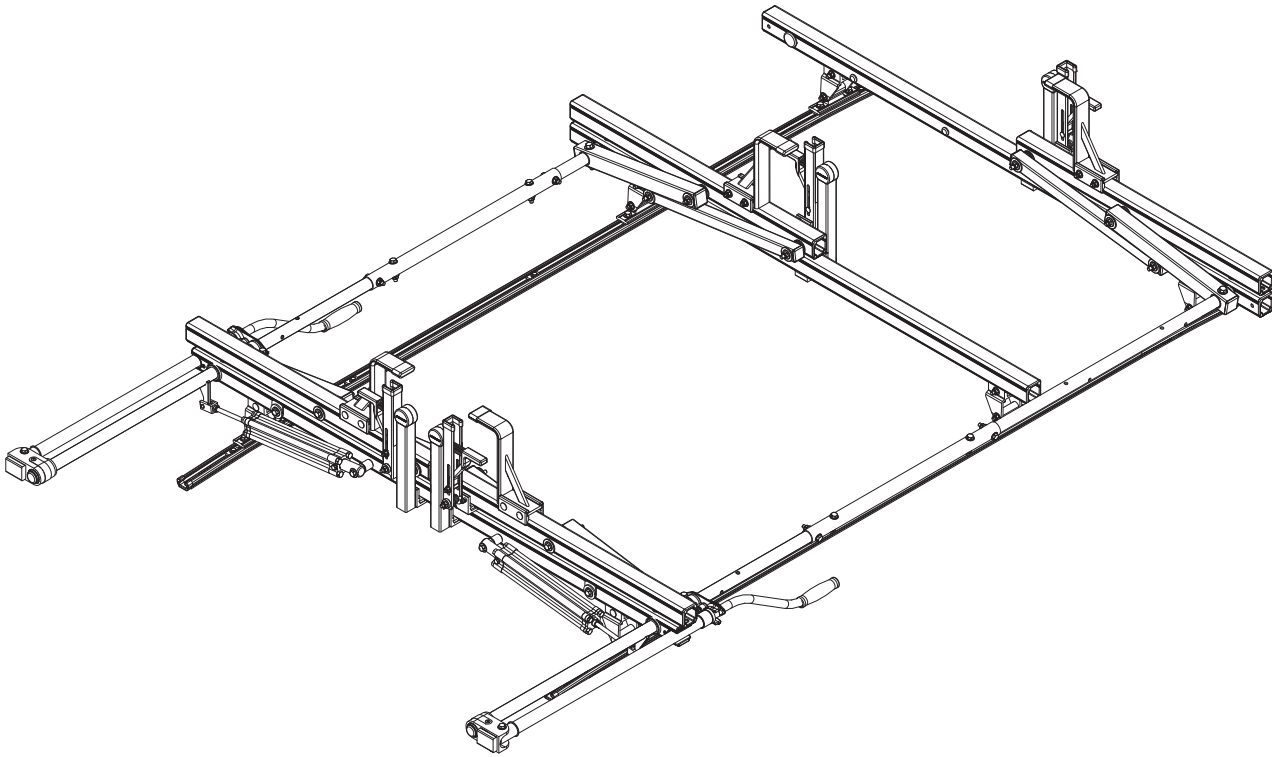
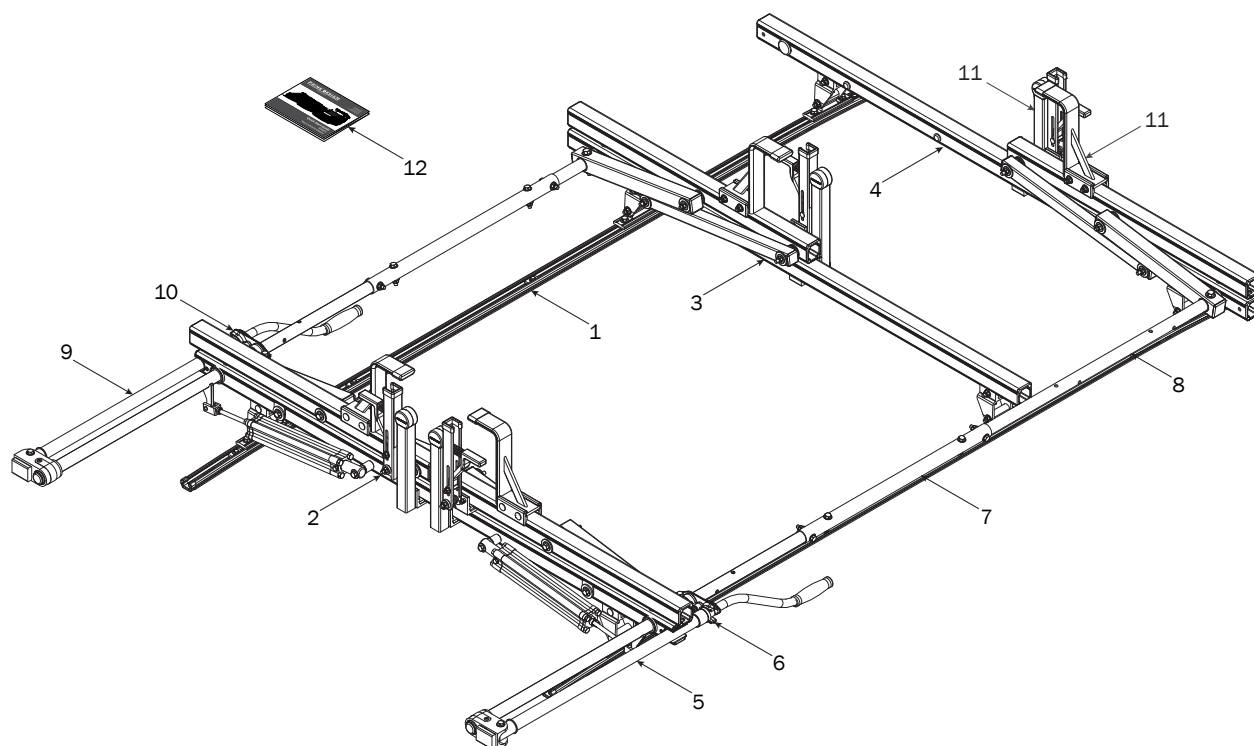


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**VR3**



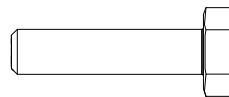
- 1—FBM3-0096 ..... (Qty 1)  
Channels w/hardware



Channels (2X)



M6 Locknut (10X)



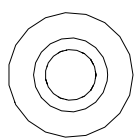
M6 x 30MM Bolt (10X)



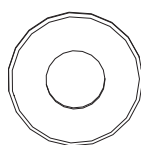
End Caps (4X)



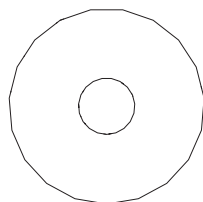
Brackets (6X)



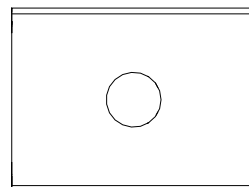
M6 Sealing Washer (10X)



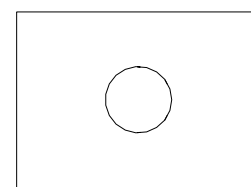
1/4" Flat Washer (10X)



1/4" Washer (10X)

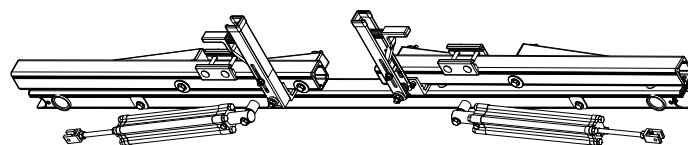


Mounting Plate (10X)

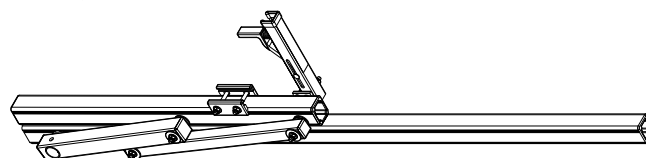


Foam Pad (10X)

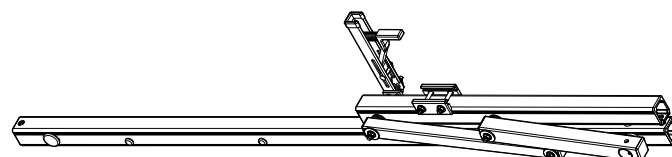
- 2—Rear Crossbar Assembly ..... (Qty 1)



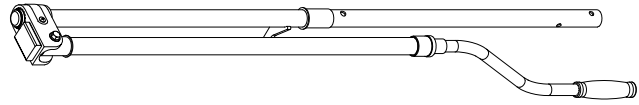
- 3—Center Crossbar Assembly ..... (Qty 1)



- 4—Front Crossbar Assembly ..... (Qty 1)



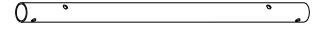
5—Rear Drive Shaft..... (Qty 1)  
Right Hand, B4 Version, 46.00"



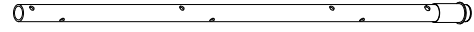
6—Handle Latch Assembly ..... (Qty 1)  
Right Hand



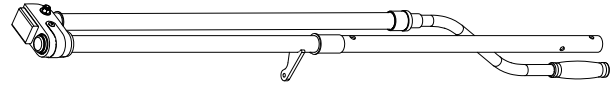
7—Connecting Bar..... (Qty 2)  
2.00'



8—Front Drive Shaft ..... (Qty 2)  
B Version, 35.75"



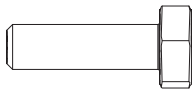
9—Rear Drive Shaft..... (Qty 1)  
Left Hand, B4 Version, 46.00"



