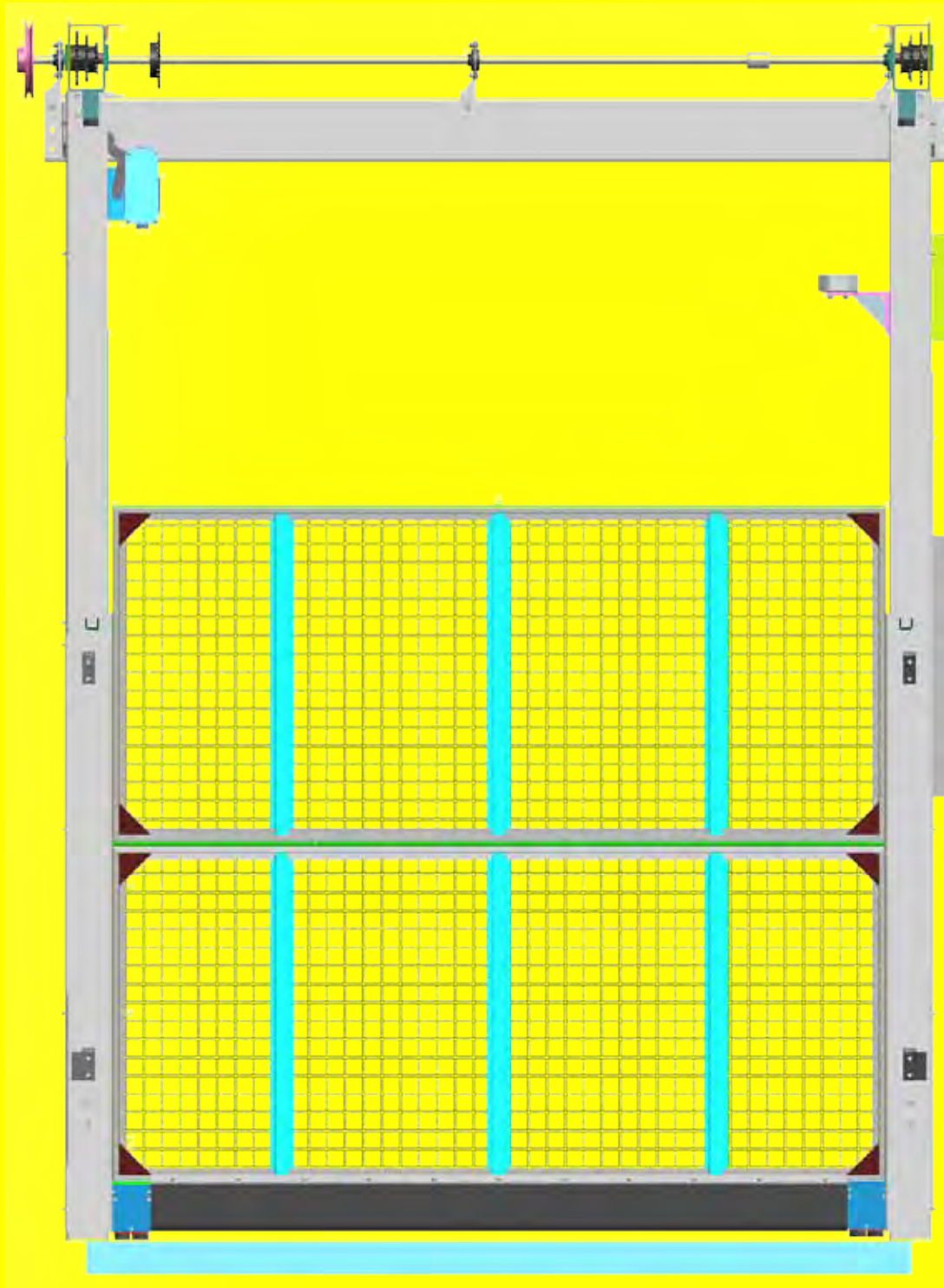




***THE NEXT GENERATION OF
FREIGHT ELEVATOR DOORS***



**Car Gate - Ratio
Installation Instructions**

CAR GATE - Ratio

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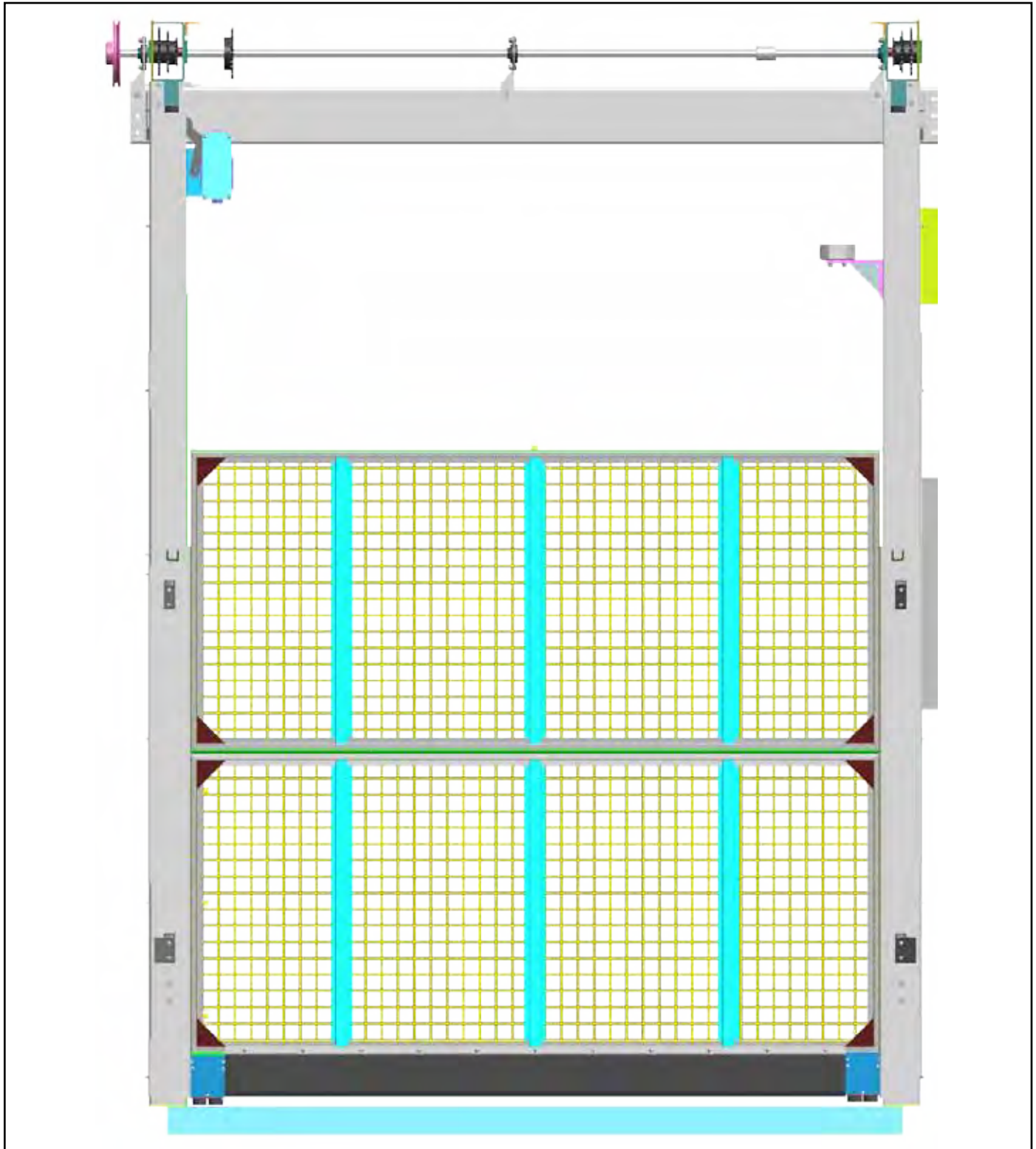
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OPENING QUALITY DOORS AROUND THE WORLD

