



*Opening Quality Doors
Around The World*

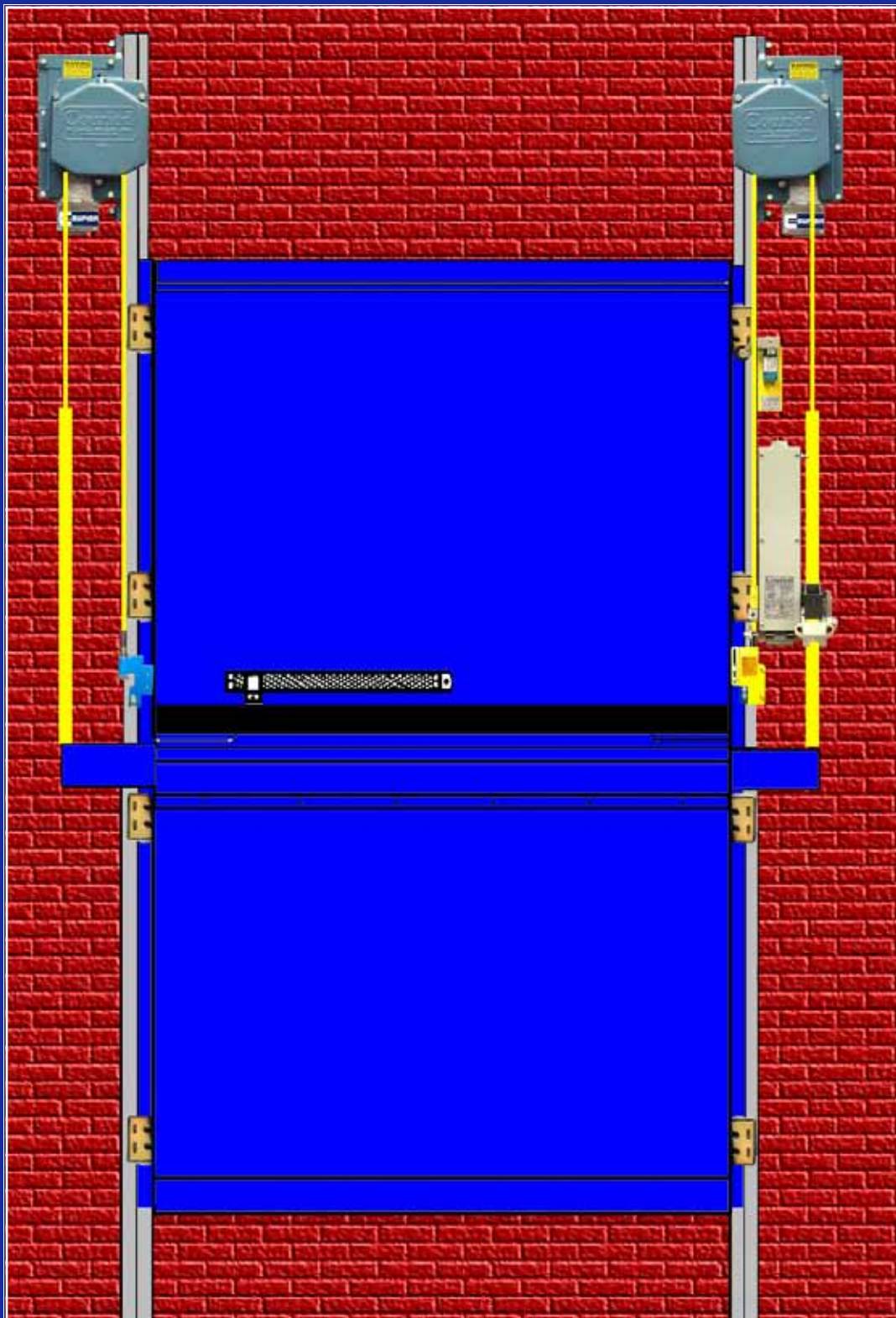


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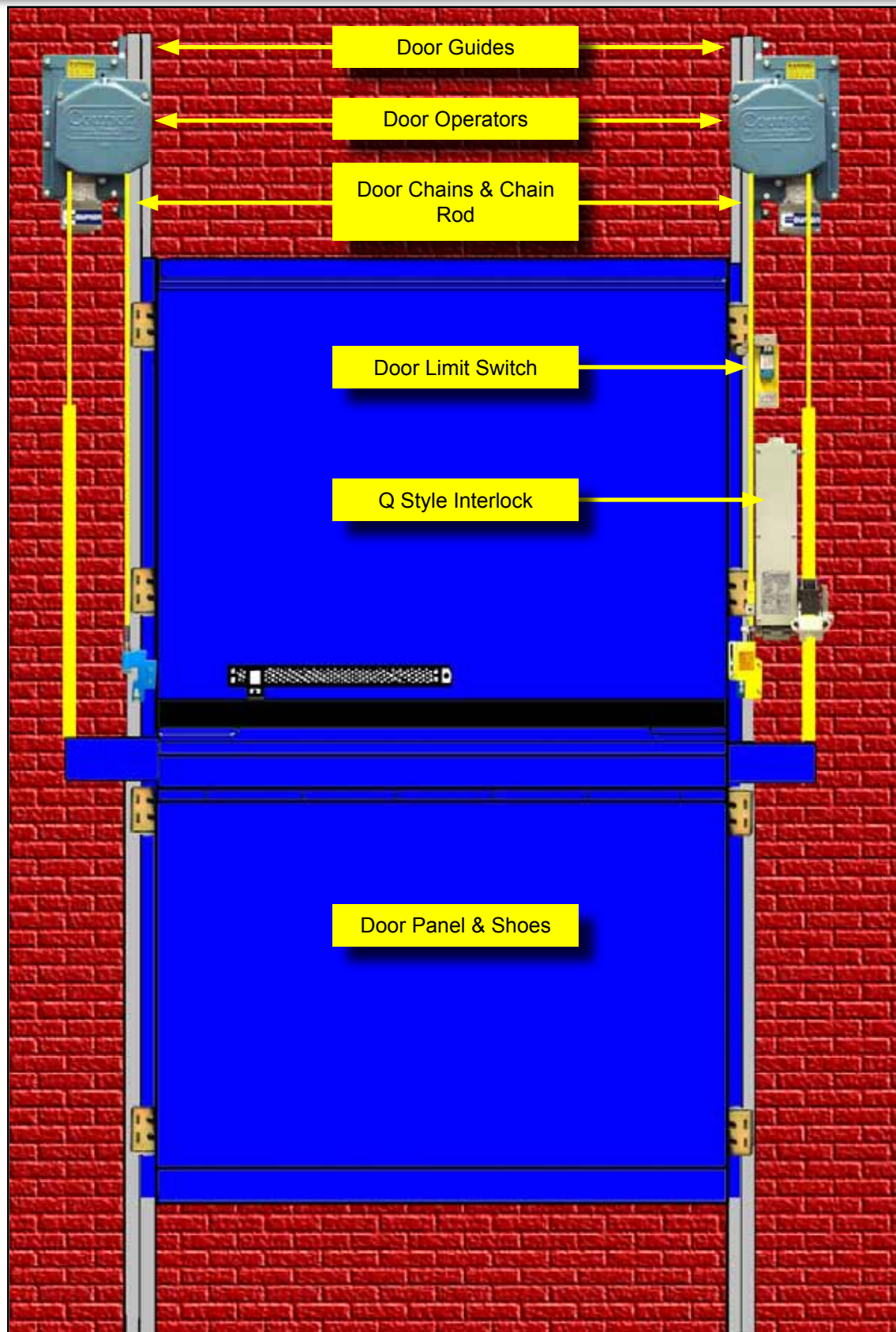
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Additional Documentation Provided By Courion (when applicable)

General Layout Drawings	Material Packing List
Car Enclosure Installation Instructions	Retiring Cam Installation Instructions
Car Gate Installation Instructions	Door Control Installation & Adjustment Manual
Wiring Diagrams	Parts & Maintenance Manual
Other:	Other:
Other:	Other:

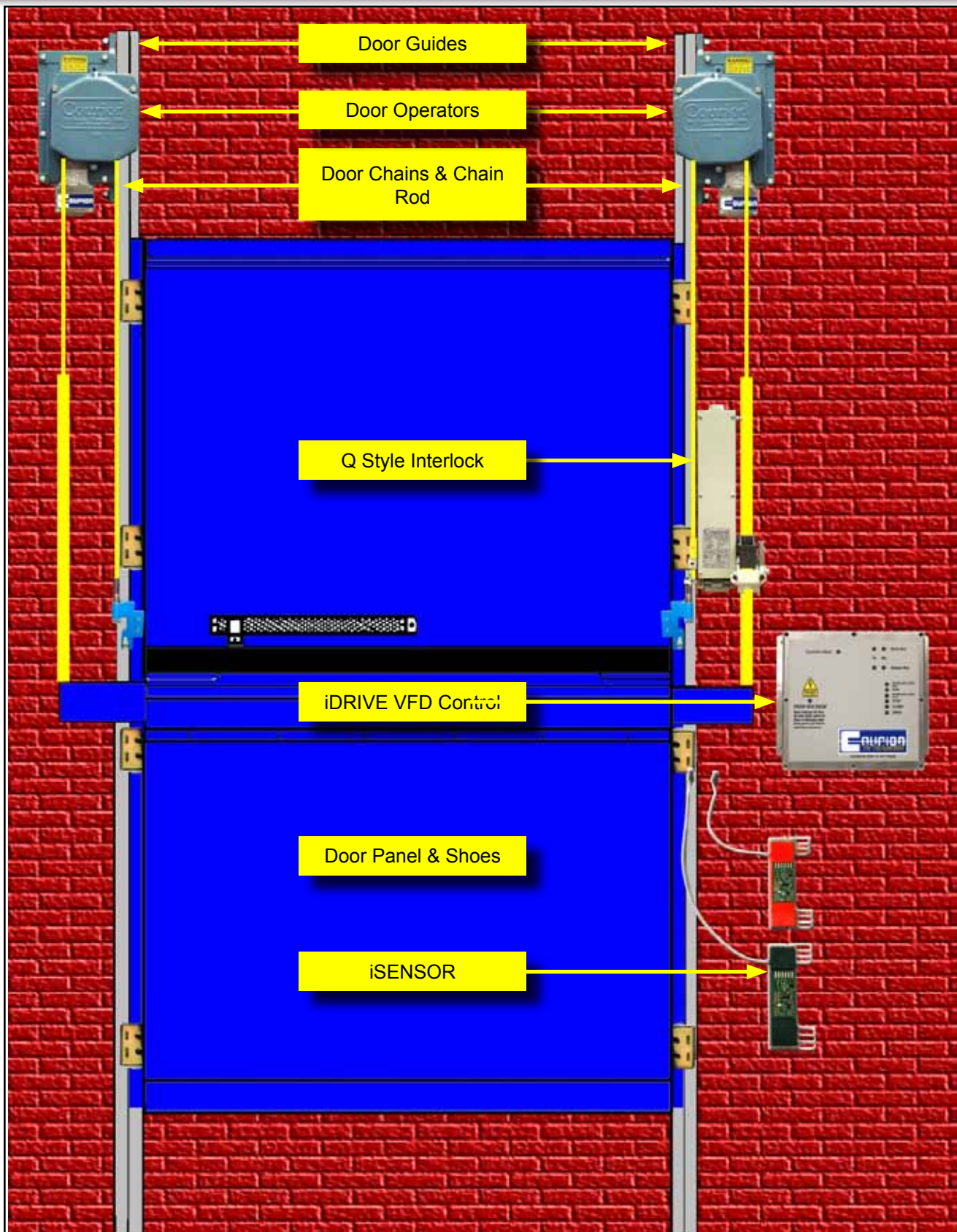
For Immediate Help Call 1-314-533-5700

Q Style Bi-Parting Freight Door System Layout - Power Operation Shown



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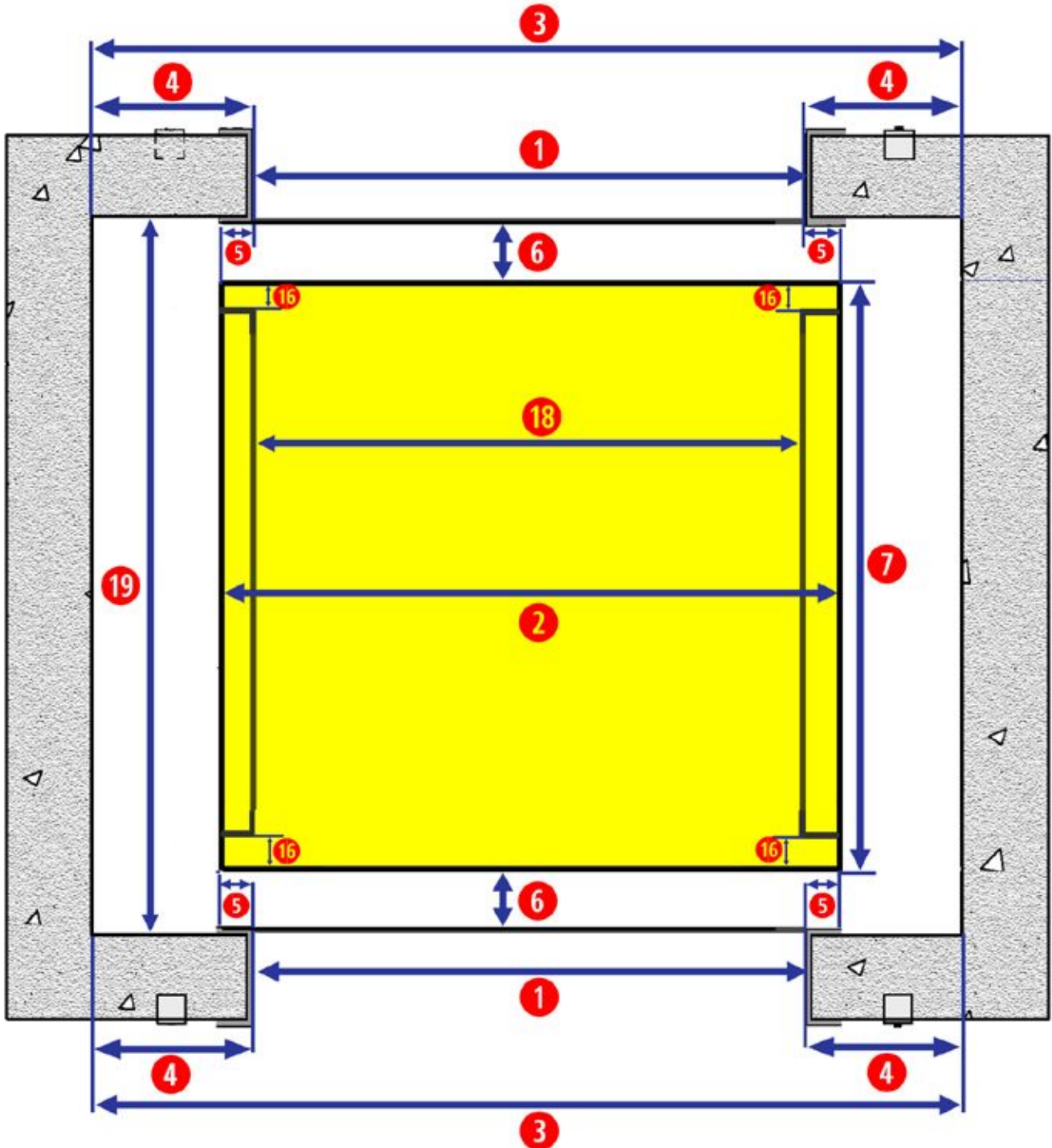
Q Next Generation Bi-Parting Freight Door System Layout - Power Operation Shown



