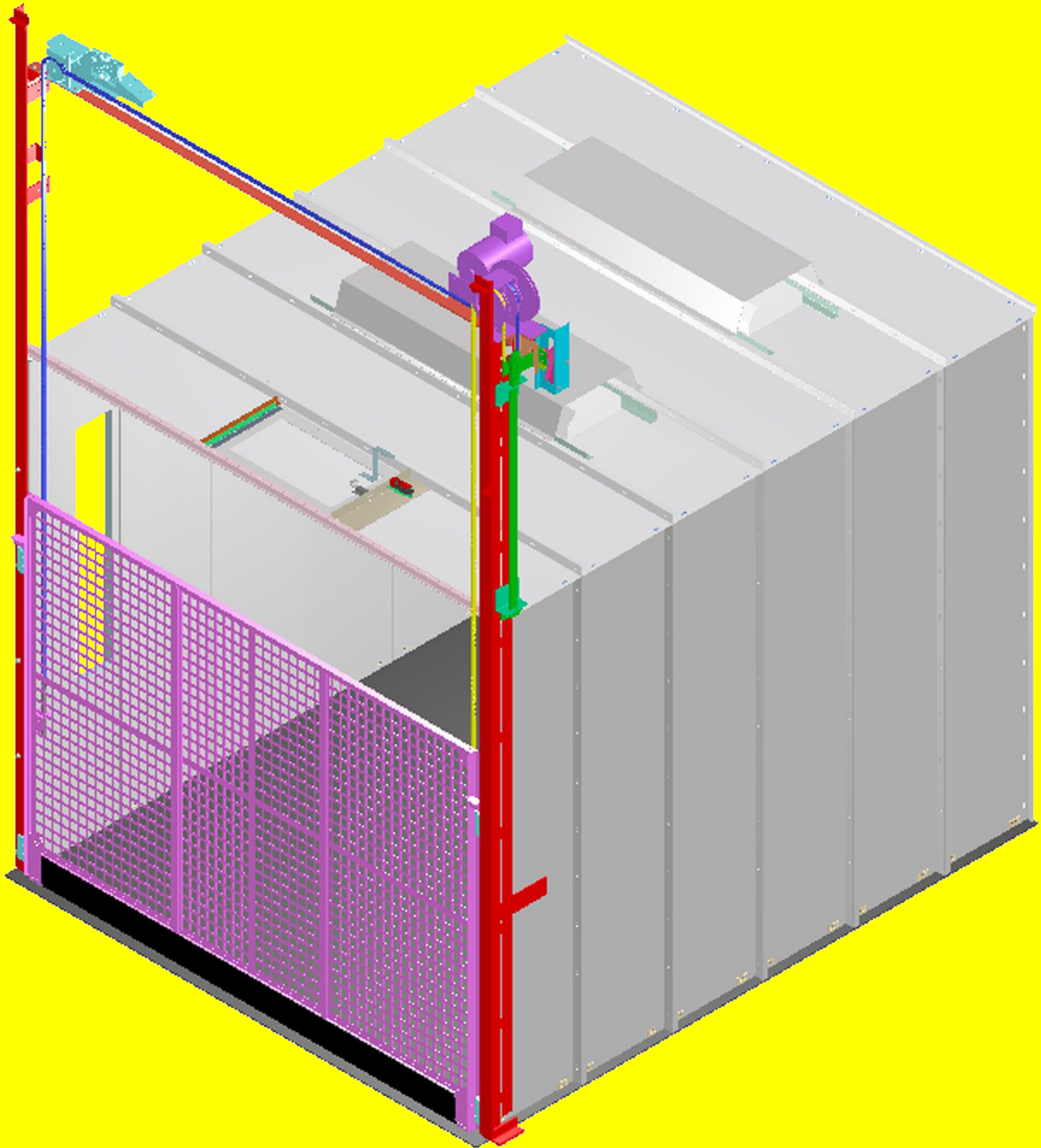




***THE NEXT GENERATION OF
FREIGHT ELEVATOR DOORS***



www.couriondoors.com

**Car Gate - P Style
Installation Instructions**

OPENING QUALITY DOORS AROUND THE WORLD

CAR GATE - P Style

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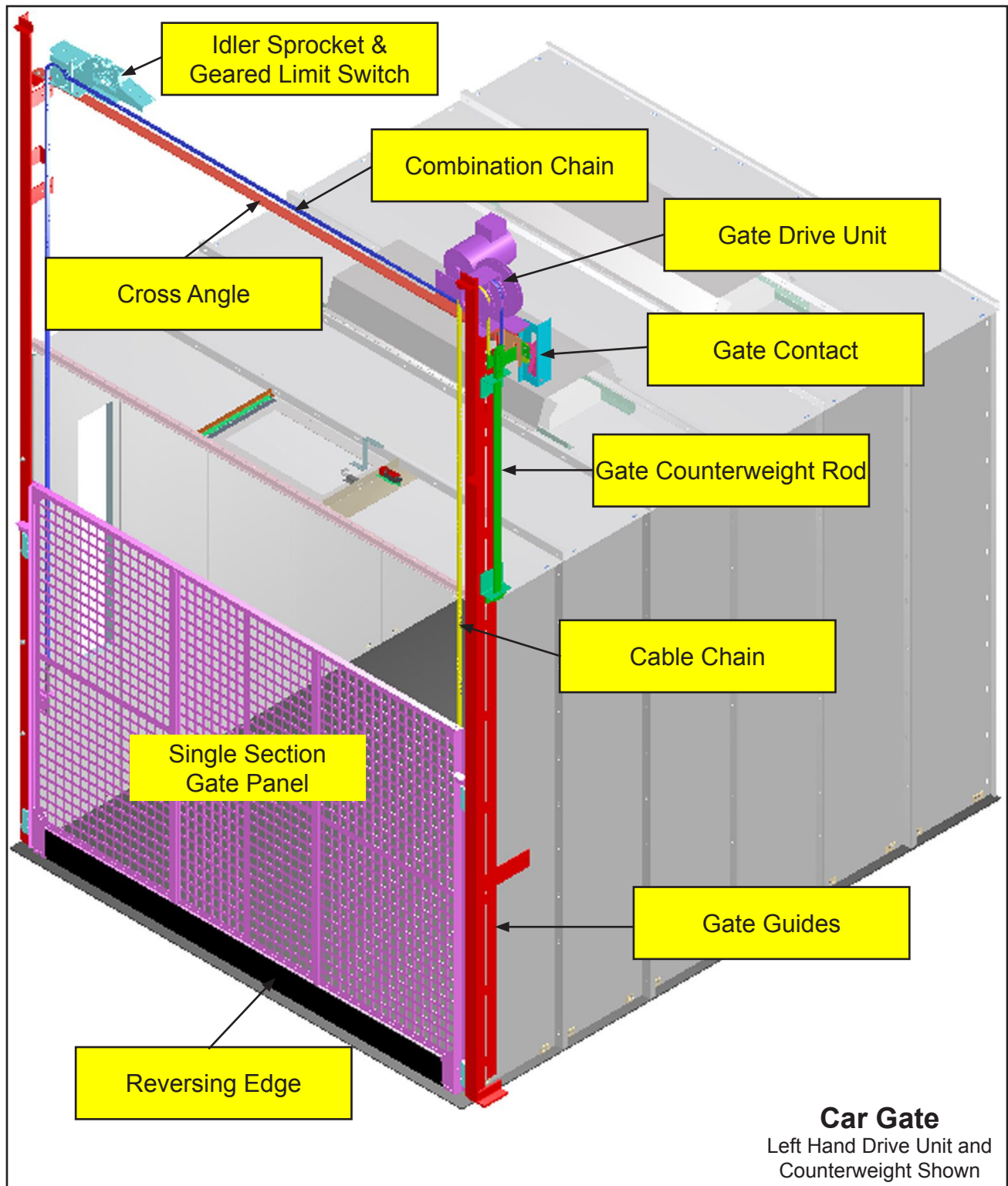
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CAR GATE - P Style

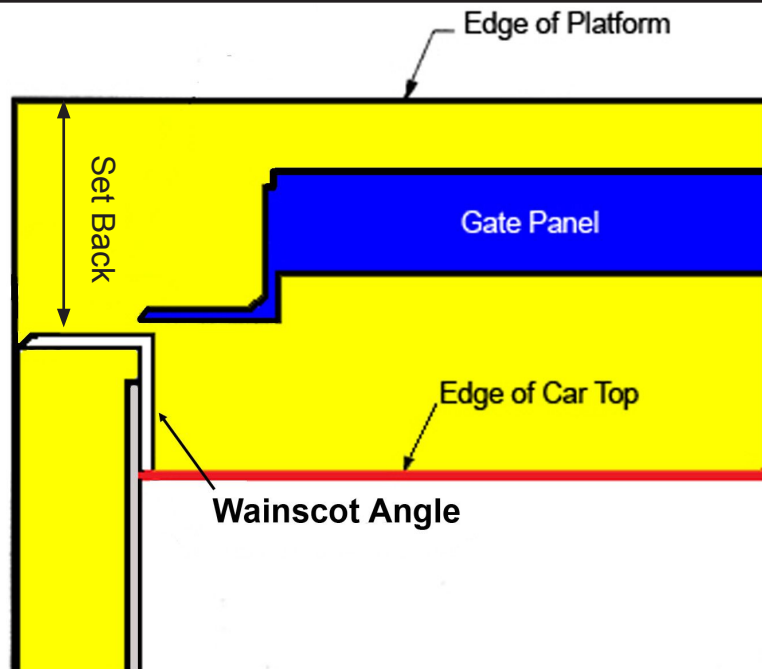


CAR GATE - P Style

Check Car Enclosure Set Back - Insure that the Car Enclosure is properly **SET BACK** from the edge of the Platform and that the Wainscot Mounting Angle is the proper size and contains the proper mounting holes.