For Immediate Help Call 1-314-533-5700

CAR GATE - Ratio

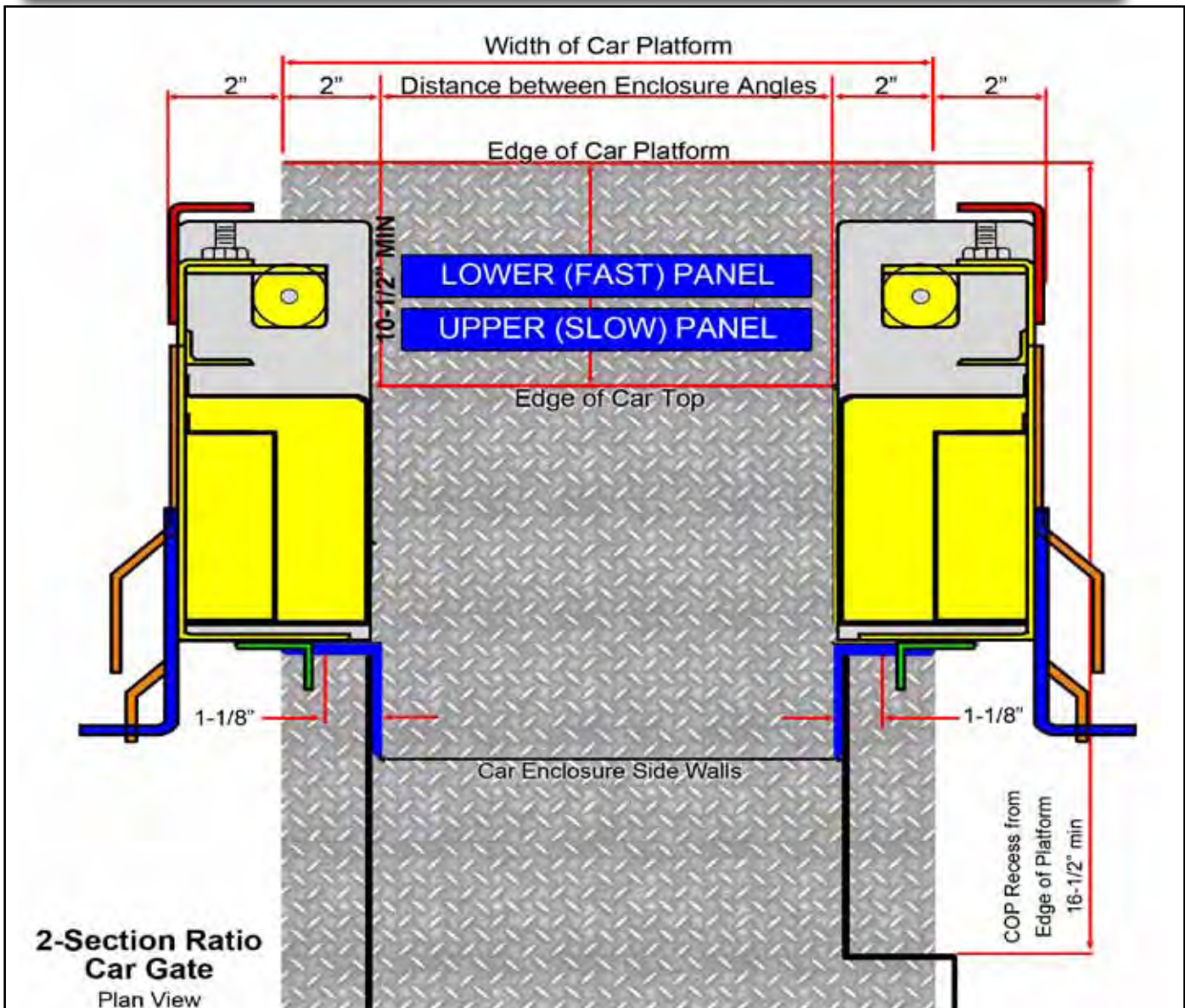


OPENING QUALITY DOORS AROUND THE WORLD

CAR GATE - Ratio

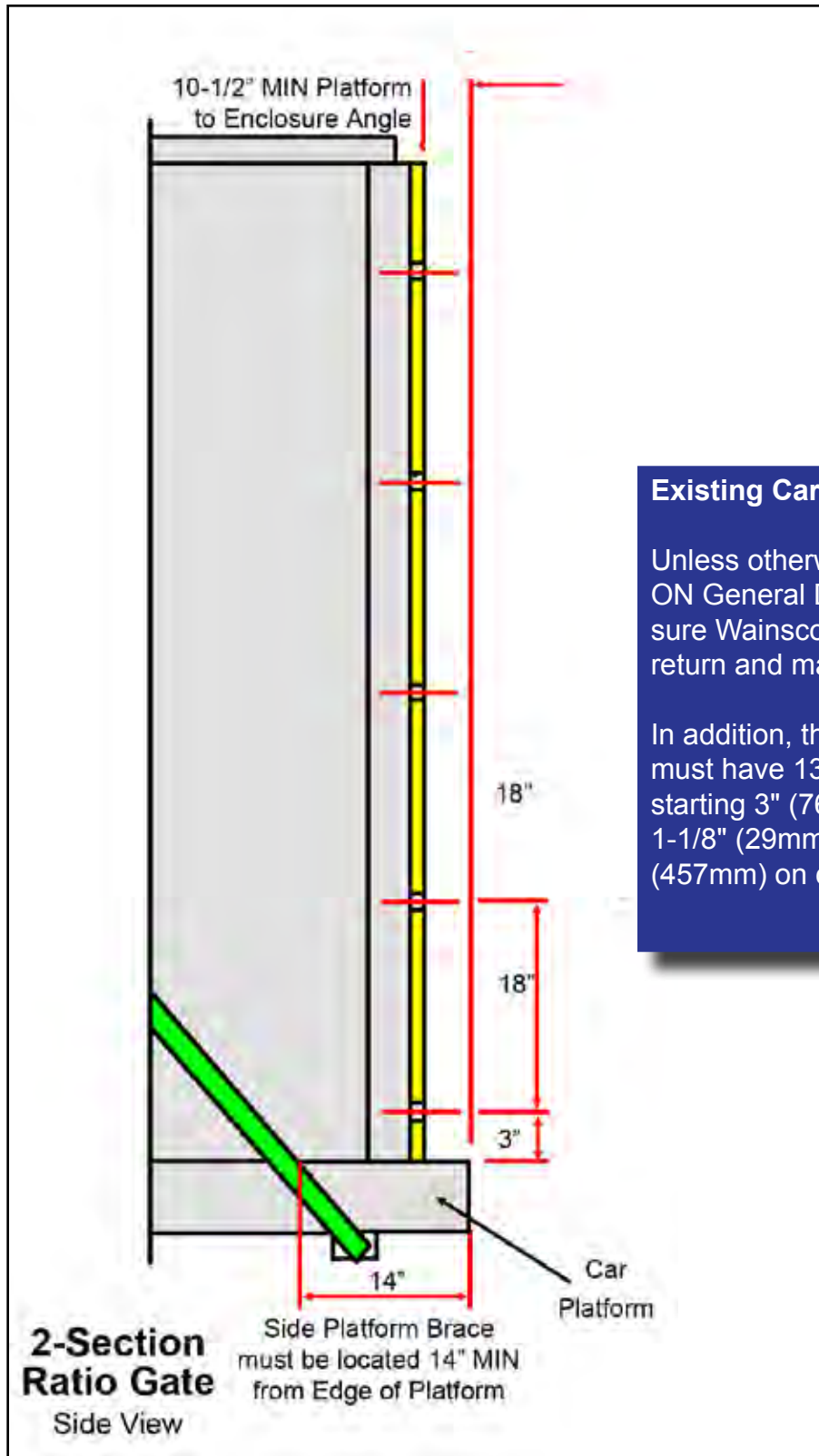
Check Car Enclosure Set Back - Using the Approved General Design Drawings provided by COURION, insure that the Car Enclosure has the following **MINIMUM** Set Backs from the edge of the Platform:

- Wainscot Angles and Canopy 10-1/2" (267mm)
- Car Operating Panel 16-1/2" (420mm)
- Car Brace Rod 14" (360mm)



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





Existing Car Enclosure Wainscot Angles

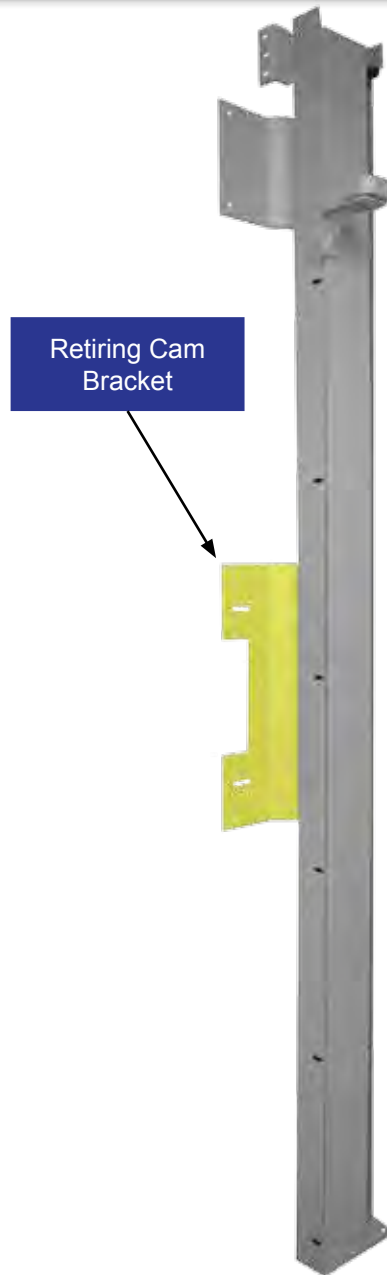
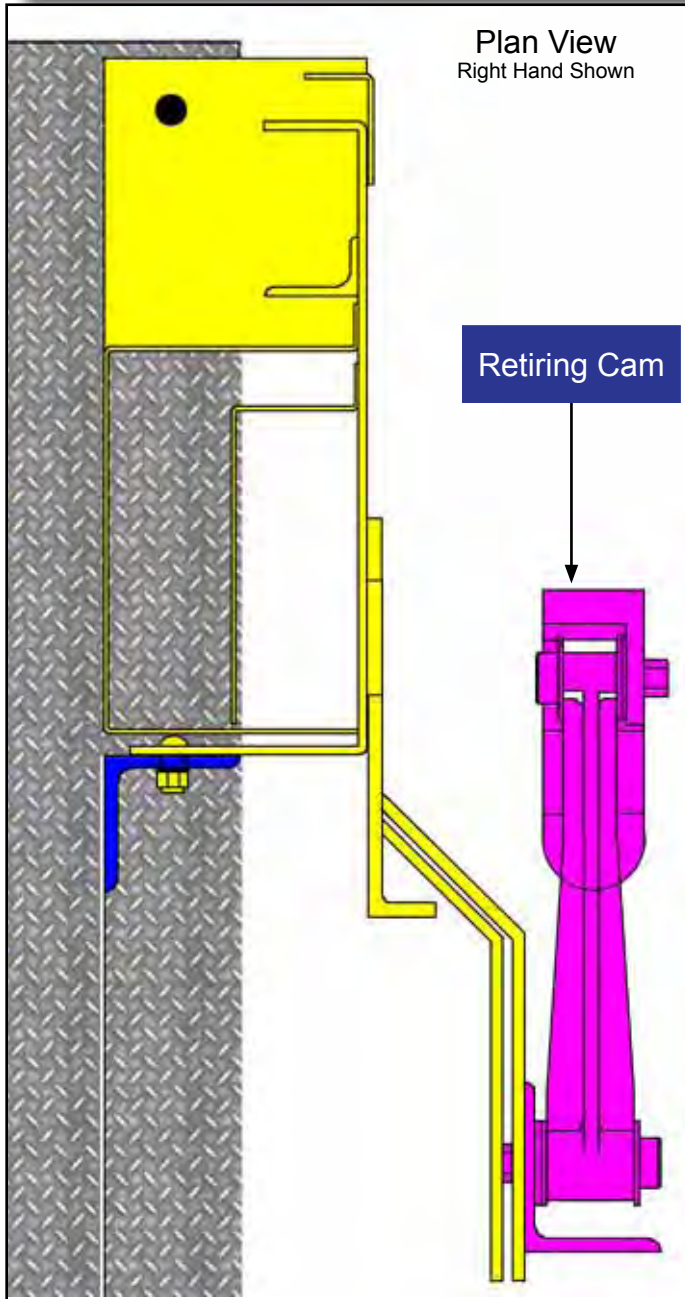
Unless otherwise provided for in the COURION General Design Drawings, the Car Enclosure Wainscot Angle must have a 2" (51mm) return and maximum thickness of 1/4" (6mm).

In addition, the Car Enclosure Wainscot Angle must have 13/32" (10mm) Gate Guide Holes starting 3" (76mm) up from the Platform, 1-1/8" (29mm) from the inside edge, and 18" (457mm) on center.

