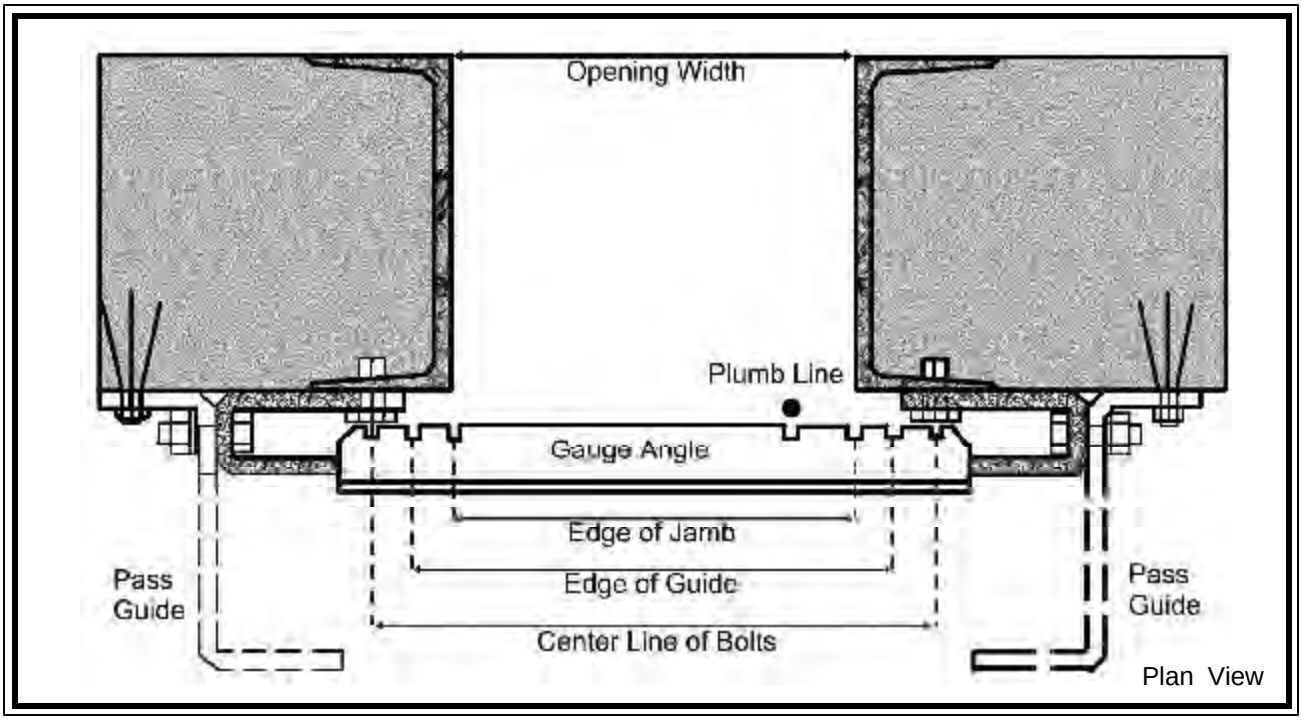
Field Survey	**SAVE YOURSELF TIME !!!** **No hoistway is perfect. Stop now and verify all hoistway dimensions to insure that your Courion equipment can be properly installed.**

Step 1	**Locate the guide rail gauge angle provided by Courion in Crate #1. Before starting the field survey, verify the guide rail gauge angle dimensions to that noted in the diagram below.**



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.

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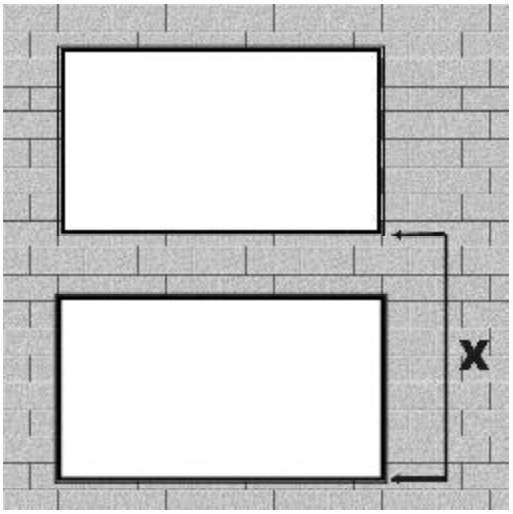
Step 2 — **Using Courion Drawing GD-1.2, verify the floor to floor heights in the hoistway.**



- Using a tape measure, verify that the actual floor to floor heights **(X)** are the same as that reflected on Courion Drawing GD-1.2.

- If the floor to floor measurements are the same as those set forth on Courion Drawing GD-1.2, proceed to Step 3.

- If the floor to floor measurements are different from those set forth on Courion Drawing GD-1.2, call Courion immediately.

Step 3 — **Drop a plumb line from top to bottom of the hoistway and verify the distance from the plumb line to each jamb.**

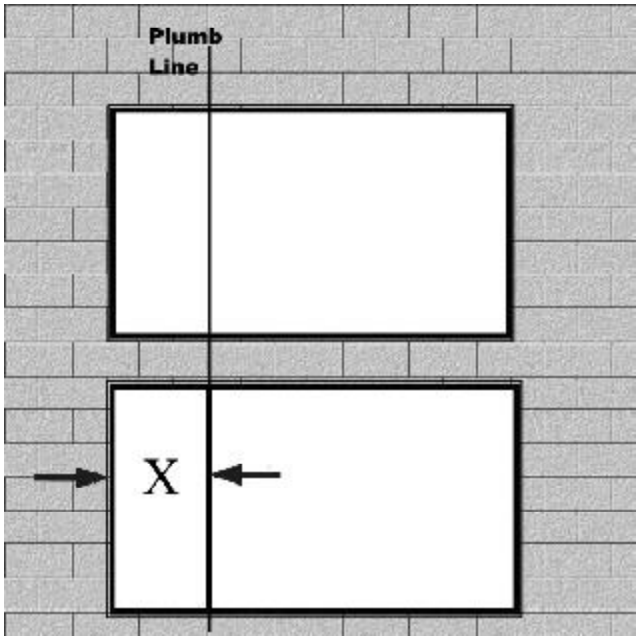
NOTE: Plumb line material can be cotton mason string, piano wire, or small diameter wire cable; the choice depends on the building height, and other building conditions.

• Drive a steel drift pin into mortar joint at top of hoistway approximately 6” (150mm) to 12” (300mm) in from one jamb **(X)**.

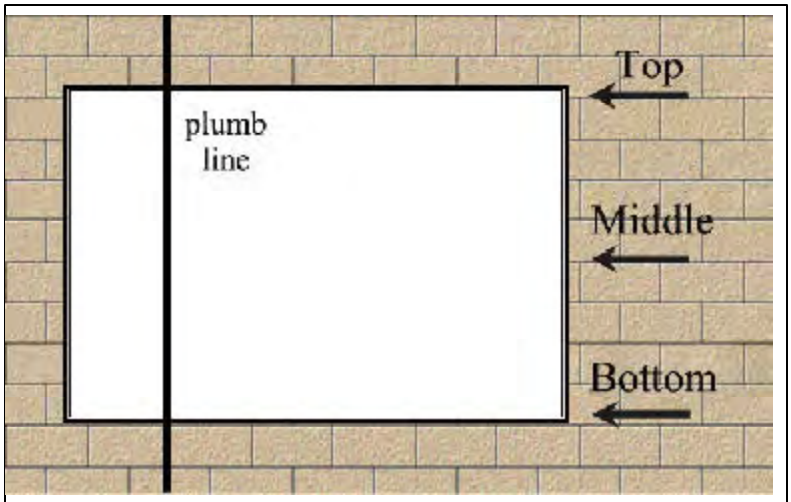
• Drop and secure a plumb line to drift pin. Plumb line should be set approximately 2” (50mm) off the sill.

• Suspend weight from bottom of plumb line so that it hangs plumb. When line is stationary, anchor the lower end in the pit.

NOTE: Be sure to securely fasten the plumb line in the plumb condition at the highest and lowest point in the hoistway. This plumb line must remain secure throughout the field survey and guide rail installation.

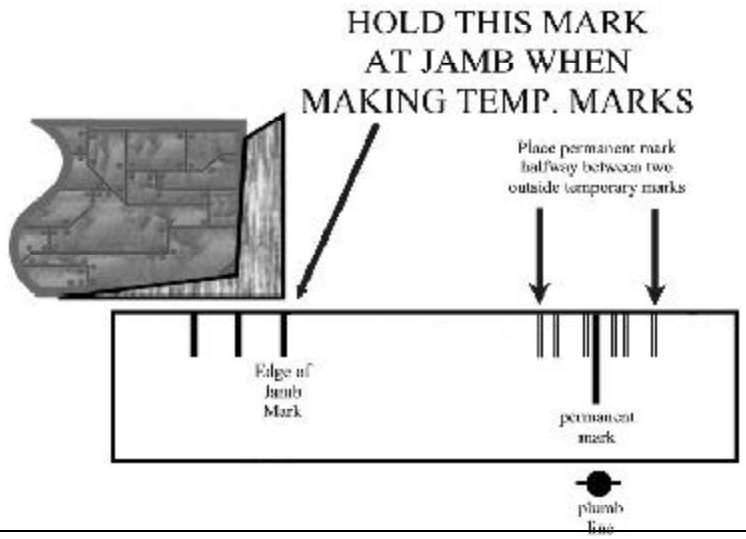


Step 4	At the top, middle, and bottom of each opening, make a temporary mark on the GUIDE RAIL GAUGE ANGLE at the plumb line. Upon completion, make a permanent mark on the GUIDE RAIL GAUGE ANGLE at the halfway point between the two outside temporary plumb line marks.