10—Handle Latch Assembly ..... (Qty 1)  
Left Hand



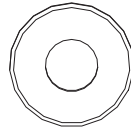
11—L & Z Post Kit..... (Qty 2)  
Adj. Z Post, 7.25", L Post, w/HKT-0160



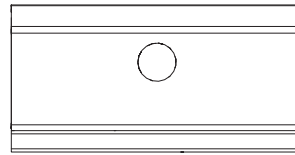
M6 x 20MM (2X)



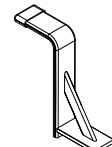
1/4 Lock Washer (2X)



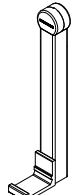
1/4 Flat Washer (2X)



L Post Bracket Clamp (2X)



Z Post (2X)



L Post (2X)

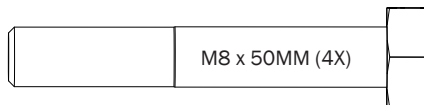
12—USQSG-Ergorack ..... (Qty 1)  
Quick Start Guide, Rotation



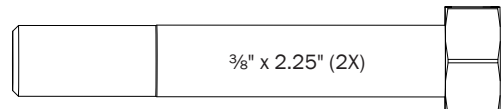
13—HKT-8163 (Not called out in Overview)..... (Qty 2)



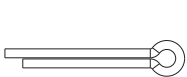
Clevis Pin (1X)



M8 x 50MM (4X)



3/8" x 2.25" (2X)



Cotter Pin (1X)



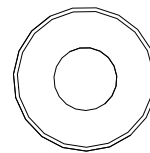
M8 x 25MM (1X)



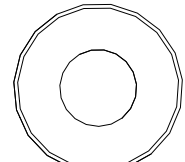
M8 Lock Nut (5X)



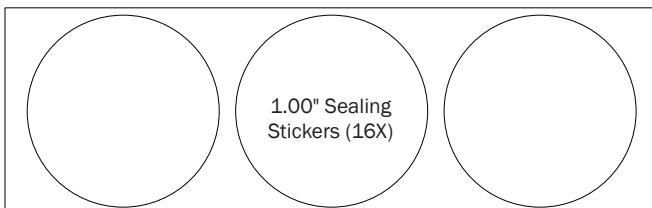
3/8" Lock Nut (2X)



5/16" Flat Washer (10X)



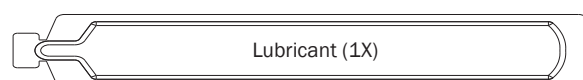
3/8" Flat Washer (4X)



1.00" Sealing  
Stickers (16X)



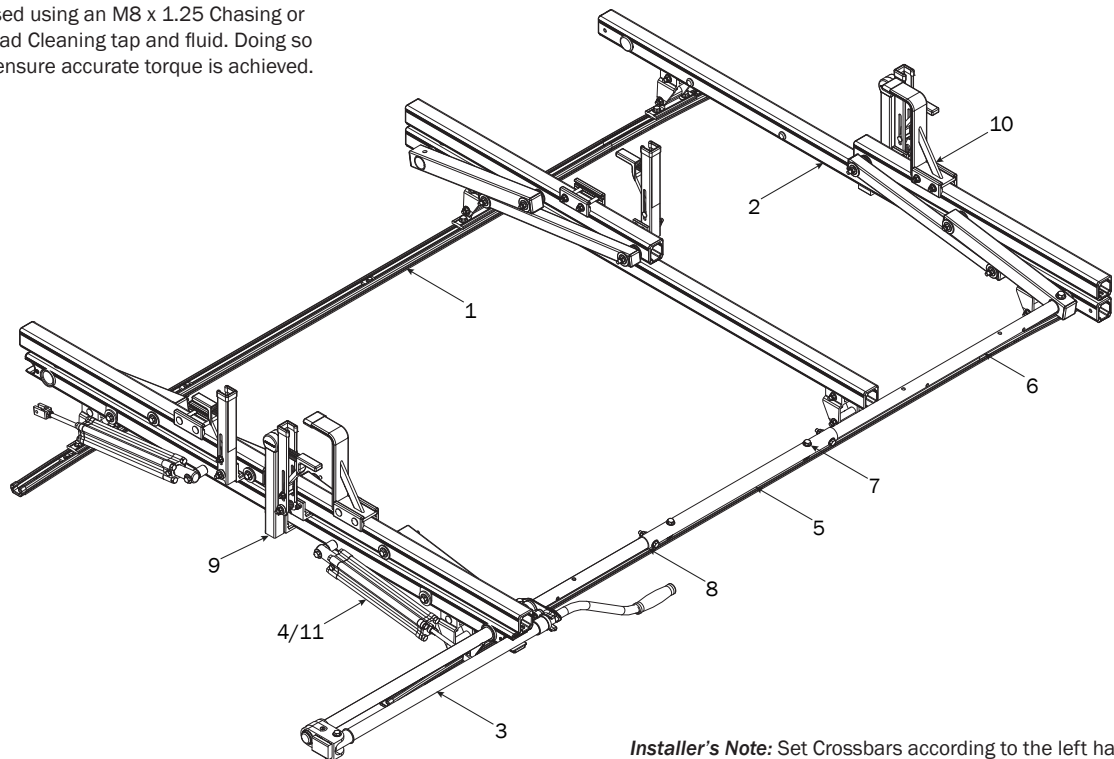
Anti-Seize (1X)



Lubricant (1X)

**RIGHT SIDE ASSEMBLY SEQUENCE**

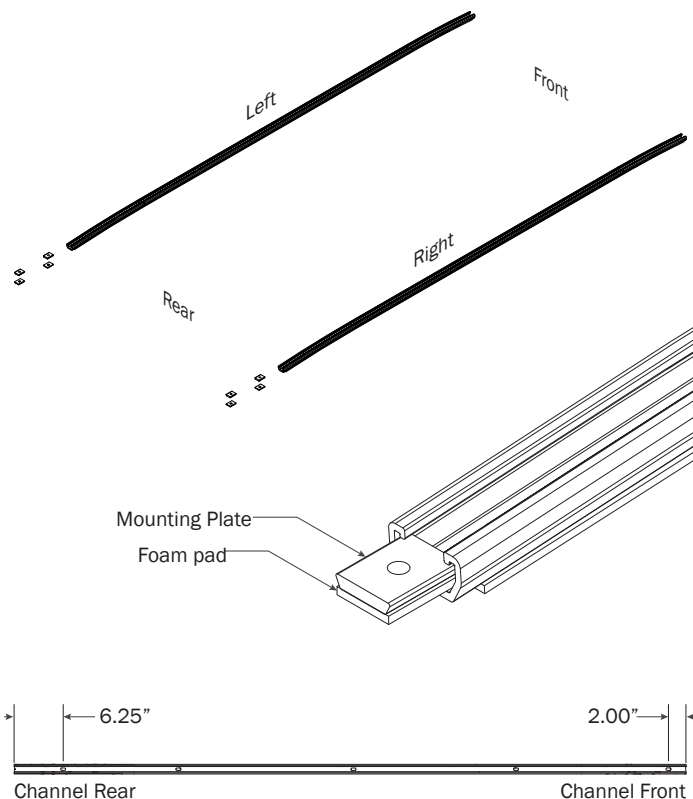
Prior to assembling the Channels and hardware, the OEM roof holes must be chased using an M8 x 1.25 Chasing or Thread Cleaning tap and fluid. Doing so will ensure accurate torque is achieved.



**Installer's Note:** Set Crossbars according to the left hand dimensions shown in the Crossbar Adjustment. Failure to position the Crossbars as shown in this Manual may result in damage to a sliding door and/or ladder rack.

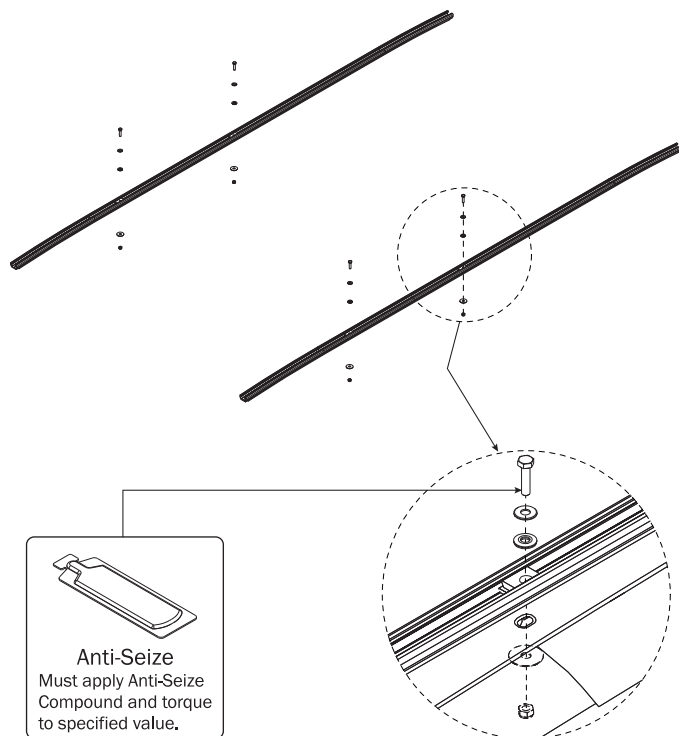
**FBM-0007****1.1**

Install two sets of Channel Hardware per channel as shown below.

**1.2**

Install the fasteners through the innermost factory roof holes as shown then torque the nuts to 60 in-lbs.