CAR GATE - Ratio

If your Hoistway has tight returns, attach the Retiring Cam to the Car Gate Guide on the Interlock Side of the Hoistway before installing the Car Gate Guide Assemblies. **CAUTION!** Be very careful not to damage the Retiring Cam when moving the Car Gate Guides into position.

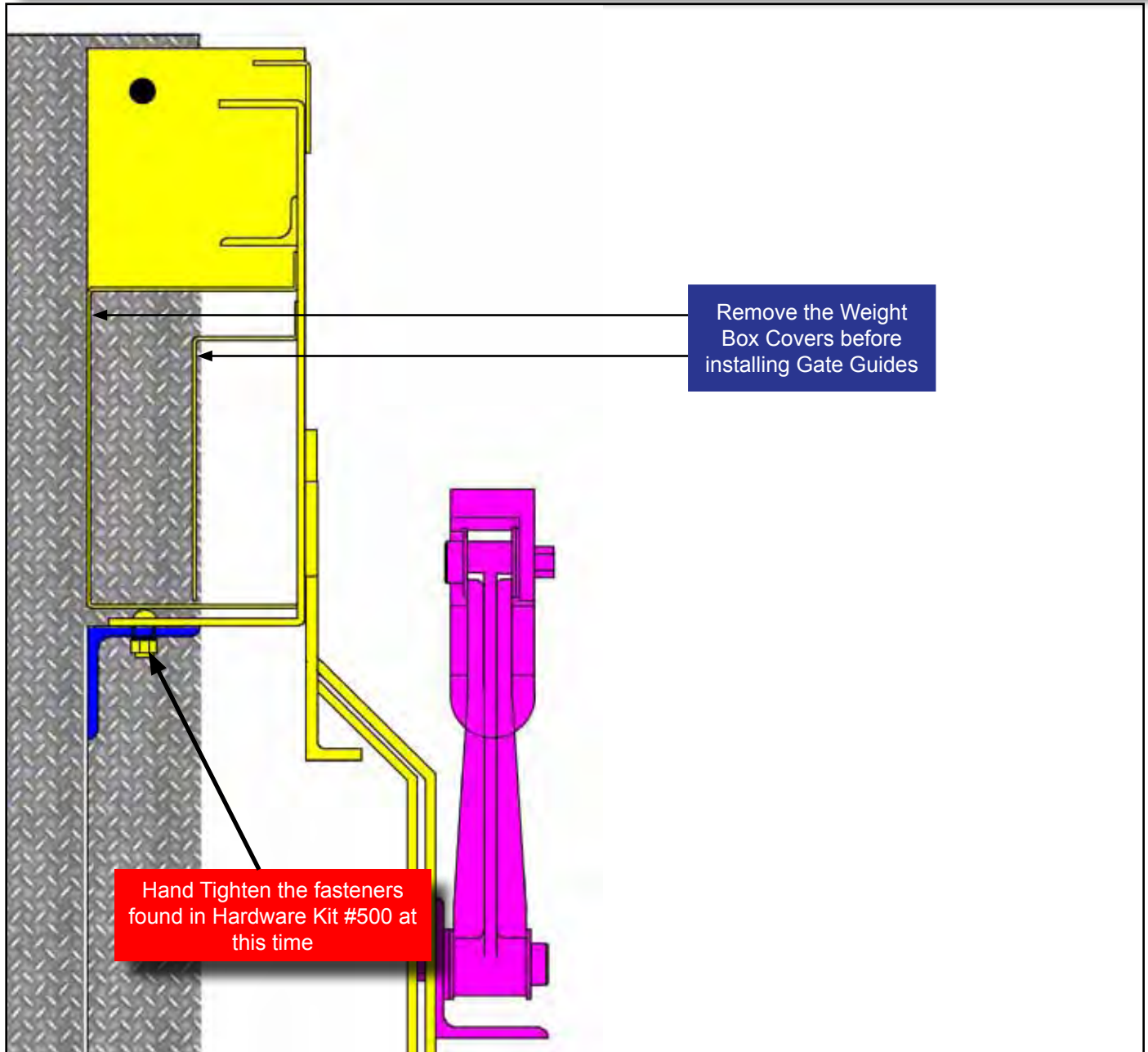
- (1) Retiring Cam (Left and Right Hand)
- (1) Retiring Cam Hardware Kit



1 With the **WEIGHT BOX COVERS** removed from the Car Gate Guides, attach the **CAR GATE GUIDES** to the Car Enclosure Wainscot Angles using the fasteners found in Hardware Kit #94-000500. Hand Tighten Only.

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

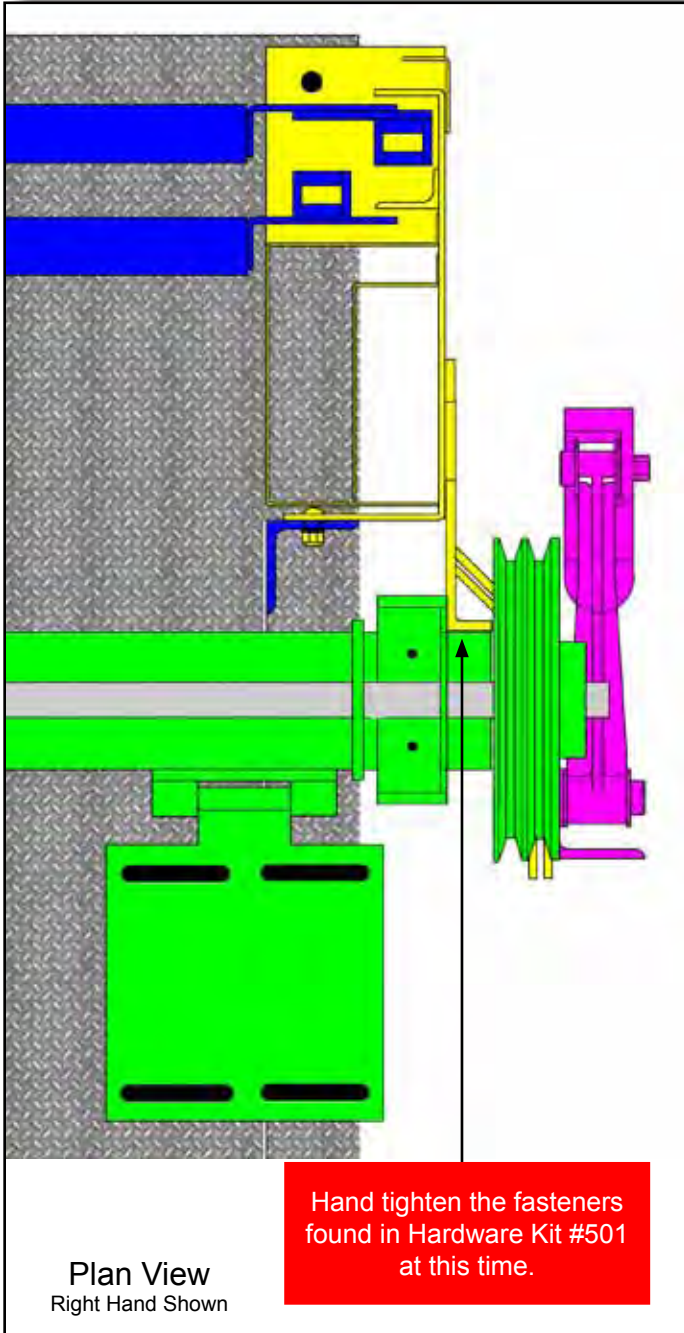
(1) Gate Guide Hardware Kit #500 (Part #94-000500)



CAR GATE - Ratio

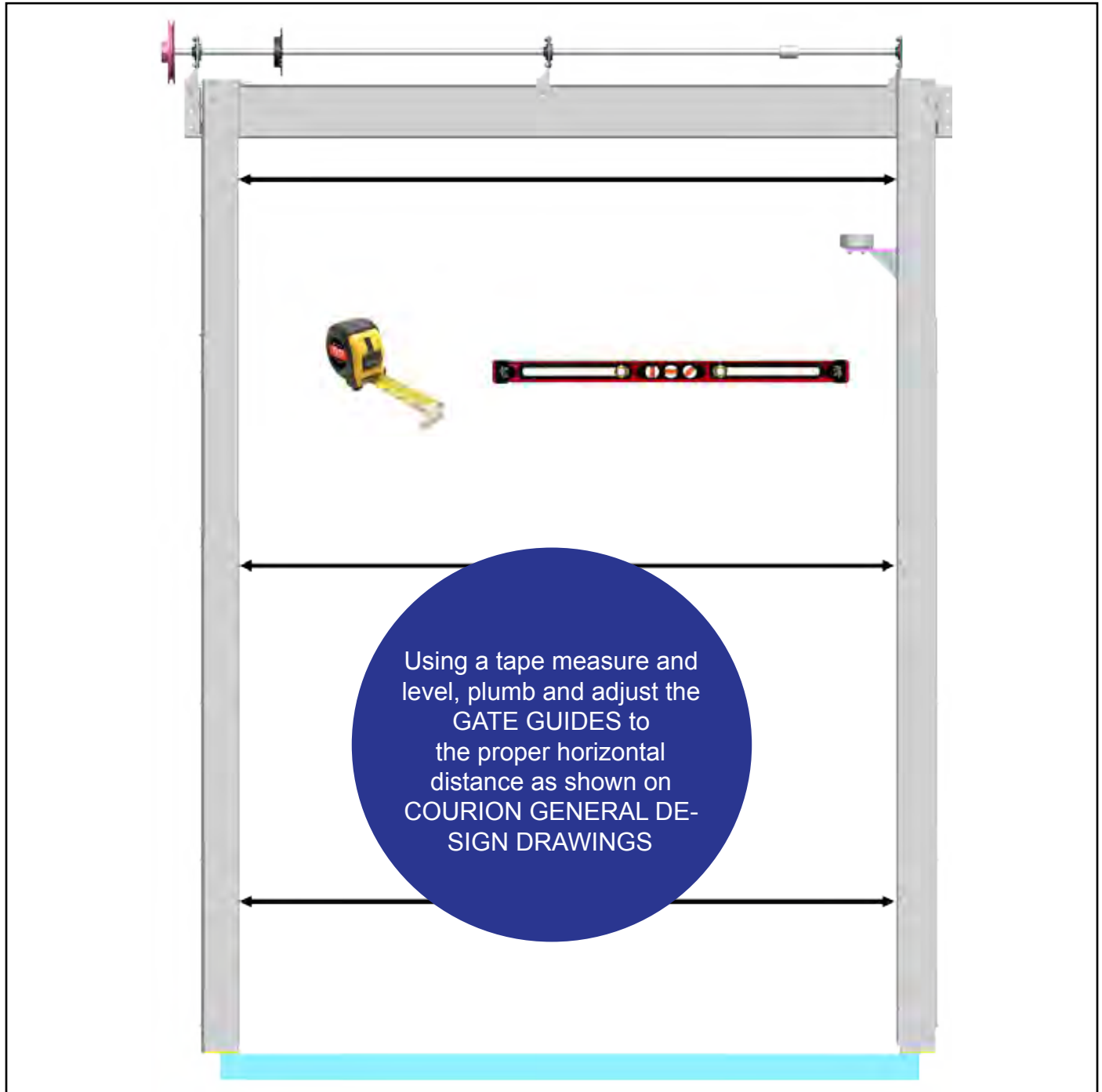
2 Attach the **DRIVE BEAM** to the Drive Beam Brackets on the Gate Guides using the fasteners found in Hardware Kit # 94-000501.