■ 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.



Plan View

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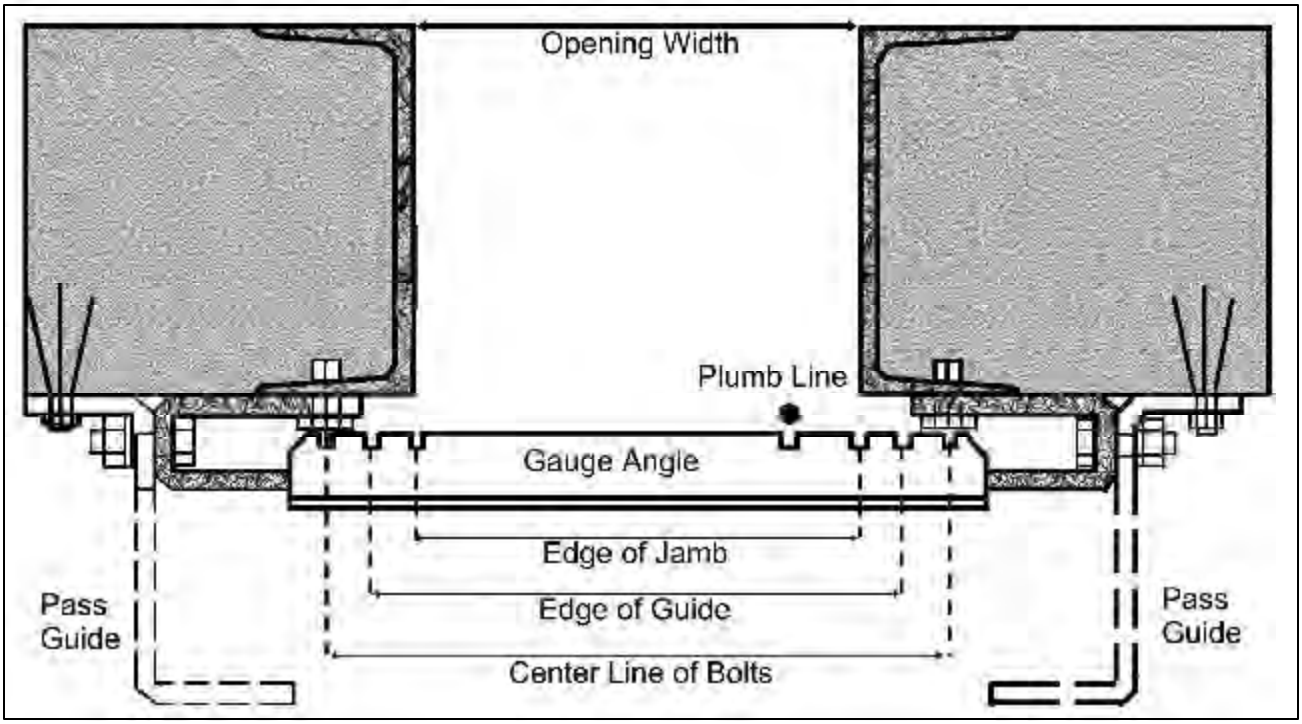
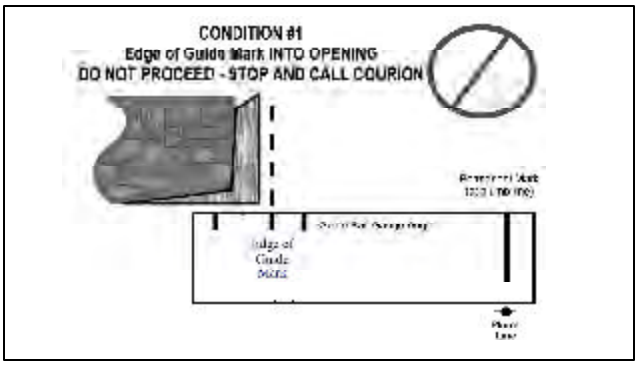
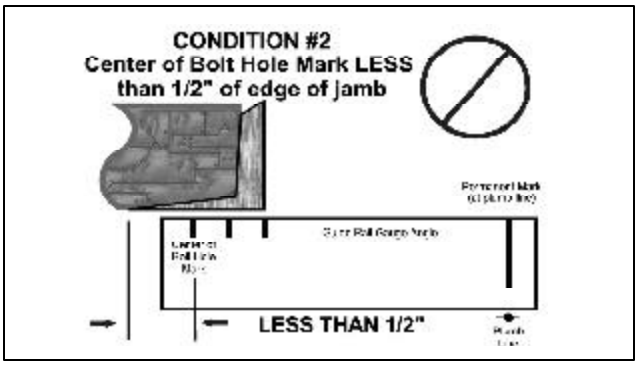
Step 5

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.





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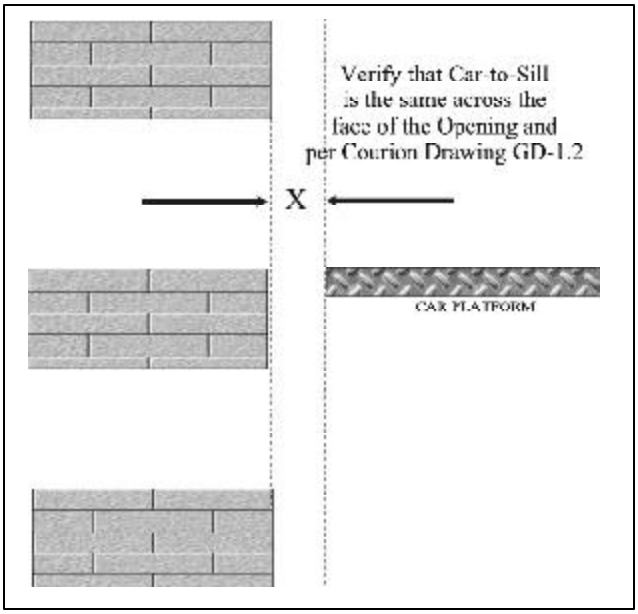
Step 6 Verify that the distance from the car platform to the entrance sill is the same across the face of the Opening at each landing.



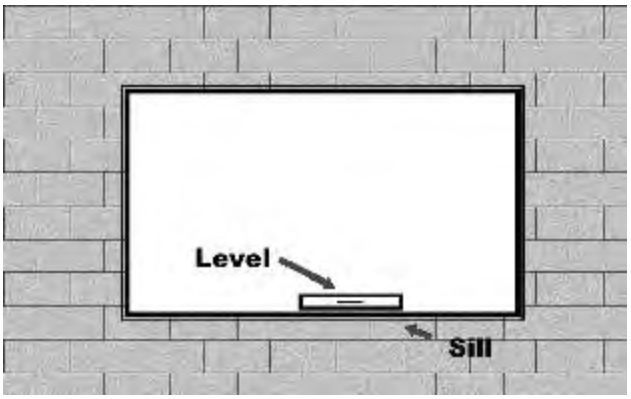
- If the jambs are not plumb, use the shortest distance from the car platform to the entrance sill as the plane for guide rail installation.

IMPORTANT! The distance from the car platform to the entrance sill must not cause the running clearance between the platform and the doors to drop below 1/2" (13mm), or increase to more than 1-1/4" (32mm). The design running clearance, car-to-frame and sill dimensions are shown on Courion Drawing GD-1.2 (Plan View).

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 Drawing GD-1.2, stop and contact Courion.
DO NOT ASSUME RESPONSIBILITY FOR AN INCORRECT HOISTWAY

Door Installation - HG Series

Guide Rails

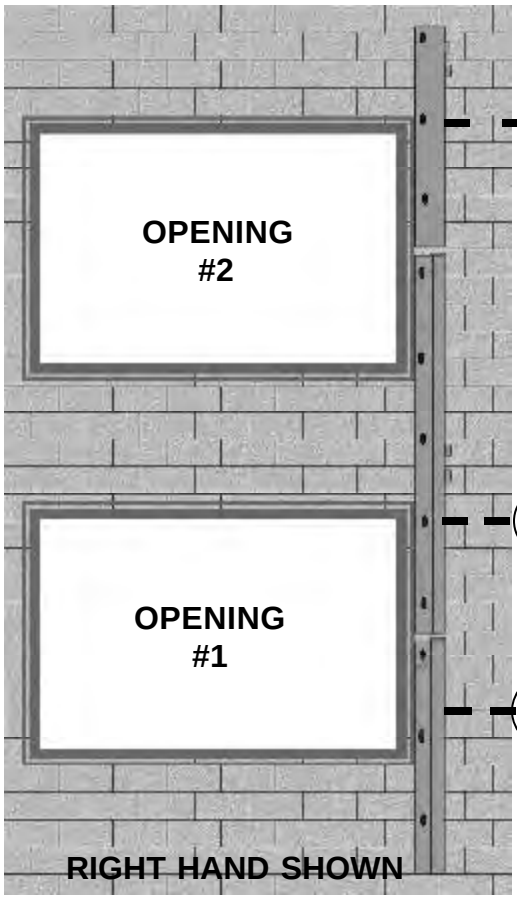
Proper and accurate installation of the Guide Rails is essential to a successful installation of your Courion Freight Doors. Read and understand this entire section before beginning installation.