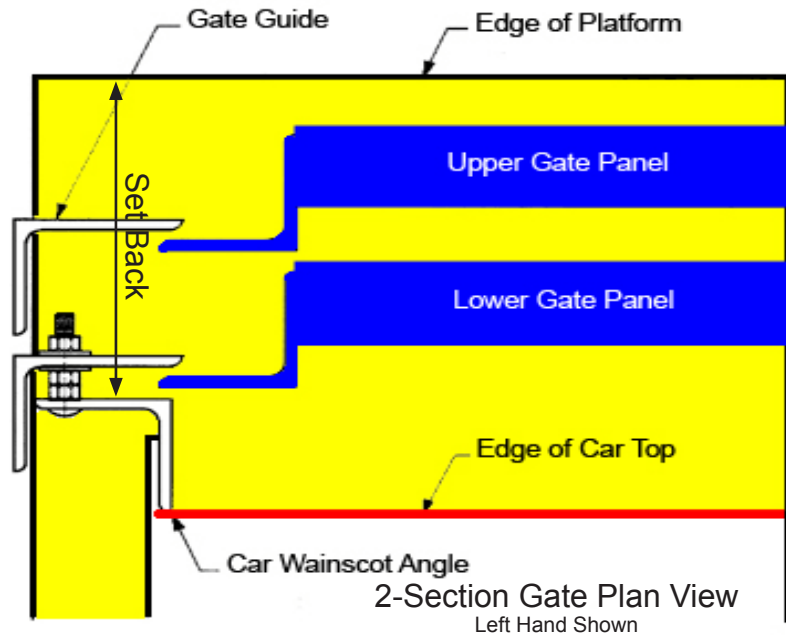
Single Section Gate Plan View
Left Hand Shown

Min Set Back = 3-1/2" (90mm)



Wainscot Angle must have a 2" (51mm) return and maximum thickness of 1/4" (6mm)

Min Set Back = 5-1/2" (140mm)



IMPORTANT!

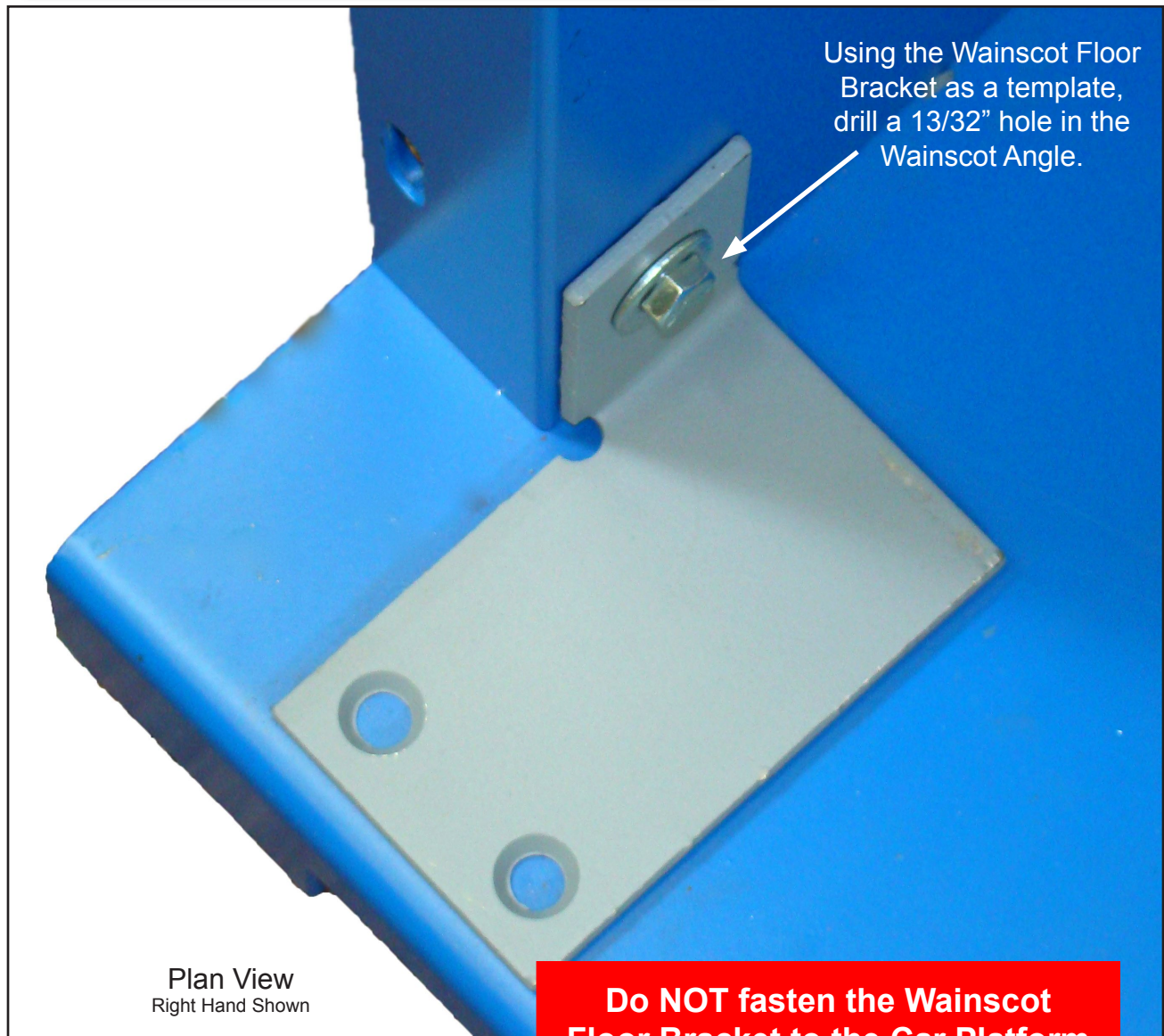
If your actual CAR SET BACK does not meet the required MINIMUM SET BACK, stop and call Courion immediately at (800) 533-5760 or (314) 533-5700.



CAR GATE - P Style

1

WAINSCOT FLOOR BRACKET



Do NOT fasten the Wainscot Floor Bracket to the Car Platform at this time.



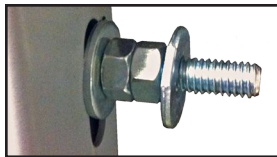
CAR GATE - P Style

2 Attach the **GATE GUIDES** to the Car Enclosure Wainscot Angle.

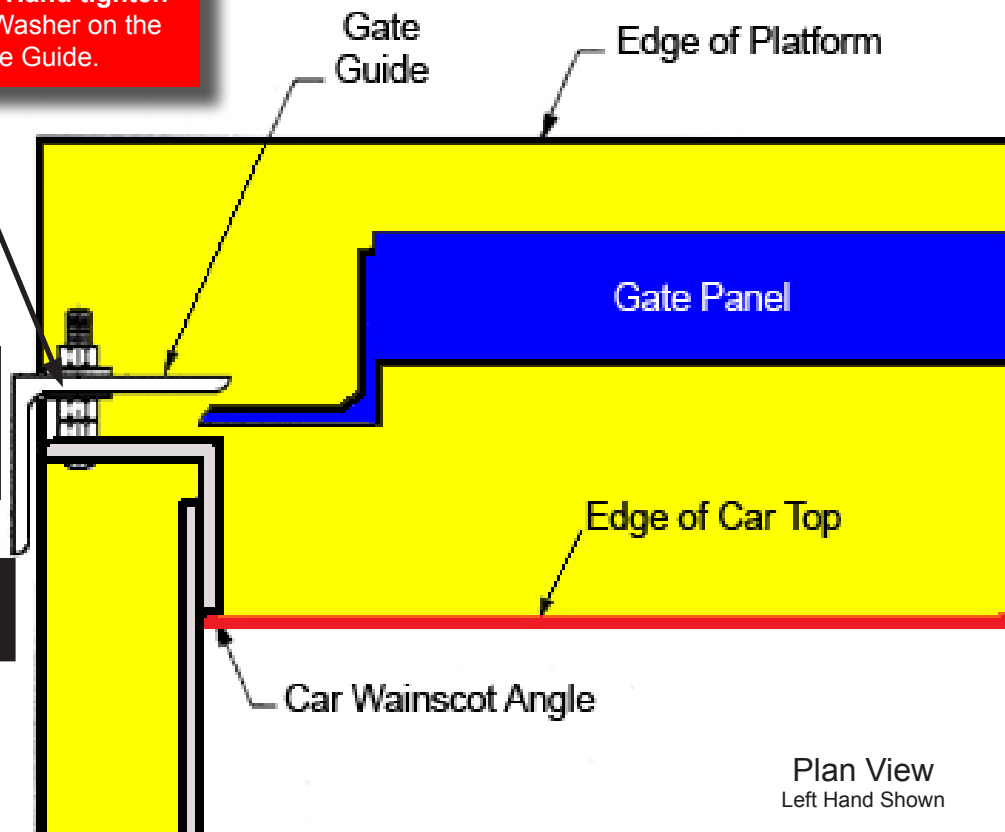
(1 pr) Gate Guides (Left and Right Hand)

(1) Gate Guide Hardware Kit (Part #94-000070)

Tighten the two (2) Hex Nuts and two (2) Flat Washers between the Car Wainscot Angle and Gate Guide. **Hand tighten** the Hex Nut and Lock Washer on the outside of the Gate Guide.



5/16-18x1-3/4" Hex Head Bolts, Flat Washers, Lock Washers, and Hex Nuts.



Gate Guide Hole Pattern (Typical)

Hole Size (diameter)	First Hole from Platform	Distance on Center	From Outside Edge
13/32 (10mm)	3" (76mm)	18" (457mm)	7/16" (11mm)

If you did not purchase the Car Enclosure from Courion, you may have to drill the Gate Guide mounting holes in the Car Wainscot Angle. With the Gate Guide resting on the Car Platform, use the Gate Guide as a template to mark and drill the necessary mounting holes.



CAR GATE - P Style

3 Attach the **CROSS ANGLE** to the Car Gate Guides.

- (1) Cross Angle (Length varies by Job)
- (1) Bracing Hardware Kit (Part #94-000090)

The Gate Drive Plate faces upward and is located on the counterweight side of the Car Gate.

3/8-16 x 1-1/4" Carriage Bolts, Lock Washers, and Hex Nuts.