- (1) Drive Beam (Length varies by Job)
- (1) Drive Beam Hardware Kit #501 (Part #94-000501)



CAR GATE - Ratio

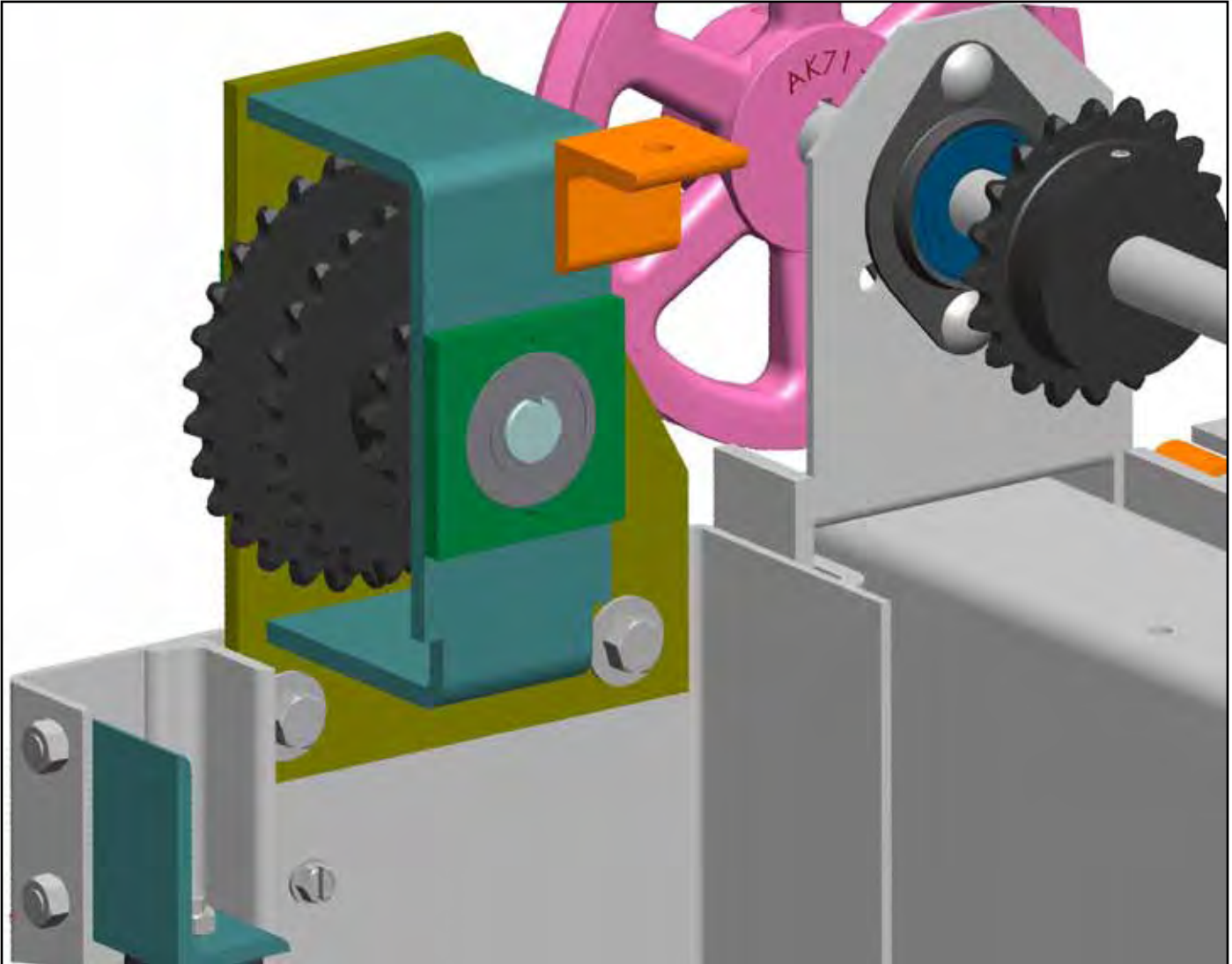
Once the **GATE GUIDES** and **DRIVE BEAM** are in place, check the distance between the Gate Guides at the Top, Middle, and Bottom of the Car Enclosure to insure the proper Distance Between Guides (DBG). When the Gate Guides are plumb and true, tighten all fasteners.



CAR GATE - Ratio

3 Mount the **COUNTERWEIGHT SPROCKETS** to the top of each Gate Guide using fasteners found in Hardware Kit # 94-000502.

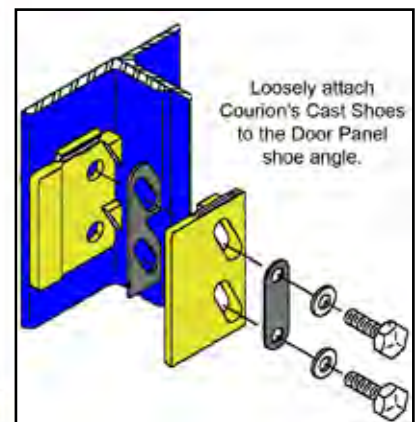
- (2) Counterweight Sprockets
- (1) Counterweight Sprocket Hardware Kit #502 (#94-000502)



4 Install the **UPPER (SLOW) GATE PANEL** and **LOWER (FAST) GATE PANEL** between the Gate Guides and attach the **GUIDE SHOES**.

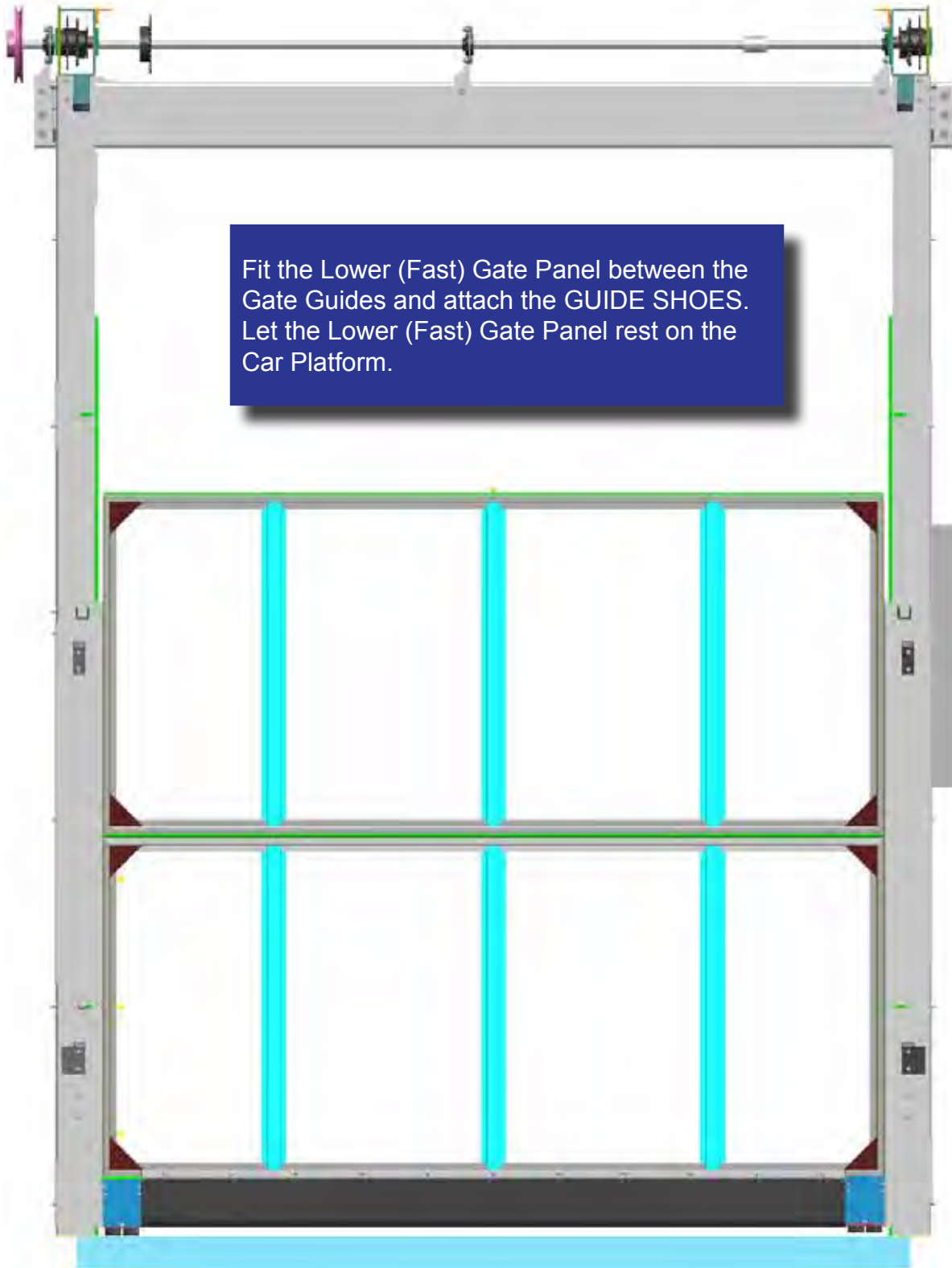
- (1) Upper (SLOW) Gate Panel & (1) Lower (FAST) Gate Panel
- (8) Guide Shoes
- (2) Upper (Slow) Panel Props

Fit the Upper (Slow) Gate Panel between the Gate Guides and attach the GUIDE SHOES. Prop the Upper Gate Panel up off the Platform using the Slow Panel Props provided by COURION.