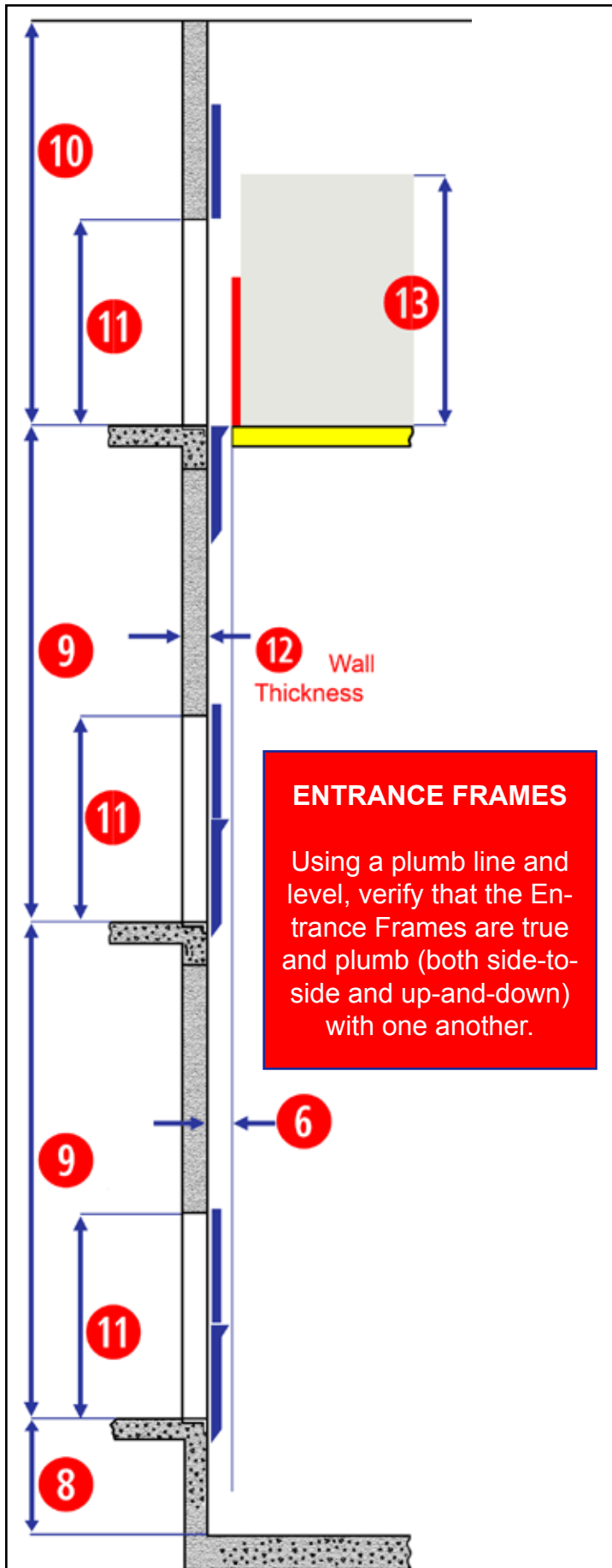
For Immediate Help Call 1-314-533-5700

Hoistway Survey

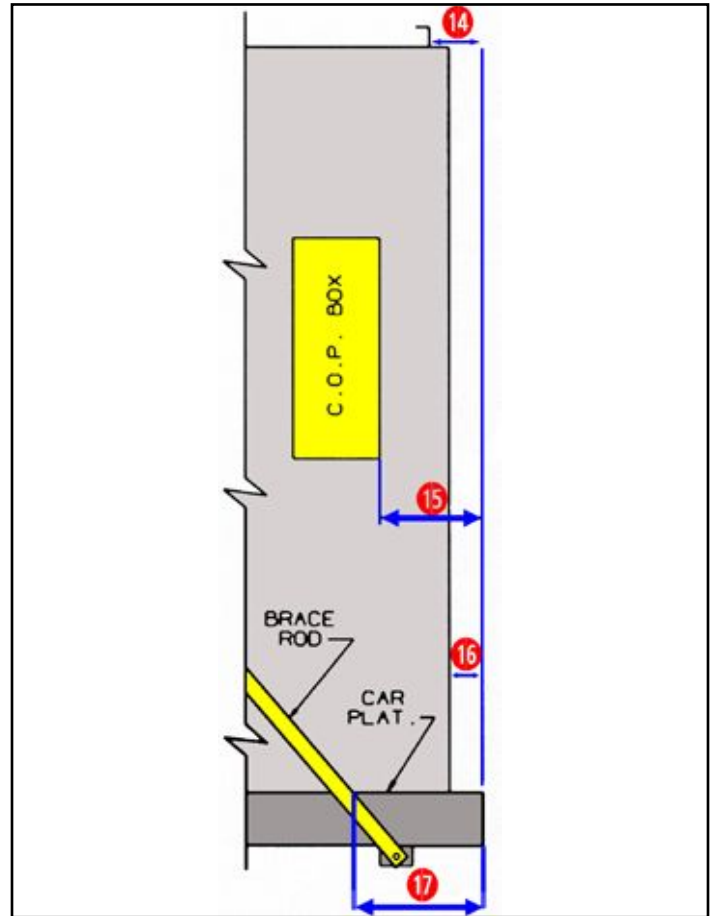
Using COURION's **General Design Drawings (GD Drawings)** enclosed with these Instructions, verify all dimensions to insure that your COURION equipment will properly fit in your hoistway.



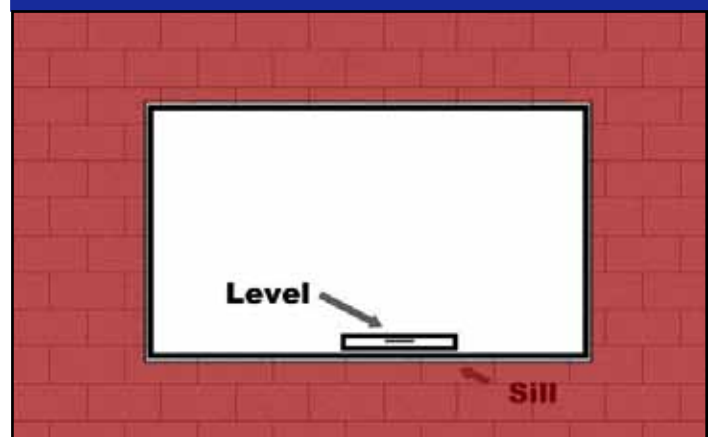
1 Opening Width 2 Platform Width 3 Clear Hoistway 4 Return 5 Lap 6 Car-to-Sill 7 Platform Depth



- | | |
|----------------------|-------------------|
| 8 Pit Depth | 9 Floor-to-Floor |
| 10 Clear Overhead | 11 Opening Height |
| 12 Wall Thickness | 13 Inside Cab |
| 14 Canopy Setback | 15 COP Setback |
| 16 Enclosure Setback | 17 Brace Rod |

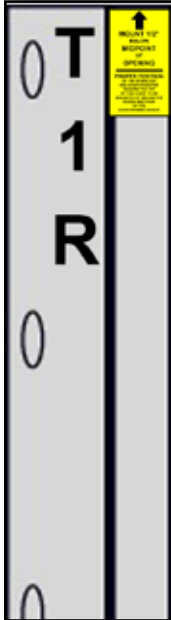


Sills must be level to a tolerance of 1/8" (3mm) for every 8'-0" (2,440mm)



Guide Rail Installation

Using a PLUMB LINE and the Gauge Angle provided by Courion as a guide, attach the Guide Rails to the Entrance Frames and hoistway wall. If you have Drywall Entrance Frames, the Dry-wall Frame Covers must be installed **BEFORE** your Guide Rails are attached to the frames.



COURION Q-Style Guide Rail Identification

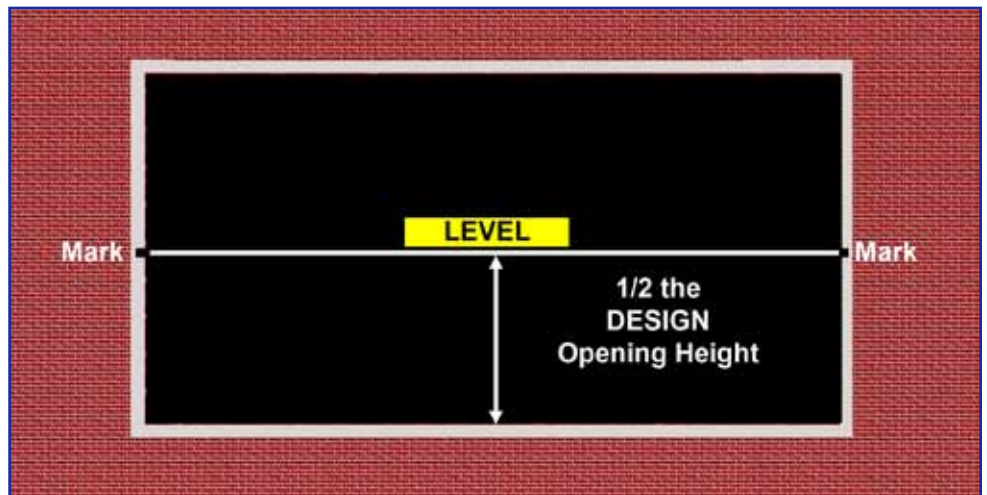
Courion Guide Rails are manufactured and shipped in pairs (left and right) for specific landings. There are three (3) types of guide rails -

UPPER and INTERMEDIATE (extend from one floor to the next) Guides - Marked according to the opening for which they serve as the Upper guide. (Example: 1R = Right Hand Upper Guide for Opening #1)

LOWER Guides - Marked according to the opening for which they serve as the Lower guide followed by the letter A. (Example: 1A-R = Right Hand Lower Guide for Opening #1).

T = Top of Guide Rail R = Right Hand L = Left Hand

- 1 Secure a PLUMB LINE from the top of your hoistway to the bottom.
- 2 Using a Level, make a Mark on each side of each Opening at 1/2 (Midpoint) of the **Design Opening Height**. The Design Opening Height may be different from the Actual Opening Height. Please consult Courion's GD-General Design Drawings for the proper Design Opening Height.



CRITICAL

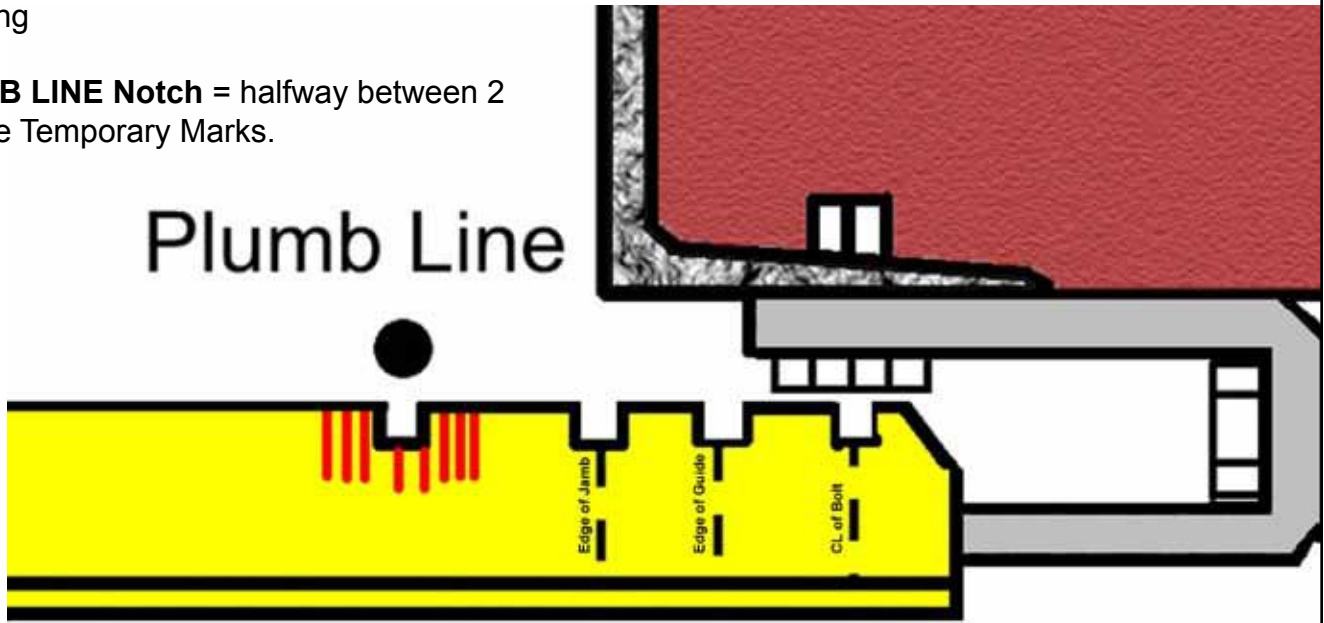
Please refer to Courion's GD-General Design Drawings for the proper DESIGN OPENING HEIGHT.

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③ At the TOP, MIDDLE, and BOTTOM of each Opening, make a temporary mark on the Gauge Angle at the Plumb Line. Upon completion, make a permanent mark on the Gauge Angle at the HALFWAY POINT between the two outside temporary plumb line marks.

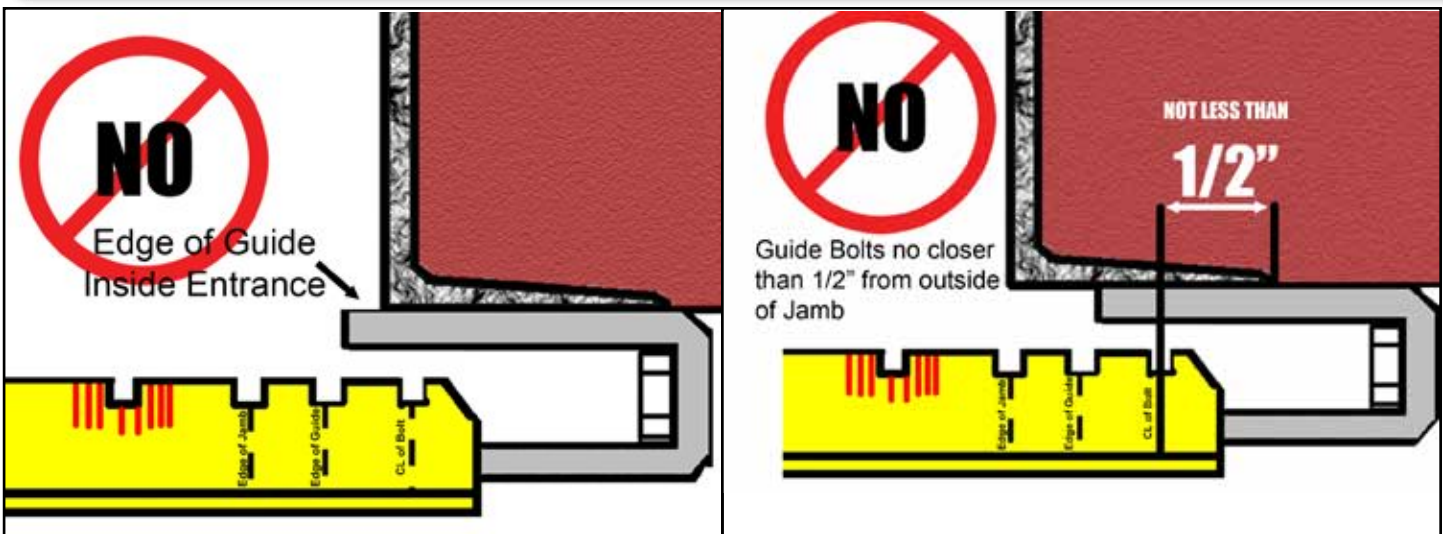
RED Marks = Temporary Marks made at each Opening

PLUMB LINE Notch = halfway between 2 outside Temporary Marks.