Courion Parts and Tools Required for Guide Rail Installation:

Tools: ■ Plumb Line ■ Guide Rail Gauge Angle (supplied by Courion) ■ 11/32" (9mm) Drill Bit ■ Lubricant (light oil) ■ C Clamps ■ Normal Elevator Constructor Tools

Parts and Hardware ■ Guide Rails ■ Guide Rail Shims (Hardware Kit #50) ■ Guide Rail Mounting Bolts (Hardware Kit #50) ■ Guide Rail Lugs (Hardware Kit #60)

Guide Rail Identification and Setup: Courion Guide Rails are manufactured and shipped in pairs (left and right) for specific landings. There are three (3) types of guide rails - lower, intermediate, and upper. Some installations do not use intermediate guides.



Guide Mark

2A **Upper Guides -** Marked to correspond to the opening for which they serve as the **upper** guide, followed by the letter "A".

NOTE: *For Upper and Intermediate Guide Rails, two operator mounting lugs are welded to the side of the guide rail. When the guide rail is properly positioned, the operator mounting lugs will be centered approximately 13" (330mm) above the opening lintel.*

2 **Intermediate Guides** - Marked to correspond to the opening for which they serve as the **lower** guide.

1 **Lower Guides -** Marked to correspond to the opening for which they serve as the **lower** guide.

"T" = top of guide rail
"R" = right side **"L"** = left side

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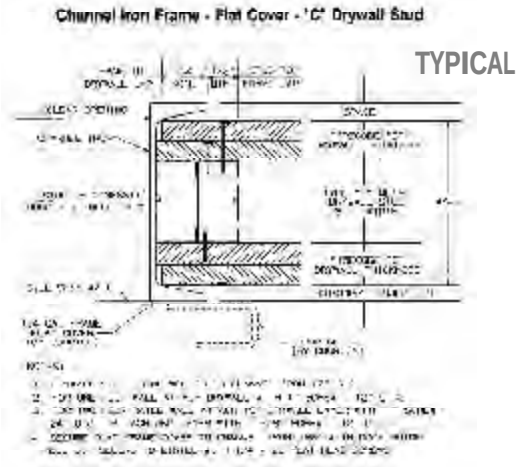
Drywall Frame Installation	If you have drywall frames, Courion drywall frame covers must be installed during Guide Rail Installation.

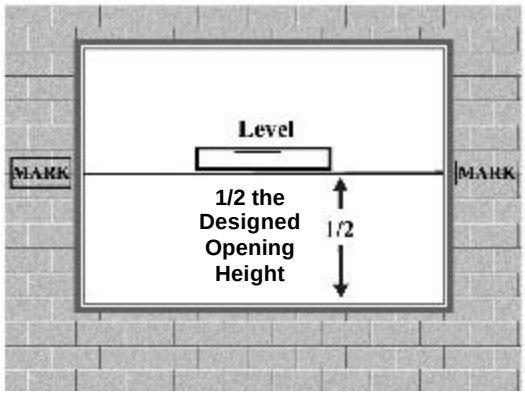
■ The hoistway entrance must be framed as illustrated on Figure GD-1.1. It is the elevator contractor's responsibility to maintain coordination with the various trades to insure that the drywall frames are properly installed.

■ 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.



Step 1	**SAVE YOURSELF TIME !!!** DO NOT BEGIN WORK UNTIL YOU HAVE VERIFIED THAT THE HOISTWAY MEETS THE STANDARDS SET FORTH IN THE FIELD SURVEY SECTION

Step 2	Beginning with the lowest opening, measure up from the finished sill one-half (1/2) the **DESIGNED** opening height, as shown on Courion Drawing GD-1.2 and place a **CENTER LINE REFERENCE MARK** on each jamb.



■ Using the GUIDE RAIL GAUGE ANGLE and level, make sure that the reference marks are level with each other.

■ If the marks are not level, use the LOWER of the two sides as the reference point and restrike a new mark on the other side of the reference point.

■ Repeat at each opening.

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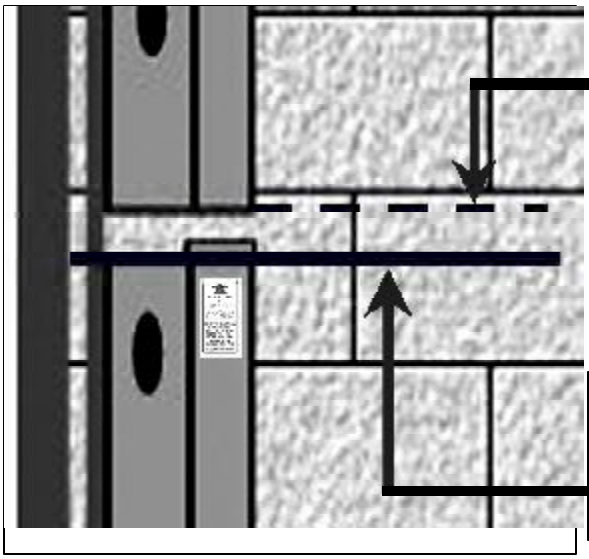
Step 3

On one side of the opening, set the **TOP** of the **LOWER GUIDE** even with the CENTER LINE REFERENCE MARK. Side to side placement of the guide rail is determined using the **GUIDE RAIL GAUGE ANGLE** and plumb line.



Upper Guide should be set 1/2" above the CENTER LINE REFERENCE MARK

Do NOT consider the strap welded across the lower guide when lining up the "TOP" of the lower guide with the CENTER LINE REFERENCE MARK.

Lower/Intermediate Guides should be set at the CENTER LINE REFERENCE MARK

Step 4

Bolt the guide rail to the entrance frame.

■ 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.

IMPORTANT: Intermediate guides should extend DOWN to 1/2" (13mm) above the CENTER LINE REFERENCE MARK of the opening below. If the guide is too long, the LOWER end may be sawed off to be 1/2" (13mm) above the CENTER LINE REFERENCE MARK of the opening below. If significantly more or less than 1/2" (13mm) clearance exists, contact Courion immediately for assistance.

■ 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.

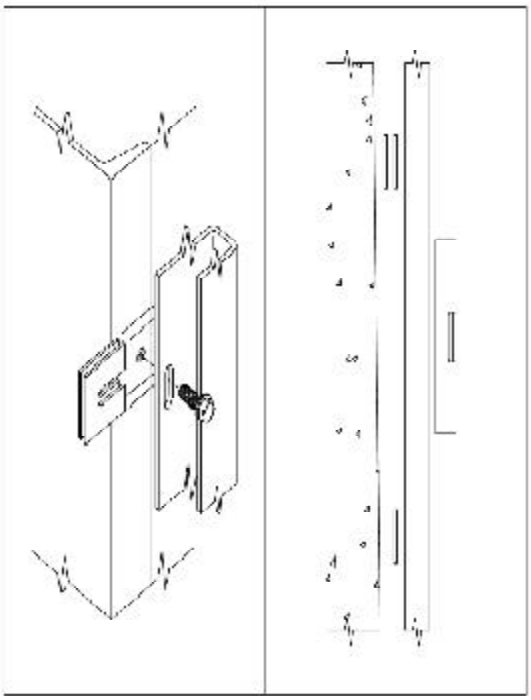
Step 5

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.

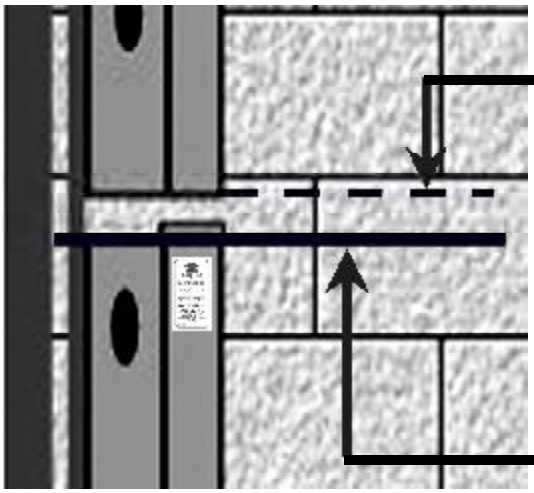
■ Slotted shims and Kicker shims are provided as part of HARDWARE KIT #50. Each kit provides enough hardware for one (1) opening.

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



Step 6

After the Lower Guide is set, install the Upper Guide rail 1/2" (13mm) above the CENTER LINE REFERENCE MARK



Upper Guide should be set **1/2" above** the CENTER LINE REFERENCE MARK

If this guide is the lower portion of an Intermediate Guide, proceed to the next Opening and follow the instructions set out in Step 3 above.

CENTER LINE REFERENCE MARK

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Step 7	Install all of the Guide Rails on one side of the hoistway, then return to the lowest landing and install the opposite side guide rails. Begin installation at the lowest landing and progress up the hoistway. Use the GUIDE RAIL GAUGE ANGLE to maintain accurate distance between Guide Rails, and to assure the second set of Guide Rails are exactly parallel to the first.

Guide Stops	When applicable, Guide Stops have been pre-attached to the Lower Guide Rails.

Door Sheaves (Manual)	**MANUAL DOORS** Mount a **MANUAL DOOR SHEAVE** to the Upper/Intermediate Guide on each side of the opening.