CAR GATE - Ratio

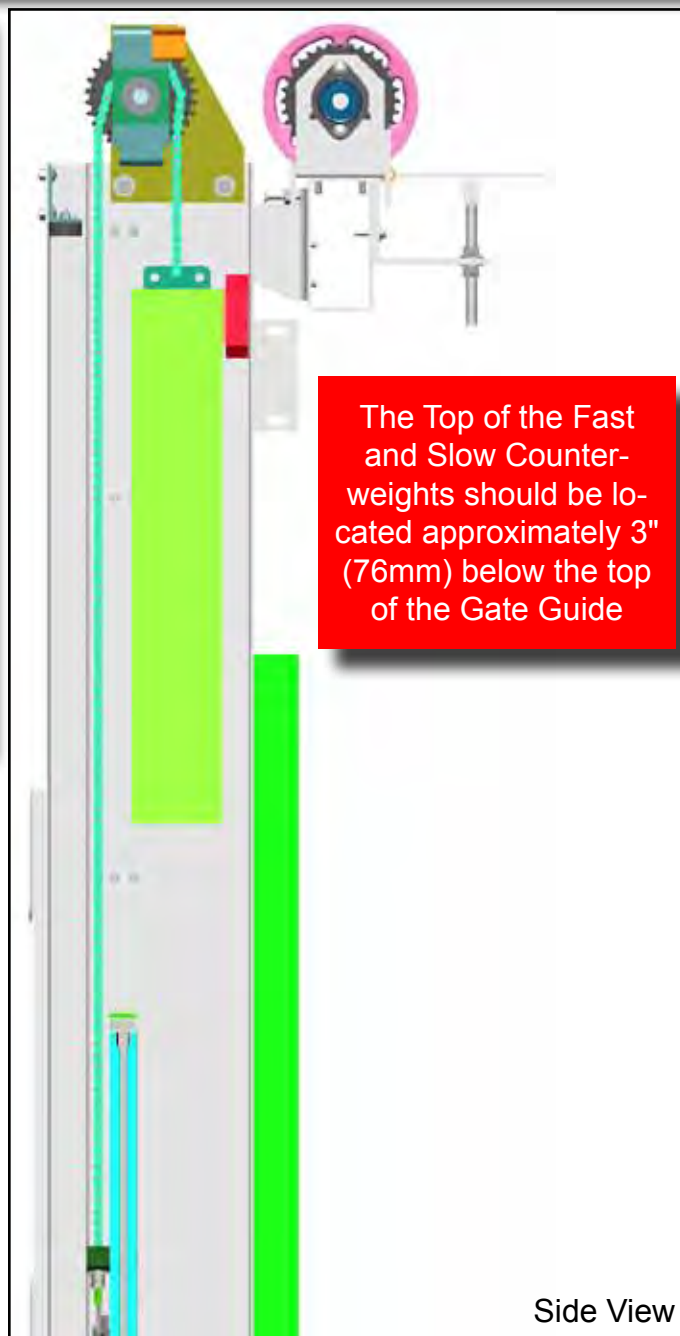
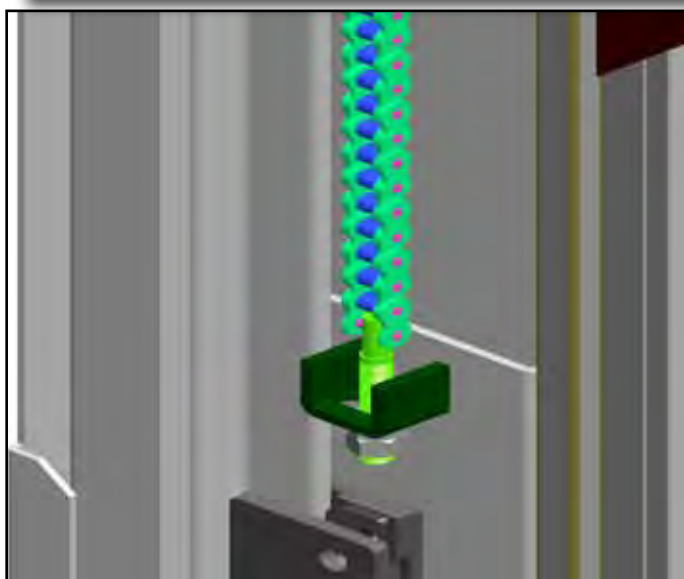
Fit the Lower (Fast) Gate Panel between the Gate Guides and attach the GUIDE SHOES. Let the Lower (Fast) Gate Panel rest on the Car Platform.



5 Attach the **GATE CHAINS** to the Gate Panels using the fasteners found in Hardware Kit #94-000503

- (2) Fast Gate Chains and (2) Slow Gate Chains
- (2) Fast Gate Counterweights and (2) Slow Gate Counterweights
- (1) Gate Chain Hardware Kit #503 (Part#94-000503)

Attach the **FAST GATE CHAINS** to the Lower (Fast) Gate Panel Chain Hitches using the pre-attached Chain Bolts. Thread the Fast Gate Chains over the **LARGEST** Sprocket on the Counterweight Sprockets and attach to the **FAST COUNTERWEIGHTS** using a Chain Link found in Hardware Kit #503. Attach the **SLOW GATE CHAINS** to the Upper (Slow) Gate Panel Chain Hitches using the pre-attached Chain Bolts. Thread the Slow Gate Chains over the **SMALLEST** Sprocket on the Counterweight Sprockets and attach to the **SLOW COUNTERWEIGHTS** using a Chain Link found in Hardware Kit #503. Adjust the Slow Gate Chains using the Chain Bolts to relieve the weight of the Slow Gate Panel on the Gate Panel Props.

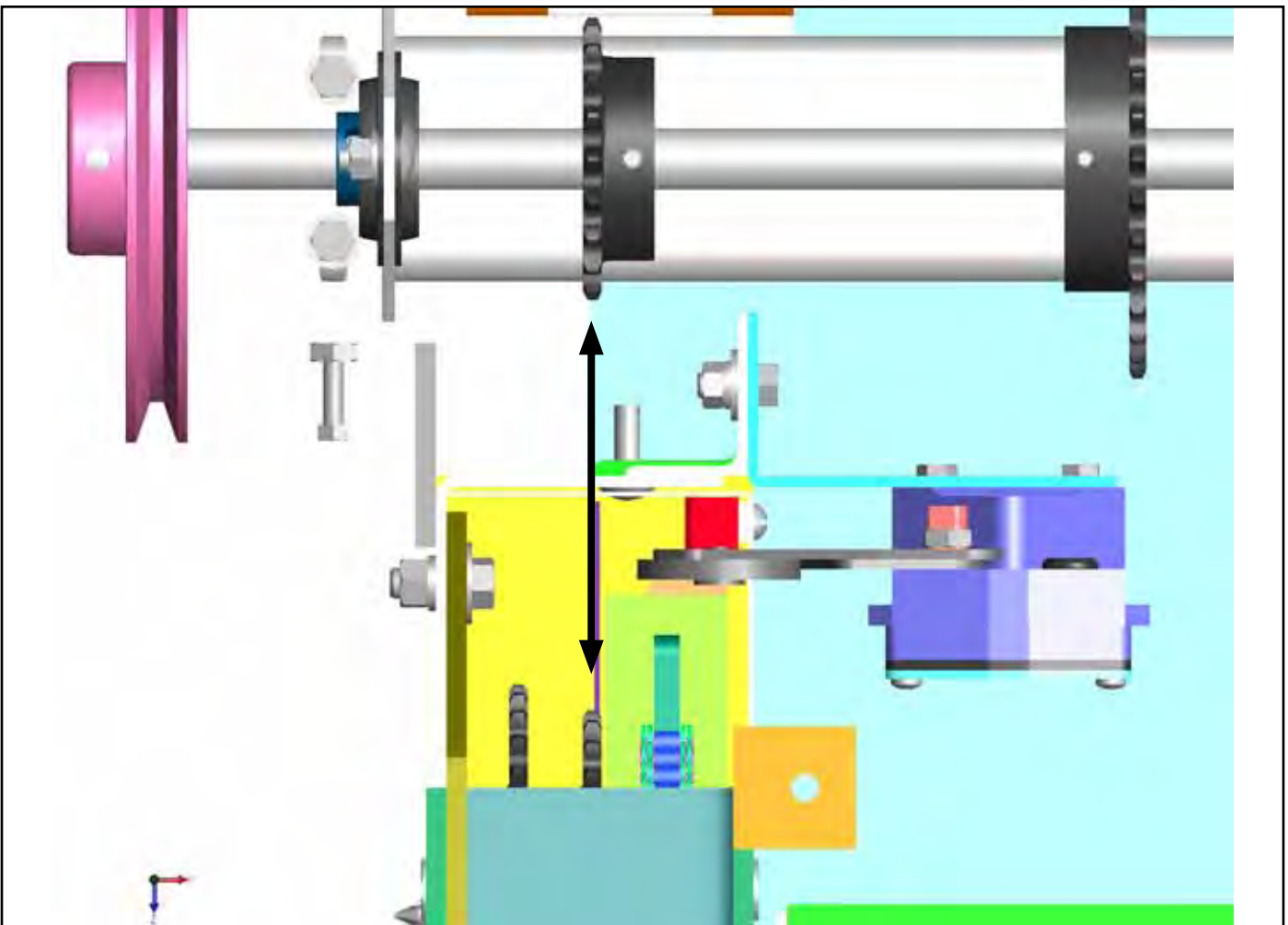


Side View

CAR GATE - Ratio

6 Align the **DRIVE SPROCKET** on the **DRIVE BEAM** with the **CENTER SPROCKET** on the Counterweight Sprocket. Using the set screw on the Drive Sprocket, temporarily set the Drive Sprocket position on the Drive Shaft. Thread the **DRIVE CHAIN** around the Drive Sprocket and the Center Sprocket. Cut the Drive Chain as required and secure with Chain Link found in Hardware Kit #503.