Hand tighten the fasteners



CAR GATE - P Style

4 KNEE BRACES

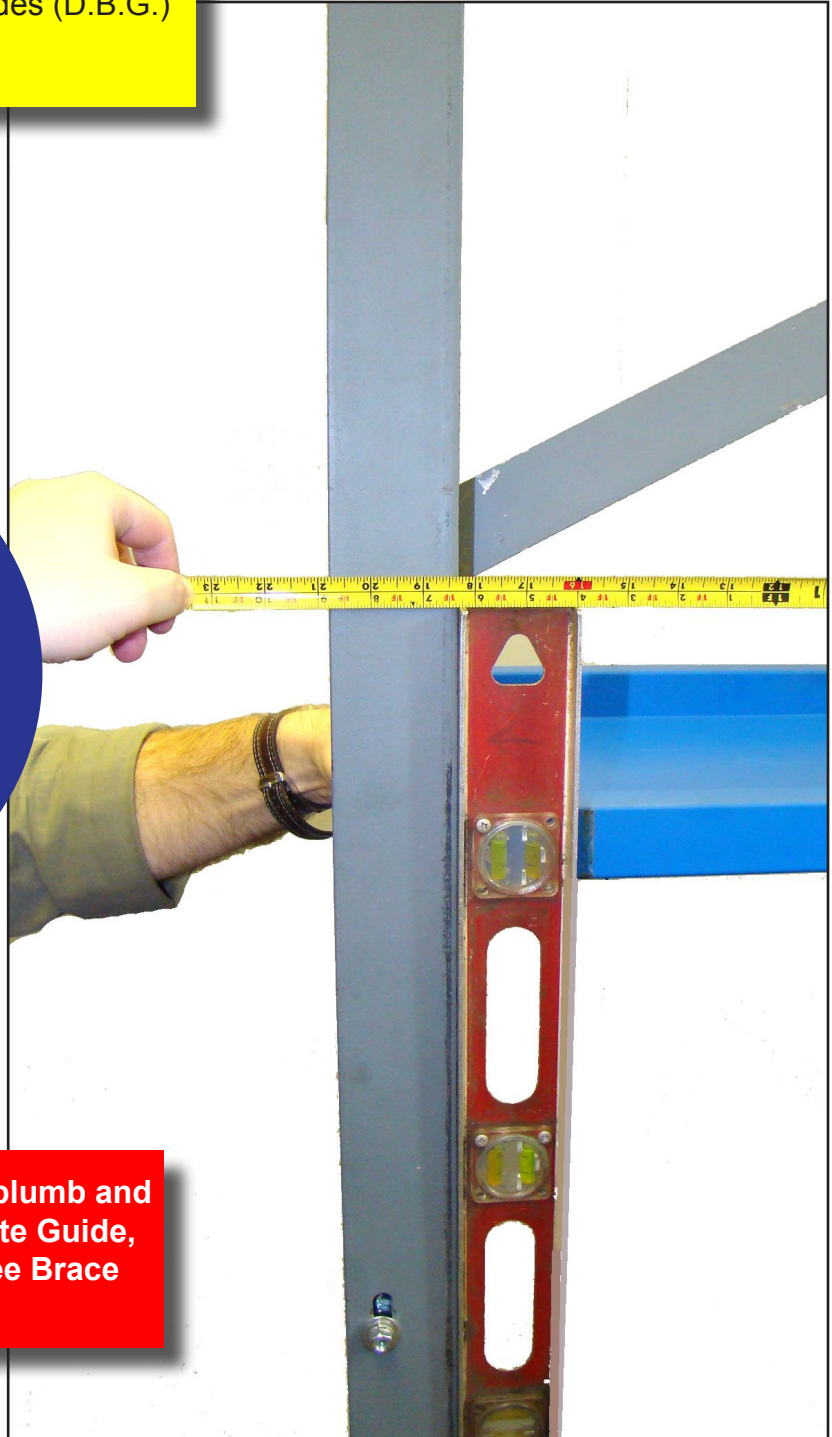


CAR GATE - P Style

- 5** Adjust the Gate Guides to the proper horizontal distance between guides (D.B.G.) and plumb the Guides.

Using a tape measure and level, plumb and adjust the GATE GUIDES to the proper horizontal distance as shown on COURION DRAWING PO-310-71C.

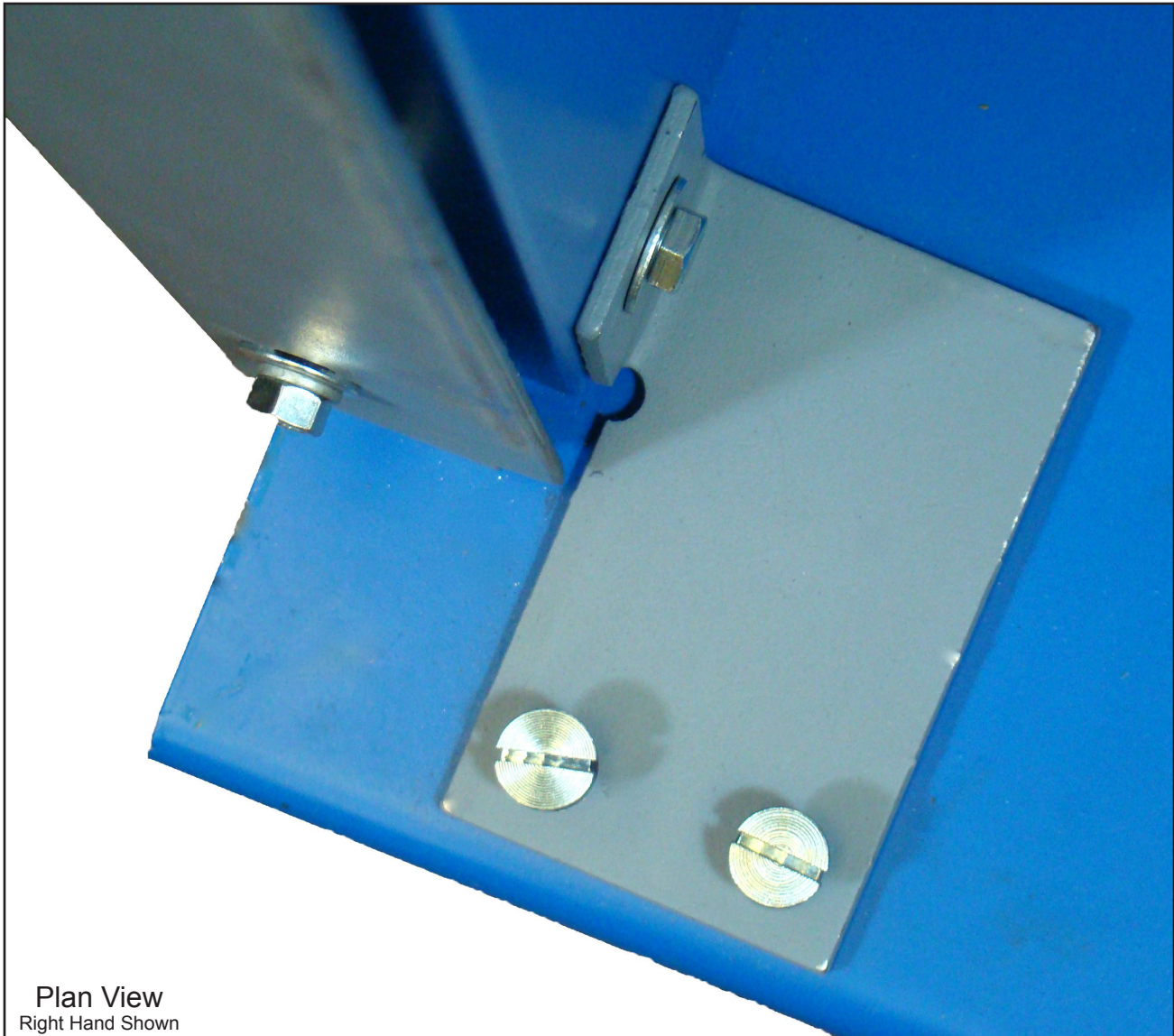
When Gate Guides are plumb and true, tighten all Car Gate Guide, Cross Angle, and Knee Brace fasteners



CAR GATE - P Style

6 Fasten each **WAINSCOT FLOOR BRACKET** to the Car Platform.

(1) Wainscot Floor Bracket Hardware Kit #100 (Part#94-000100)