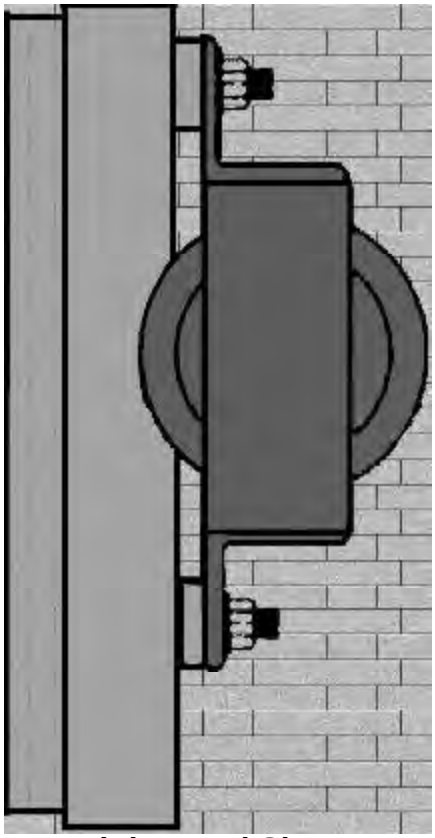
Courion Parts and Tools Required for Manual Door Operator Installation:

Parts and Hardware

- Manual Door Sheaves (1 Right Hand and 1 Left Hand per Opening)
- Hardware Kit #94-000031 (strapped to Manual Door Sheave)

Door Operator Identification and Setup: Before beginning the Door Operator Installation, please insure that all prior Installation Steps have been completed.

- Using the 1/2-13x1-1/2" Hex Head Machine Screws, washers, and nuts found in Hardware Kit #94-000031, bolt the Manual Door Sheave to the operator mounting pads located on the side of the Upper/Intermediate Guide Rails. The operator mounting pads are located approximately 21" (540mm) above the opening.



Right Hand Shown

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Center Latch	When applicable, mount the Center Latch in the center of the Sill and Lintel.

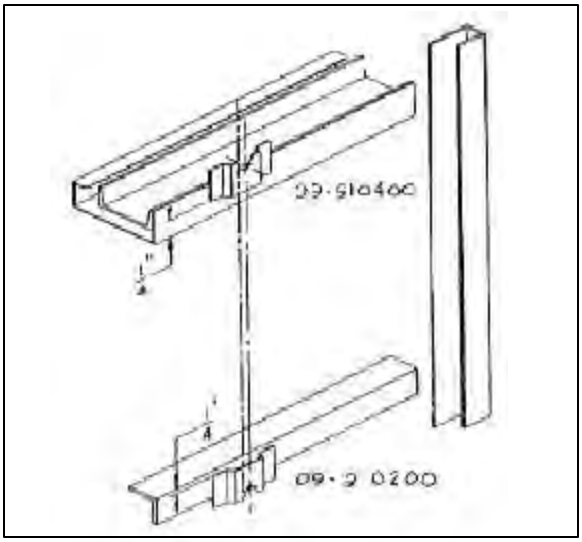
Courion Parts and Tools Required for Center Latch Installation:

Parts and Hardware

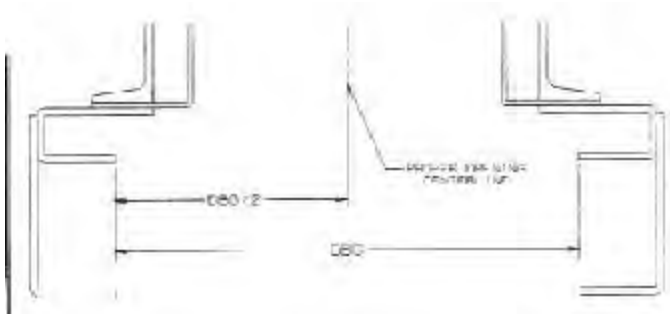
■ 3/8-16 Self Tapping Bolts from Hardware Kit #50 ■ Sill Center Latch (09-910200) ■ Lintel Center Latch (Regular Type Doors)(09-910400) ■ Lintel Center Latch (Pass Type Doors)(09-910700)

■ The Center Latch is mounted in the CENTER of the Sill and Lintel.

■ Using two (2) 3/8-16 self-tapping bolts, mount one Center Latch to the Entrance Head and one Center Latch to the Entrance Sill as illustrated.



IMPORTANT!



■ **The center of the opening is best located as the midpoint between the installed Guide Rails, and should NOT be located as the midpoint between the jamb covers.**

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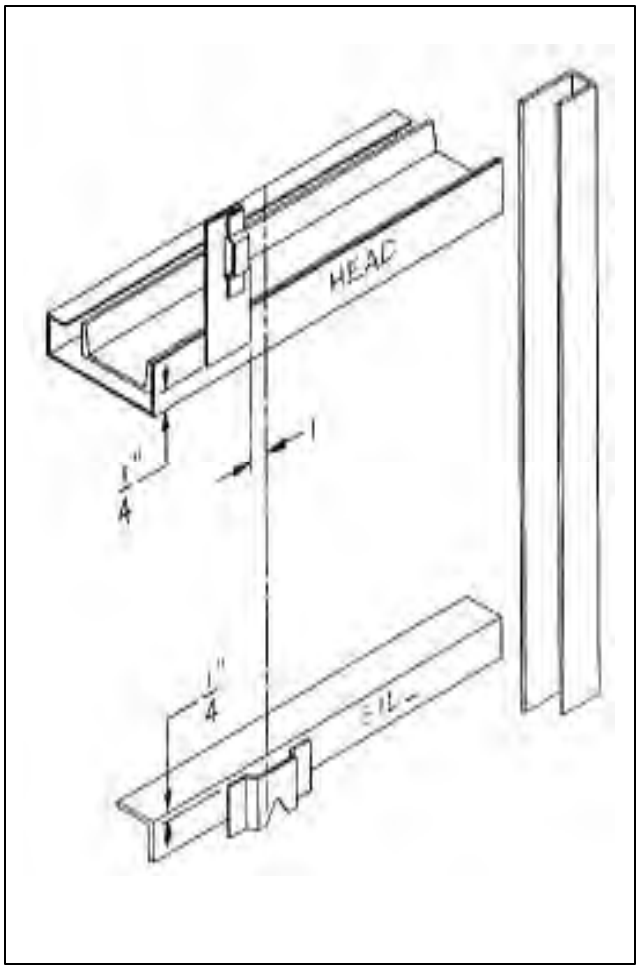
PASS" TYPE DOORS

■ The Center Latches for Pass Doors are located as illustrated.

■ Each Center Latch is attached to the opening lintel and sill using two (2) 3/8"-16 (10mm) NCT self-tapping bolts.

■ Adjust the bolt on the Lower Door Panel so that it engages the Center Latch with minimal interference. Be certain to re-tighten the jamb nut after adjusting the bolt to prevent movement.



Door Installation - HG Series

Door Panels	The **LOWER DOOR PANEL** is installed first and should be left in a **FULL OPEN** position. The **UPPER DOOR PANEL** is installed in a manner similar to the Lower Door Panel and is hoisted to its **FULL OPEN** Position

Courion Parts and Tools Required for Door Panel Installation:

Tools:

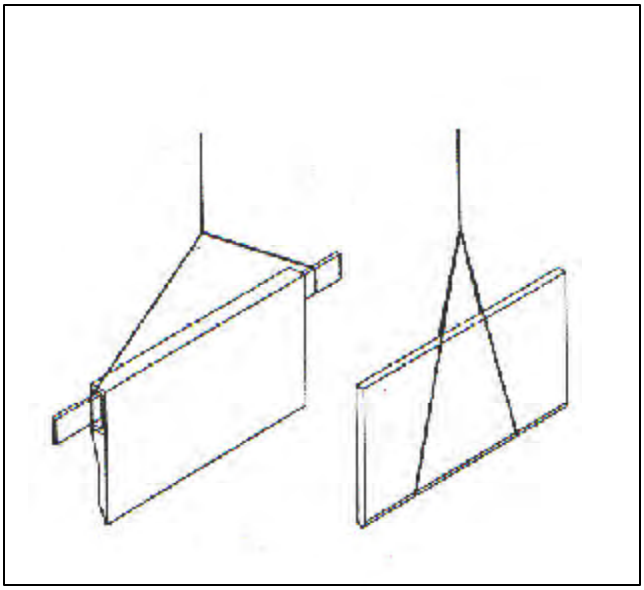
■ Normal Elevator Constructor Tools ■ Hoist of sufficient capacity to lift Door Panels ■ Two (2) Lifting Straps of sufficient capacity to lift Door Panels ■ 3/16" Hex Key

Parts and Hardware

■ Upper and Lower Door Panels ■ Door Shoe Kit

Door Panel Identification and Setup: For proper identification of the Door Panels, refer to Drawing GD-1.2 and note the corresponding numbers on the side angles of the Upper and Lower Door Panels. **BE SURE TO INSTALL EACH DOOR AT ITS PROPER OPENING.** Before beginning the Lower Door Panel installation, please insure that all prior Installation Steps have been completed.

Step 1	Wrap lifting straps around both arms of the **LOWER DOOR PANEL** and carefully move **LOWER DOOR PANEL** into 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.

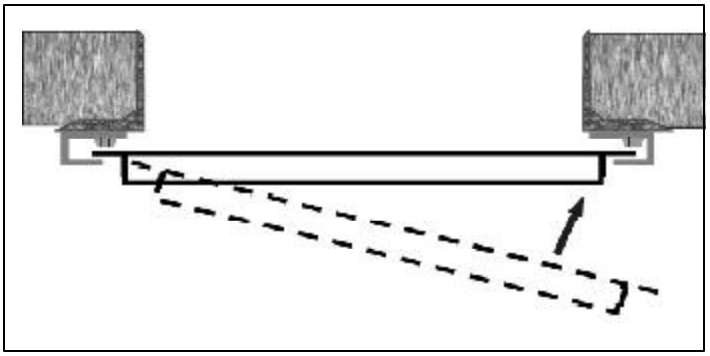
■ Place Door Panel in upright position on floor using wooden blocks beneath the side angles to guard against damage and injury.