- (1) Drive Chain
- (1) Gate Chain Hardware Kit #503 (#94-000503)

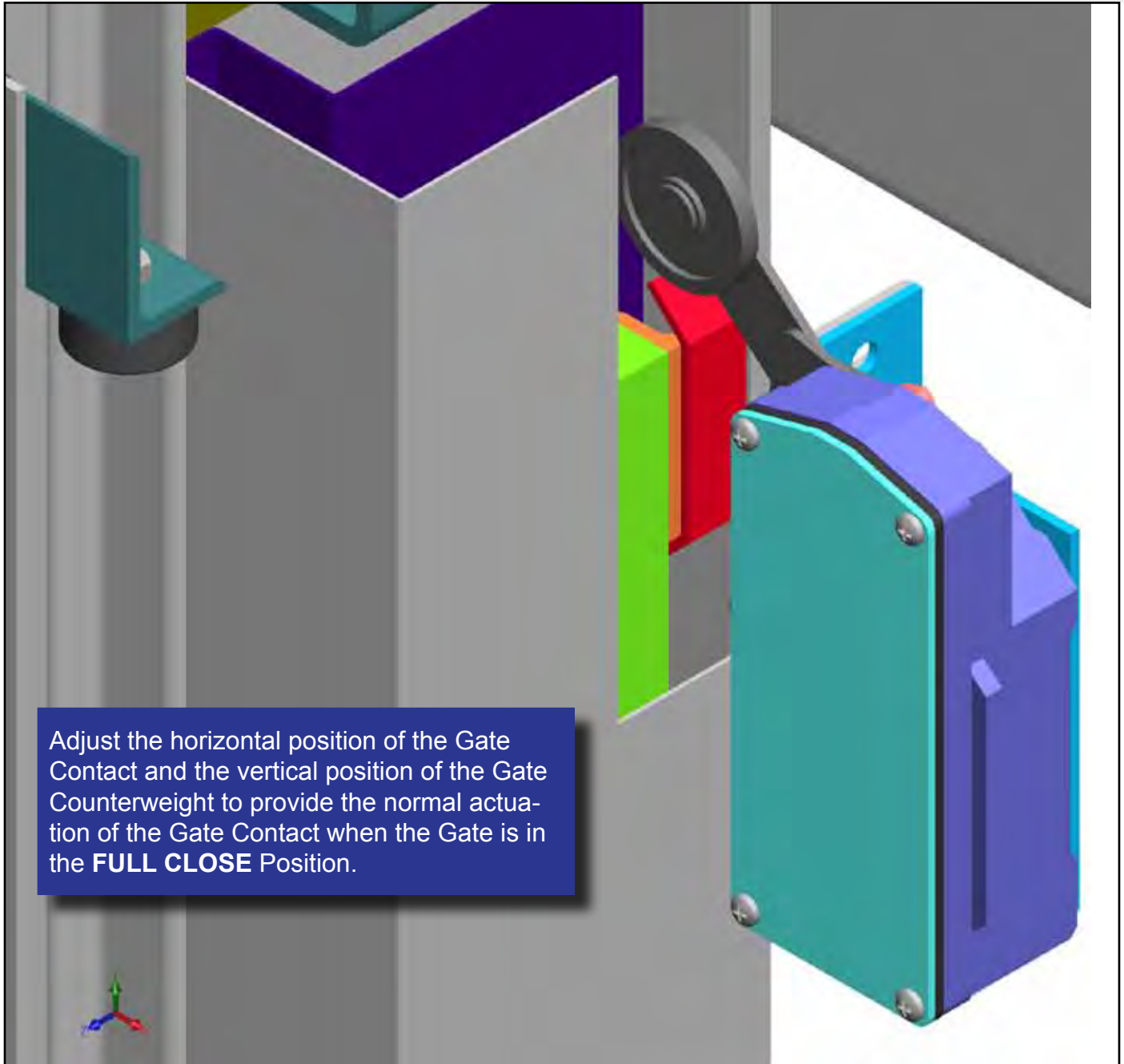


Manually operate the Car Gate through full travel (FULL OPEN/FULL CLOSE) to verify proper operation and Drive Chain alignment. **Set the Drive Sprocket in place by drilling through the Drive Shaft and Drive Sprocket Hub with a 5/16" (8mm) drill bit and install the 5/16" x 2" Lock Pin found in Hardware Kit #503.**



7 Attach the **GATE CONTACT** to the Gate Guide using the fasteners found in Hardware Kit #110. Please refer to COURION's General Design Drawings for the proper side.

- (1) Gate Contact (Handed)
- (1) Gate Contact Hardware Kit #110 (#94-000110)



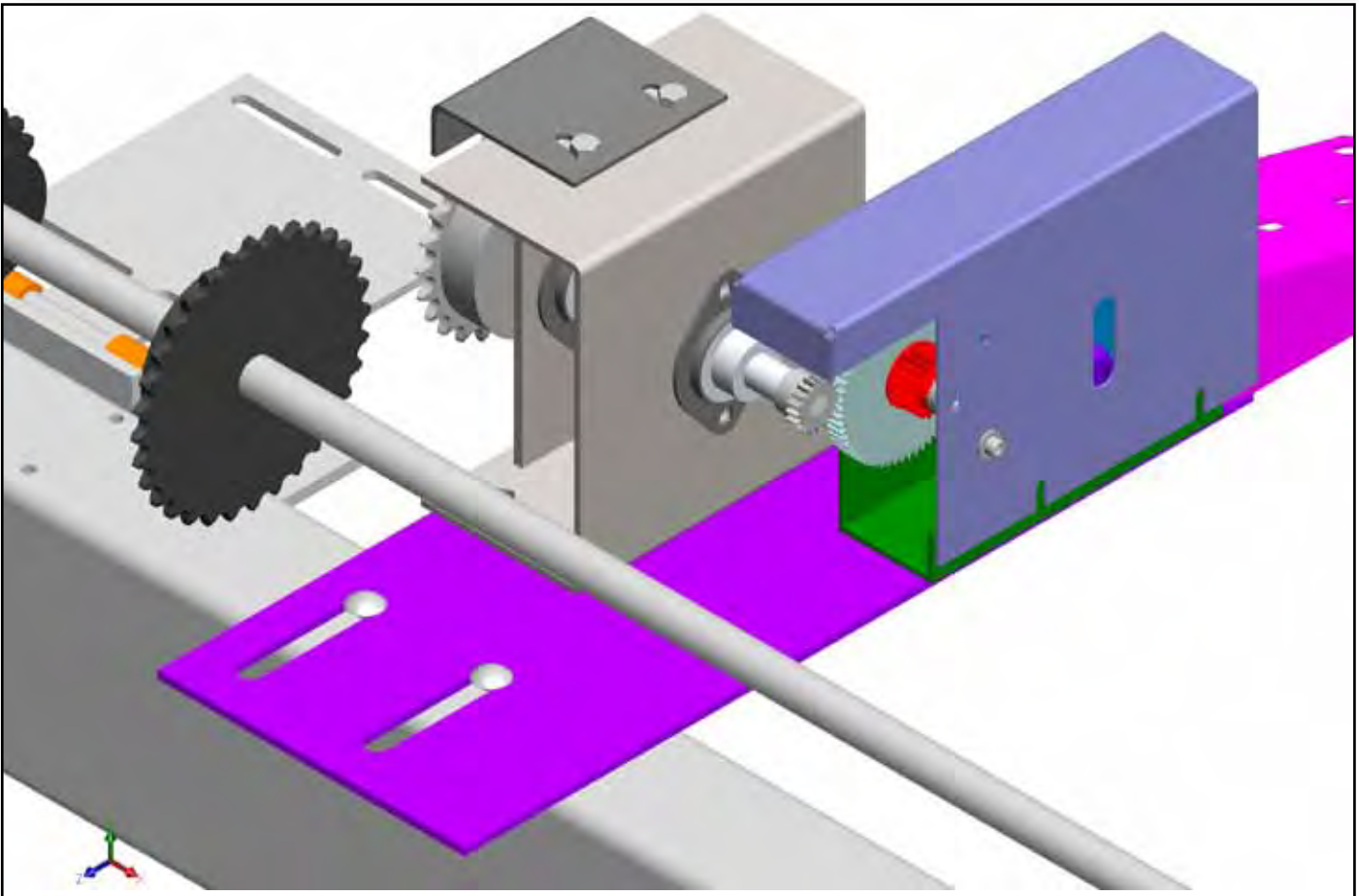
Adjust the horizontal position of the Gate Contact and the vertical position of the Gate Counterweight to provide the normal actuation of the Gate Contact when the Gate is in the **FULL CLOSE** Position.

CAR GATE - Ratio

8 GEARED LIMIT SWITCH - Mount the **GEARED LIMIT SWITCH** to the **DRIVE BEAM** using the Adapter Plate and fasteners found in GLS Hardware Kit. **DO NOT ENGAGE THE GEARED LIMIT SWITCH WITH THE SPROCKET IDLER ASSEMBLY - THIS WILL BE DONE AT A LATER TIME.** Thread the Drive Chain around the Geared Limit Switch Sprocket and the GLS Drive Sprocket. Cut the Drive Chain as required and secure with the Chain Link found in GLS Hardware Kit.