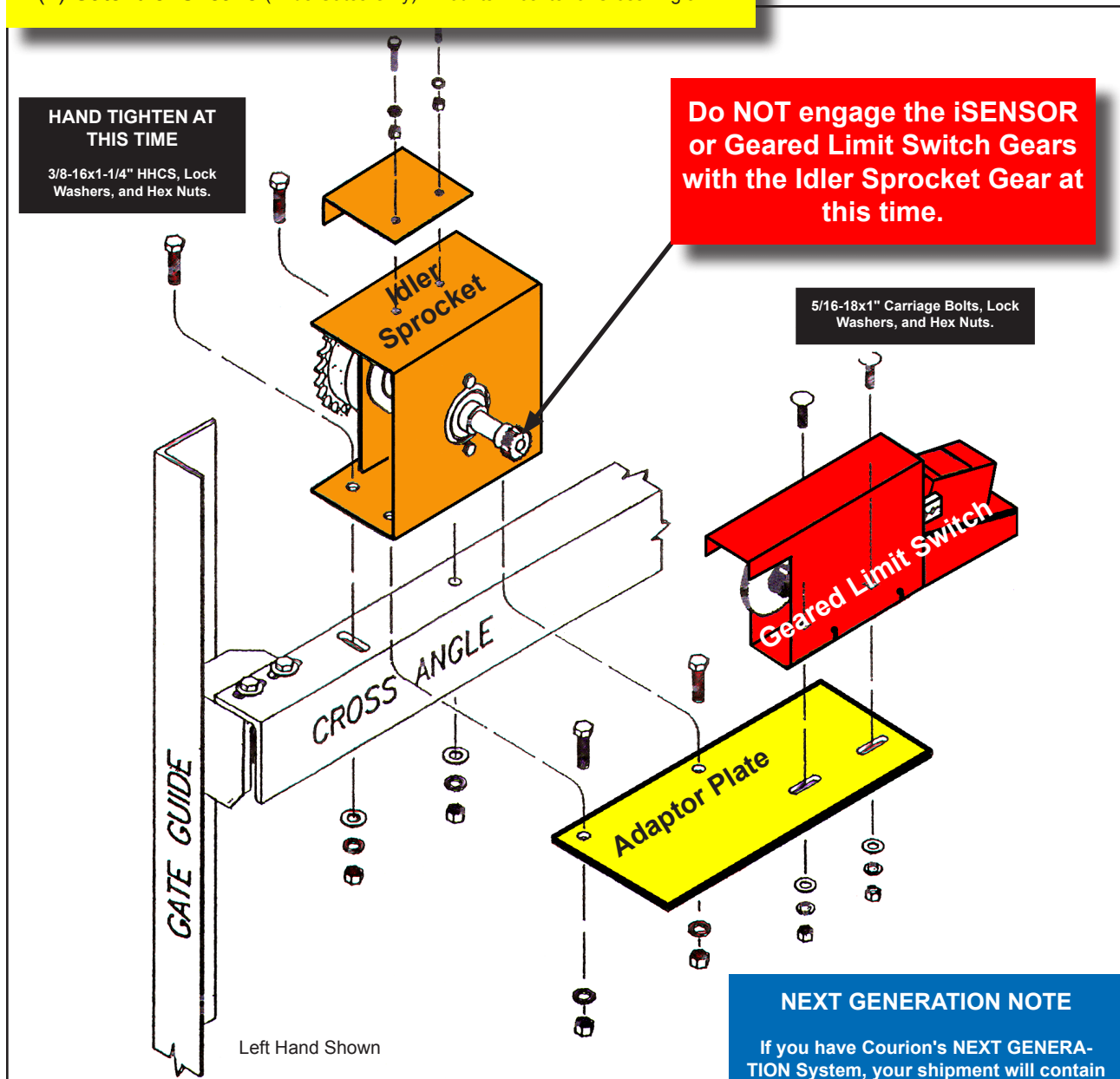
Plan View
Right Hand Shown



CAR GATE - P Style

7 Mount the **IDLER SPROCKET** and **GEARED LIMIT SWITCH** to the Cross Angle on the side **OPPOSITE** the Gate Drive Unit Mounting Plate.

- (1) Geared Limit Switch Retro Fit Kit (Part #07-611000)
or Gate iSENSOR with iSENSOR Retro Fit Kit
- (1) Gate Idler Sheave (Wide Gates Only) - mounts in center of Cross Angle.



CAR GATE - P Style

8 Mount the **GATE DRIVE UNIT** to the Gate Drive Mounting Plate on the Cross Angle.

- (1) Gate Drive Unit
- (1) Gate Drive Hardware Kit #20 (Part#94-000020)

The Gate Drive Unit mounts on the Counterweight Side of the Car Gate.

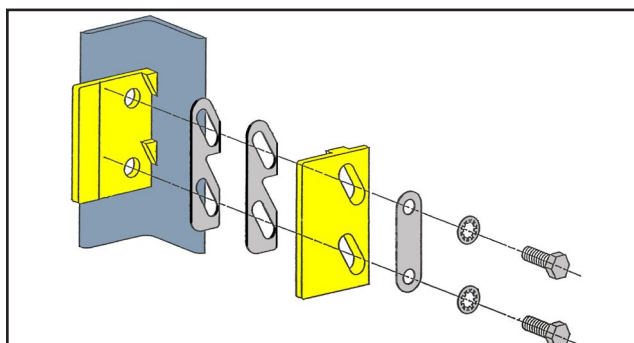


CAR GATE - P Style



9 Fit the **CAR GATE PANEL** between the Gate Guides and attach the **GATE SHOES** in place.

- (1) Car Gate Panel
- (1) Car Gate Shoes



If you have Cast 292 Gate Guide Shoes, attach to the Gate Panel so that the Guide Shoes fall towards the Gate Panel.

2-Section Gate
Side View

Upper Panel →
Prop →
Lower Panel →

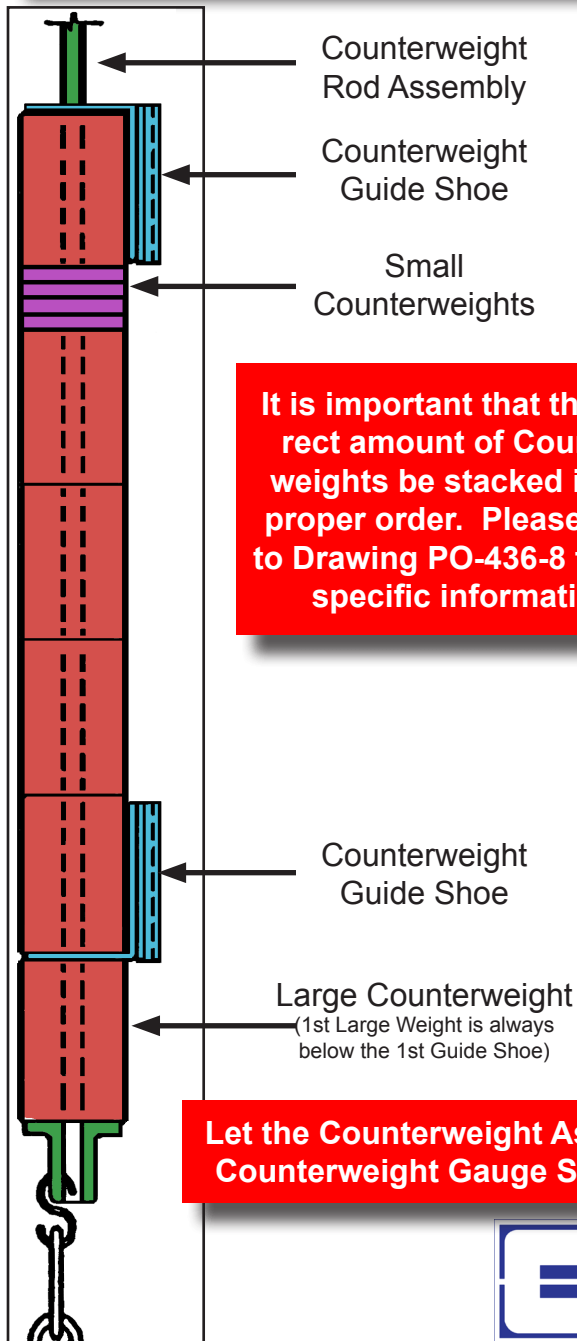
2-SECTION GATE - Prop the "SLOW" Panel (Upper Gate Panel) up with the wood props supplied by Courion. Install the "FAST" Panel (Lower Gate Panel with Reversing Edge) resting on the Platform.



CAR GATE - P Style

10 Using the Counterweight Gauge Stick, prop the **COUNTERWEIGHT ROD, COUNTERWEIGHT SHOES** and **COUNTERWEIGHTS** at the FULL CLOSE position.

- (1) Counterweight Rod Assembly
- (2) Counterweight Guide Shoes
- (*) Counterweights (amount varies by job)



It is important that the correct amount of Counterweights be stacked in the proper order. Please refer to Drawing PO-436-8 for job specific information

Let the Counterweight Assembly rest on the Counterweight Gauge Stick when finished.



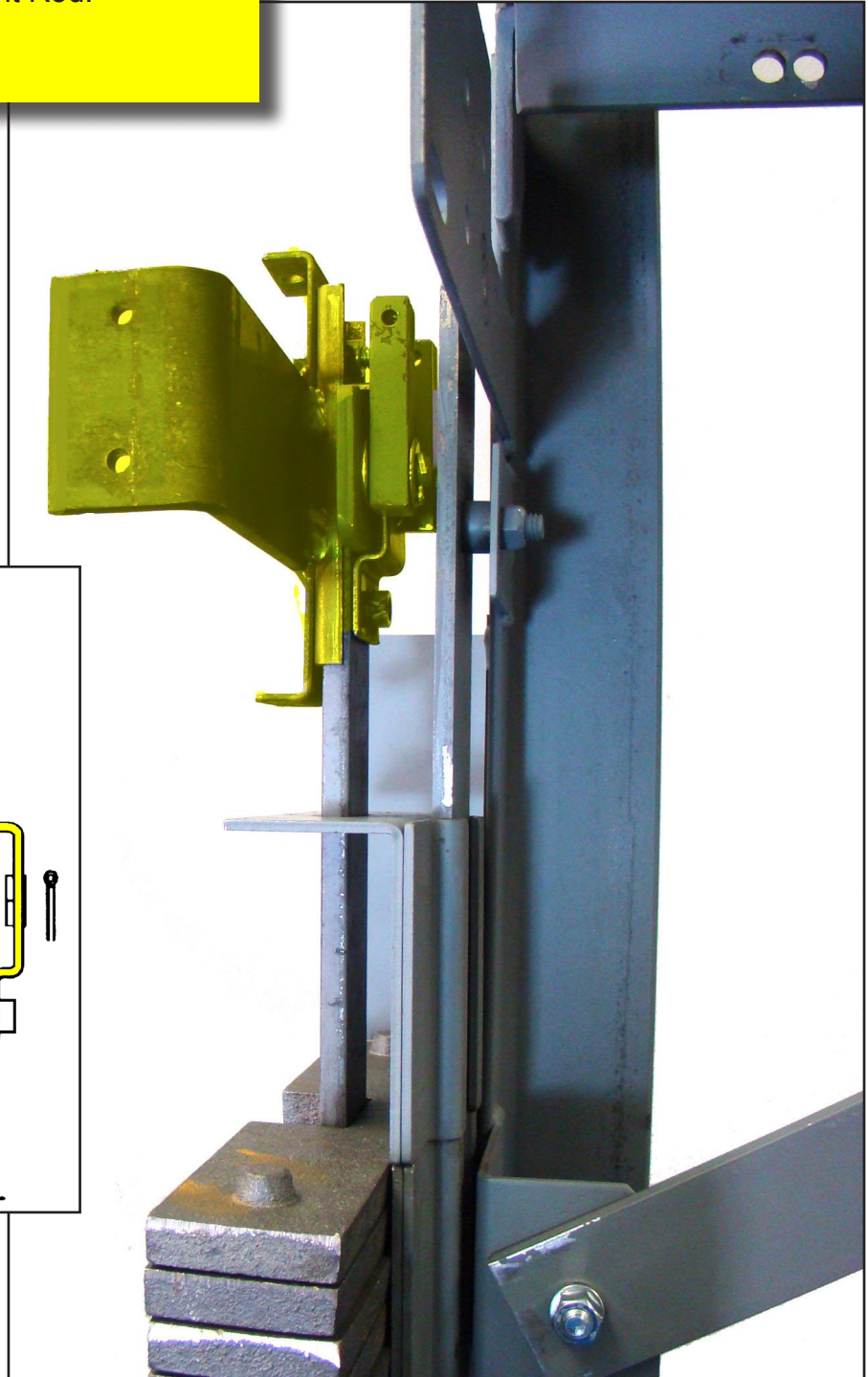
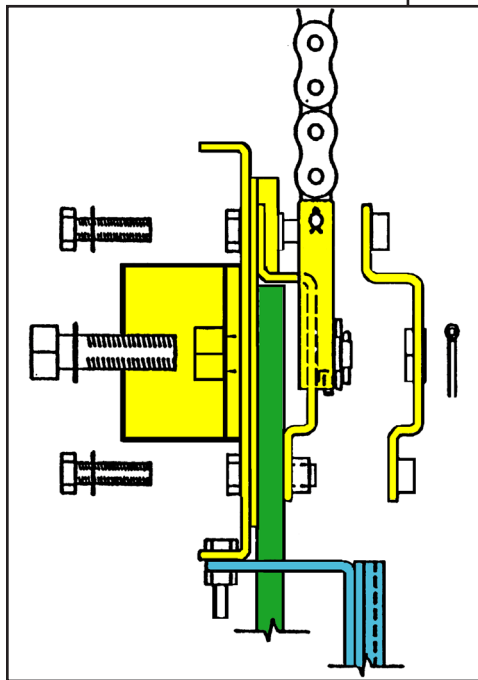
Left Hand Shown