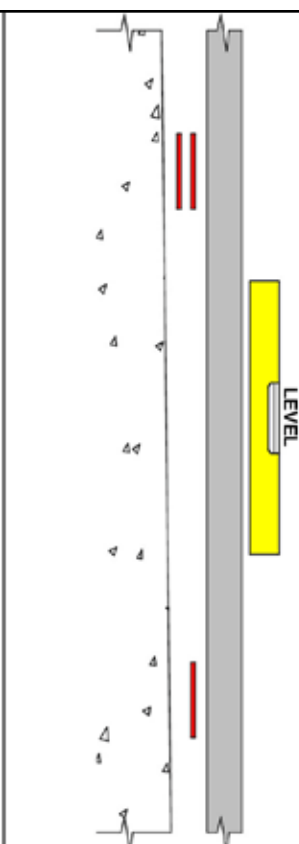
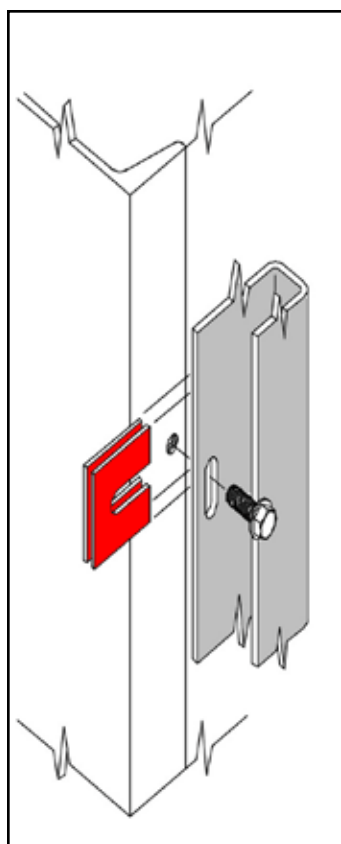
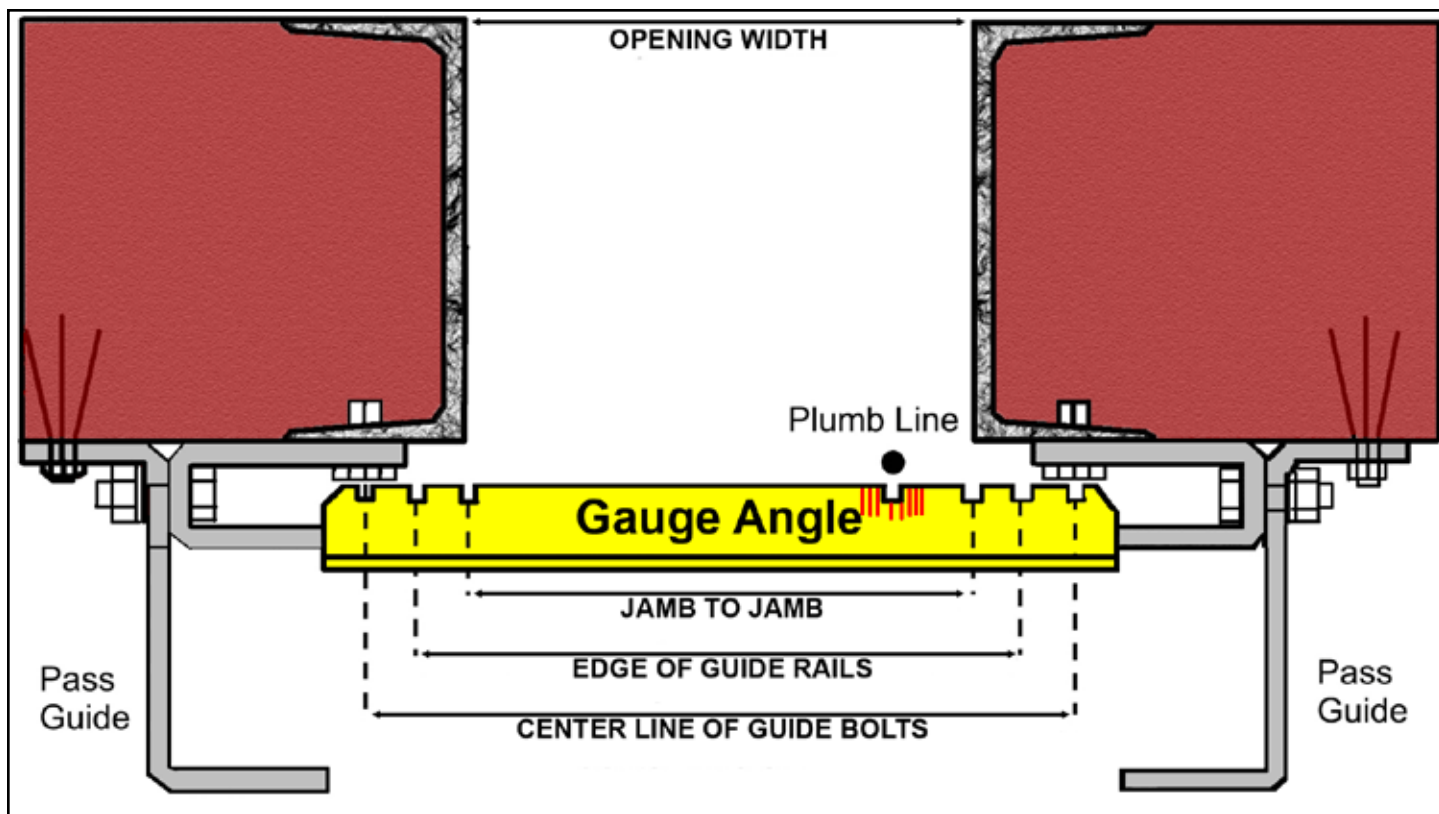
CRITICAL!

Because the Hoistway Door Guide Rails are set in-line, one above the other, the Entrance Frames and Guide Rails **MUST BE** vertically aligned and plumb with one another. Using the Guide Rail Gauge Angle and the Plumb Line, verify that the Entrance Frames are in-line and plumb. If they are not, STOP and call Courion. In addition, Verify at all Openings and on both sides of the hoistway that (1) the Edge of Guide Mark does NOT fall inside the Entrance Frame, and (2) the Center Line of the Guide Bolt Mark does NOT fall closer than 1/2" (13mm) from the outside edge of the Jamb.



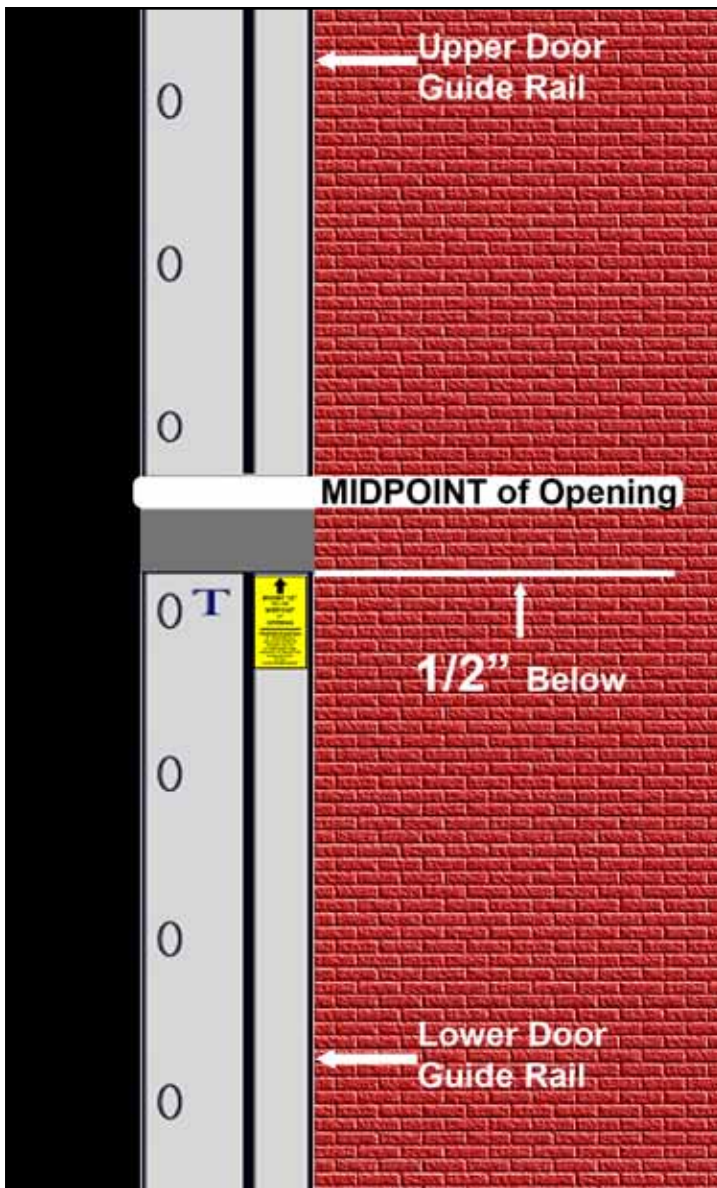
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- ④ At each Opening, align the Plumb Line Notch on the Gauge Angle with the Plumb Line. Using the Gauge Angle as a guide, clamp the Guide Rails into position.



IMPORTANT!

Do NOT use washers under the head of the Guide Bolts. Bolts should be placed in all Guide Rail Slots. Excessive shimming of the Door Guides may void the entrance fire rating and may cause your installation to fail inspection.



- 5** The UPPER/INTERMEDIATE Guide Rail starts at the Design Midpoint Mark and goes Up.

The Lower Guide Rail starts 1/2" below the Midpoint Mark and goes down.

- 6** Once the Guide Rails are clamped into their proper position, secure them to the Entrance Frames using the fasteners provided by Courion.

Mounting slots are spaced 9" on-center in the Door Guides. Install fasteners at the TOP of each slot within the Opening, and in every 4th Slot above and below the Opening. For Openings where the Entrance Frame does not extend above or below the Opening, Courion has provided you with the necessary Guide Lugs and fasteners to anchor the Guide Rails to the block or concrete walls.

An additional Guide Bolt should be installed 1" above the Sill on each side of the Opening. You will need to drill a hole through the Guide Rail and Jamb.

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Door Operator Installation - Power Operation

Using the 3/8" Roll Pin on the side of the Operator as a locator guide, fasten a Door Operator to the Upper/Intermediate Guide Rail on each side of the Opening with the motor on the back side (nearest the wall) and the junction box down.

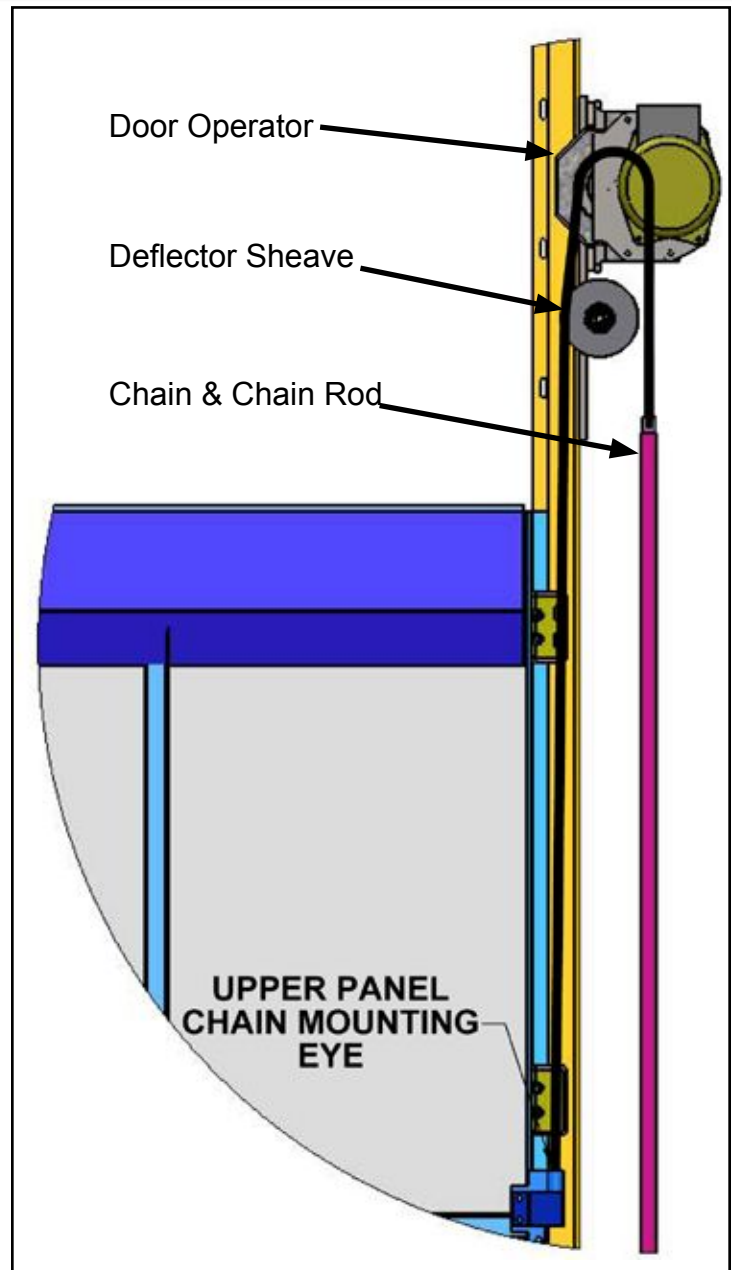
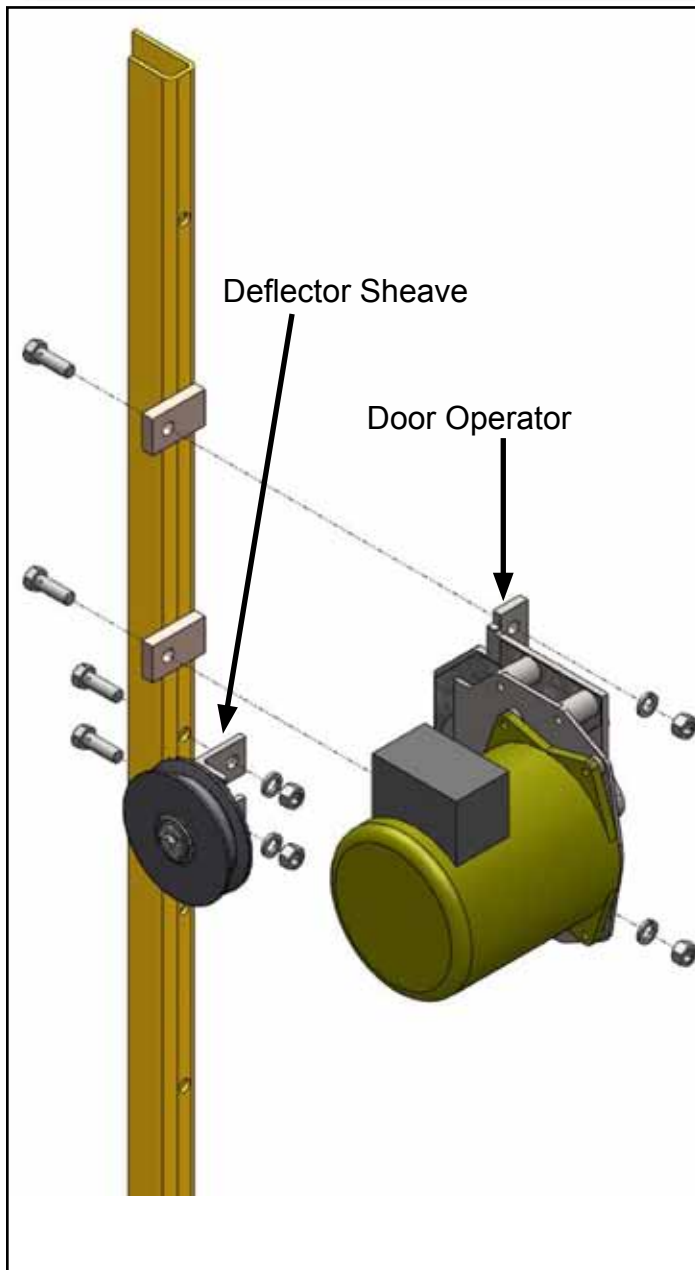


NOTE

For Pass-Type Doors, the Door Operator mounting holes are located in the Pass Guide Rail.

Door Operator Installation - PA Style Operators

On some jobs, COURION will supply PA Style Operators rather than the LP25 Operator shown on the prior page. In those cases, mount the PA Style Operators to the mounting tabs on the Guide Rail, and the Deflector Sheave just below.



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Manual Sheave Installation - Manual Operation

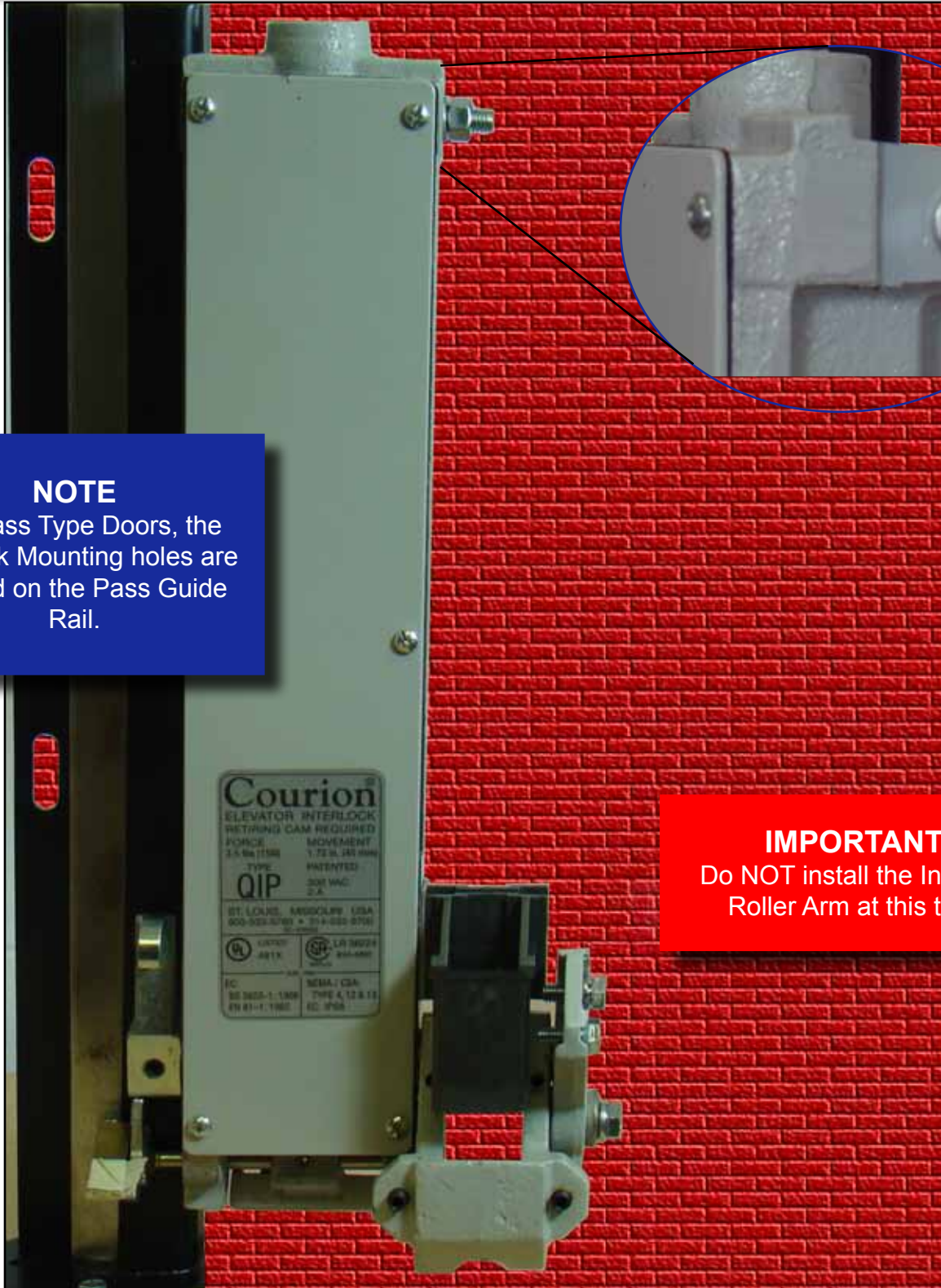
Mount a Manual Door Sheave to the Upper/Intermediate Guide Rail on each side of the Opening.