■ Wrap lifting straps around both door arms of Lower Door Panel and carefully lift Lower Door Panel into opening.

Step 2	Carefully swing **LOWER DOOR PANEL** into position between Guides and center. Lower the Door Panel onto Guide Stops or Sill Stops.

■ Carefully swing the Lower Door Panel into position.

■ Center the Door Panel between the Guides and check for flatness of door panel, as explained in Step 3 below.



Step 3	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:

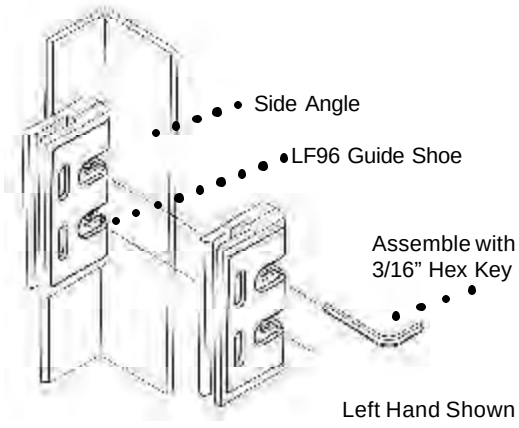
While the Door Panel is still hanging from the hoist, place a block at one corner of the Door Panel between the edge of the panel and the elevator platform. Grip the Door Panel at the corner diagonally opposite the blocked corner and apply pressure to the upper edge of the panel opposite the observed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

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

Door Installation - HG Series

Step 4

Install four **(4) LF96 GUIDE SHOES** in the pre-drilled tapped holes on the Door Panel side angle using the self-contained Guide Shoe bolts.

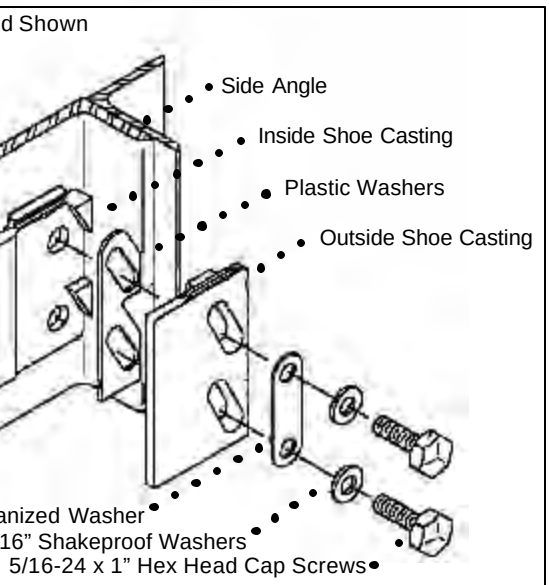


■ Using the 5/16-24 tapped holes provided in the Door Panel side angle, install four (4) **LF96 GUIDE SHOES**. The door shoe hardware is held captive in the Guide Shoe Assembly. Use a 3/16" allen (hex) wrench to loosely fasten the **LF96 GUIDE SHOES** to the Door Panel side angle.

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.

Step 4 (ALTERNATIVE)

Install four **(4) CAST GUIDE SHOES** in the pre-drilled tapped holes on the Door Panel side angle using two (2) 5/16-24 x 1" Hex Head Cap Screws.



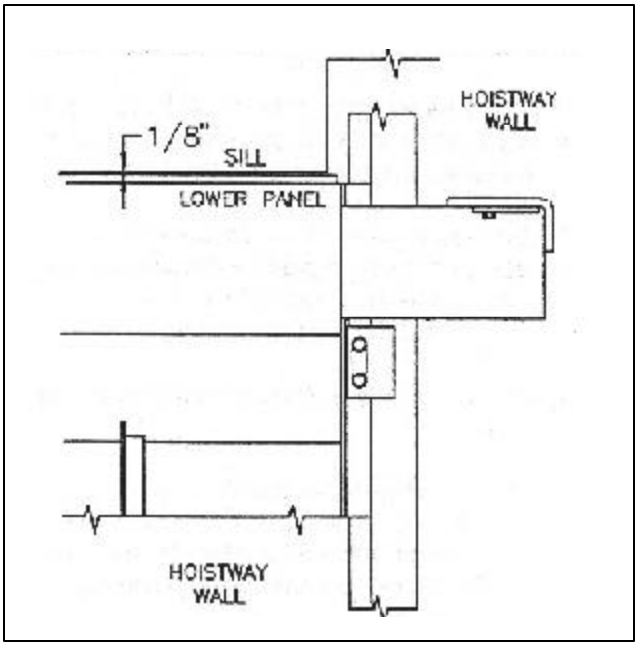
■ Using the 5/16-24 tapped holes provided in the Door Panel side angle, install four (4) **CAST GUIDE SHOES**. The INSIDE and OUTSIDE Shoe casting MUST be installed as shown or castings will move away from the Door.

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.

Step 5	After installing Guide Shoes, lower the Door Panel to its **FULL OPEN** position. Where applicable, adjust the Guide Stops to insure that the Lower Door Panel is 1/8" (3mm) below the Sill.

- Lower the Door Panel until the panel is sitting firmly on the Sill Stop Angles and/or Guide Stops.
- Where applicable, adjust the Guide Stops on both sides of the hoistway so that the Lower Door Panel is level from side-to-side.
- With the Lower Door Panel fully opened, insure that the Lower Door Panel is 1/8" (3mm) below the Sill.
- Carefully remove the Lower Door Panel from the hoist.



Step 6	After installing the Lower Door Panel, install the Upper Door Panel following Steps 1 through 4 above. Hoist the Upper Door Panel into an Open position that is level from side-to-side and 1/8" (3mm) above the lintel. The Upper Door Panel should remain suspended from your hoist until door chain rods and chains are fully installed.

Door Installation - HG Series

Chain & Chain Rod	Install the Chain Rod and Chain on both sides of the opening and adjust and tighten Guide Shoes to limit side play of the Door Panels.

Courion Parts and Tools Required for Chain and Chain Rod Installation:

Tools:

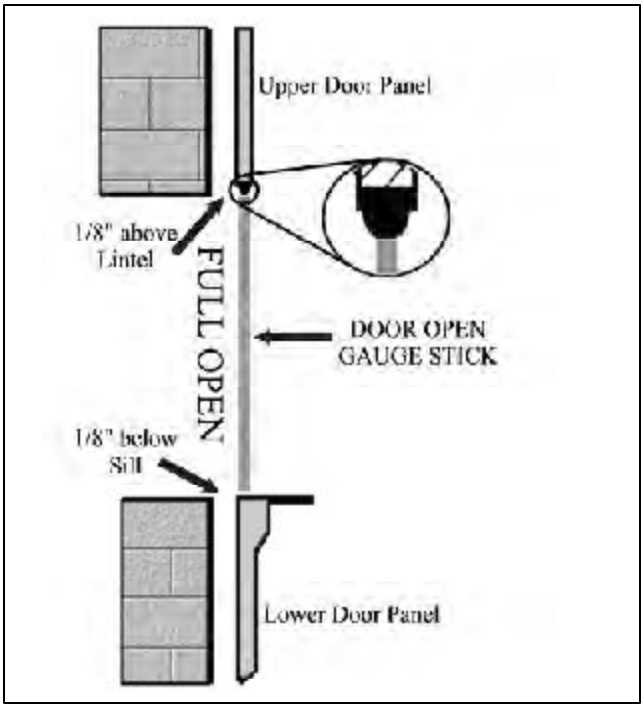
- Normal Elevator Constructor Tools

Parts and Hardware

- Chain Rod (two per opening)
- Door Chain with Chain Bolt (two per opening)
- Chain Rod Hardware Kit #09-400613
- Door Open Wooden Gauge Stick

Chain Rod and Chain Identification and Setup: Before beginning the Chain and Chain Rod installation, please insure that all prior Installation Steps have been completed.

Step 1	Using the DOOR OPEN GAUGE STICK, open the upper and lower door panels to the FULL OPEN position.

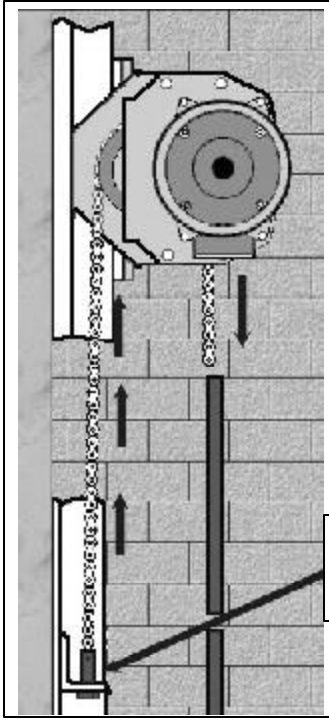


- Locate the Door Panel Gauge Angle. Verify that the length of the Door Panel Gauge Stick equals the opening height of the door panels plus 1/4" (6mm)

- Hoist the Upper Panel to its full Open height and be sure that the Lower Door Panel is resting firmly on the Stops. Use the Door Panel Gauge Stick to verify that the doors are at their full opening height.

WARNING! DO NOT USE THE DOOR PANEL GAUGE STICK TO SUPPORT THE UPPER DOOR PANEL.