CAR GATE - P Style

11 Attach the **COUNTERWEIGHT CHAIN HITCH** to the Counterweight Rod.

(1) Counterweight Chain Hitch



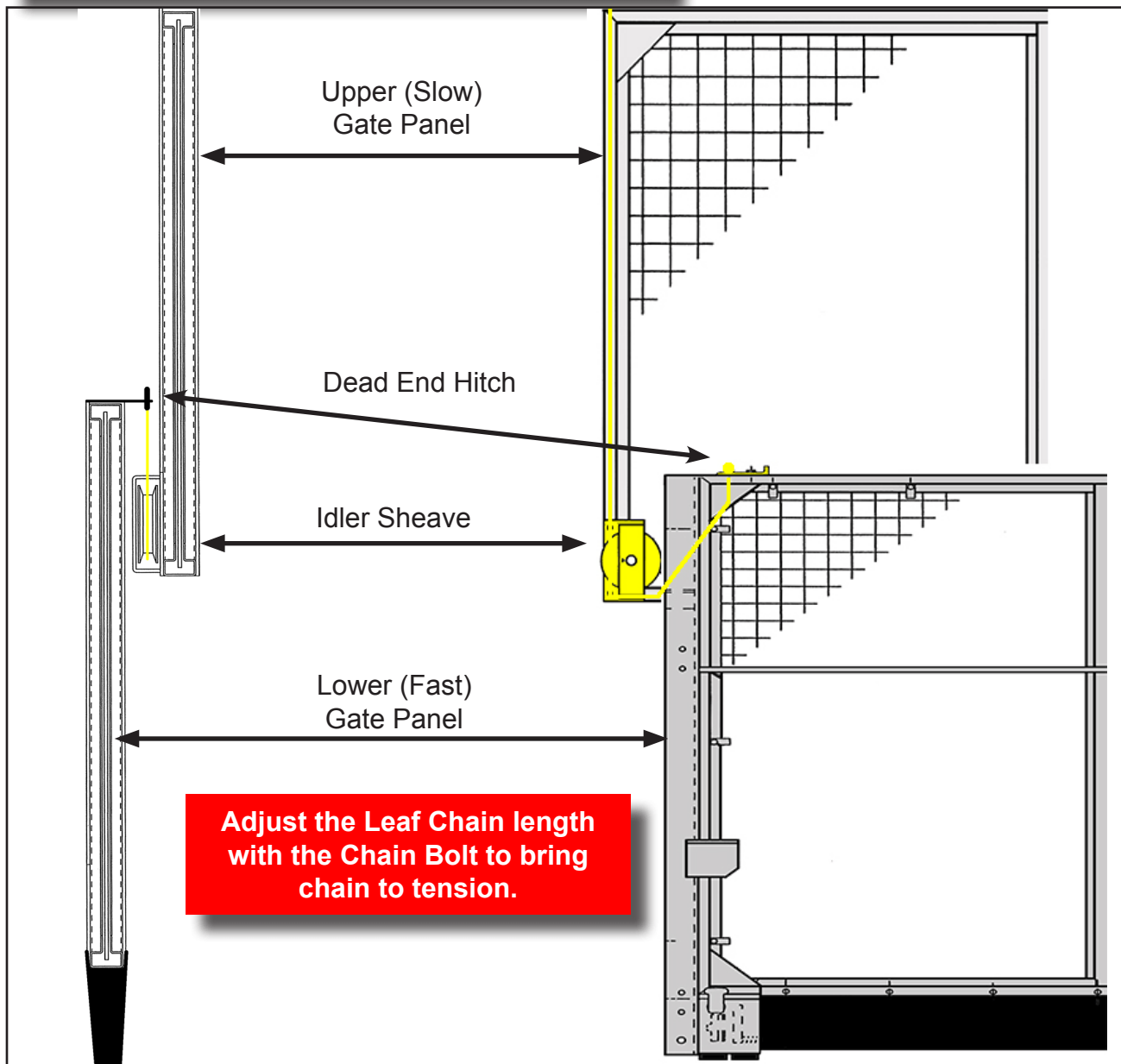
Left Hand Shown



CAR GATE - P Style

12 2-SECTION GATE ONLY - Feed the **LEAF CHAIN** from the Dead End Hitch on Top of the Lower Gate Panel, AROUND the Idler Sheave on the Upper Gate Panel and UP to the Gate Guide Hitch at the Top of the Gate Guide. Attach with #41 Chain Links

(1) Leaf Chain (AL-422 Chain) with Chain Bolt



CAR GATE - P Style

13 Feed the **COMBINATION CHAIN** from the Car Gate Hitch OVER the IDLER SPOCKET, ACROSS the CAR TOP, UNDER the DRIVE UNIT IDLER SHEAVE, and OVER the GATE DRIVE Inbound Traction Sheave

(1) Combination Chain (#6 & #40 Chain)



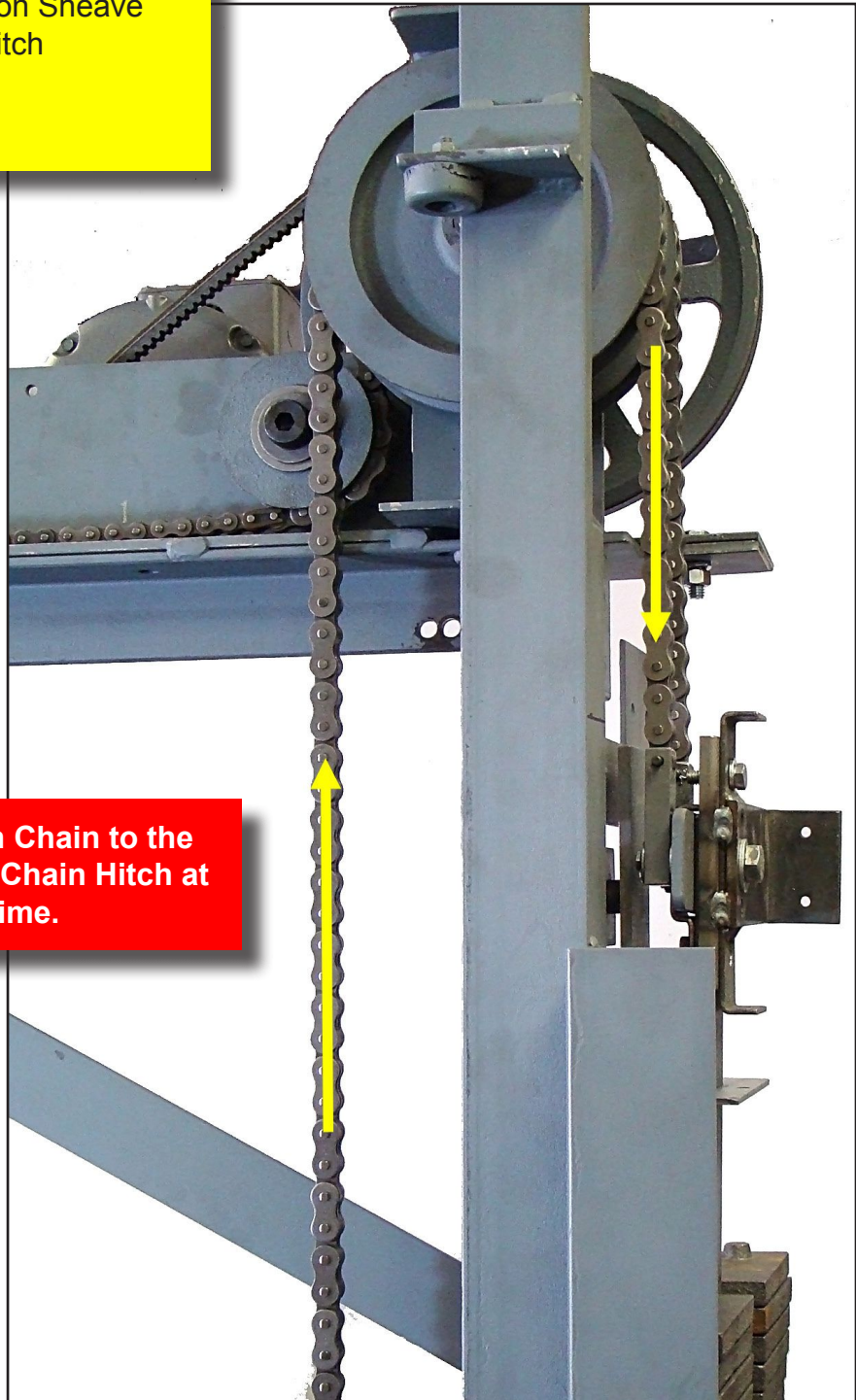
Do NOT attach Chain to the Counterweight Chain Hitch at this time.