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Door Interlock Installation

Mount the Interlock to the lower end of the Upper/Intermediate Guide Rail. Refer to Courion's GD Drawings to confirm which side of the hoistway the Interlocks mount.



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Side Opposite Latch Installation - When Applicable

Mount the Side Opposite Latch directly across from the Interlock on the lower end of the Upper/ Intermediate Guide Rail.

NOTE

For Pass Type Doors, the Side Opposite Latch Mounting holes are located on the Pass Guide Rail.

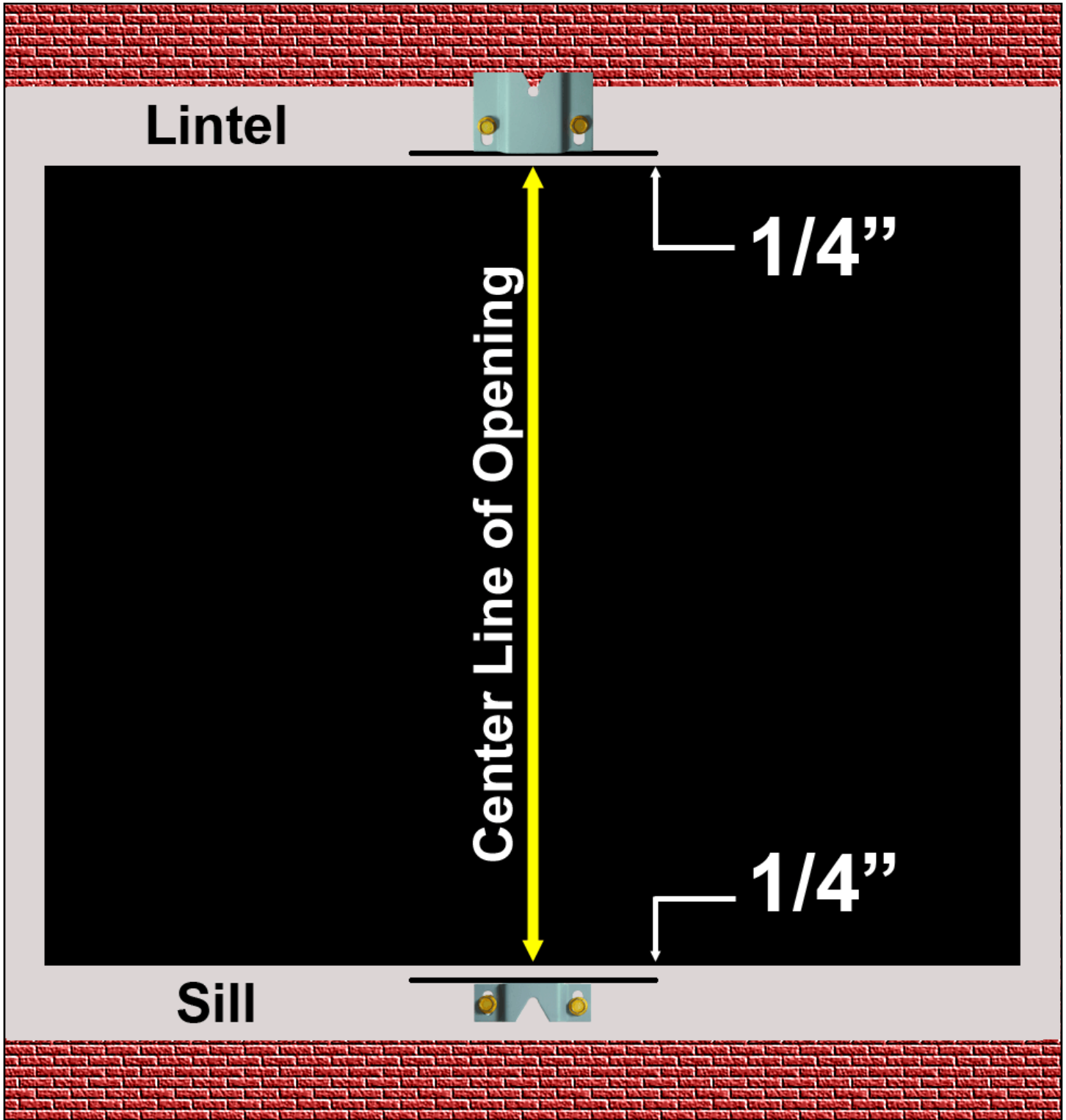


IMPORTANT!

Do NOT install the Side Opposite Latch Roller Arm at this time.

Center Latch Installation - When Applicable

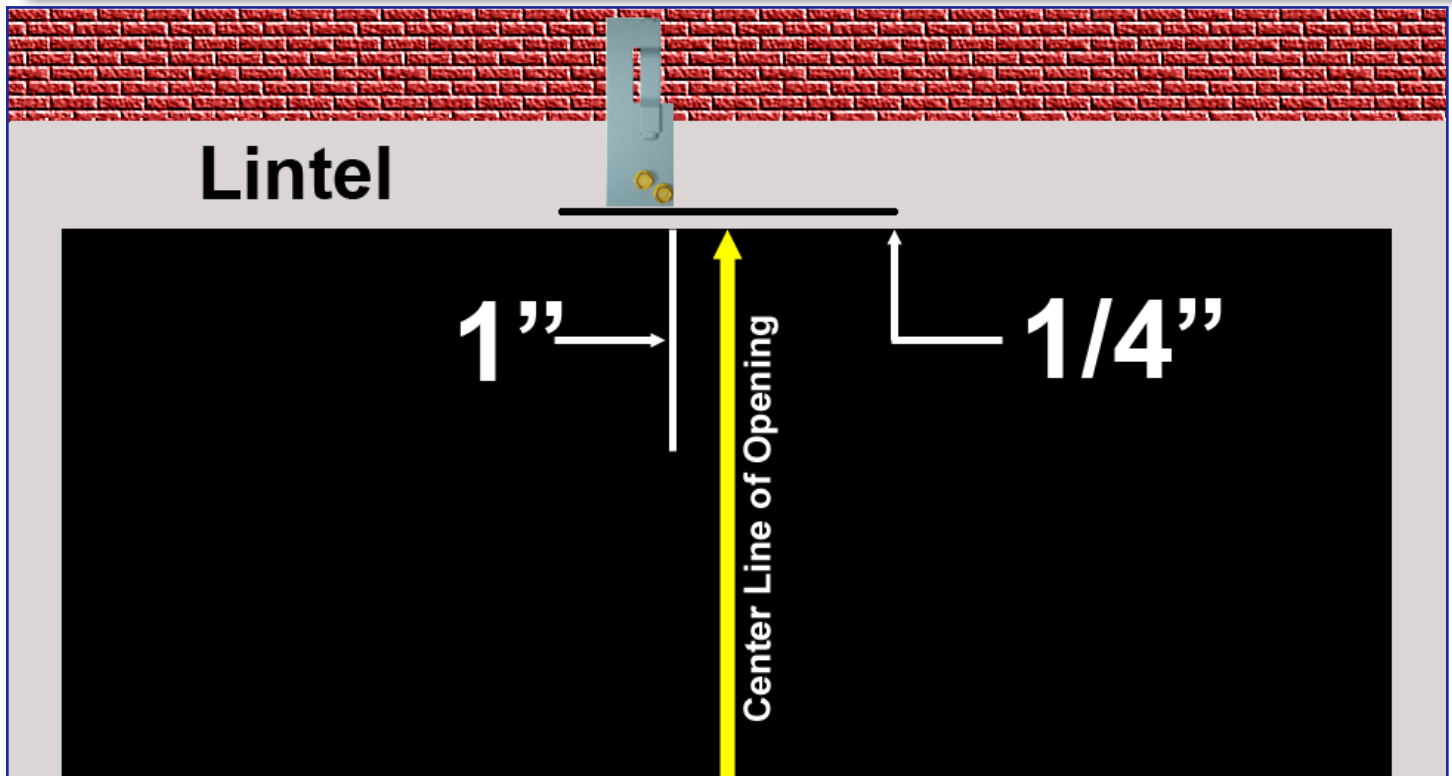
Mount the Center Latch Plates to the center of the Sill and Lintel. Once your Door Panels are installed, adjust the Center Latch Bolt on the Upper and Lower Door Panels so that they engage the Center Latch Plates with minimal interference.



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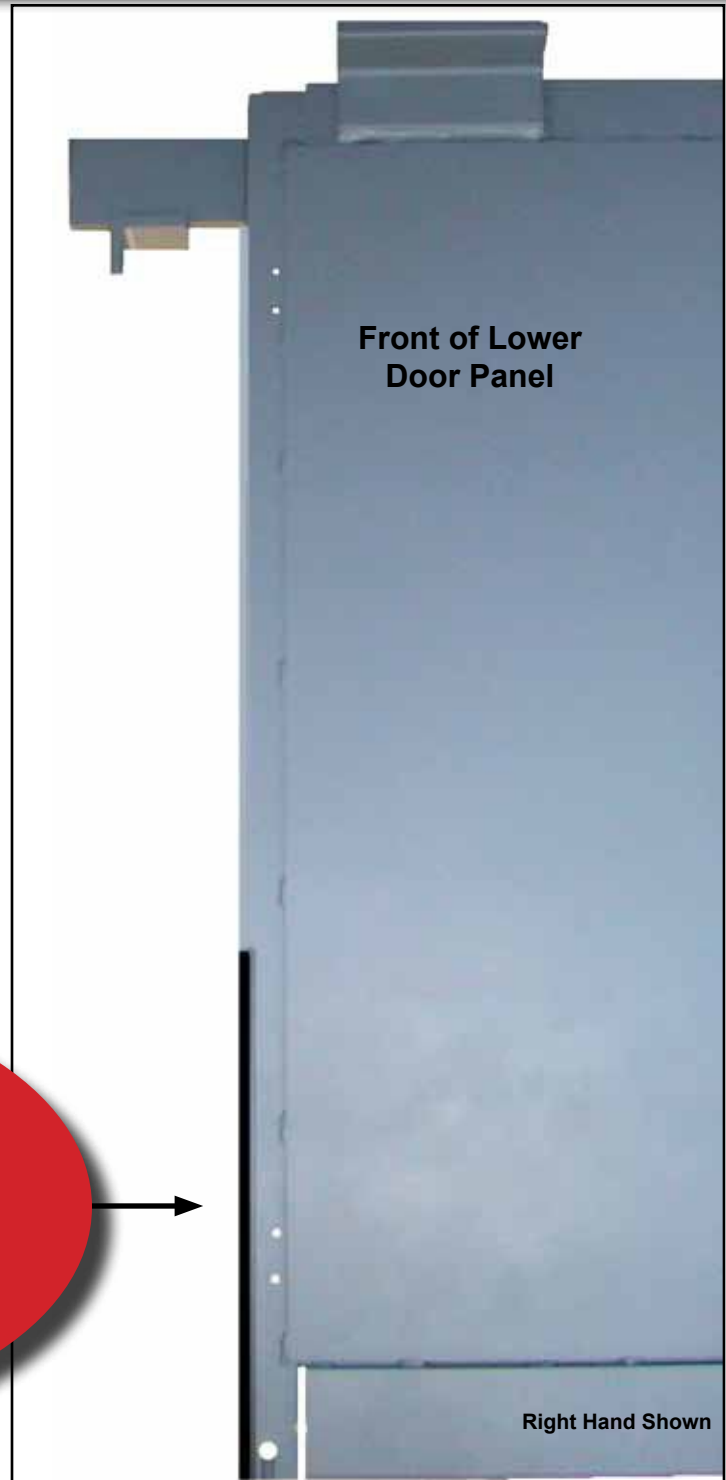
CENTER LINE OF THE OPENING - The Center Line of the Opening is best located at the midpoint between the installed Guide Rails, and should NOT be located at the midpoint between the Jamb.

PASS TYPE DOORS - The Upper Panel Center Latch for Pass Type Doors is offset by 1" (26mm) from the Center Line of the Opening.



iSENSOR Magnet Installation - (Applicable Only If You Have Courion's Next Generation System)

Prior to placing the Door Panels in the Door Guide Rails, attach the Door iSENSOR Magnet to the **LOWER CORNER AND OUTSIDE EDGE** of the Lower Door Panel Shoe Bar on the Interlock Side of the Door Panel.

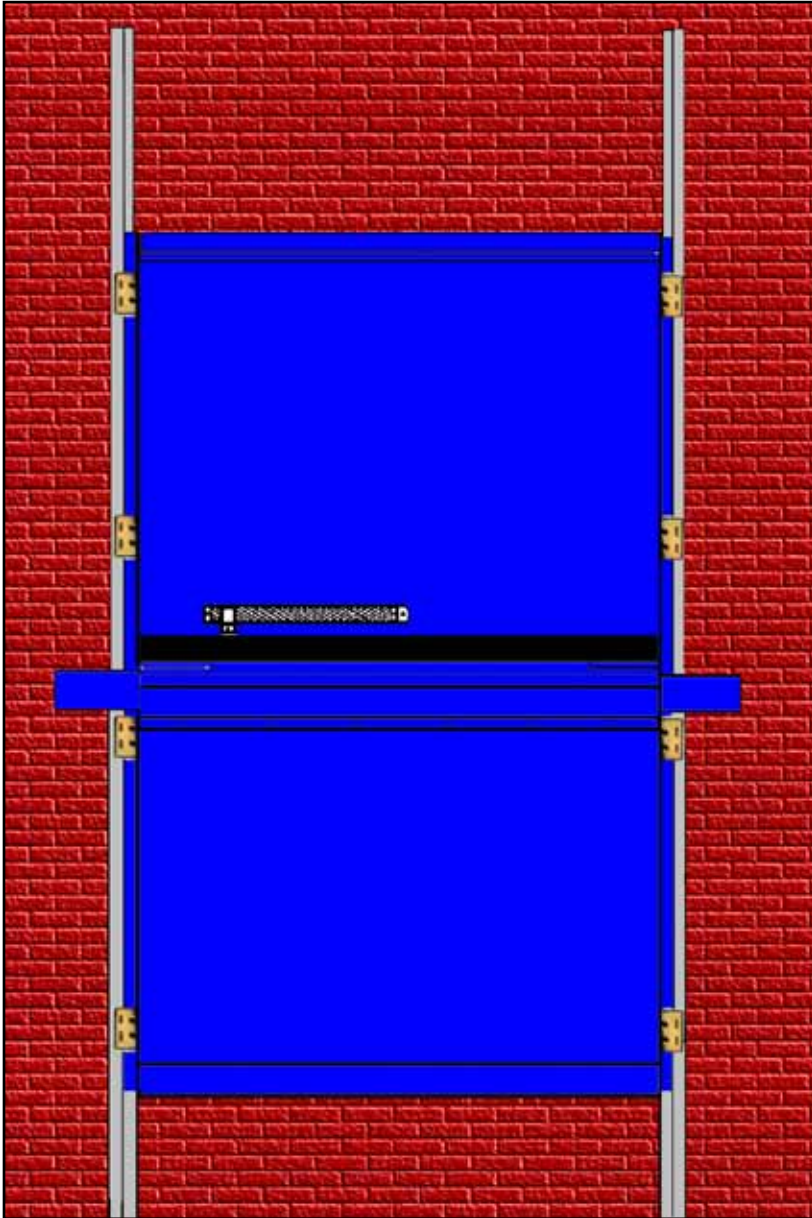


IMPORTANT!

The iSENSOR Magnet should be placed at the **BOTTOM** and on the **VERY OUTSIDE EDGE** of the Lower Door Panel Shoe Angle on the **INTERLOCK** Side of the Opening.