Step 2 Thread the DOOR CHAIN with the CHAIN BOLT through the UPPER DOOR PANEL and over the DOOR OPERATOR Sheave.



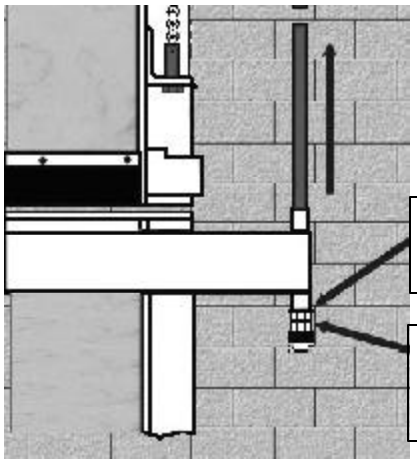
Follow same procedure for manual jobs with Manual Sheaves.

CHAIN BOLT AND UPPER DOOR PANEL CHAIN CLIP

Right Hand Shown

- Thread the door chain through the UPPER DOOR PANEL chain clip and over the DOOR OPERATOR sheave (or Manual Sheave) until the CHAIN BOLT head is against the UPPER DOOR PANEL chain clip.

Step 3 Install the CHAIN RODS up through the bottom of the LOWER DOOR PANEL arm.



ONE (1) 5/8" FLAT WASHER

TWO (2) 5/8" HEX NUTS, WASHERS & COTTER PIN.

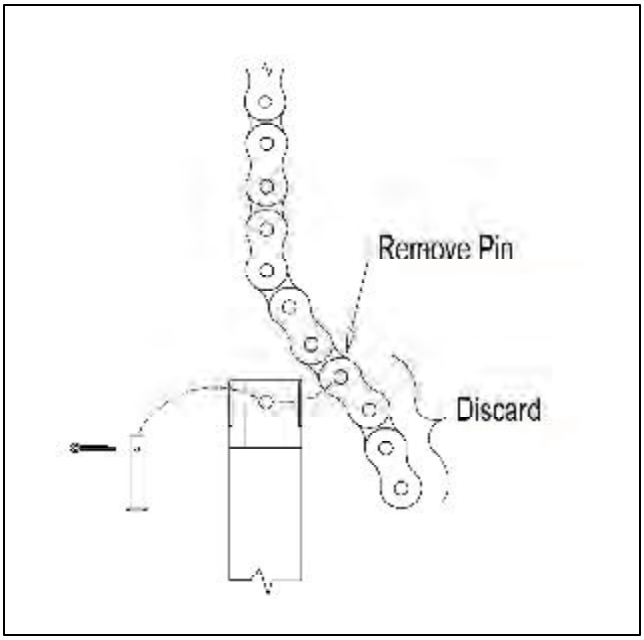
- Thread two (2) 5/8" Hex Nuts onto the bottom of the CHAIN ROD. Locate the Hex Nuts slightly above the hole provided for the cotter pin. Be sure to install three (3) 5/8" Flat Washers between the cotter pin and Hex Nuts to keep the nuts from loosening.

- Drop a single 5/8" Flat Washer down on the CHAIN ROD to rest on top of the two (2) Hex Nuts.

- Pull the CHAIN ROD up through the bottom of the LOWER DOOR PANEL arm eyelet until the flat washer and hex nuts rest against the bottom of the eyelet.

Door Installation - HG Series

Step 4 Mark and cut the chain to permit attachment of the chain to the CHAIN ROD with the chain rod pin and cotter pins.



- Step on the Lower Door Panel so that the Lower Door Panel is firmly on the Guide Stops, and pull the chain tight.
- Mark and cut the Chain to the nearest link that will attach to the Chain Rod.
- Using the chain pin in Hardware Kit #09-400613, attach the Chain to the Chain Rod.
- Repeat the process on the opposite side.

Step 5 Carefully transfer the weight of the Upper Door Panel from the hoist to the Chain. Once all of the Panel's weight is supported by the Chains, unstrap the Upper Door Panel from the hoist.

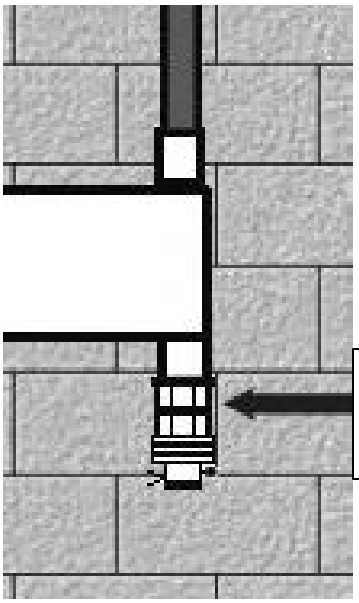
Step 6 Adjust the Door Shoes to limit side play to about 1/16" (2mm)

- Adjust and tighten the Door Panel Guide Shoes to allow free movement of the Door Panels.
- 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 7 Adjust the CHAIN ROD to insure that the Door Panels are in the FULL OPEN position.



- Apply weight to the LOWER DOOR PANEL to be sure that the door panels are in the FULL OPEN position and resting firmly on the guide or sill stops.

- Using the DOOR OPEN GAUGE STICK, adjust the Hex Nuts at the bottom of the CHAIN ROD until the door panels are in the FULL OPEN position.

Door Installation - HG Series

Interlock & Lock-Out Rod (Manual)

THE FOLLOWING SECTION APPLIES TO MANUALLY OPERATED JOBS ONLY!

The following steps will guide you through the installation of the Interlock, Lock-Out Rod, Lock-Out Rod Holder, and Switch Cam for manually operated freight doors. To insure proper operation of your Interlock, please follow these steps in the order presented.

Courion Parts and Tools Required for Interlock and Lock Bar Installation:

Parts and Hardware

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

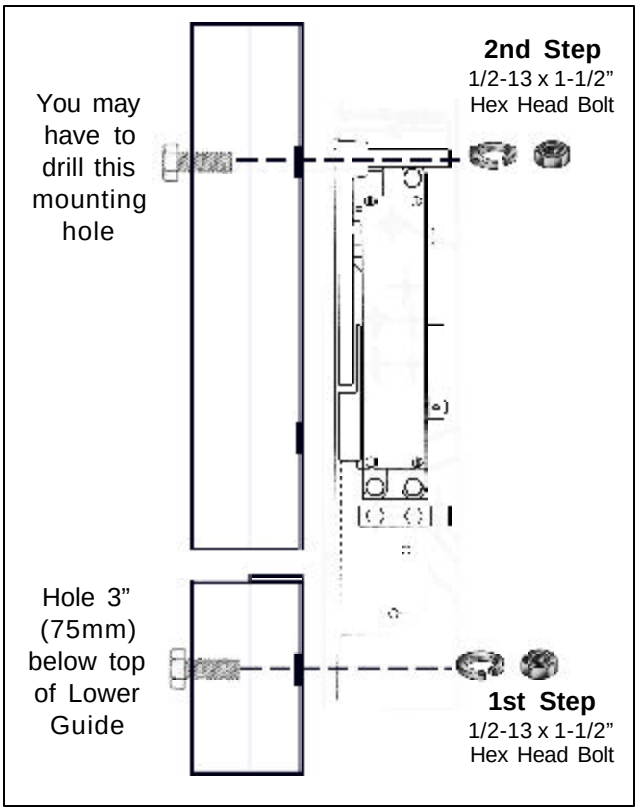
Step 1

Using hardware found in Hardware Kit #131, attach the INTERLOCK to the back of the Guide Rails using the pre-drilled holes provided by Courion. Please consult Courion's General Layout Drawings to determine the side of the opening that the Interlock will mount and the type of guide rails (Regular or Pass) you will be working with..

■ FIRST, attach the INTERLOCK to the LOWER GUIDE RAIL using the pre-drilled mounting hole located 3" (75mm) below the top of the Lower Guide. Use one (1) 1/2-13 x 1-1/2" hex head bolt, split lock washers, and hex nuts found in Hardware Kit #131, to attach the Interlock to the guide rail.

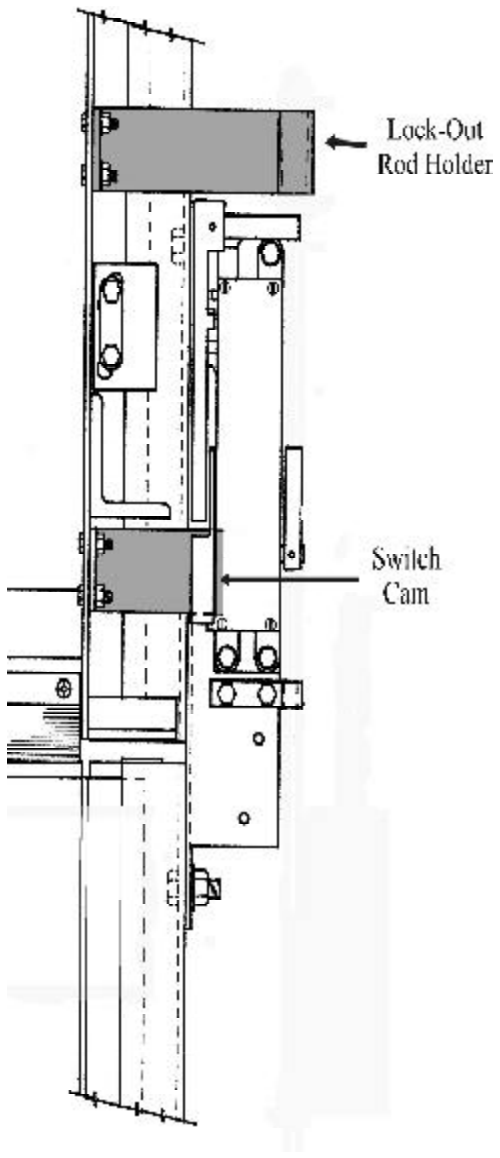
■ Set the INTERLOCK parallel with the DOOR GUIDE RAIL.