CAR GATE - P Style

14 Feed the **CABLE CHAIN** OVER the **GATE DRIVE** Outside Traction Sheave and down to the Car Gate Hitch

(1) Cable Chain (#6 Leaf Chain)



CAR GATE - P Style

15 Attach the **10" CHAIN BOLTS** to each Chain and the Car Gate Hitch on both sides of the Car Gate Panel.

(2) 5/8" Chain Bolts (Part #07-199600)

(1) Gate Chain Hardware Kit (Part #07-199611)

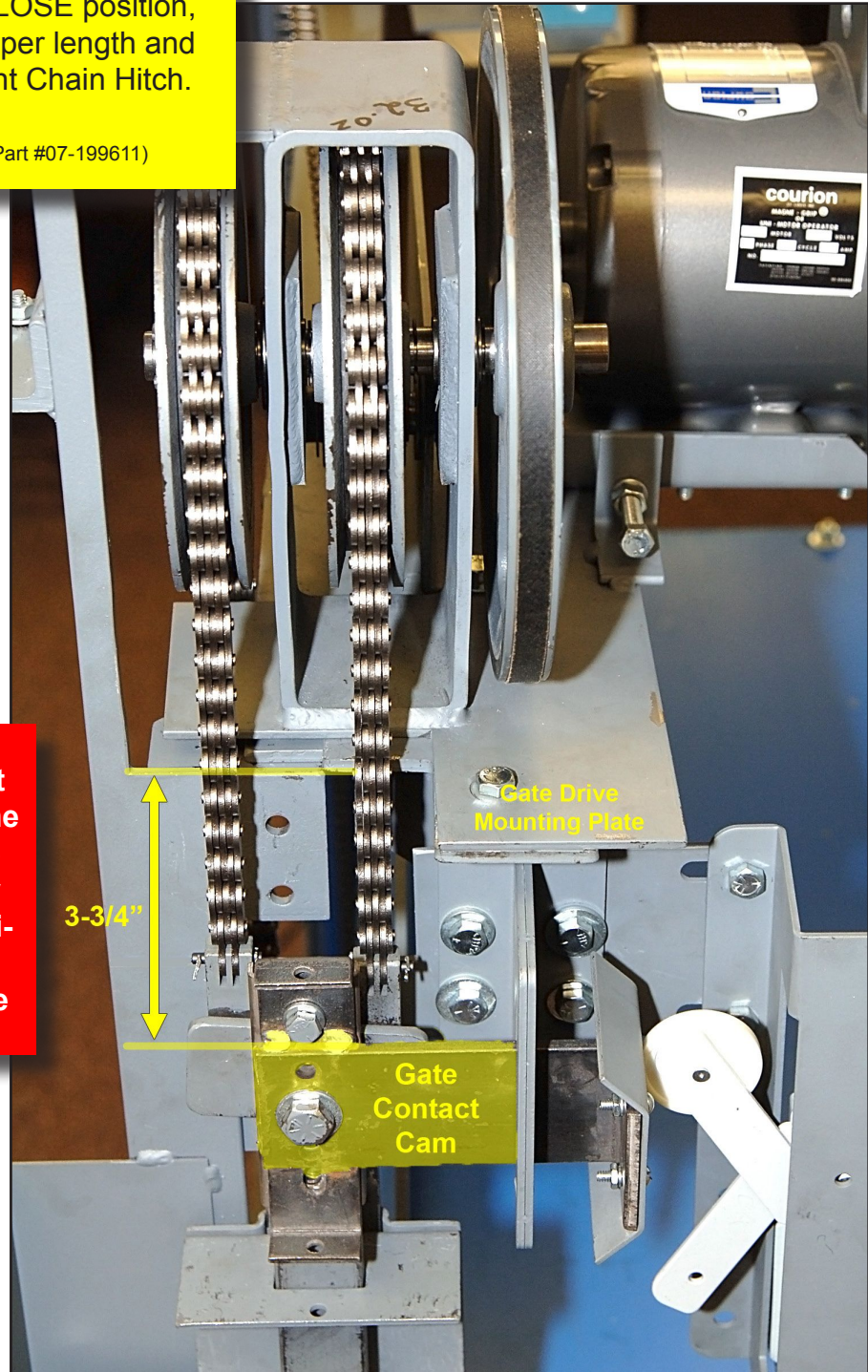


CAR GATE - P Style

16 With the Counterweight and the Car Gate Panel in the FULL CLOSE position, cut the Gate Chains to proper length and attach to the Counterweight Chain Hitch.

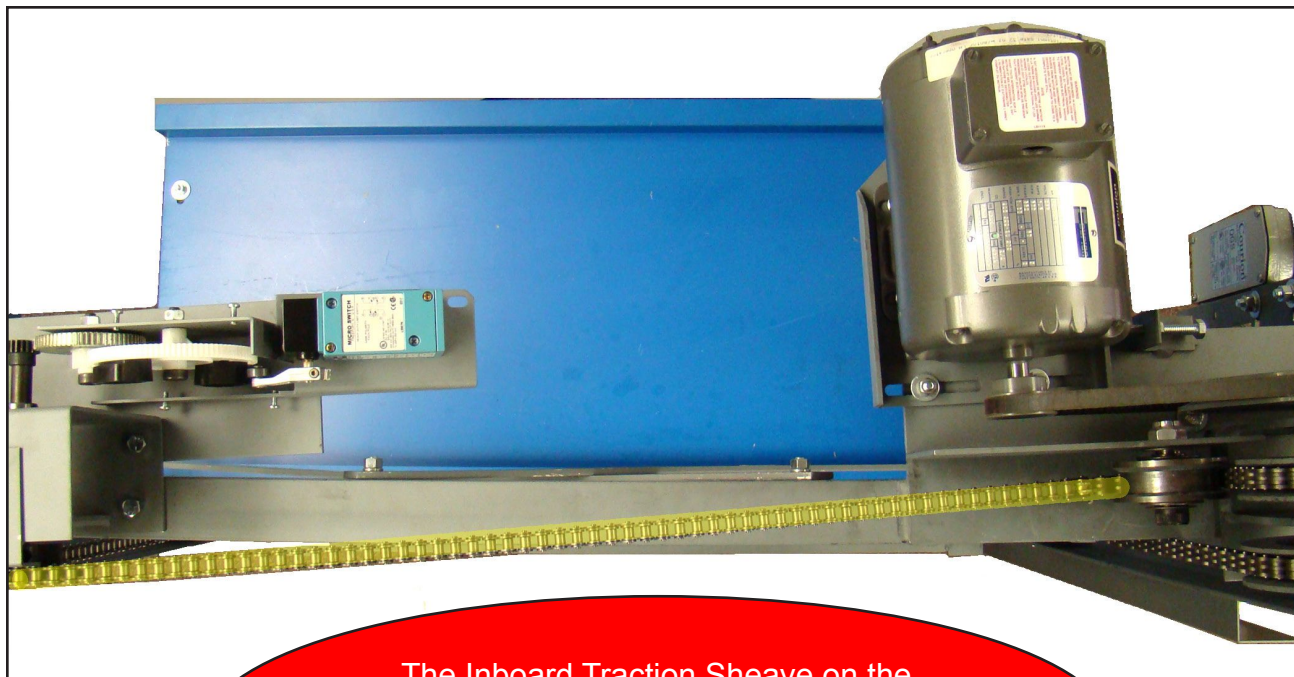
(1) Gate Chain Hardware Kit (Part #07-199611)

When the Gate Panel is at FULL CLOSE, the top of the Gate Contact Cam on the Counterweight Assembly should be located approximately 3-3/4" below the Gate Drive Mounting Plate



CAR GATE - P Style

- 17** Properly align the INBOARD TRACTION SHEAVE of the **GATE DRIVE UNIT** with the centerline of the **IDLER SPROCKET** and tighten both into place.



The Inboard Traction Sheave on the Gate Drive must be directly in line with the centerline of the Idler Sprocket or the Gate Chain may not function properly during Gate operation.

- 18** Remove the Counterweight Prop. Car Gate should now operate manually. Adjust the **GATE CHAIN BOLTS** to insure the Car Gate Panel is level. Adjust the **GATE GUIDE SHOES** so there is approximately 1/8" (4mm) side-to-side play in between the Guide Rails. When done, the Gate Panel should move smoothly and easily within the Guides.

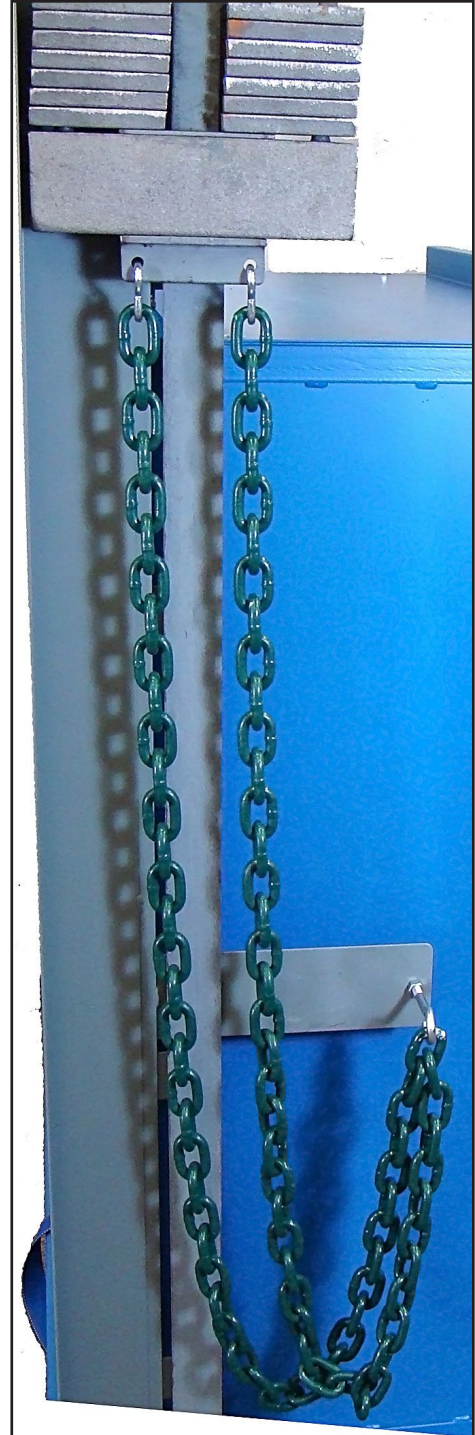


CAR GATE - P Style

19 Attach the **COMPENSATION CHAIN** to the Compensation Chain Plate on the Gate Guide and the underside of the Counterweight stack.