Door Panel Installation

Set the Door Panel(s) in position by inserting the shoe angle of the Door Panel into the Door Guide Rail on one side and then swinging the opposite side into position. Be sure to install each Door Panel at its proper Landing.



987 = The last 3 digits of Courion's Job Number.

#1 = The Opening Number

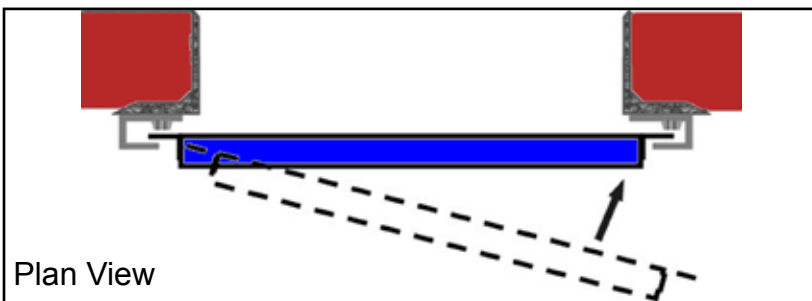
The Opening Number corresponds with the landing designation set out in Courion's General Design Drawings.

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.

DOOR TWIST

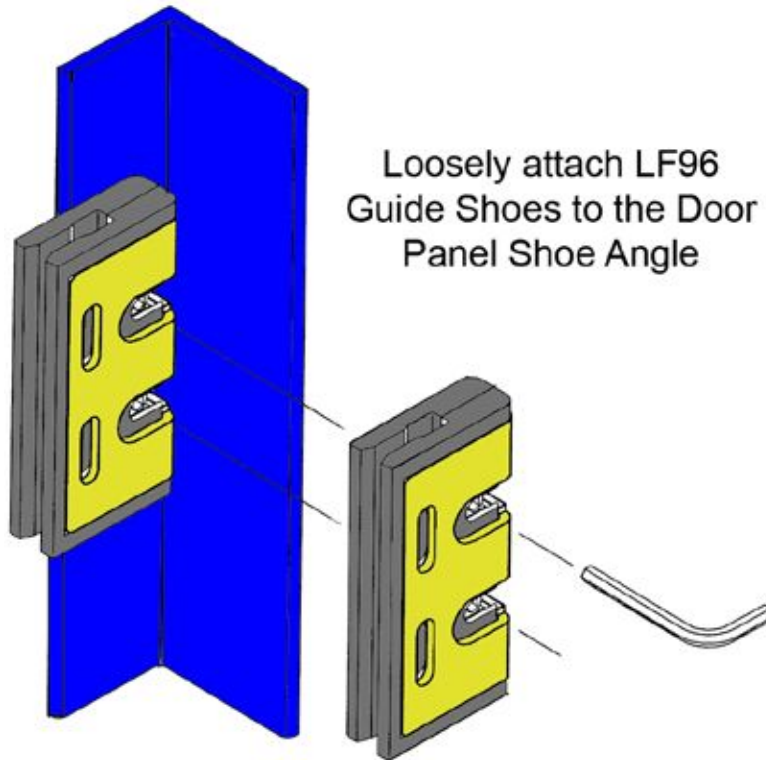
Courion checks each Door Panel for flatness prior to shipment. However, shipping and job site handling may produce some twist or bow in the Door Panel. Check each Door Panel for flatness by pushing the Door Panel against the guide bolts. If both shoe angles are flat against the guide bolts, twist is not present. If one side is not flat against the guide bolts, the Door Panel has some twist in it that must be removed before continuing with the installation.



Plan View

For Immediate Help Call 1-800-533-5760

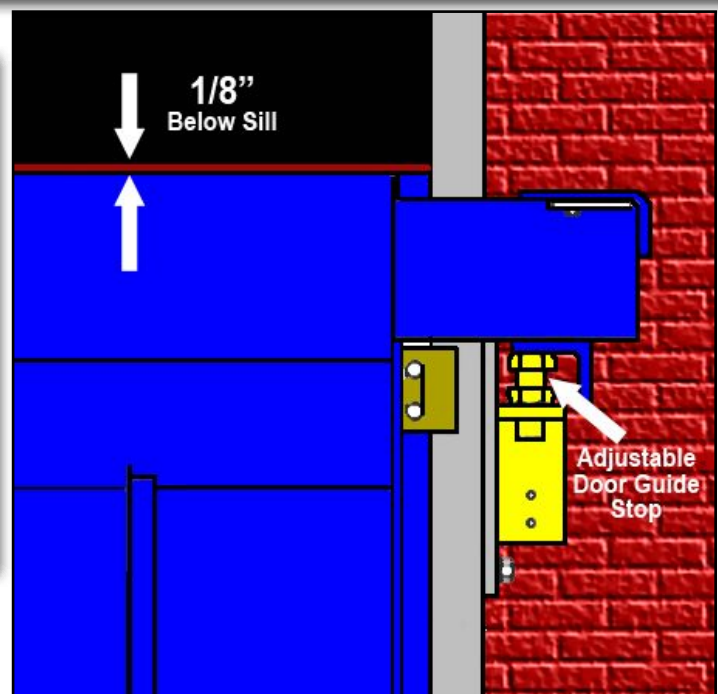
Loosely attach the Guide Shoes to the Door Panels. DO NOT overtighten. The Guide Shoes will be adjusted and tightened after the Door Chains have been installed.



After installing the Door Guide Shoes, open the Door Panels to the FULL OPEN position. When applicable, adjust the Guide Stops to insure that the Lower Door Panel is 1/8" (3mm) below the Sill.

ALERT!

If you have Door Sill Stops and Guide Stops, adjust the Guide Stops on both sides of the Opening so the head of the Guide Stop bolt is 1/8" (3mm) BELOW the lower door arm. The Guide Stops are not designed to support the trucking capacity of the Freight Door. The weight MUST be transmitted to the building through the Sill Stops. The Guide Stops are only a safety backup.



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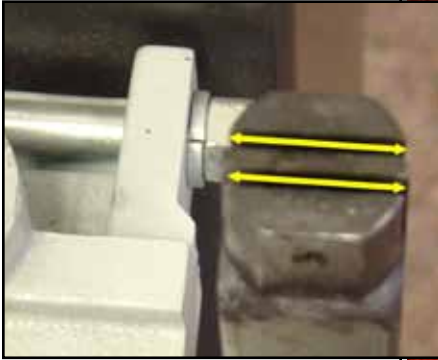
Chain and Chain Rod Installation

Install the Hoistway Door Chain Rods and Door Chains on both sides of the Opening. Adjust and tighten the Door Guide Shoes to limit side-to-side play to no more than 1/8" (3mm).

- 1 Insert the Hold Open Clip on Courion's Q Style Interlock.



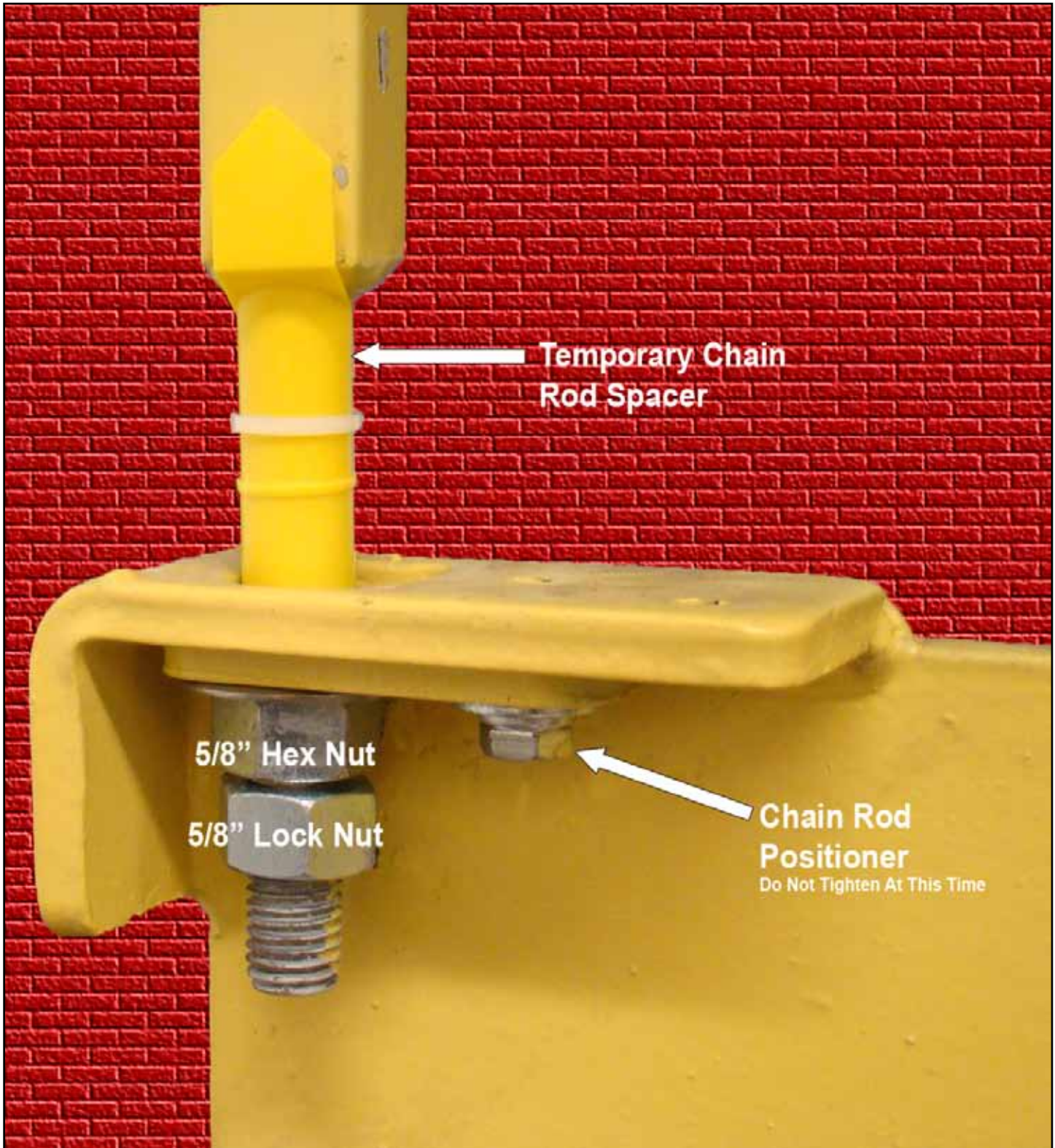
- 2** Slide the Door Chain Rod down through the Interlock's Chain Rod Holder and into the Lower Door Arm.



IMPORTANT!

Failure to get the Chain Rod **LEVEL & PLUMB** will result in the poor operation of the Freight Doors and could cause damage to your Interlock. Chain Rods should be **CENTERED** in Rod Guides.

- 3** With the Temporary Chain Rod Spacer resting on the Chain Rod Position, attach the Hex Nut and Lock Nut to the Chain Rod - **DO NOT TIGHTEN AT THIS TIME.**



4

Insert the Chain and Chain Adjustment Rod into the Upper Door Panel Chain Hitch.



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- 5** Using the Chain Pull Wire on your Courion Door Operator, pull the Door Chain over the Operator Sheave and down to the Door Chain Rod.



- 6** With the Door Panels in the **FULL OPEN** position, cut the chain to the correct length and attach to the Chain Rod.

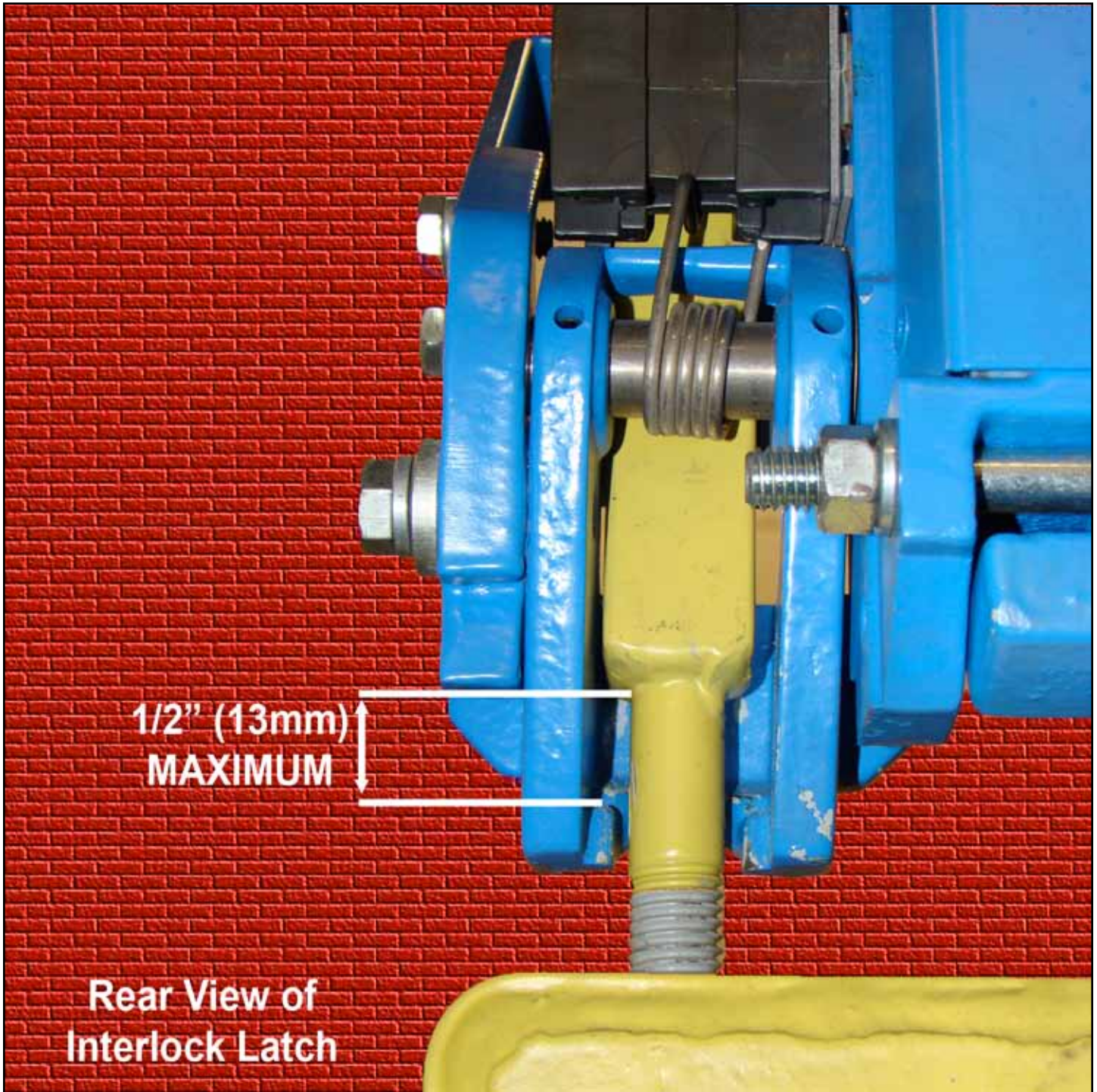
FULL OPEN

The Door Panels are in the **FULL OPEN** position when the Upper Door Panel is 1/8" above the Lintel and the Lower Door Panel is 1/8" below the Sill.



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- 7** With the Doors in the FULL CLOSE position, adjust the Chains and Chain Rods so that there is a MAXIMUM clearance of 1/2" (19mm) between the square end of the Chain Rod and the Interlock Locking Actuator.



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- 8 Adjust the Door Shoes to limit side-to-side play to about 1/8" (4mm).



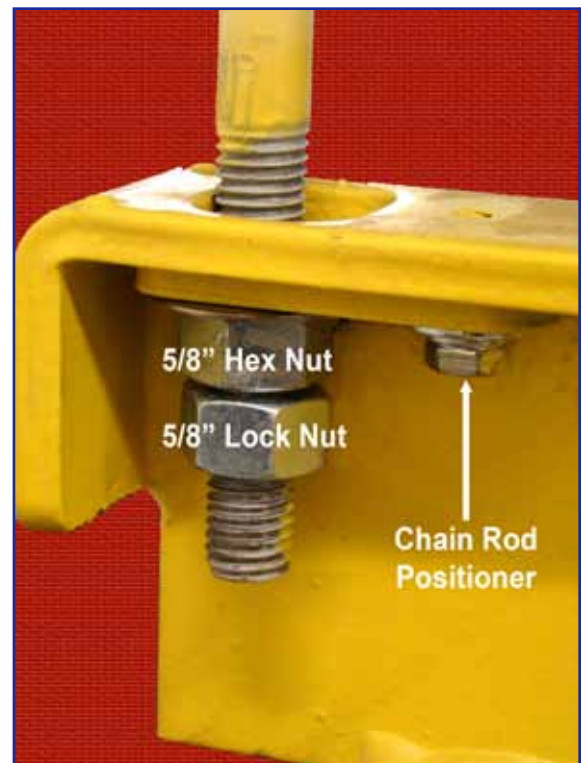
Use caution when tightening the Guide Shoes. Excessive force can strip threads in the Door Panel Side Angles.