■ SECOND, attach the INTERLOCK to the UPPER GUIDE RAIL. NOTE: the upper mounting hole may not match an existing hole in the UPPER DOOR GUIDE RAIL. If necessary, drill a 17/32" hole through the UPPER DOOR GUIDE.



PA Ver 070103

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 Upper Door Panel using the pre-drilled holes provided by Courion.



Right Hand Shown

- Using two (2) 5/16-18 x 1” hex head cap screws, flat washers, split lock washers, and hex nuts, attach the SWITCH CAM to the side angle of the Upper Door Panel using the pre-drilled holes provided by Courion.

- Using two (2) 5/16-18 x 1” hex head cap screws, attach the LOCK-OUT ROD HOLDER to the side angle of the Upper Door Panel using the pre-drilled holes provided by Courion.

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

Door Installation - HG Series

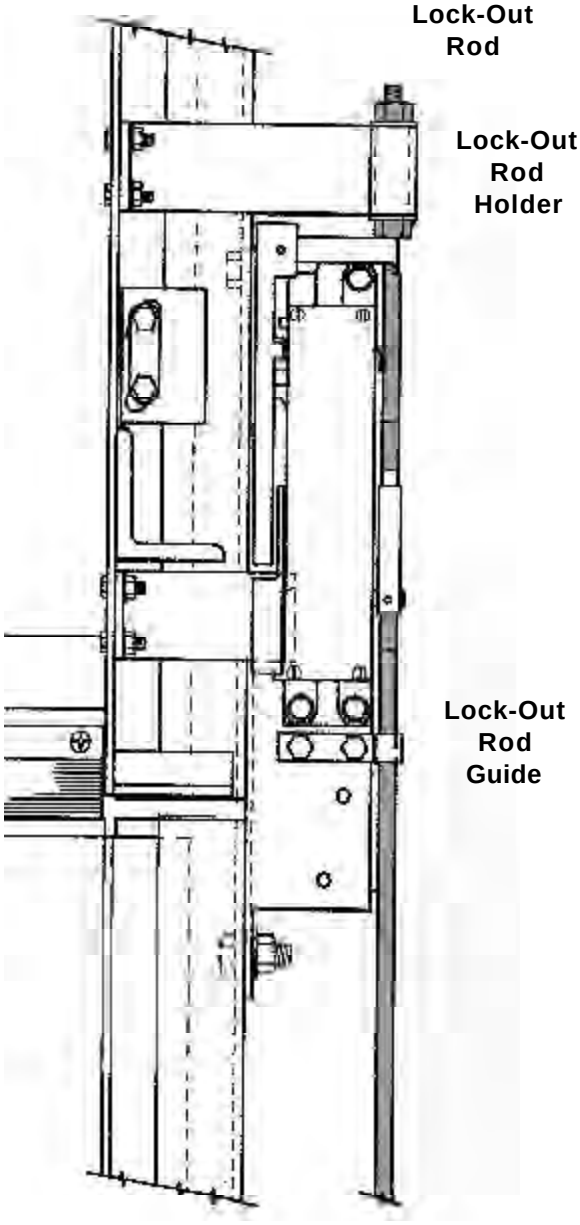
Step 3	Slide the LOCK-OUT ROD down through the LOCK-OUT ROD GUIDE on the Interlock Mounting Angle and then up through the LOCK-OUT ROD HOLDER. Using hardware found with the LOCK-OUT ROD HOLDER, secure the LOCK-OUT ROD.

■ 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 on the Interlock Mounting Angle and then slide the LOCK-OUT ROD up through the LOCK-OUT ROD HOLDER.

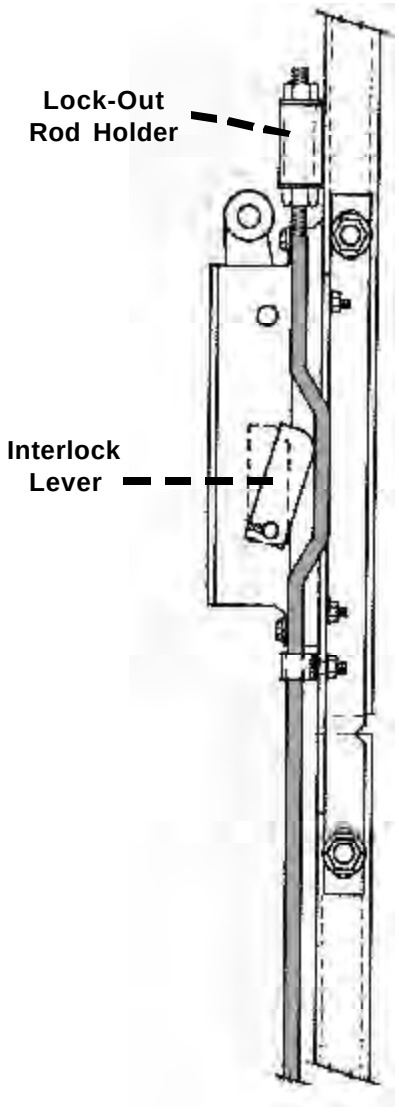
■ Thread one (1) 1/2”-13 hex nut and flat washer on to the top of the LOCK-OUT ROD to secure LOCK-OUT ROD in the LOCK-OUT ROD HOLDER

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



PA Ver 070103

Step 5	With 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.



Side View

- 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 Panels are the FULL CLOSED position.

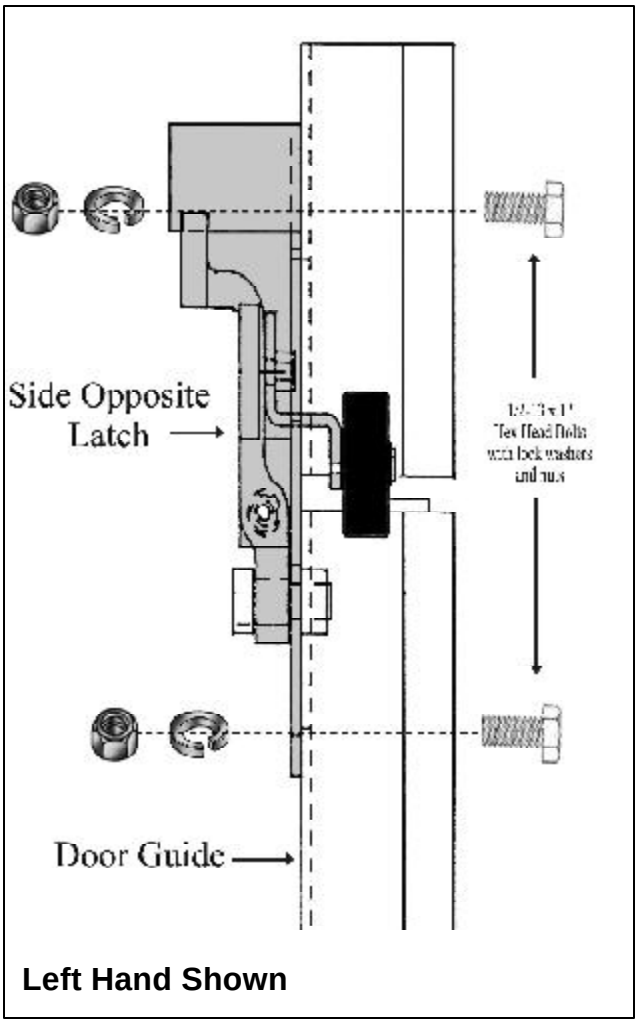
Door Installation - HG Series

Side Opposite Latch	When applicable, attach the SIDE OPPOSITE LATCH and SIDE OPPOSITE LATCH LOCK BAR on the side opposite the Interlock.

Courion Parts and Tools Required for Side Opposite Latch Installation:

Parts and Hardware

- Side Opposite Latch (one (1) per Opening)
- Side Opposite Latch Lock Bar (one (1) per Opening)
- Side Opposite Latch Cam
- Side Opposite Latch Hardware Kit #135 (one (1) per Opening)



Left Hand Shown

- Using two (2) 1/2-13 x 1" Hex Head Bolts, lock washers and hex nuts found in Hardware Kit #135, attach the SIDE OPPOSITE LATCH to the Door Guide Rail on the side directly opposite the Interlock.

Door Installation - HG Installation

■ With the Door Panels in the FULL CLOSED position, place the LATCH LOCK BAR so that the LOCKING DOG on the SIDE OPPOSITE LATCH is centered in the Lock Bar hole.

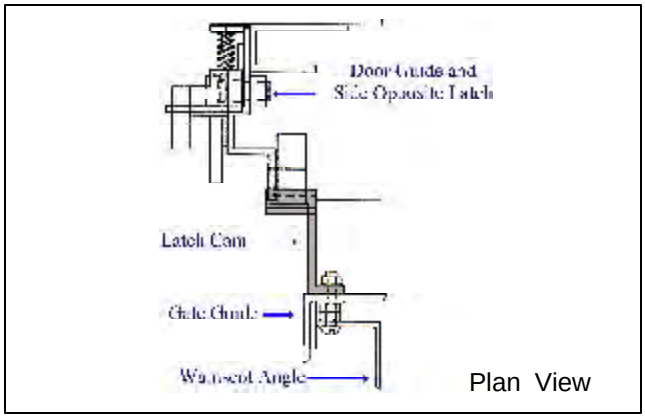
■ Move the LATCH BAR so that there is a **MAXIMUM** clearance or 1/4" (6mm) between the top of the Locking Dog and the top edge of the rectangular hole in the LATCH BAR.