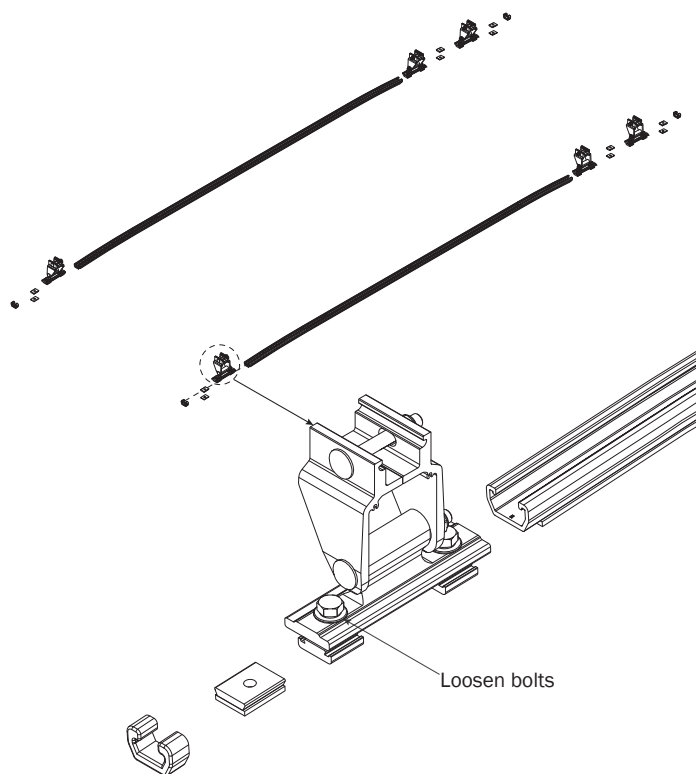
Do not install or fasten Hardware to the outer front and rear roof holes until Step 1.4.



1.3

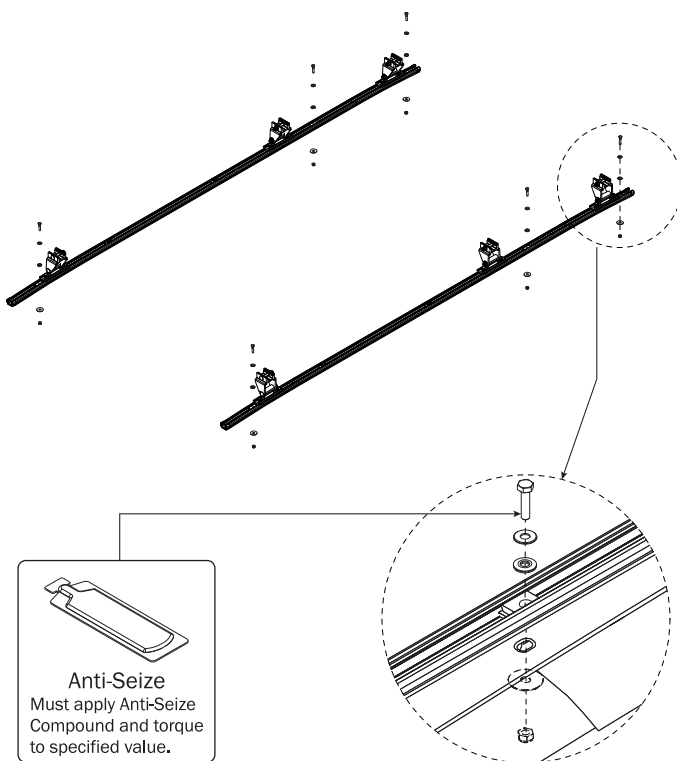
Install the Mounting Brackets along with the remaining Channel Hardware as shown below.

Do not tighten the Mounting Brackets until Step 1.5.



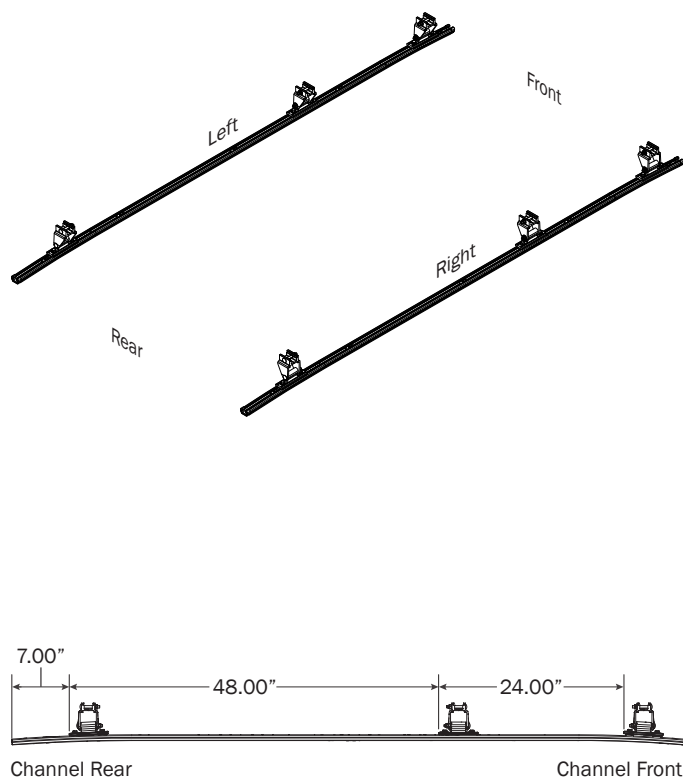
1.4

Install the remaining front and rear fasteners through the factory roof holes as shown then torque the nuts to 60 in-lbs.



1.5

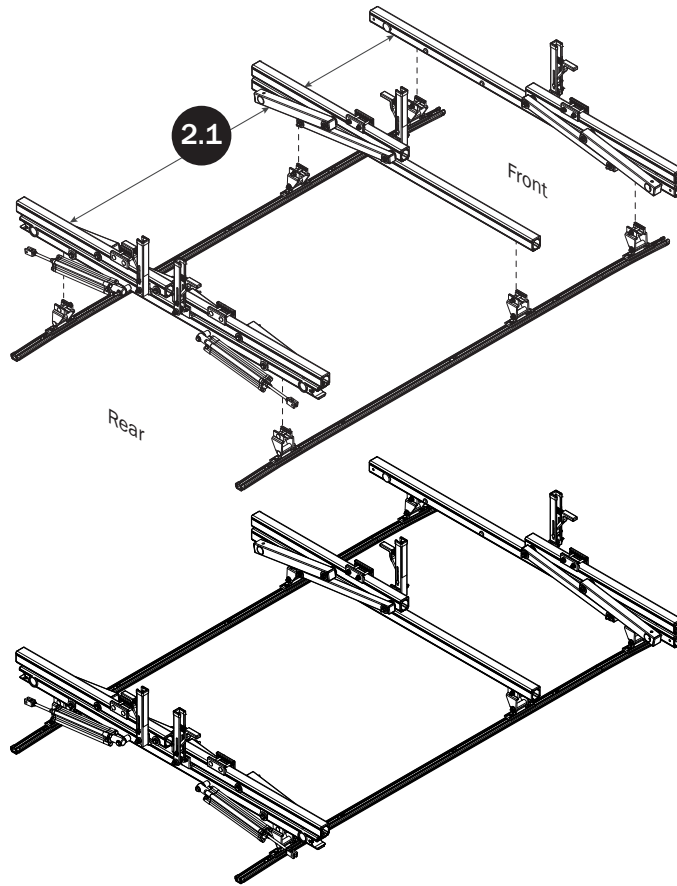
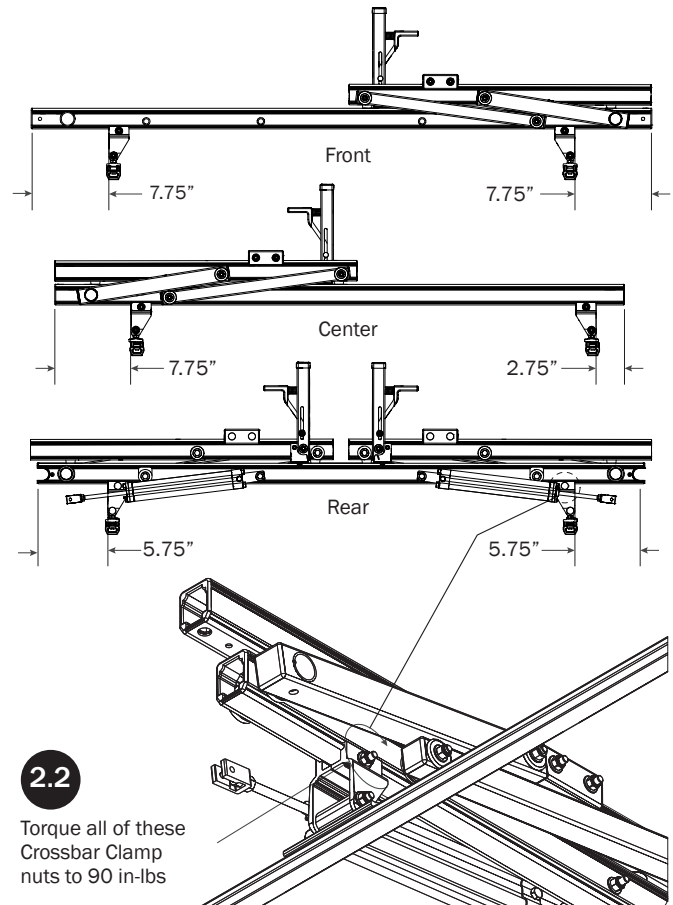
Set to distances then torque all the Mounting Brackets to 90 in-lbs.