- 9 Adjust the Chains and Chain Rods to ensure that the Door Panels are LEVEL and that the Chain Rods are centered in the Interlock Chain Rod Guide. Remove the Temporary Chain Rod Spacer from the Chain Rod.

✓ Using a level, check both Door Panels to insure that they are square and level.

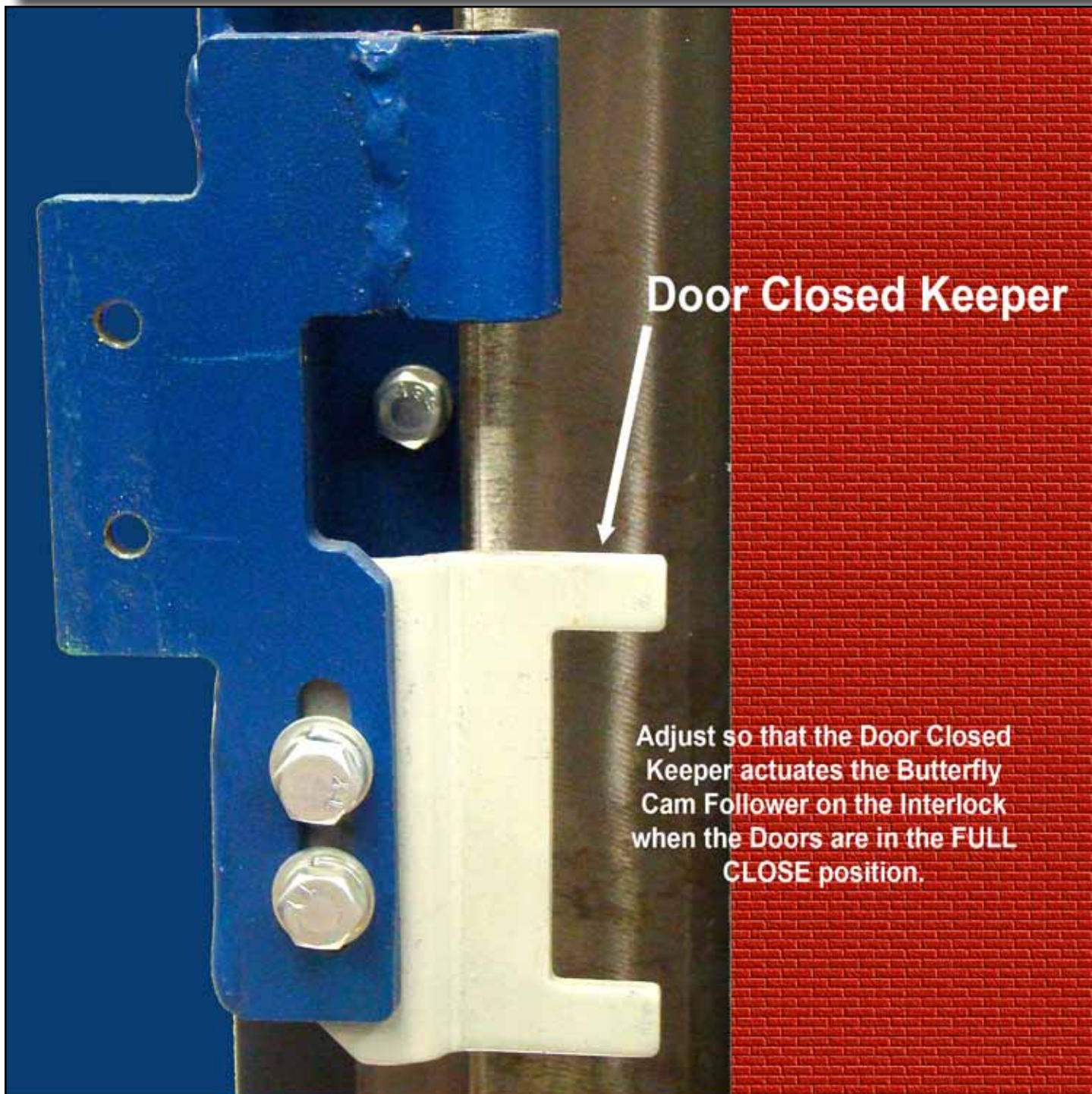
✓ Slowly open and close Hoistway Doors by hand. Interlock Guide will self center the Chain Rod. Tighten the Chain Rod Positioner on Door Arm.

Use caution when operating the Door Panels for the first time. If you installed Center Latches earlier, adjust the Center Latch Bolts on the Door Panels to slide smoothly into the Center Latches when the Door Panels are in the FULL CLOSE position.



Door Closed Keeper Installation

Attach the Door Closed Keeper to the Upper Panel Chain Hitch.

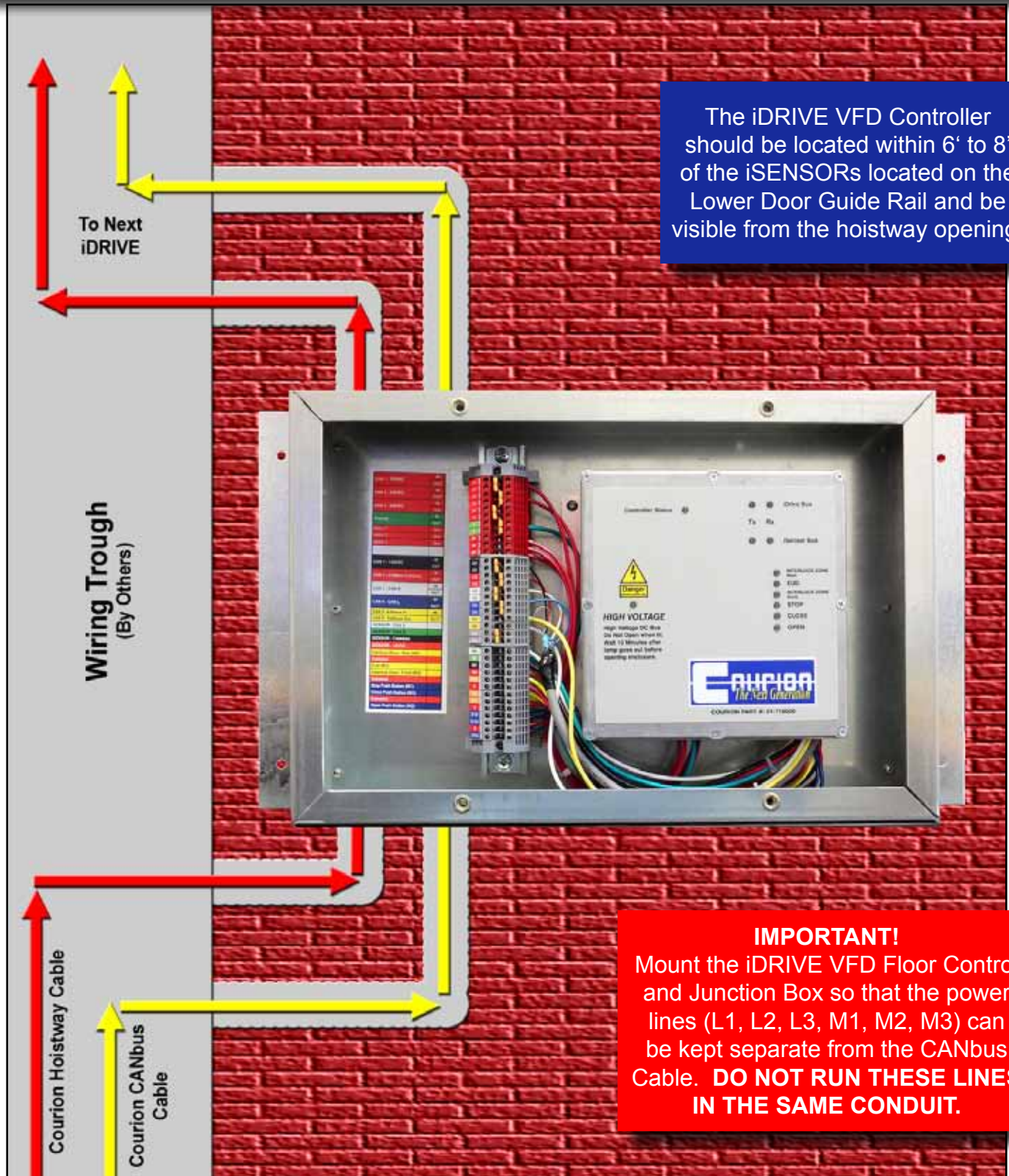


NOTE

If there is a Side Opposite Latch, you must install a Door Closed Keeper to the Upper Door Panel Hitch on the Side Opposite Latch side.

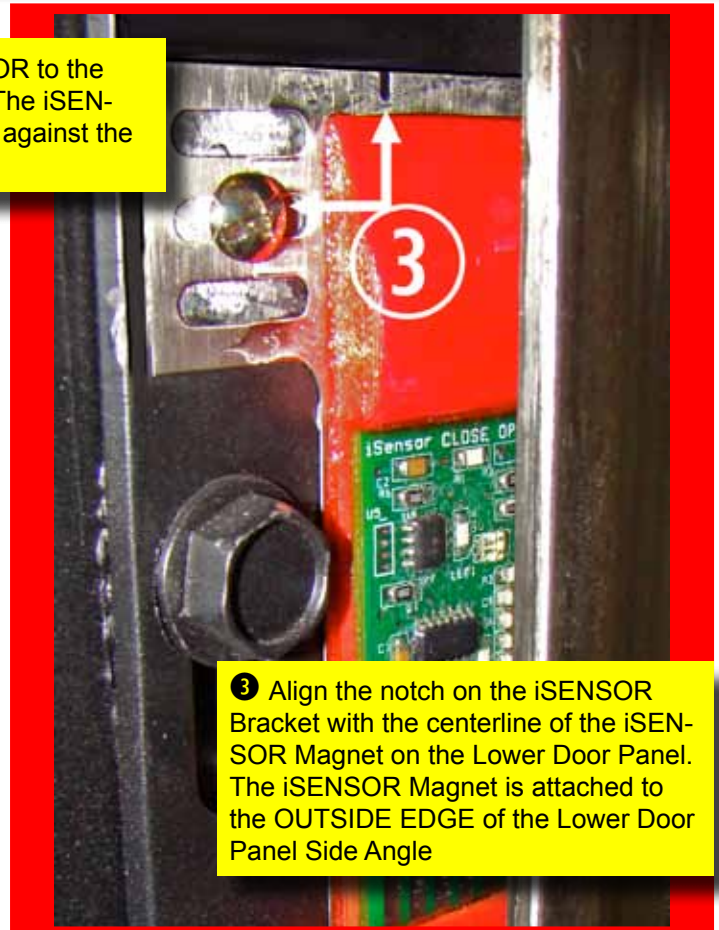
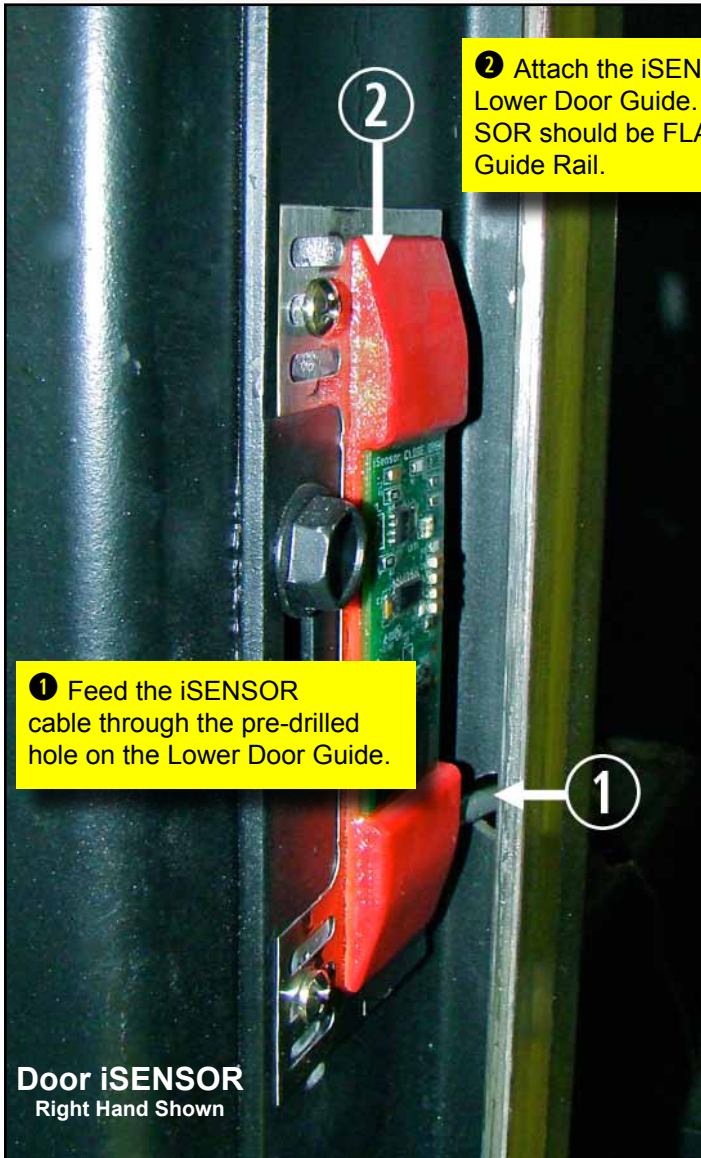
iDRIVE VFD Controller Installation - (Applicable Only If You Have Courion's Next Generation System)

Attach the iDRIVE VFD Floor Control and iDRIVE Floor Junction Box to the Wiring Trough or Hoistway Wall on the Interlock Side of the Hoistway.

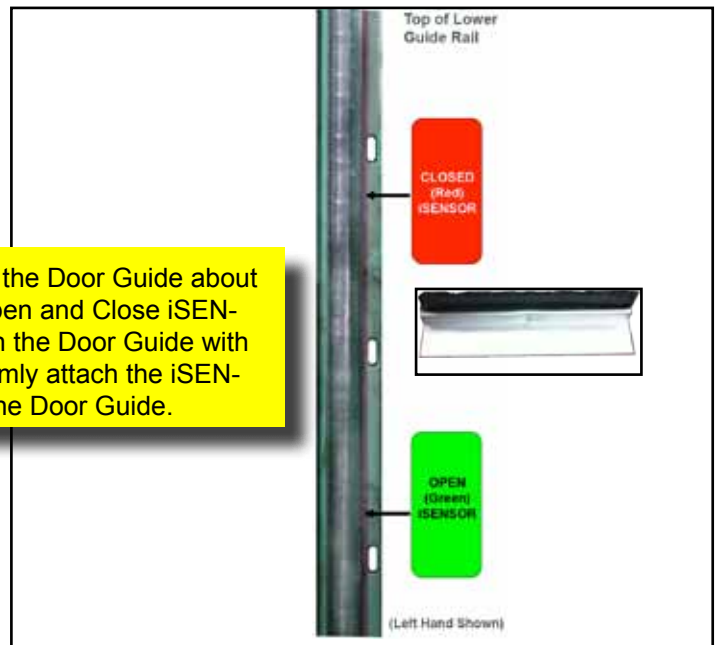


iSENSOR Installation - (Applicable Only If You Have Courion's Next Generation System)

After the Door Panels have been installed, mount the Door iSENSORS to the Lower Door Guides on the iDRIVE VFD Floor Control side of the hoistway.