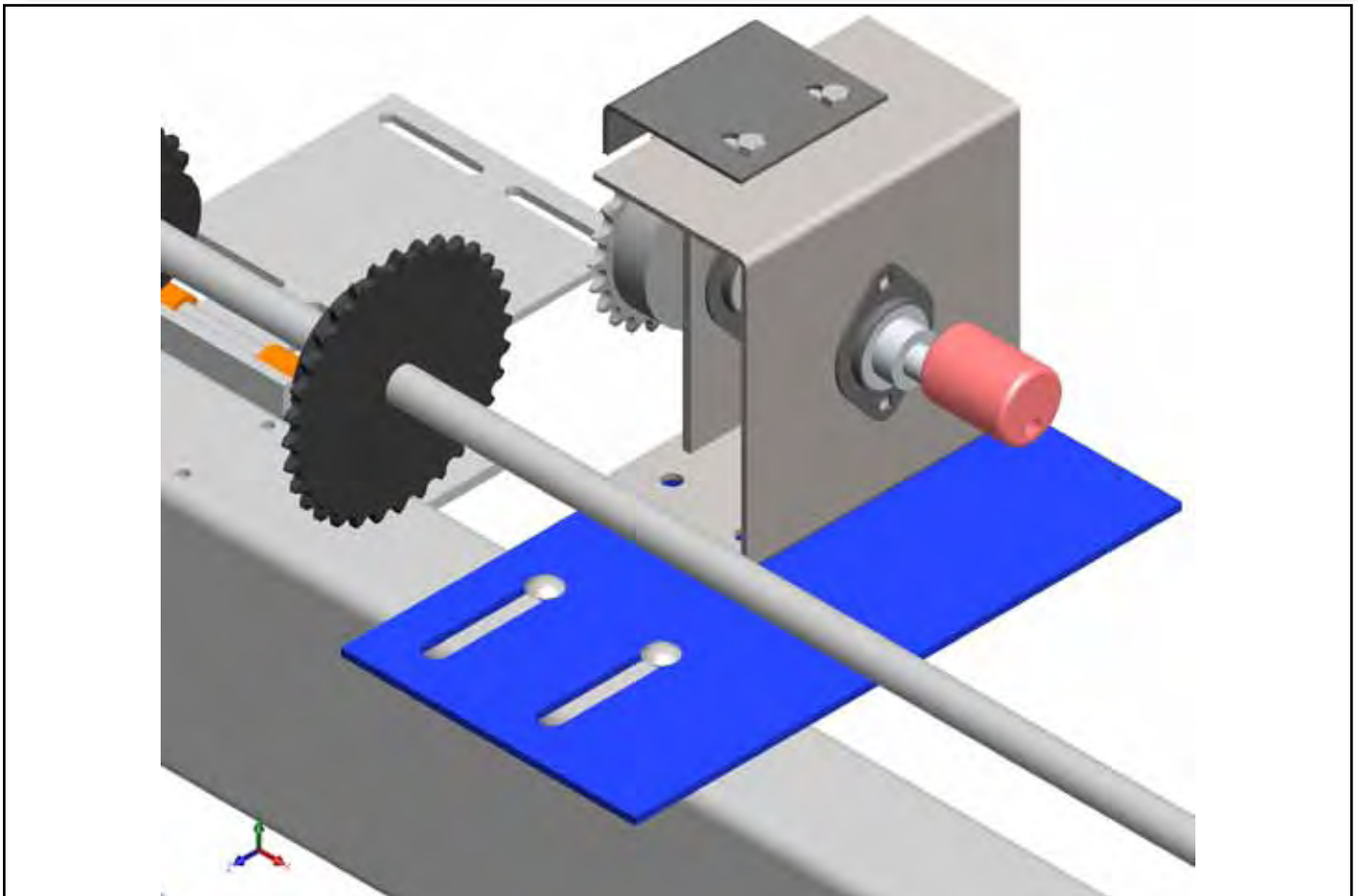
(1) iSENSOR.g

(1) iSENSOR.g/GLS Adapter Plate Hardware Kit



8 NEXT GENERATION SYSTEM - Mount the **iSENSOR.g** to the **DRIVE BEAM** using the Adapter Plate and fasteners found in GLS Hardware Kit. Thread the Drive Chain around the GLS Sprocket and the iSENSOR.g Sprocket. Cut the Drive Chain as required and secure with the Chain Link found in GLS Hardware Kit.

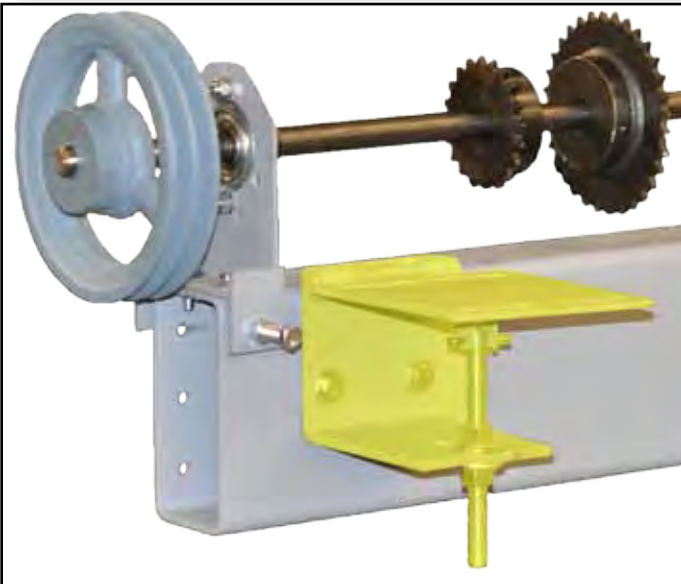
- (1) iSENSOR.g
- (1) iSENSOR.g/GLS Adapter Plate Hardware Kit



CAR GATE - Ratio

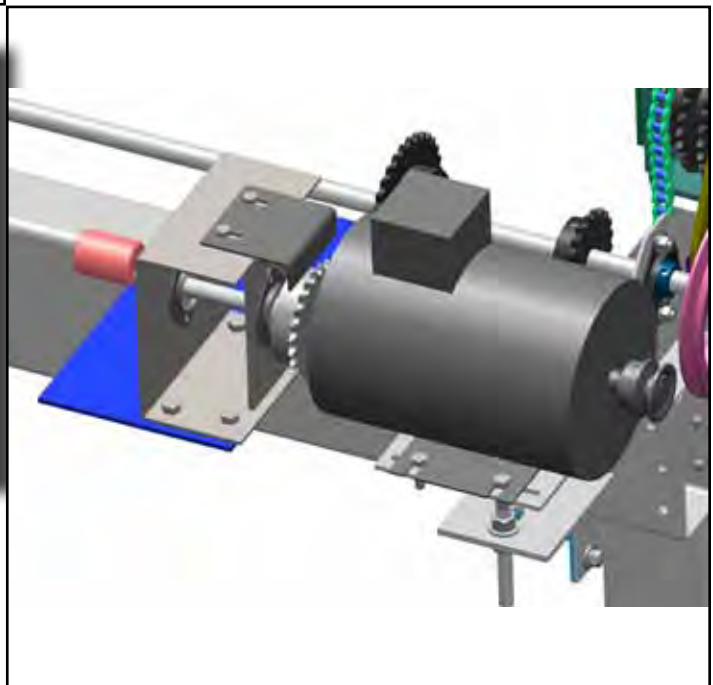
9 Mount the **GATE MOTOR** to the Hinged Motor Bracket on the Drive Side of the Gate Drive Assembly using the fasteners found in Hardware Kit 504. **DO NOT TIGHTEN THE FASTENERS.** Please refer to Courion's General Design Drawings for the proper side.

- (1) Gate Motor
- (1) Vee Belt (AX-26)
- (1) Gate Motor Hardware Kit #504 (#94-000504)



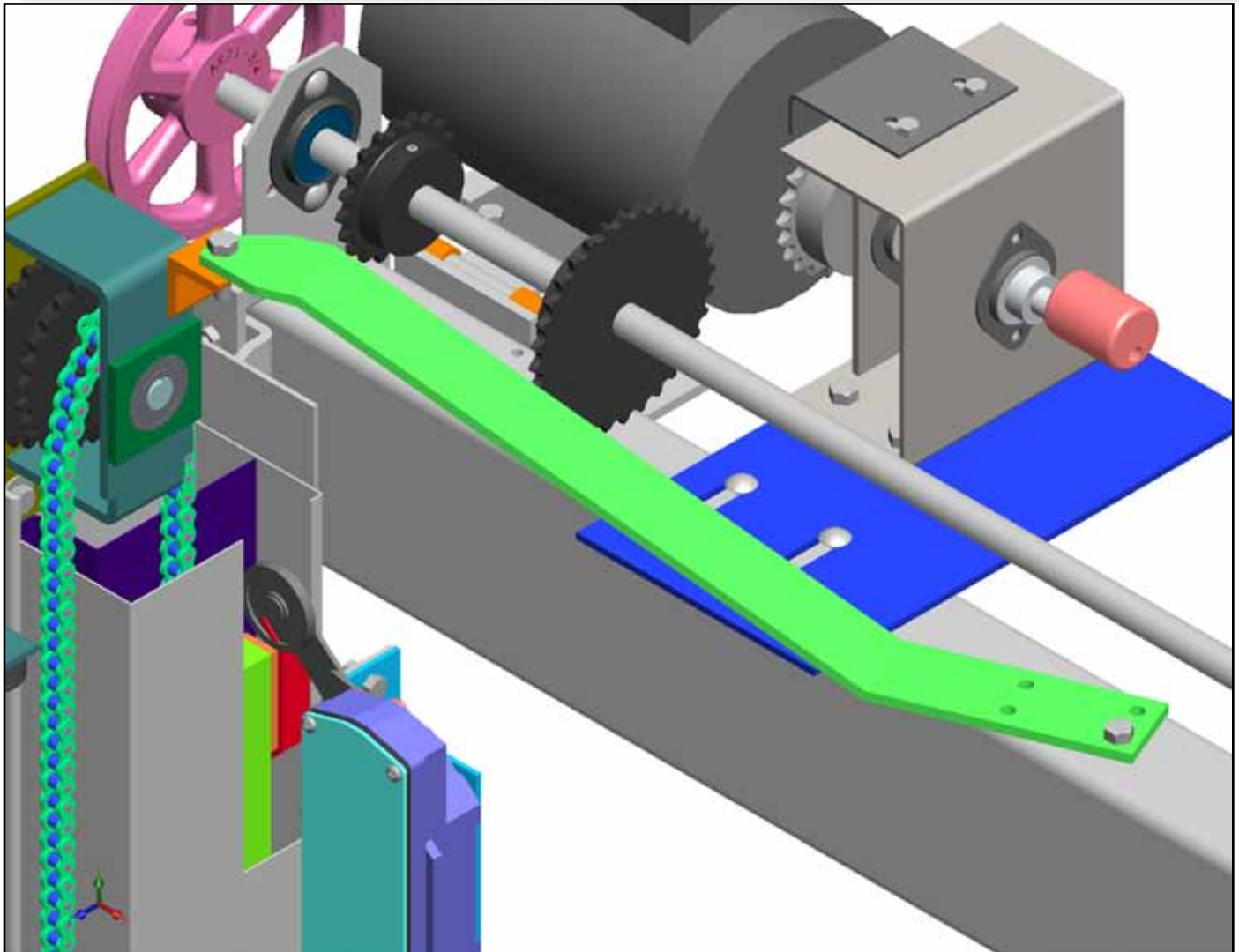
Install the Drive Belt(s) between the 2" Motor Pulley and the 7" Drive Shaft Pulley. NOTE: If a 2-groove Motor Pulley and Drive Shaft Pulley have been supplied, use two (2) Drive Belts.

Adjust the Jack Bolt Hex Nuts on the Hinged Motor Bracket to tension the Drive Belts.



10 Bolt the foot of the Car Gate Guides to the Platform. Attach the **KNEE BRACES** on each side of the Drive Beam. Cut the **ANGLE BRACES** as required and attach to the Gate Drive Beam and Elevator Cross Head.