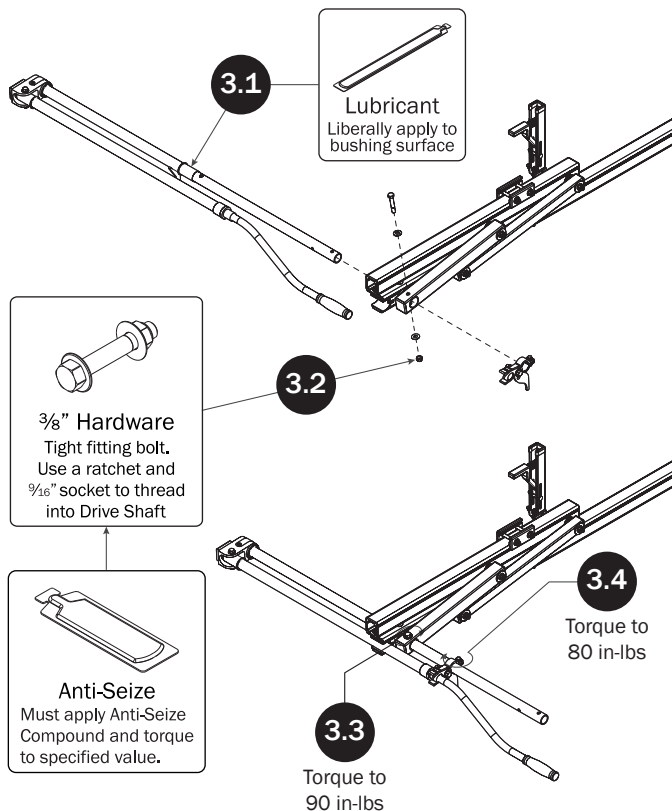
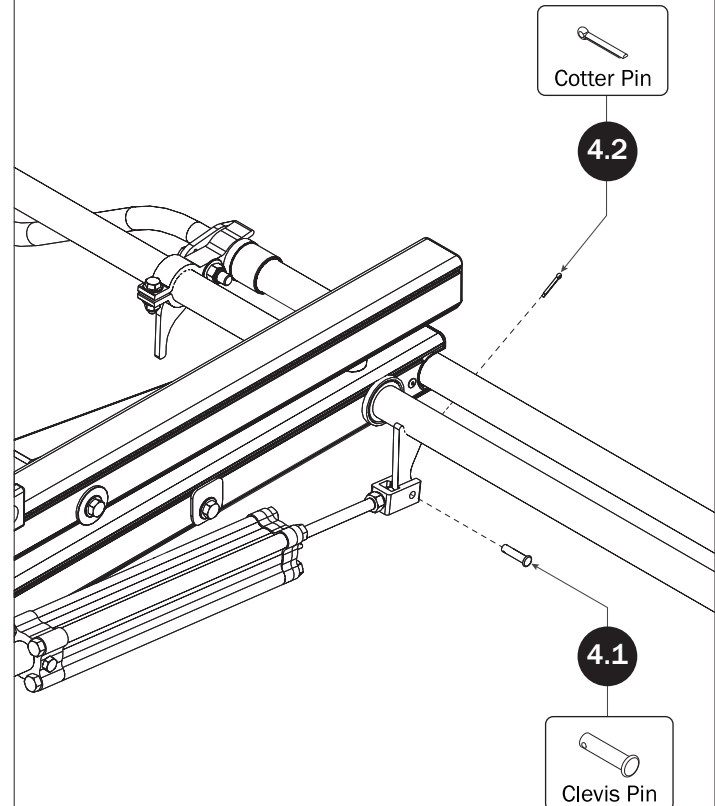
5

VRR3-TC21B ASSEMBLY INSTRUCTIONS—RIGHT SIDE ROTATION

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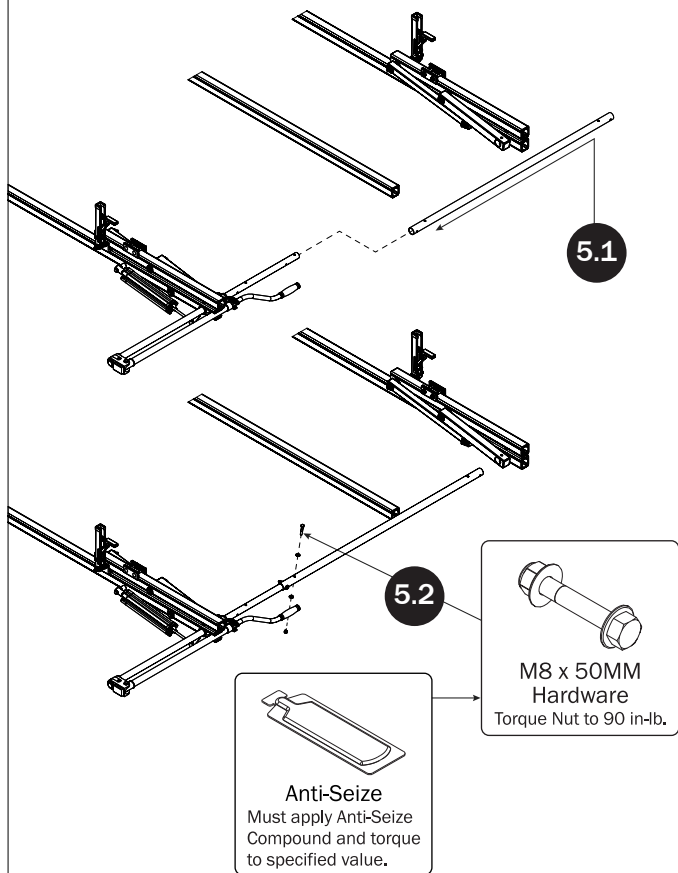
**CROSSBARS****CROSSBAR ADJUSTMENT****REAR DRIVE SHAFT**

NOTE: For instructional clarity, the FBM Mounting System will not be shown for the remainder of this Assembly Manual.