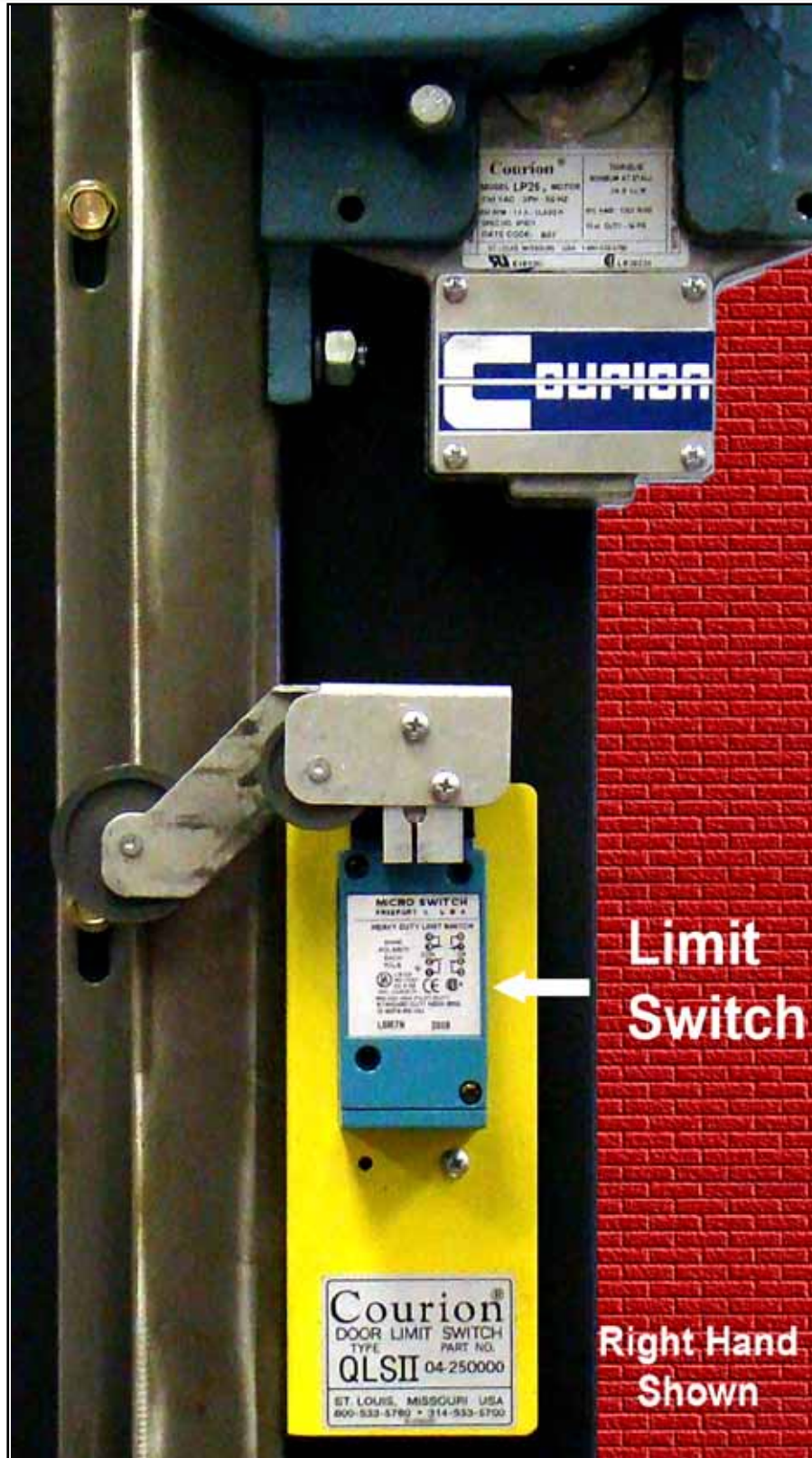
4 Locate a position on the Door Guide about halfway between the Open and Close iSENSOR. Clean the spot on the Door Guide with the alcohol swab and firmly attach the iSENSOR Magnet Brush to the Door Guide.



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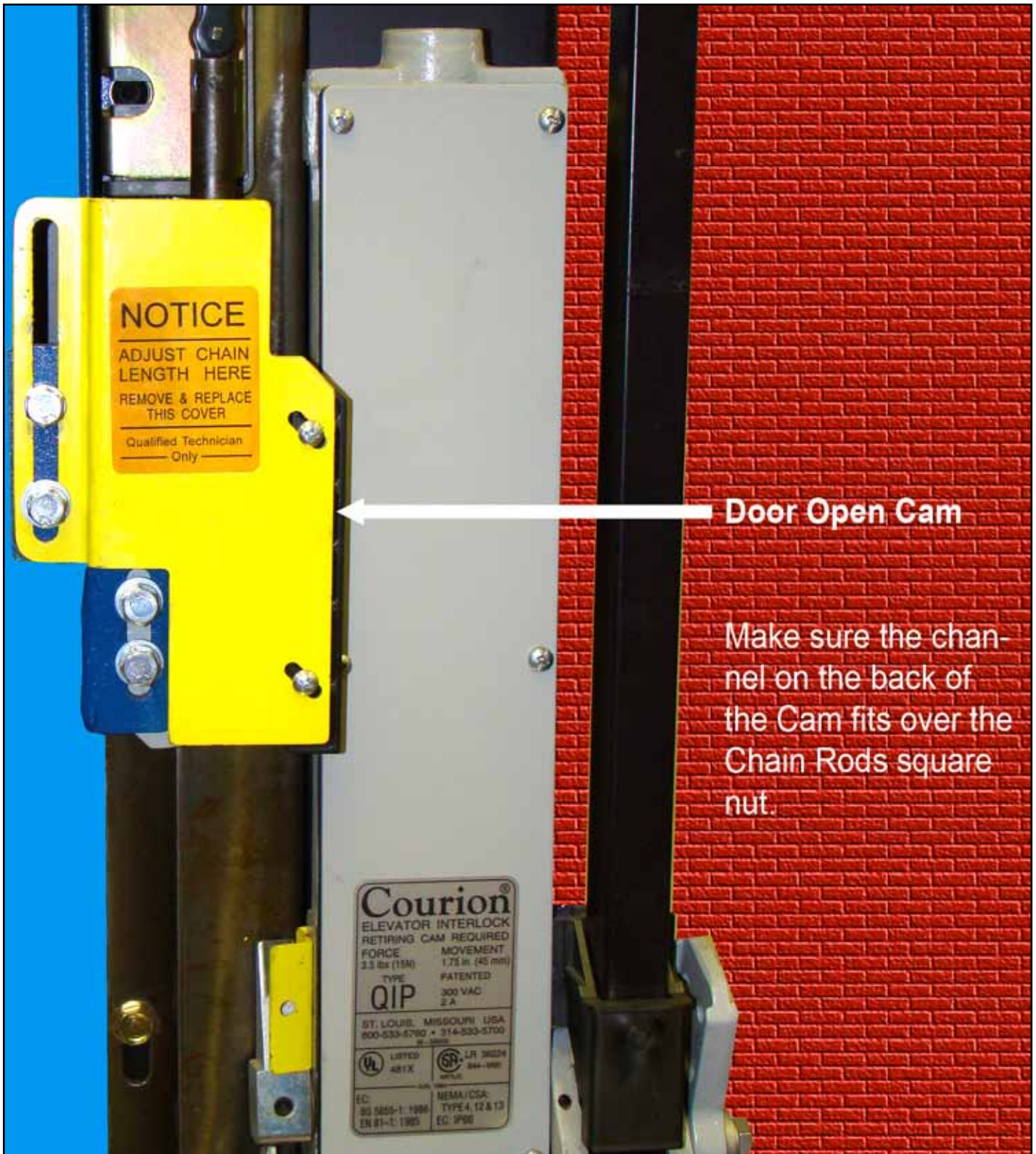
Limit Switch and Cam Installation - Power Operation

On the Interlock side of the Opening, attach the Door Limit Switch to the Upper Door Guide Rail.



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Attach the Door Open Cam to Upper Door Panel Chain Hitch on the Interlock Side of the Opening.



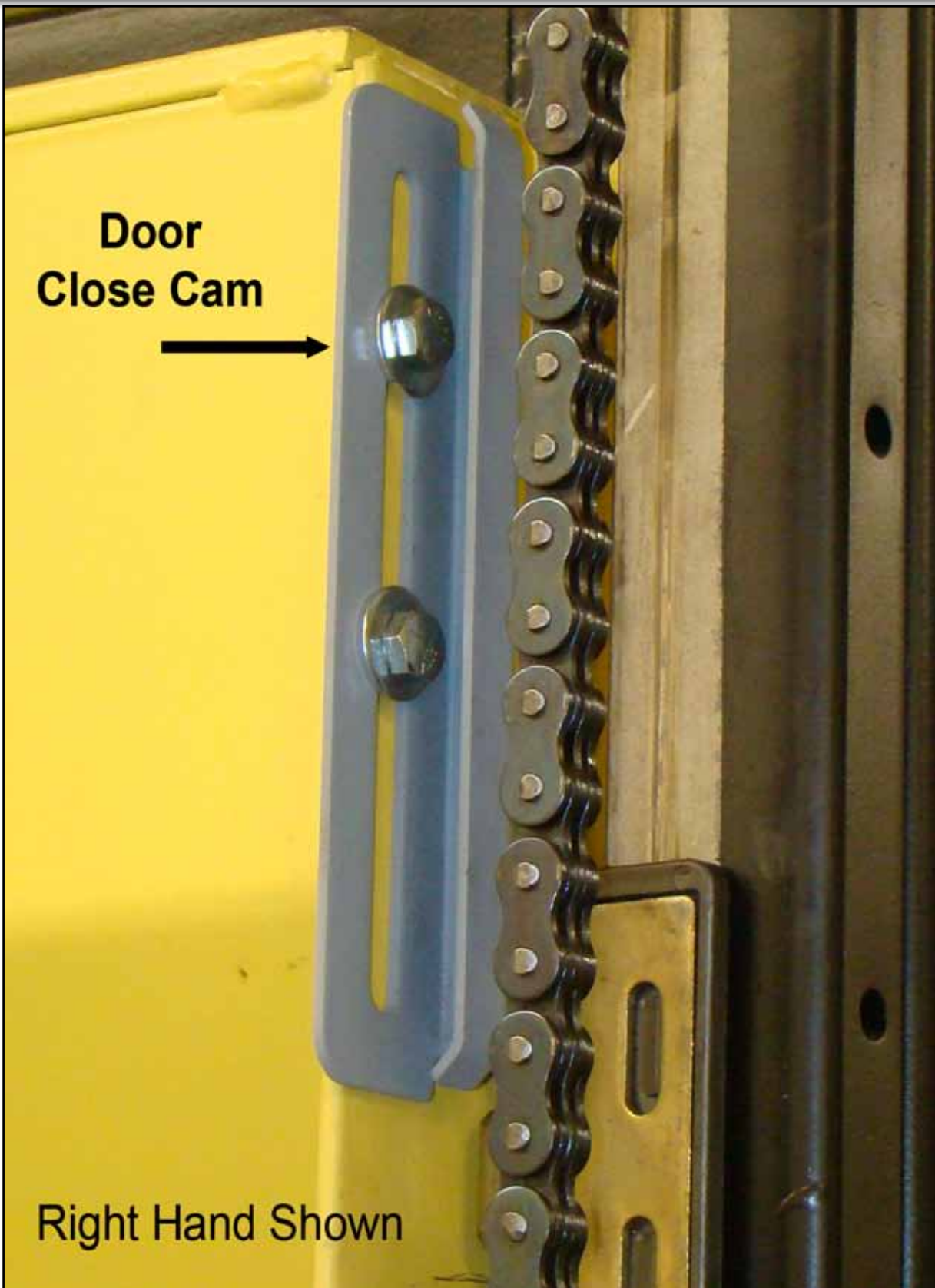
For Immediate Help Call 1-800-533-5760

Attach the Chain Rod Lock to Upper Door Panel Chain Hitch on the other side of the Opening.



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Attach the Door Close Cam to the Upper Door Panel Side Angle on the Interlock Side of the Opening.



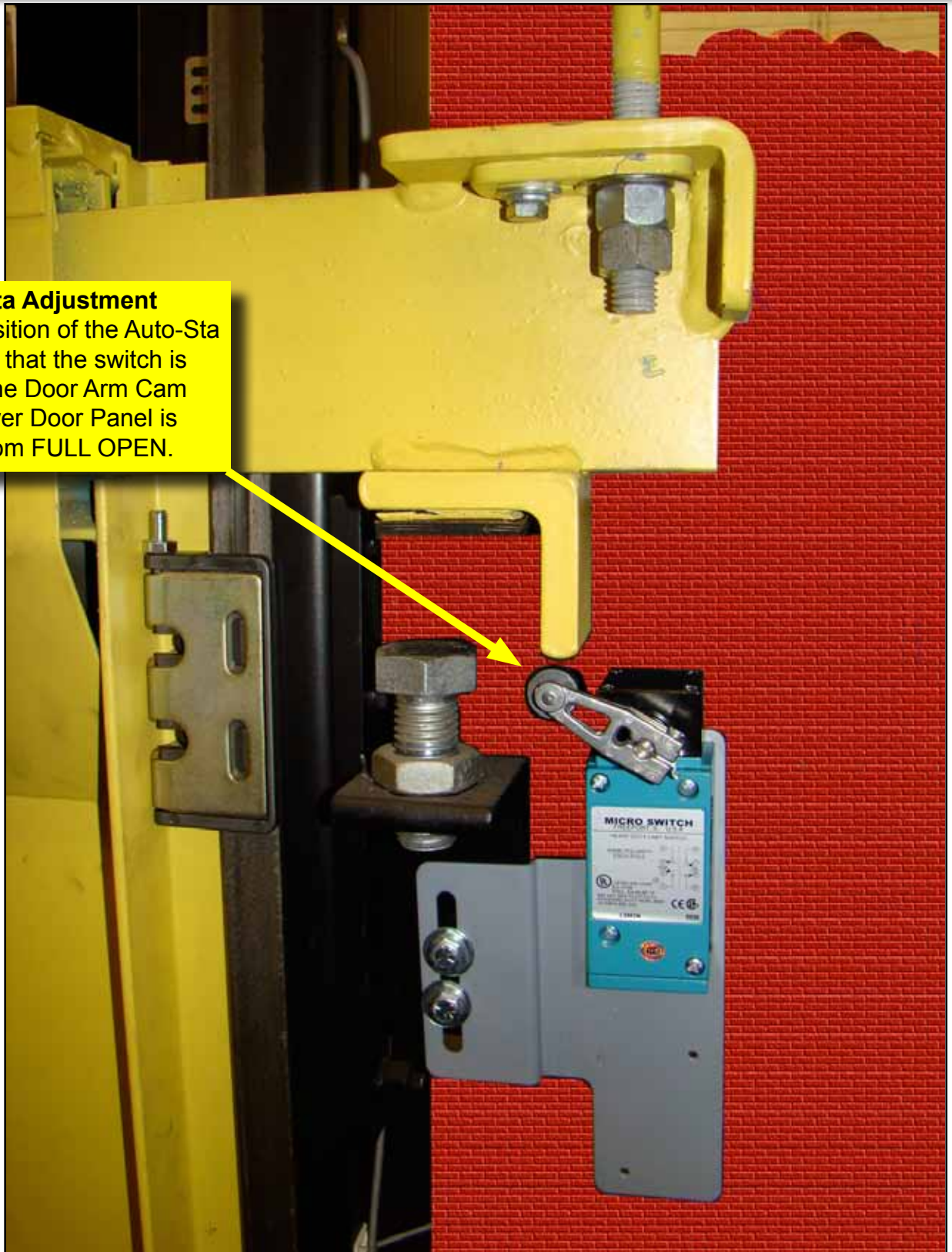
For Immediate Help Call 1-800-533-5760

Auto-Sta Set Switch Installation - Power Operation

Attach the Auto-Sta Set Switch to the Guide Stop on the Interlock side of the Opening.

Auto-Sta Adjustment

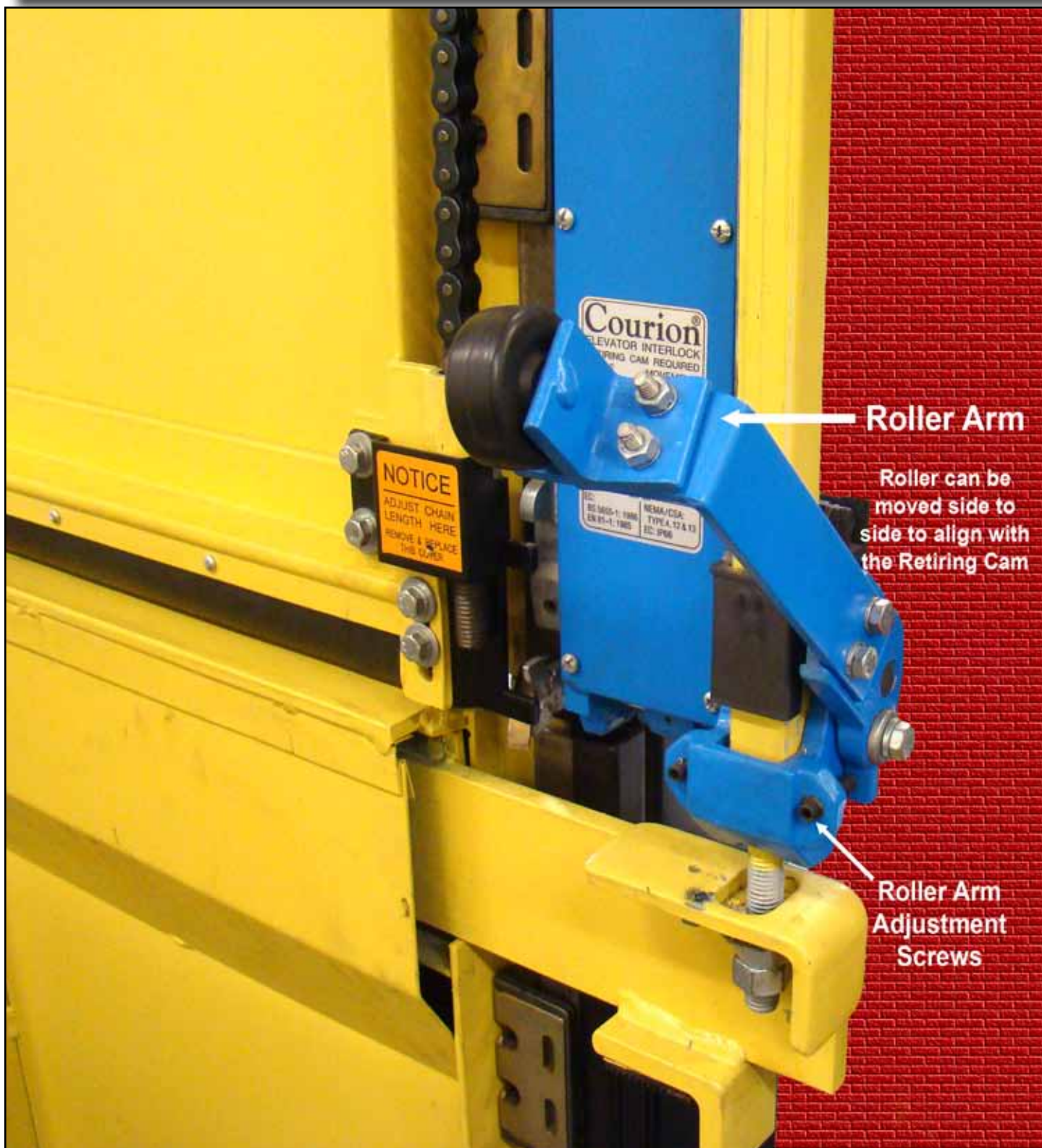
Adjust the position of the Auto-Sta Set Switch so that the switch is actuated by the Door Arm Cam when the Lower Door Panel is 1/4" to 3/4" from FULL OPEN.