- (2) Knee Braces
- (2) Cross Angle Braces
- (1) Bracing Hardware Kit #90 (#04-000090)

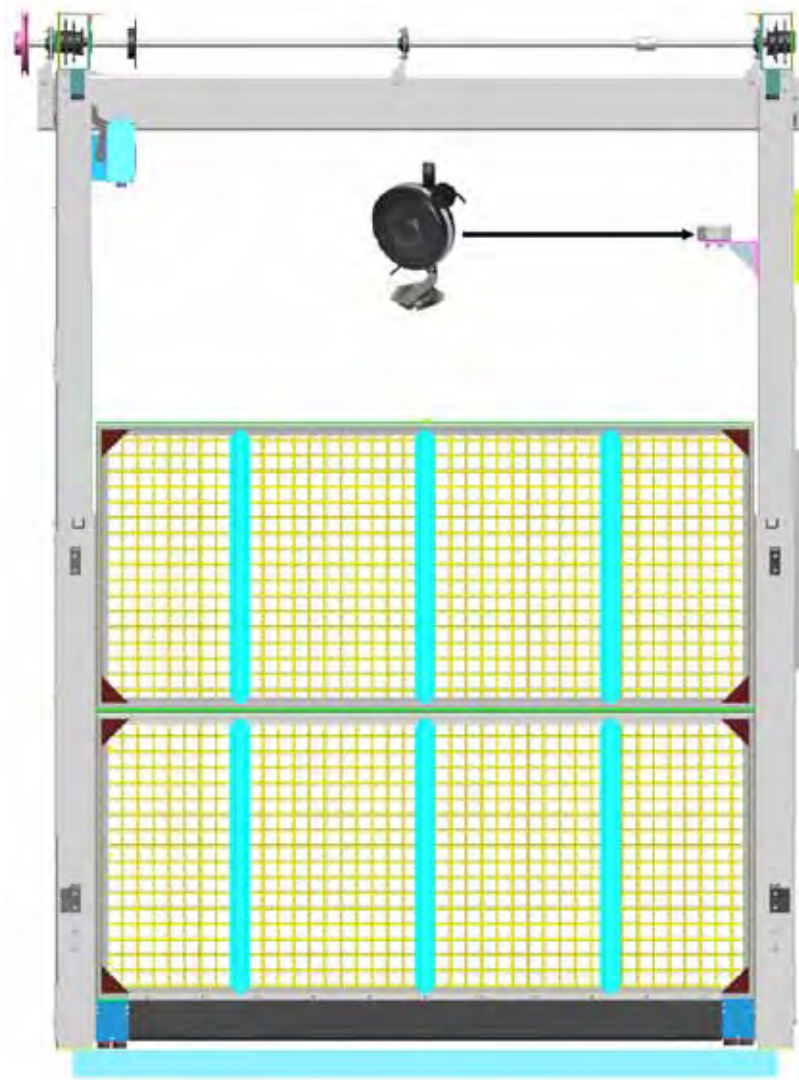


CAR GATE - Ratio

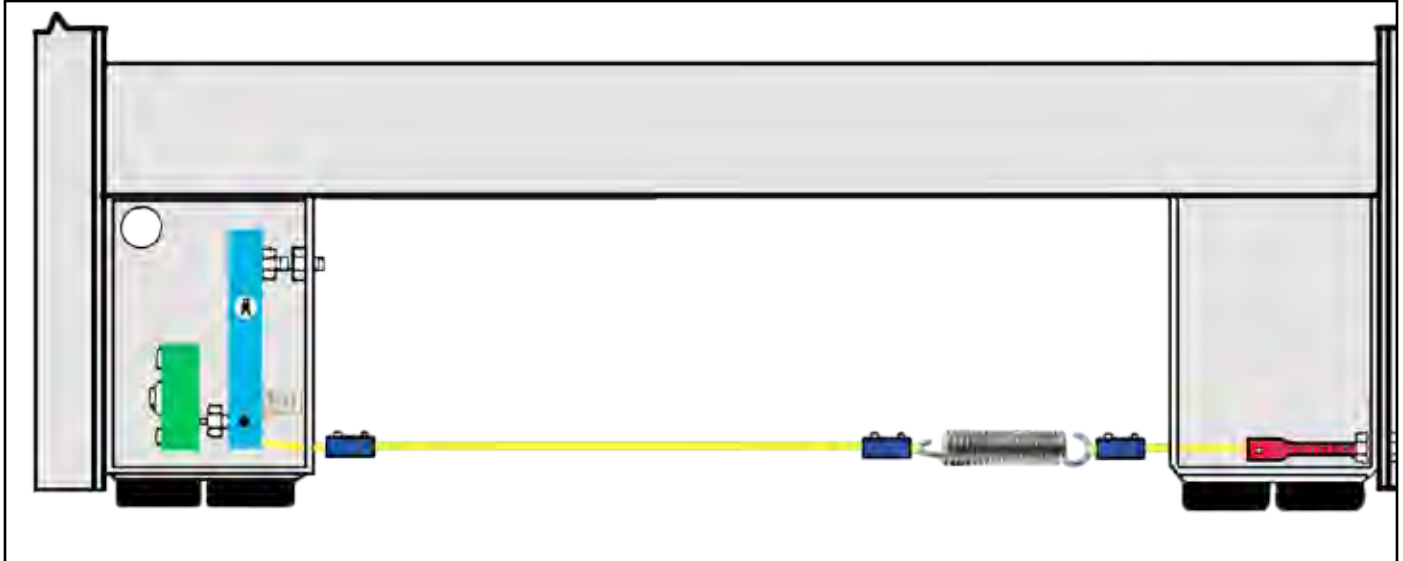
- 11** Attach the **WEB STRAPS** to the Gate Panel

Web Straps

- 12** Attach the **Reversing Edge Swivel Reel Assembly** to the junction box located on one of the Gate Guides. Be sure the location does not interfere with operation of the Car Gate. Connect the Reversing Edge Cable from the Swivel Reel 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.



CAR GATE - Ratio



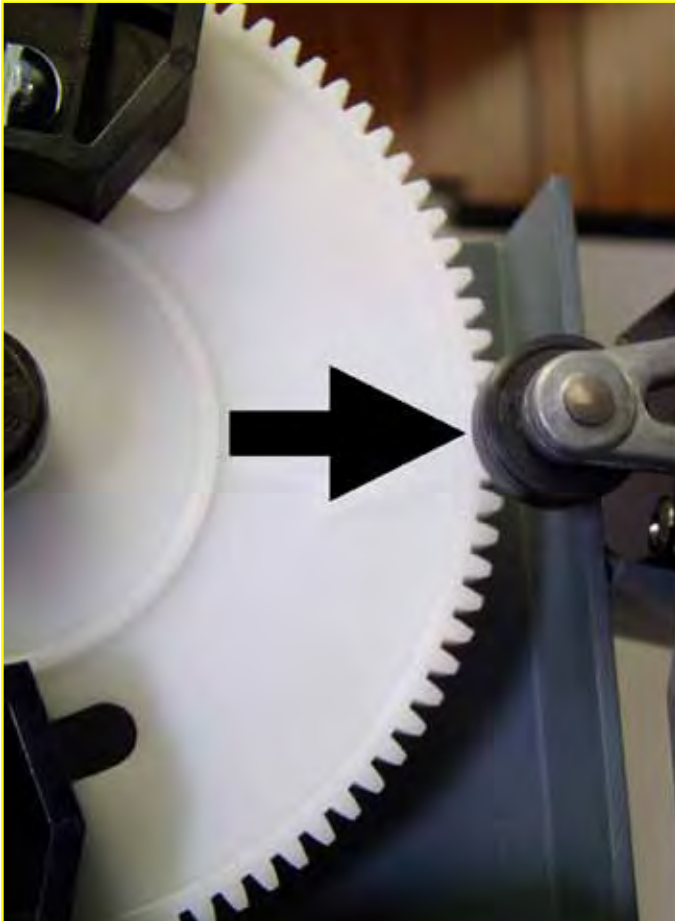
Reversing Edge Microswitch (N.O.) - Adjust the Hex Head Screw inside the Reversing Edge Switch Box so that the Reversing Edge Microswitch is Normally Closed. Mild Pressure on the Reversing Edge should actuate the Microswitch from Closed to Open.

CAR GATE ADJUSTMENTS - Adjust the Gate Guide Shoes for smooth operation of the Car Gate. The Gate Panels should have no more than 1/16" (2mm) side-to-side play between the Gate Guides.



CAR GATE - Ratio

ADJUST THE GEARED LIMIT SWITCH - 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

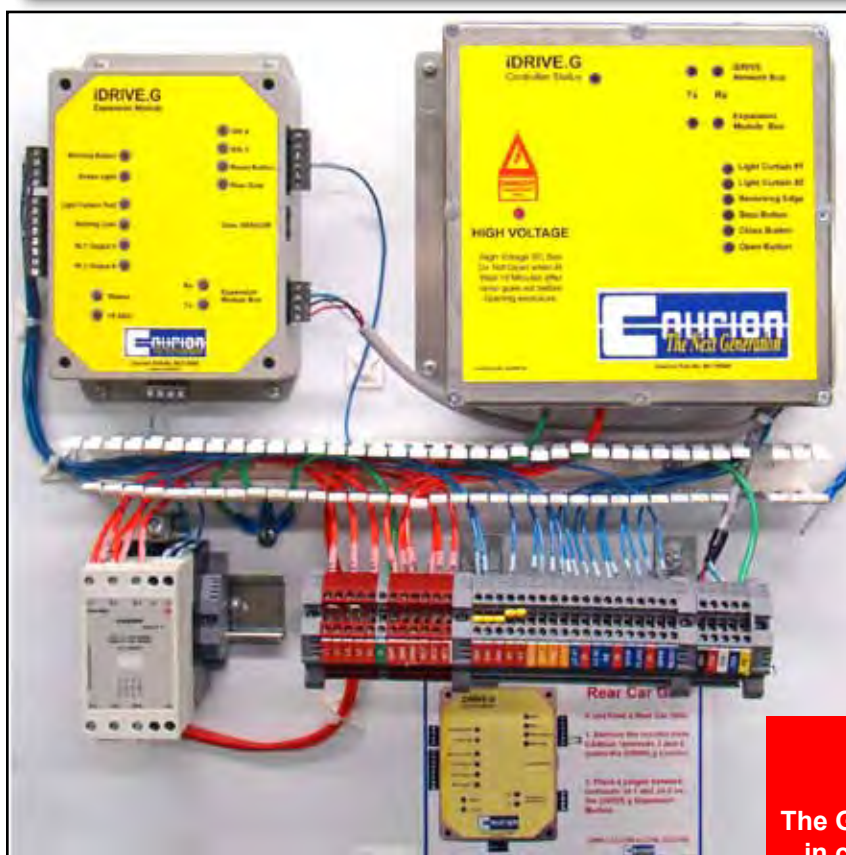
If you have a Gate iSENSOR, please proceed to the iLEARN System Manual for final setup and adjustment.



CAR GATE - Ratio

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.

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

- (1pr) CARE Light Curtain System





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

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