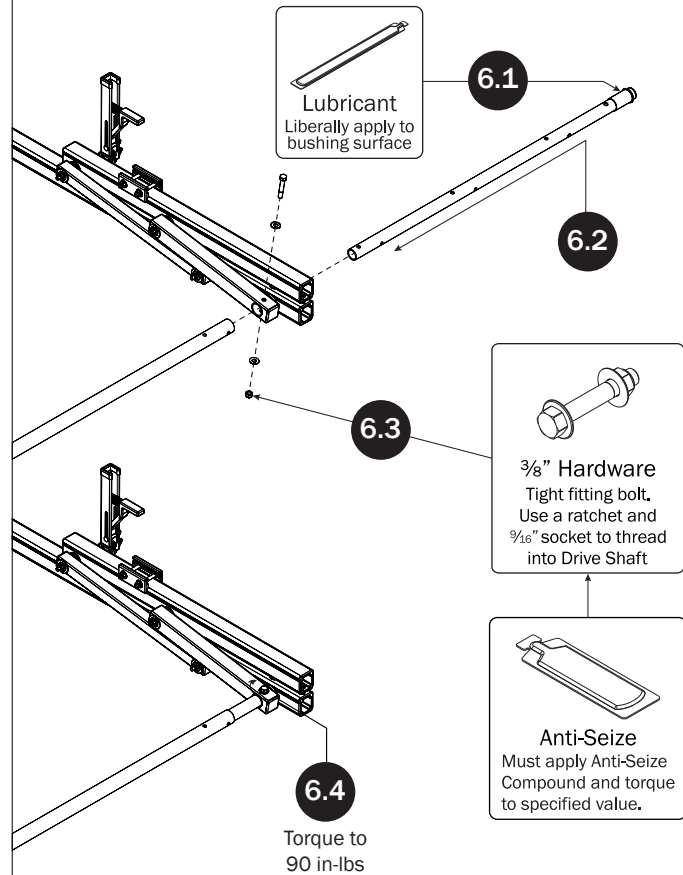
**CYLINDER HARDWARE**



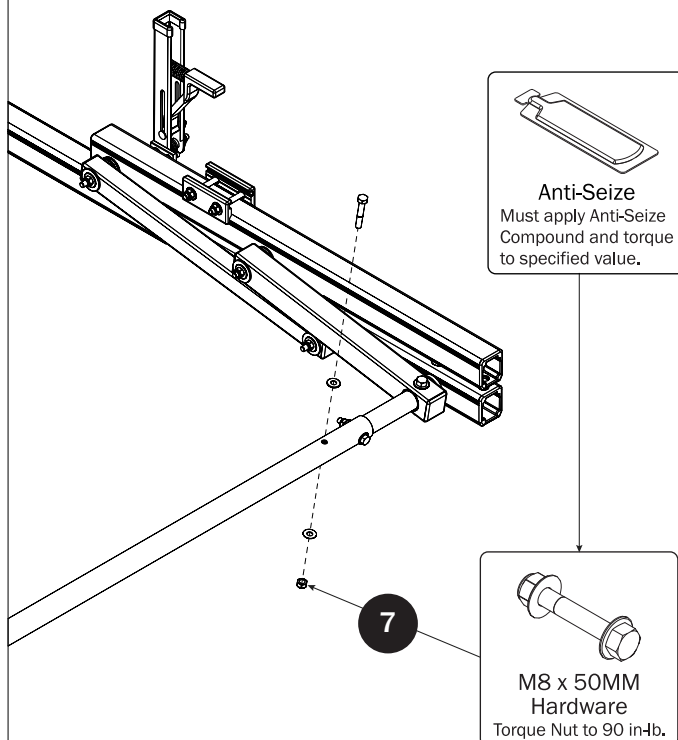
## CONNECTING BAR



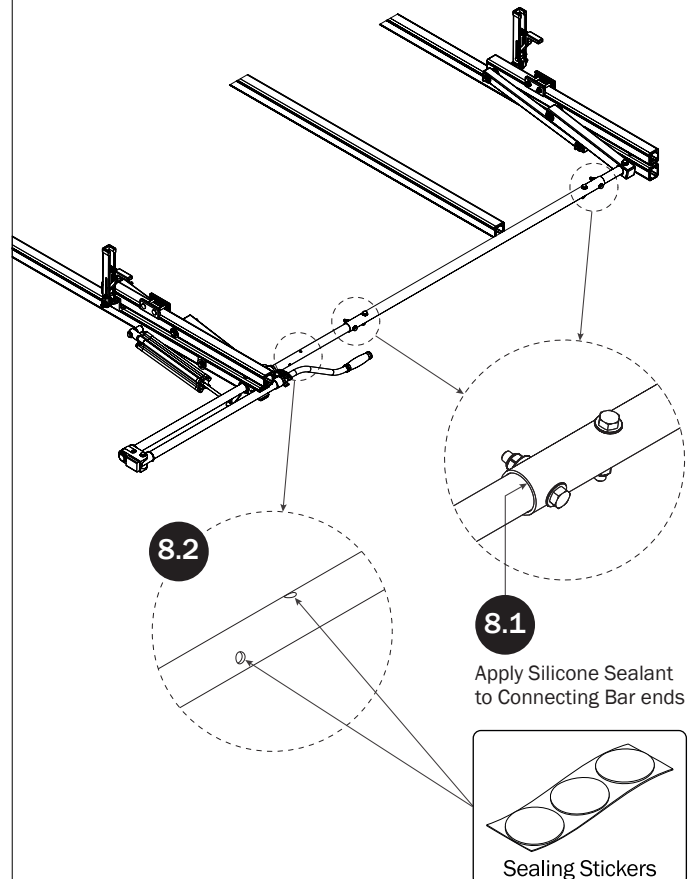
## FRONT DRIVE SHAFT



## CONNECTING BAR FASTENERS



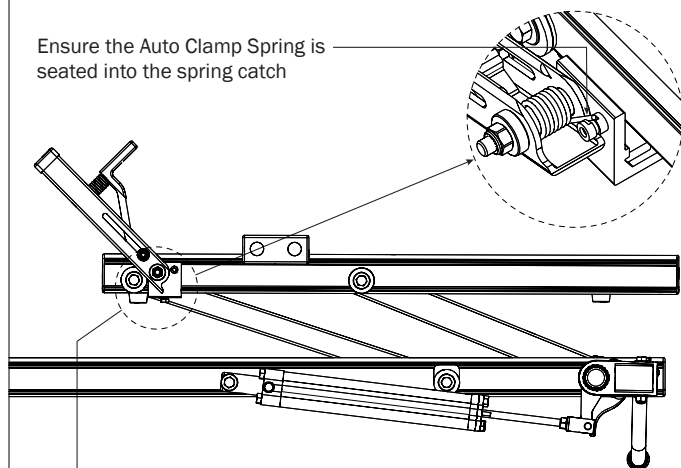
## DRIVE SHAFT SEALING



**L POSTS****SEE QUICK START GUIDE FOR ADJUSTMENTS**

**NOTE:** The Auto Clamps may come preset from the factory for packaging purposes only. To assemble the L Posts to the Crossbars, the Auto Clamps may need to be repositioned.

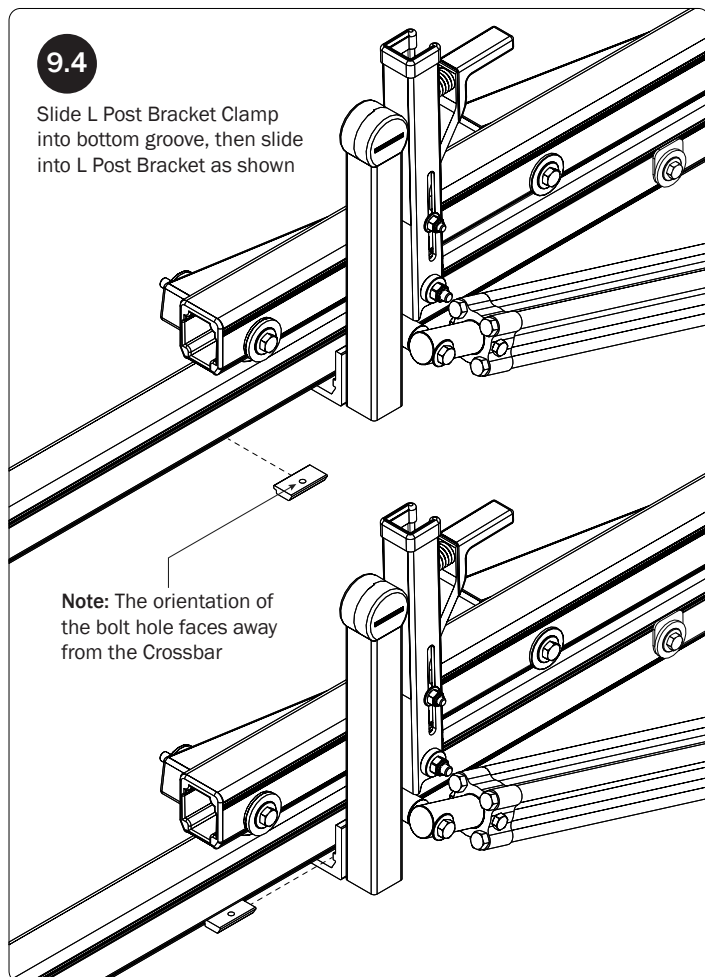
Ensure the Auto Clamp Spring is seated into the spring catch



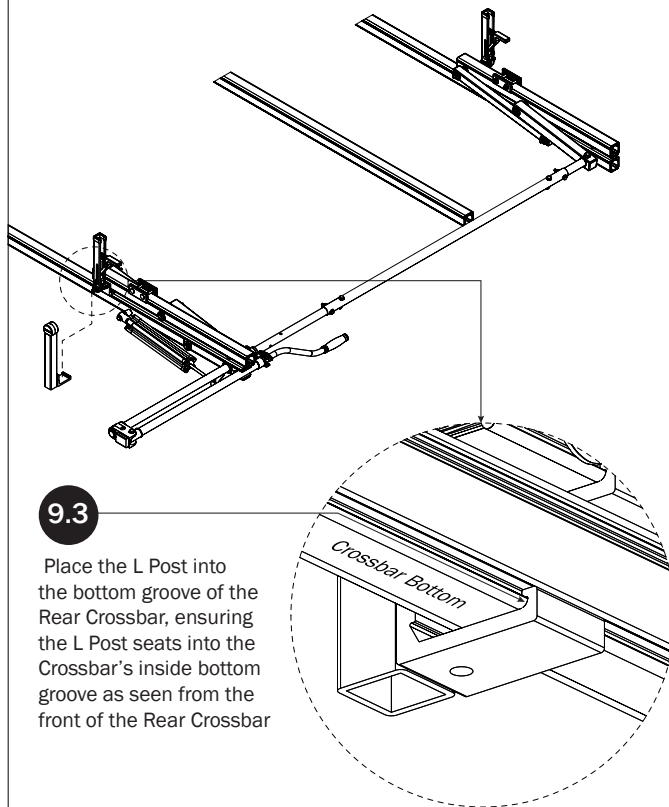
- 9.1** Beginning with the Rear Crossbar, loosen the bolt at the bottom of the Auto Clamp, then slide the Auto Clamp toward the inside end of the Rotation Upper. Reposition the Auto Clamp leaving a minimum of 1/4" distance from the rubber bumper to the edge of the Auto Clamp Bracket as shown, then finger-tighten if adjusting later, or torque to 80 in-lbs.

**9.4**

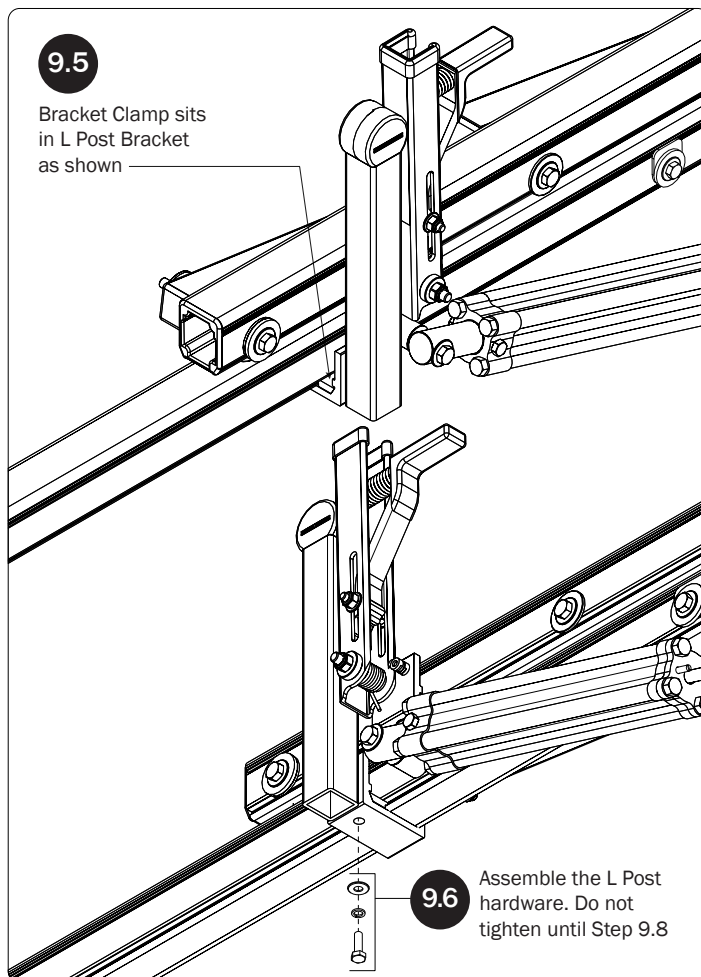
Slide L Post Bracket Clamp into bottom groove, then slide into L Post Bracket as shown

**9.2**

Prepare the L Post by removing the hex head bolt, lock washer, flat washer, and Bracket Clamp. Retain for installation Steps 9.4—9.8.