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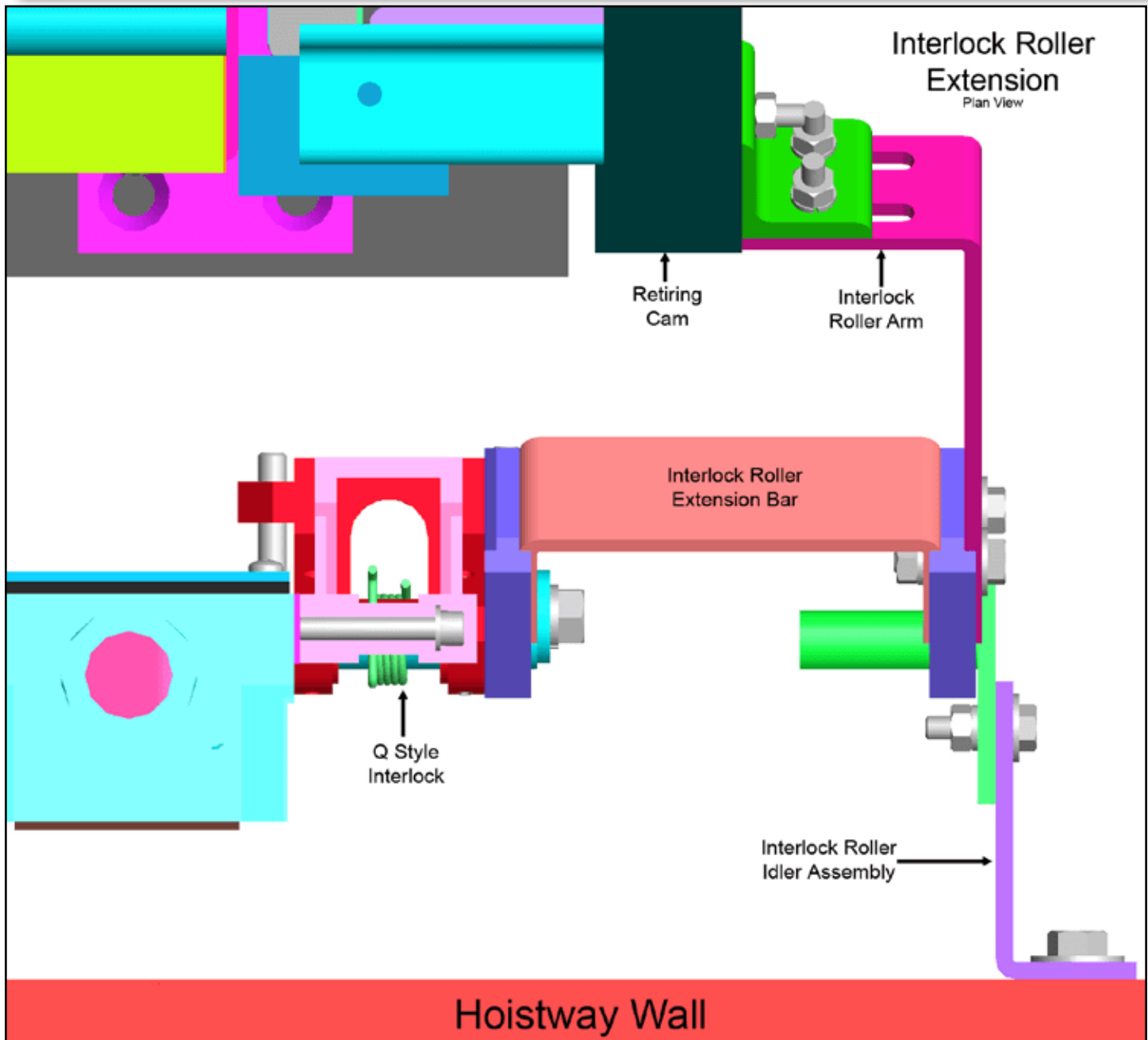
Interlock Roller Arm Installation

Attach the Interlock Roller Arm to the Interlock. Once you have installed the Retiring Cam, make sure the Interlock is properly actuated by the Cam.



Interlock Roller Arm Extension Installation

Certain Hoistways require the Interlock Roller Arm to be extended out away from the Opening in order to properly align with the Retiring Cam. Attach the Interlock Roller Extension Bar to the Interlock Arm Adjuster. Insert the Interlock Roller Idler Assembly into the Interlock Roller Extension Bar. Secure the Interlock Roller Idler Assembly to the hoistway wall using a 3/8" sleeve anchor. Attach the Interlock Roller Arm.



IMPORTANT - Make sure the Interlock Roller Arm pivots freely on the Interlock Roller Idler Assembly and that the Interlock Roller Arm is properly aligned with the Retiring Cam.

Open Limit Switch Adjustment

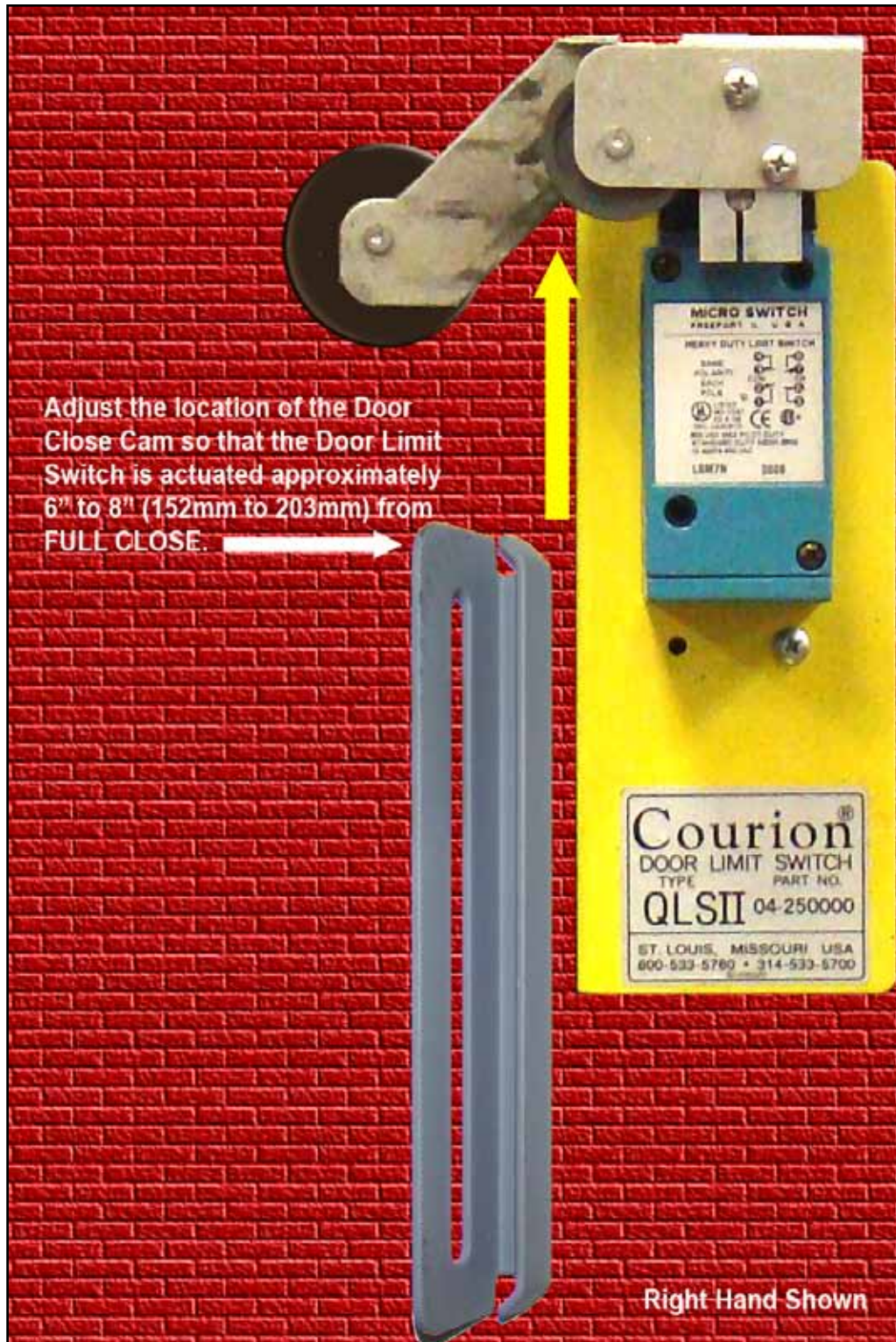
Adjust the Open Limit Switch Cam so that the Cam actuates the Door Limit Switch when the Door Panel is approximately 6" to 8" (152mm to 203mm) from FULL OPEN.

Adjust the Open Limit Switch Cam so that the Cam actuates the Door Limit Switch when the Door Panel is approximately 6" to 8" (152mm to 203mm) from FULL OPEN.



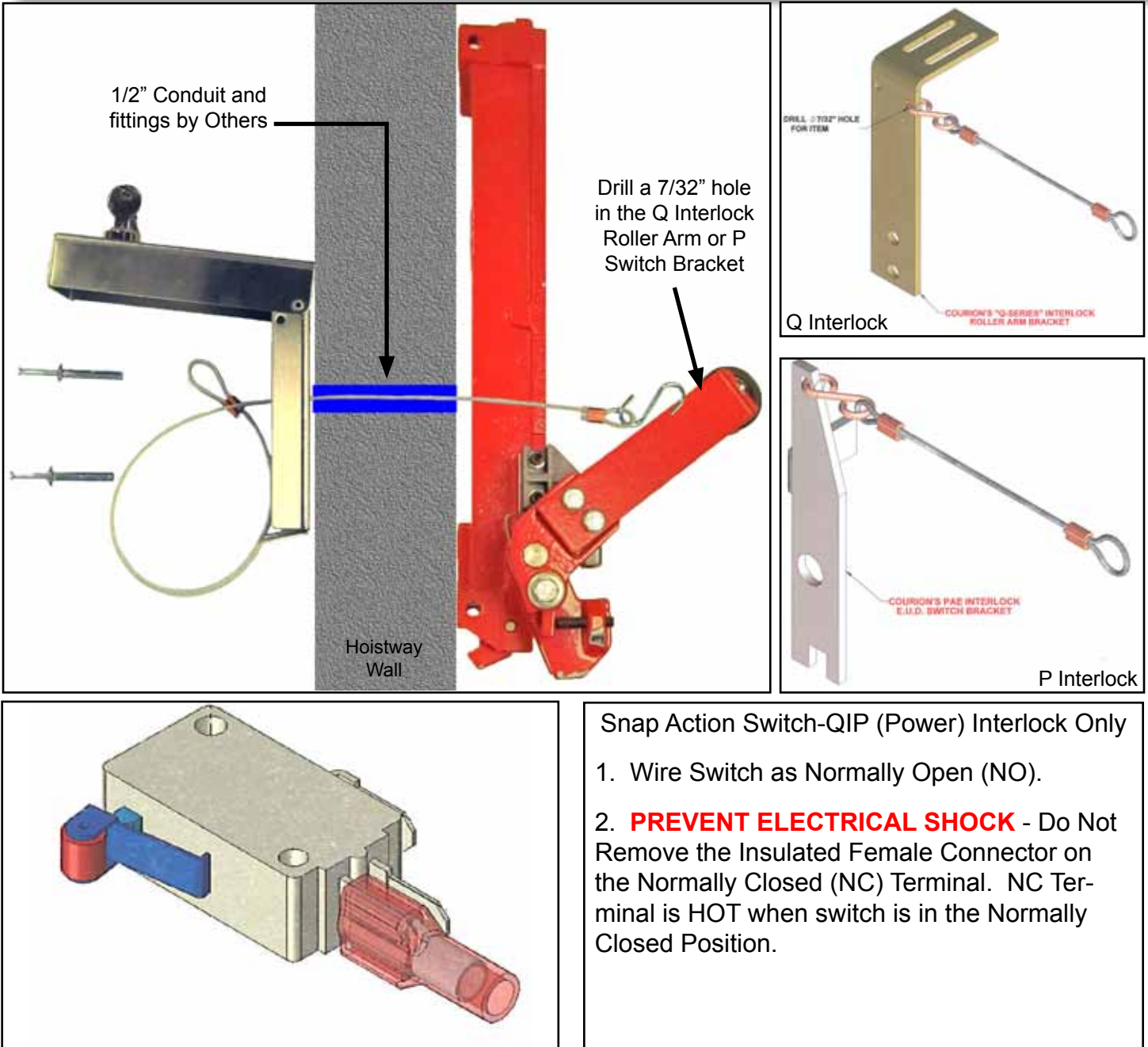
Close Limit Switch Adjustment

Adjust the Close Limit Switch Cam so that the Cam actuates the Door Limit Switch when the Door Panel is approximately 6" to 8" (152mm to 203mm) from FULL CLOSE.



Emergency Unlocking Device (EUD) Installation

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



IMPORTANT!

The EUD should be aligned as closely as possible to the hole in the top of the Interlock Roller Arm.

EUDs are used by qualified personnel to unlock the Hoistway Doors when the car is not present at the landing. For this reason, please limit access to the Emergency Unlocking Device key.

Final Check - Q Style Freight Doors

You have completed the mechanical portion of the Hoistway Freight Door Installation. Before proceeding to the next step, please check the following items:

- ✓ Attach a Web Strap to each Upper Door Panel and secure in the Door Panel Web Strap Hitch.
- ✓ Inspect all Door Guide Rails to insure that all mounting hardware is tight and secure.
- ✓ Apply a small amount of light oil (NOT GREASE) to the Door Guide Rails.
- ✓ Manually open and close each set of your Freight Doors to insure that they move freely in the Door Guide Rails, and that the Door Operators/Manual Sheaves turn freely.
- ✓ Adjust the Door Shoes to limit side-to-side play to 1/8" (4mm). Use caution when tightening the Door Shoes. Excessive force can strip threads in the Door Panel side angles.
- ✓ Adjust the Chain Bolt to insure that the Door Panels are square and level, and reach FULL OPEN and FULL CLOSE.
- ✓ Adjust the Chain Rod Positioner on the Lower Door Arm to center the Chain Rod in the Interlock Chain Rod Guide.
- ✓ Adjust the Door Closed Keeper so that it actuates the Butterfly Cam Follower on the Interlock when the Doors are in the FULL CLOSE position.
- ✓ Adjust the position of the Auto-Stop Set Switch (when applicable) so that the switch is actuated by the Door Arm Cam when the Lower Door Panel is 1/4" to 3/4" from FULL OPEN.
- ✓ With the Freight Doors in the FULL CLOSE position, insure that the MAXIMUM measure between the square end of the Chain Rod and the Interlock locking mechanism is no more than 1/4" (6mm).
- ✓ Adjust the Door Open Cam so that the Door Limit Switch is actuated approximately 2" (52mm) from FULL OPEN.
- ✓ Adjust the Door Close Cam so that the Door Limit Switch is actuated approximately 2" (52mm) from FULL CLOSE.

For Immediate Help Call 1-314-533-5700



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