(1) Compensation Chain

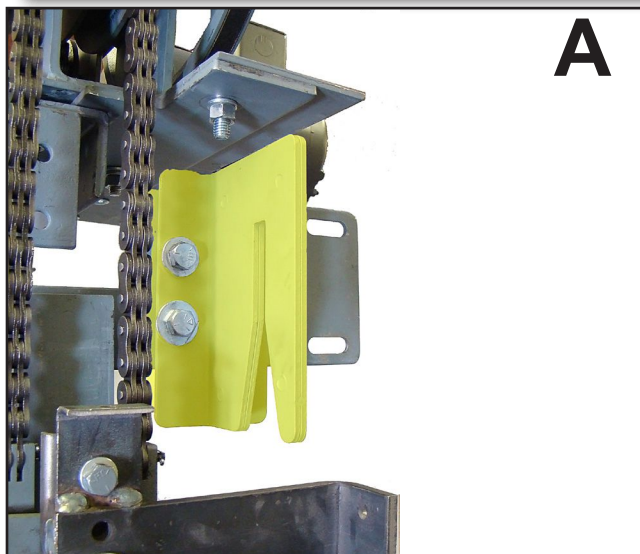
The purpose of the Compensation Chain is to "compensate" for the weight transfer as Car Gate moves from FULL OPEN to FULL CLOSE.



CAR GATE - P Style

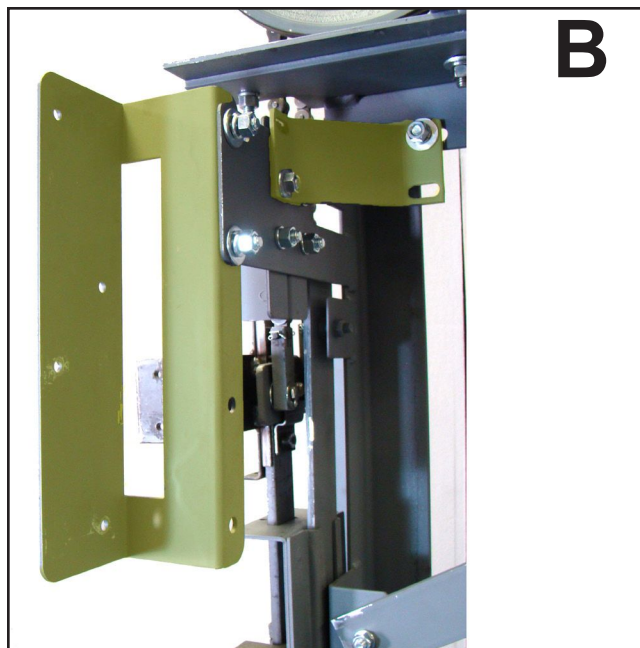
20 Install the **WEIGHT STOP GUIDE, CROSS ANGLE BRACKET, GATE CONTACT MOUNTING BRACKET, GATE CONTACT CAM, and GATE CONTACT** to the Gate Guide on the Gate Counterweight side of the hoistway

- (1) Gate Contact
- (1) Gate Contact Hardware Kit #150 (Part #94-000150)



A

A - Attach the Weight Stop Guide to the Gate Guide.



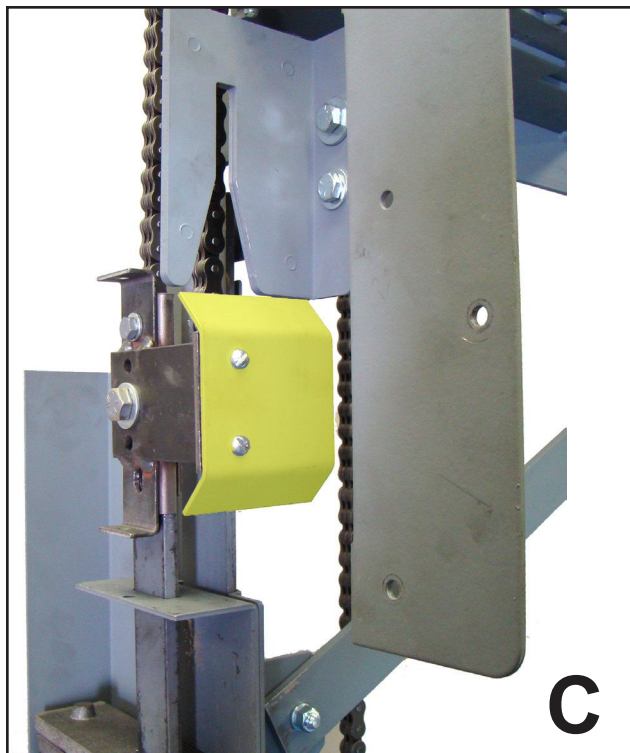
B

B - Attach the Cross Angle Bracket and Gate Contact Mounting Bracket to the Gate Guide.

C - Attach the Gate Contact Cam to the Contact Cam Arm.

D - Attach the Gate Contact to the Gate Contact Mounting Bracket.

E - Adjust the Position of the Gate Contact to insure proper actuation when the Gate is at FULL CLOSE.