**9.5**

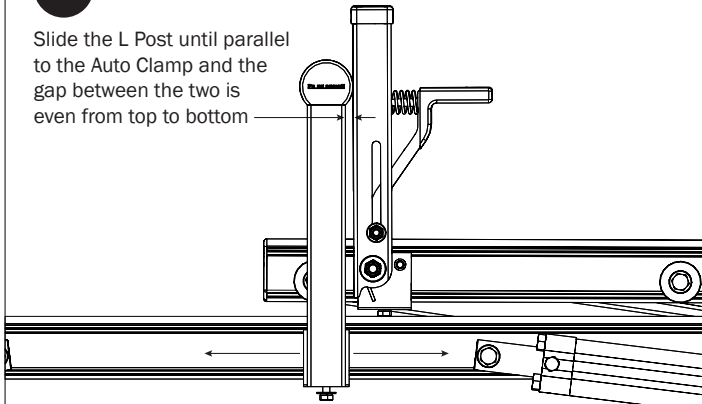
Bracket Clamp sits in L Post Bracket as shown





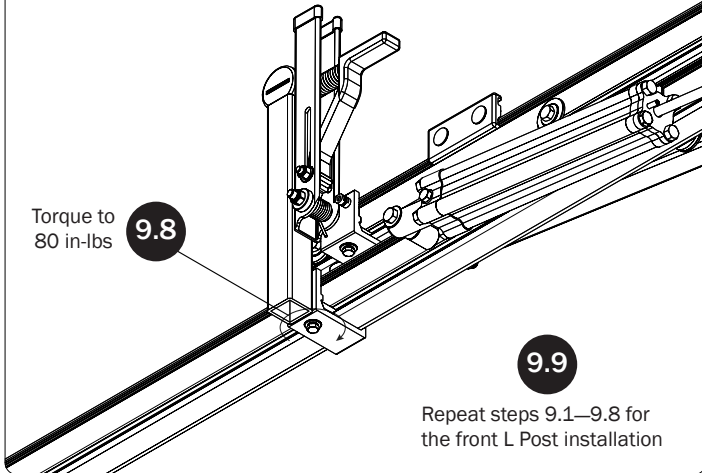
9.7

Slide the L Post until parallel to the Auto Clamp and the gap between the two is even from top to bottom



Torque to 80 in-lbs

9.8

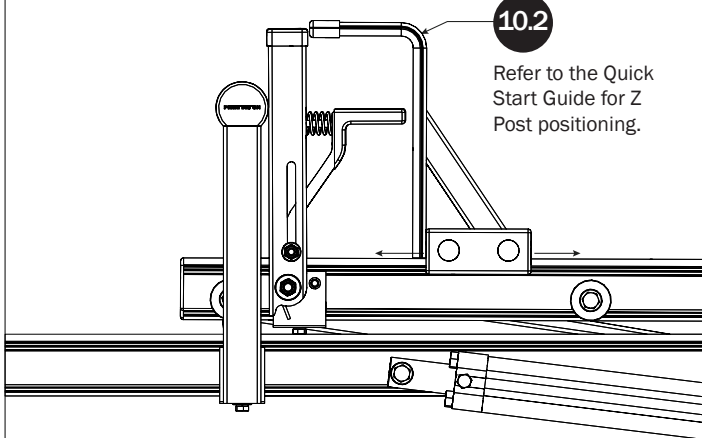


9.9

Repeat steps 9.1—9.8 for the front L Post installation

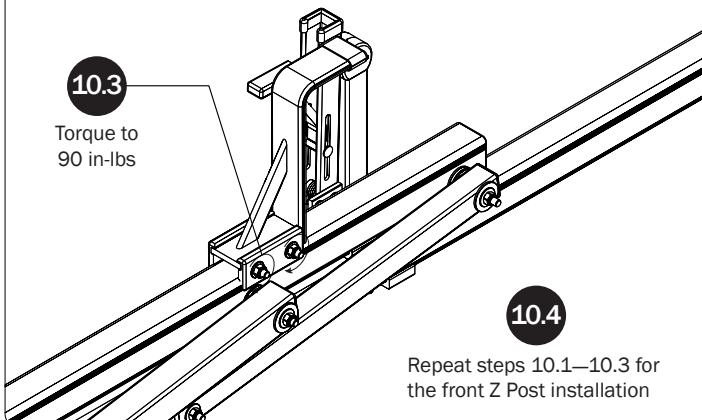
10.2

Refer to the Quick Start Guide for Z Post positioning.



10.3

Torque to 90 in-lbs



10.4

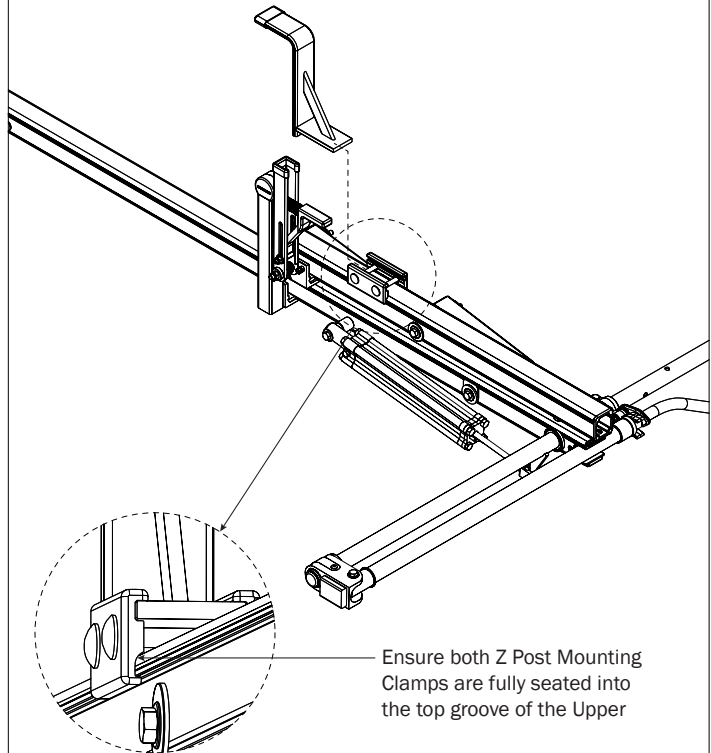
Repeat steps 10.1—10.3 for the front Z Post installation