NOTE: The 1/4" (6mm) maximum is critical - if the Door Panel can move more than 1/4", the Door Panels will have more than 1/2' between them when closed.

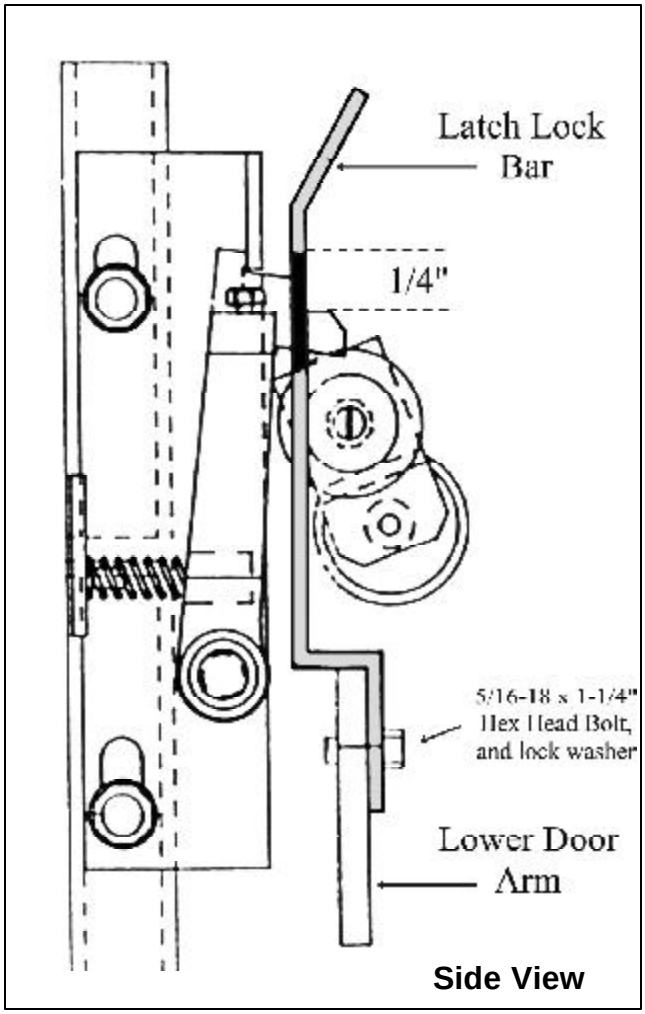
■ Clamp the LATCH BAR to the Lower Door Arm.

■ When satisfied with the LATCH BAR position, drill and tap a 21/64" hole through the Door Arm and LATCH BAR. Locate the hole in the center of the LATCH BAR and about 1" (25mm) down from the top of the Lower Door Arm.

■ Attach the LATCH BAR to the Lower Door Arm using the 5/16-18 x 1-1/4" Hex Head Bolt and lock washer found in Hardware Kit #135.



Plan View



Side View

AFTER THE CAR ENCLOSURE AND GATE GUIDES HAVE BEEN INSTALLED.

■ Using the GATE GUIDE mounting screws 5" (128mm) above and 1-3/8" (35mm) below the Center Line of the Opening, mount the SIDE OPPOSITE LATCH CAM to the Gate Guide

■ This LATCH CAM causes the SIDE OPPOSITE LATCH to retract when the Car reaches the correct opening.

Door Installation - HG Series

Spring Catch	When applicable, attach the Spring Catch to the Lower Door Arm using material found in Hardware Kit #146

Courion Parts and Tools Required for Spring Catch Installation:

Parts and Hardware

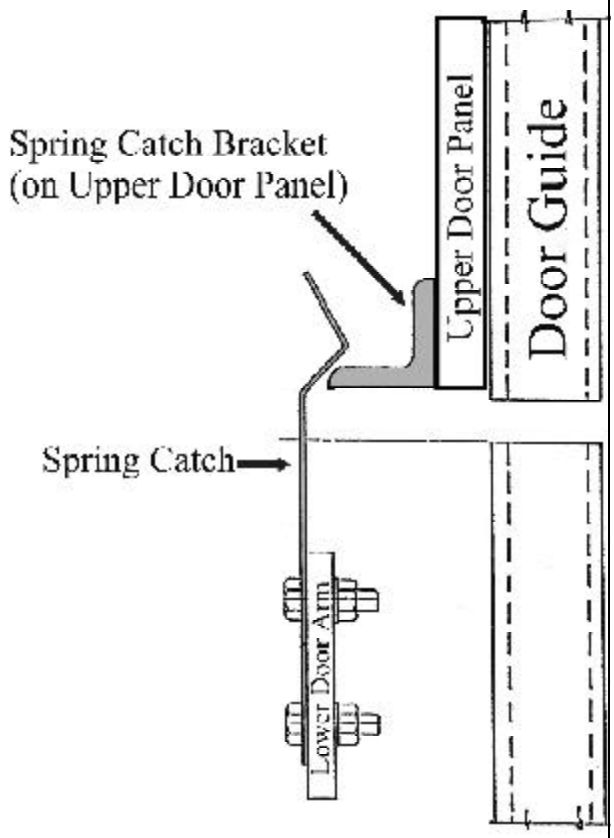
- Spring Catch (two (2) per Opening)
- Spring Catch Hardware Kit #146 (one (1) per Opening)

- Using the Spring Catch as the hole template, drill two (2) 17/64" holes in both Lower Door Arms.

- The up/down location of the holes should allow the Spring Catch to loop over the Spring Catch Bracket on the upper Door Panel when the doors are in the FULL CLOSED position.

- Using two (2) 1/4-20 x 1" Hex Head Bolts found in Hardware Kit #146, attach the Spring Catch to both Lower Door Arms.

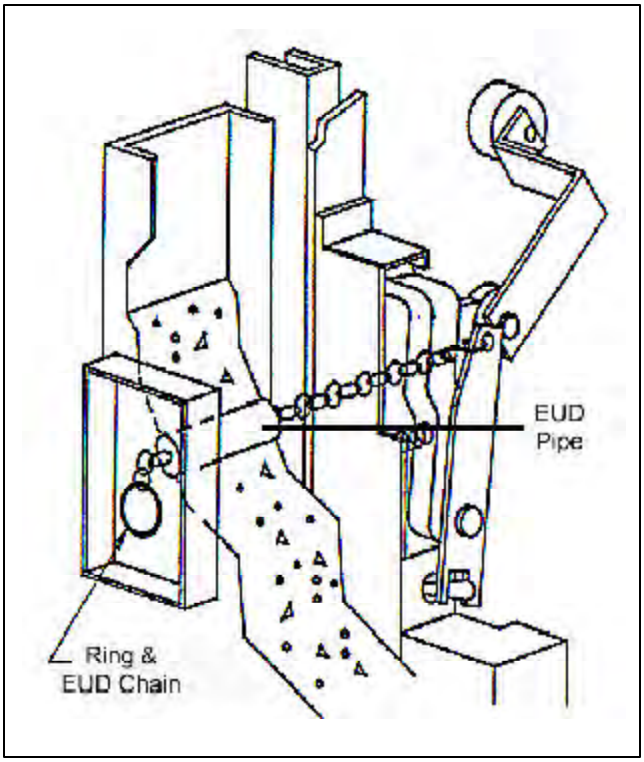
- Shim the Spring Catch as necessary using the Spring Catch Shims located in Hardware Kit #146.

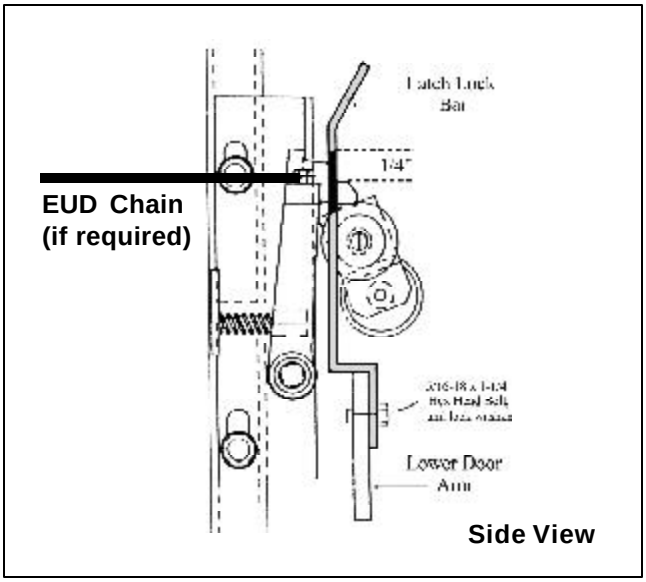


Side View

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.

IF YOU HAVE SIDE OPPOSITE LATCHES: Doors equipped with Side Opposite Latches on the side opposite the Interlock will also require the installation of an EUD on both sides of the hoistway entrance.

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.

3044 Lambdin Avenue
St. Louis, Missouri 63115
800-533-5760 or 314-533-5700
314-533-5720 (fax)
sales@couriondoors.com