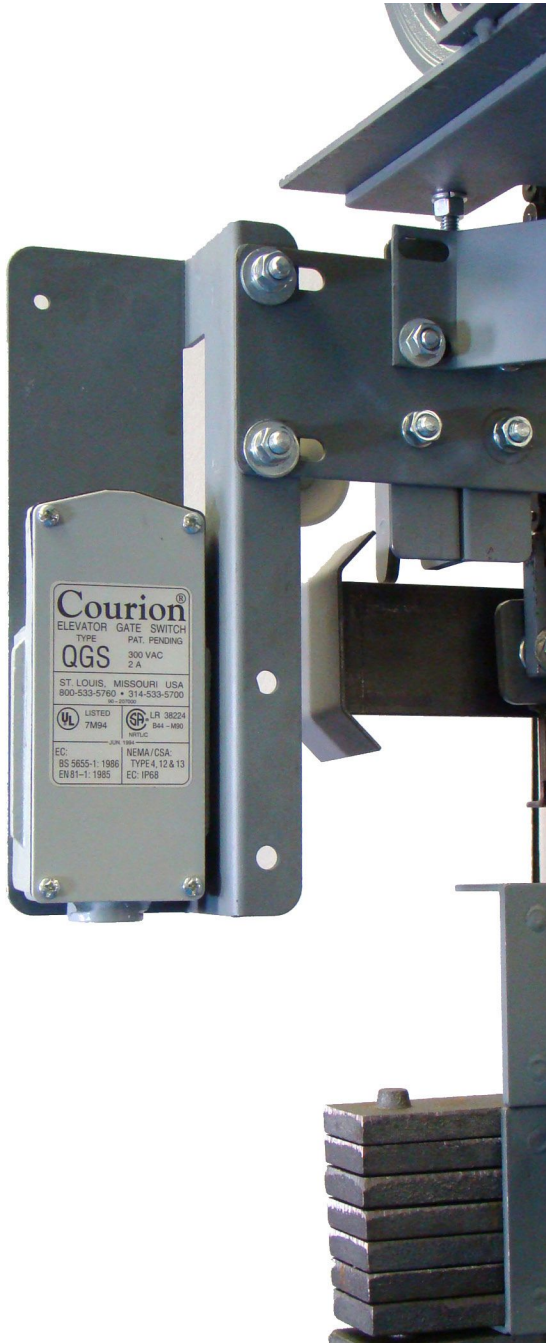


C

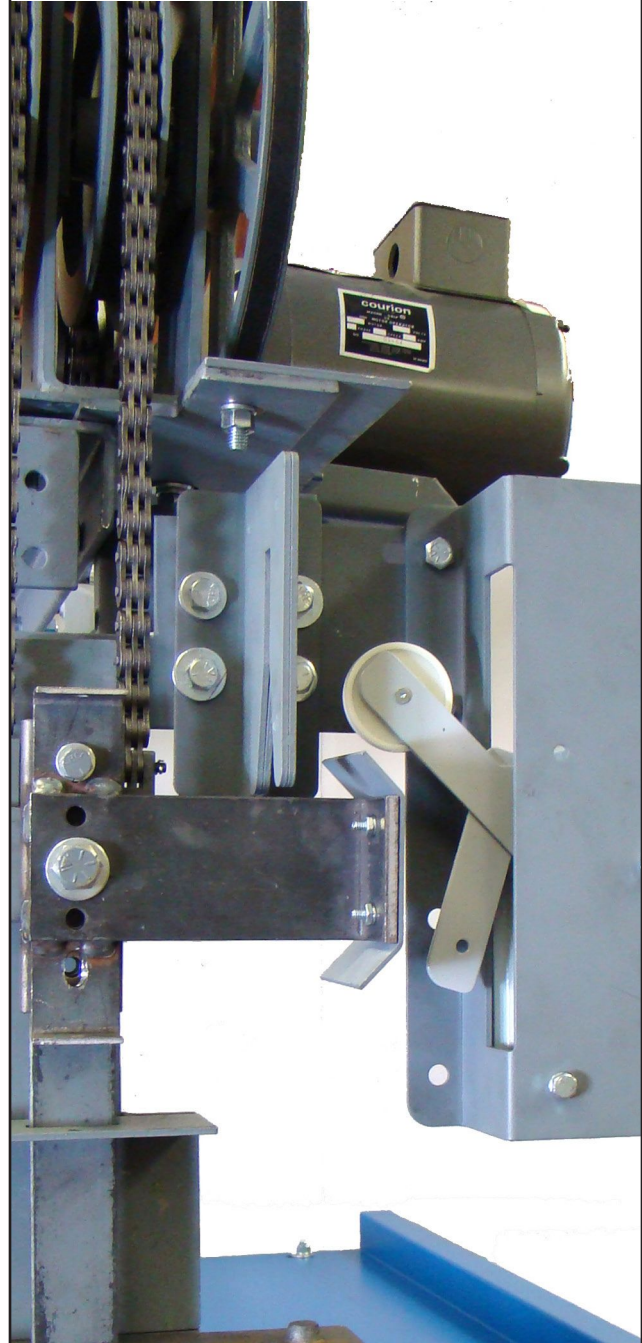


CAR GATE - P Style

D



E

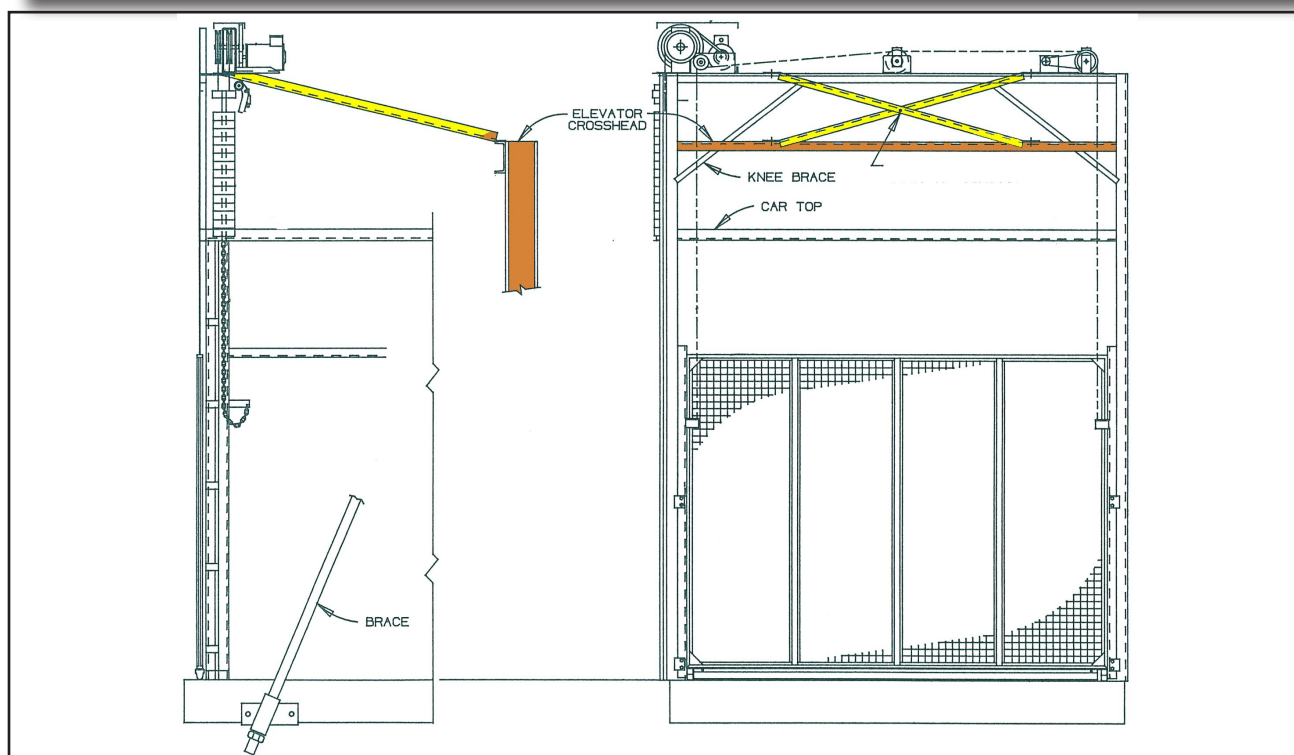


CAR GATE - P Style

- 21** Install an electrical junction box on the Gate Cross Angle for the **REVERSING EDGE** Drop Cord. Be sure the location does not interfere with operation of the Car Gate. Connect the provided Reversing Edge Cable from the junction box to the Reversing Edge Switch. You may need to cut the cable length to suit your installation. Use the cable clips provided on the Car Gate Panel to restrict movement of the Reversing Edge Cable.

- 22** Install suitable bracing between the Gate CROSS ANGLE and the Elevator Cross-head to stabilize the Gate Guides.

Cross Angle Bracing - required to be cut to length



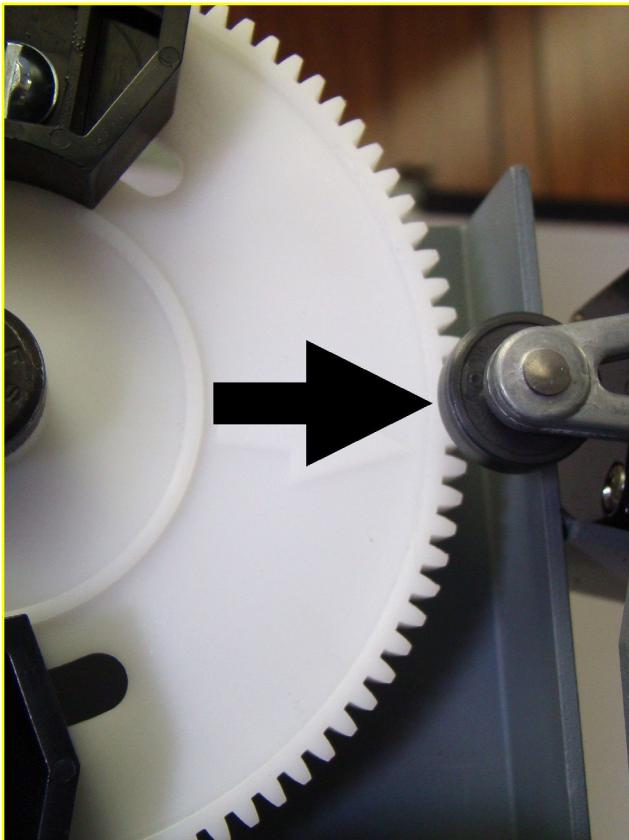
- 23** Attach the **WEB STRAPS** to the Gate Panel

Web Straps



CAR GATE - P Style

24 If you have a **GEARED LIMIT SWITCH**, please make the following adjustments.



With the Gate Panel positioned in its 1/2 Open position and the Geared Limit Switch NOT engaged with the Idler Sprocket -

1. Rotate the CAM GEAR on the Geared Limit Switch until the arrow points to the roller actuator on the Limit Switch.
2. Move the Geared Limit Switch forward so that the CAM GEAR engages the Idler Sprocket Gear. Tighten all bolts.
3. Set the Geared Limit Switch Cams to actuate the Limit Switch when the Car Gate is about 13" (330mm) from FULL OPEN and FULL CLOSE.

Further adjustments will be done after the Gate System is under power.



NEXT GENERATION NOTE

If you have a Gate iSENSOR, please proceed to the iLEARN System Manual for final setup and adjustment.



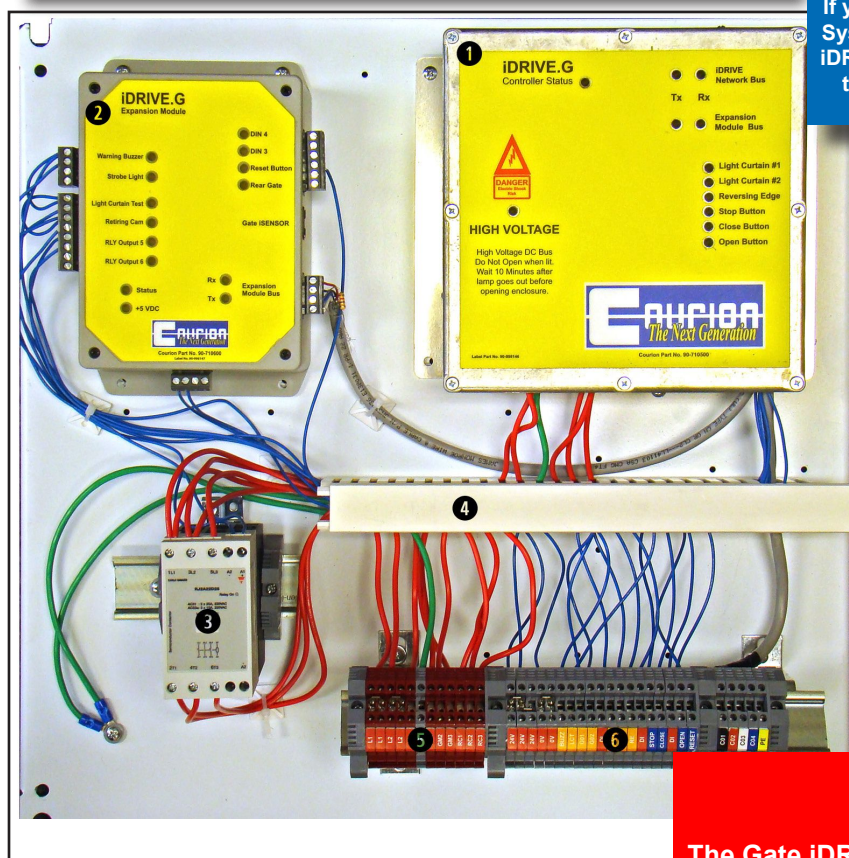
CAR GATE - P Style

25 If You Have Courion's NEXT GENERATION Equipment, mount the **Gate iDRIVE VFD Control** to the top of the Car Enclosure.

- (1) Gate iDRIVE VFD Control - Front Gate
- (1) Gate iDRIVE VFD Control - Rear Gate (when applicable)

NEXT GENERATION NOTE

If you have Courion's NEXT GENERATION System, your shipment will contain a Gate iDRIVE VFD Control. See the iLEARN System Manual for additional information.



IMPORTANT!

The Gate iDRIVE VFD Control must be mounted in close proximity to the Gate iSENSOR and CARE Light Curtain so that their respective cables can reach the necessary connection points on the Gate iDRIVE.

26 If You Have Courion's CARE Light Curtain, please proceed to the CARE Light Curtain Installation Manual.

(1pr) CARE Light Curtain System





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FREIGHT ELEVATOR DOORS***

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