## Z POSTS

SEE QUICK START GUIDE FOR ADJUSTMENTS

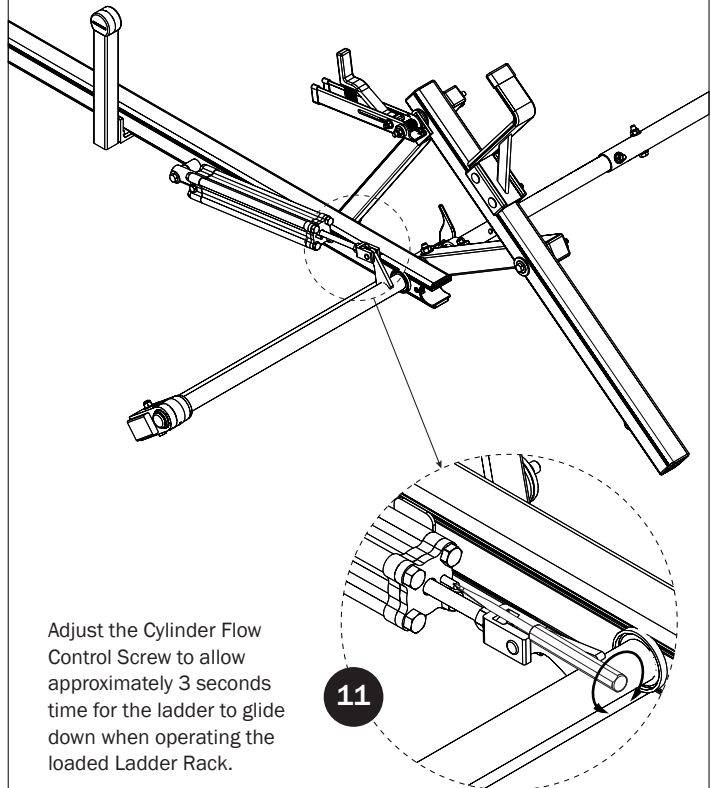
10.1

Slide the Z Post into the Mounting Clamp Assembly



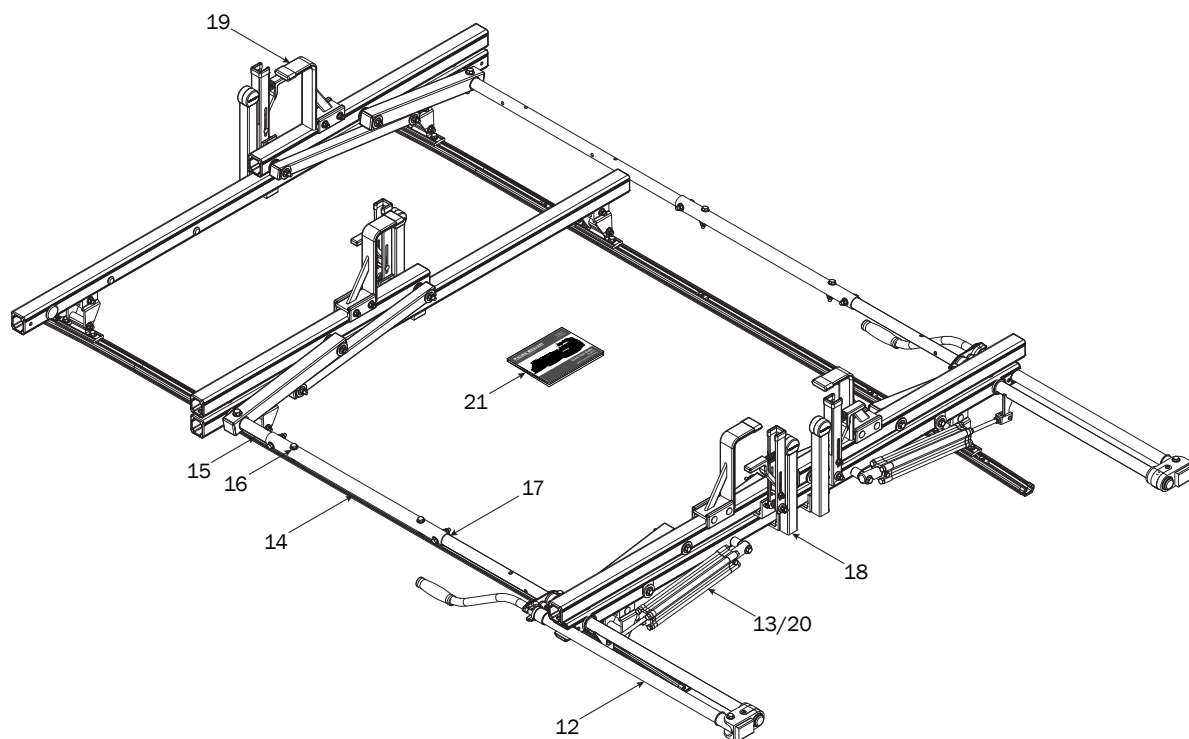
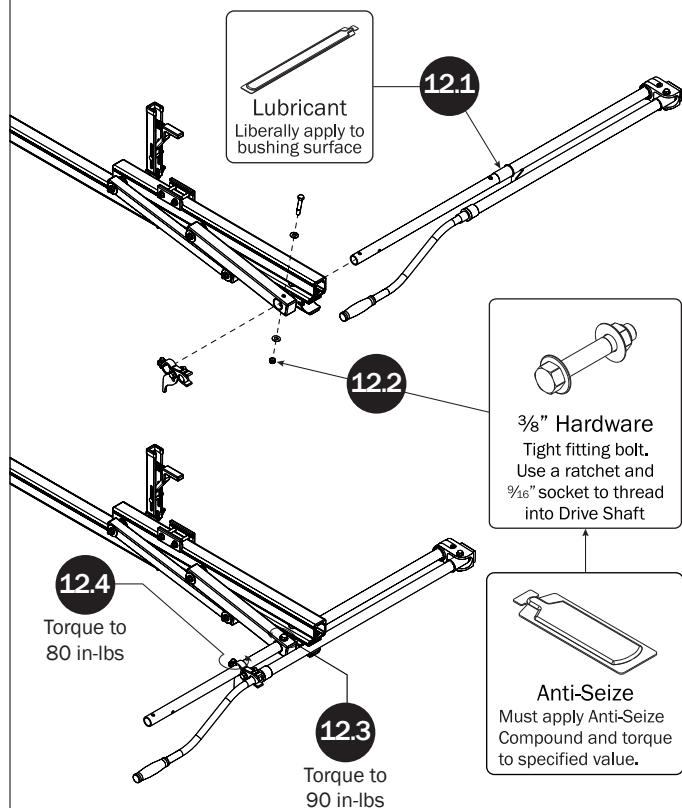
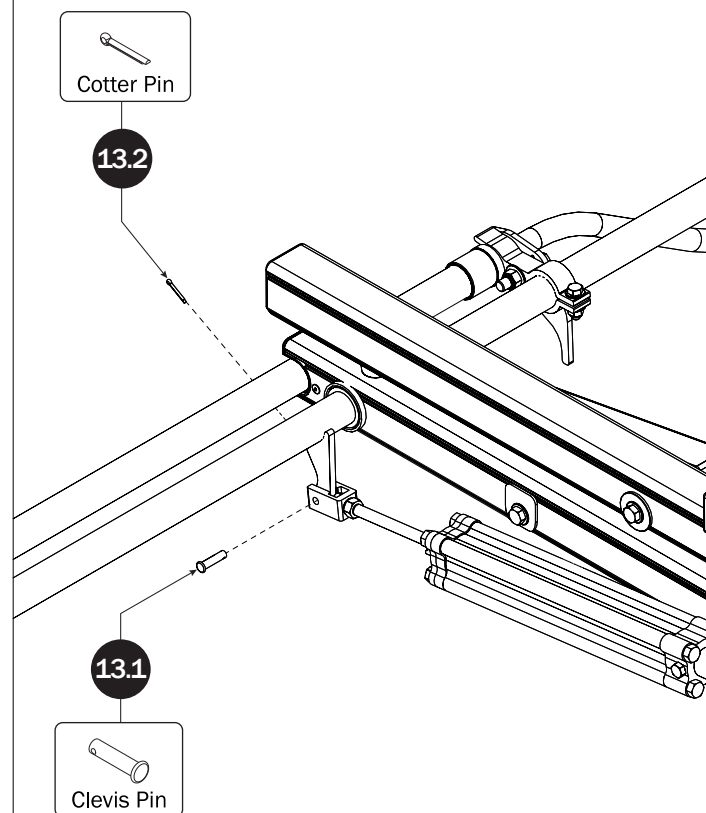
Ensure both Z Post Mounting Clamps are fully seated into the top groove of the Upper

## CYLINDER ADJUSTMENT

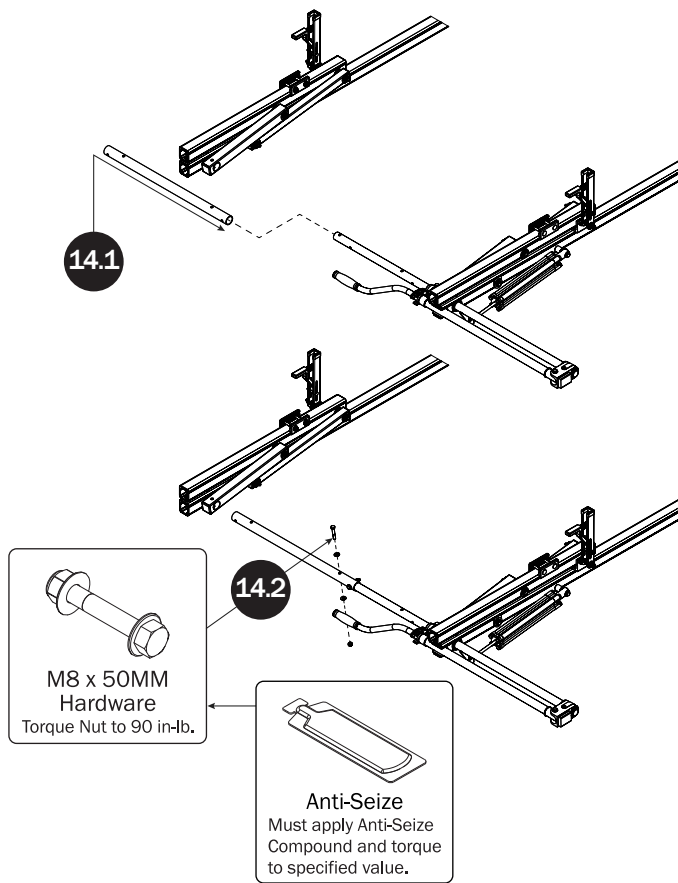


11

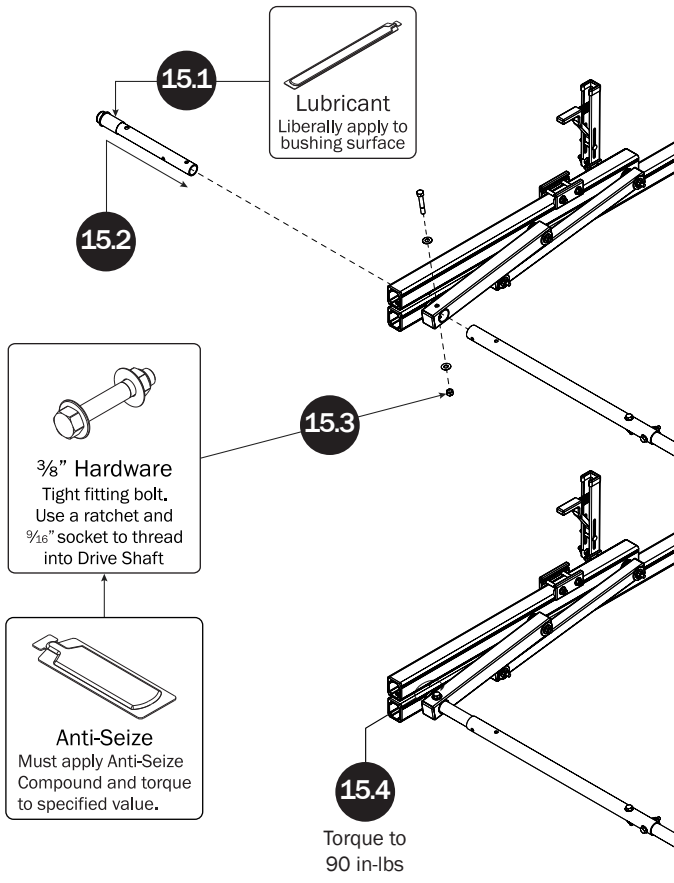
Adjust the Cylinder Flow Control Screw to allow approximately 3 seconds time for the ladder to glide down when operating the loaded Ladder Rack.

**LEFT SIDE ASSEMBLY SEQUENCE****REAR DRIVE SHAFT****CYLINDER HARDWARE**

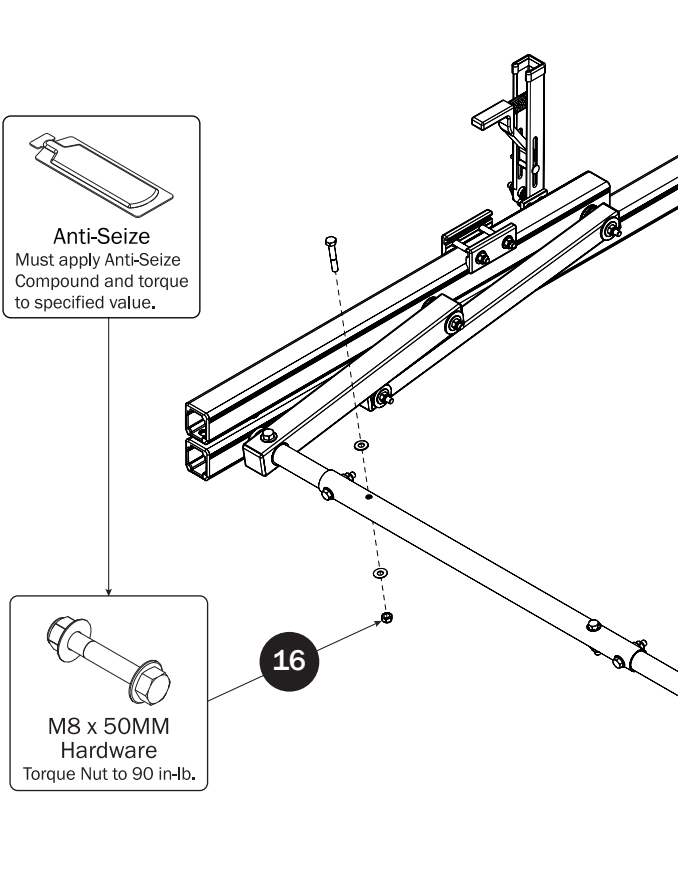
## CONNECTING BAR



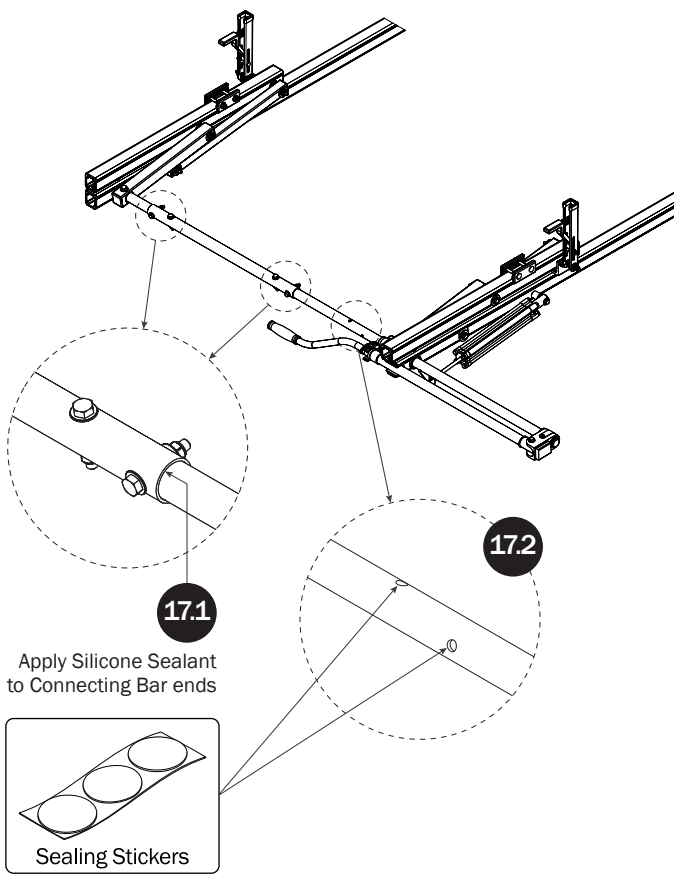
## FRONT DRIVE SHAFT



## CONNECTING BAR FASTENERS

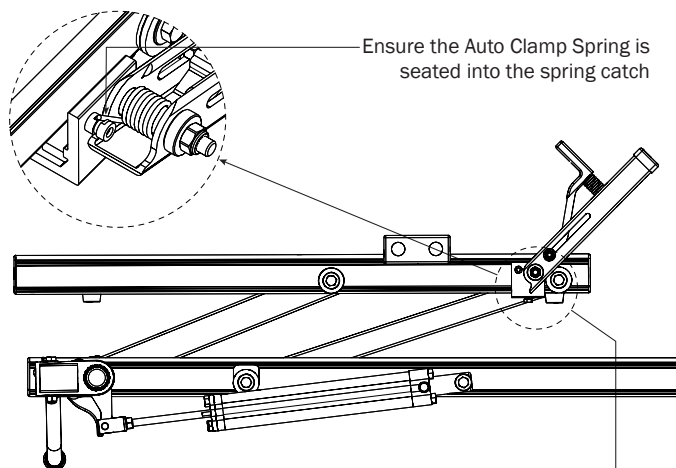


## DRIVE SHAFT SEALING



**L POSTS****SEE QUICK START GUIDE FOR ADJUSTMENTS**

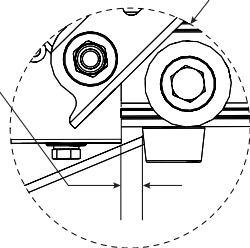
**NOTE:** The Auto Clamps may come preset from the factory for packaging purposes only. To assemble the L Posts to the Crossbars, the Auto Clamps may need to be repositioned.



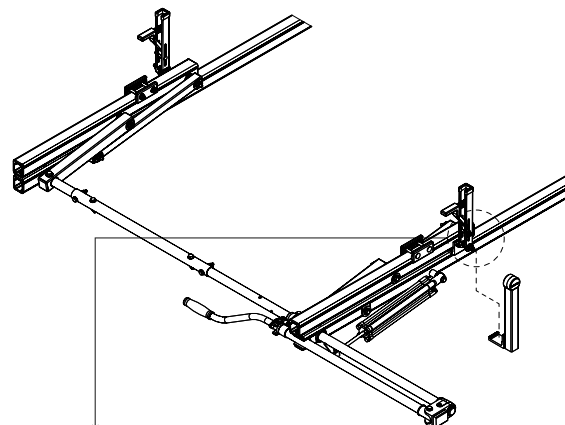
Beginning with the Rear Crossbar, loosen the bolt at the bottom of the Auto Clamp, then slide the Auto Clamp toward the inside end of the Rotation Upper. Reposition the Auto Clamp leaving a minimum of 1/4" distance from the rubber bumper to the edge of the Auto Clamp Bracket as shown, then finger-tighten if adjusting later, or torque to 80 in-lbs.

**18.1**

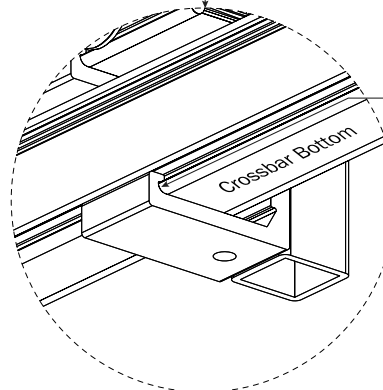
Ensure the Auto Clamp Spring is seated into the spring catch

**18.2**

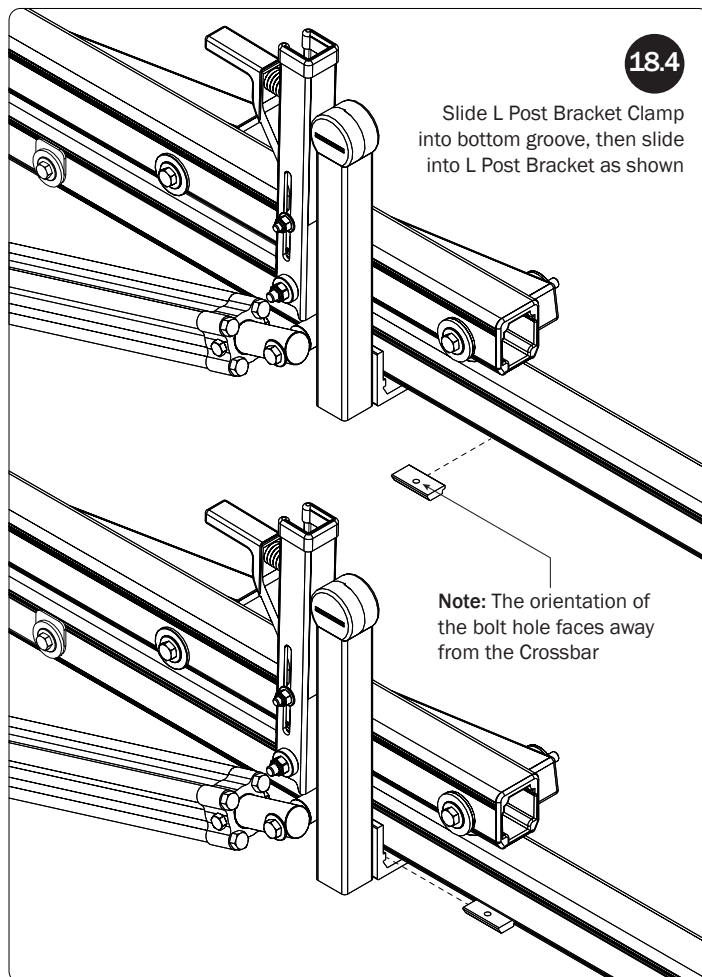
Prepare the L Post by removing the hex head bolt, lock washer, flat washer, and Bracket Clamp. Retain for installation Steps 18.4—18.8.

**18.3**

Place the L Post into the bottom groove of the Rear Crossbar, ensuring the L Post seats into the Crossbar's inside bottom groove as seen from the front of the Rear Crossbar

**18.4**

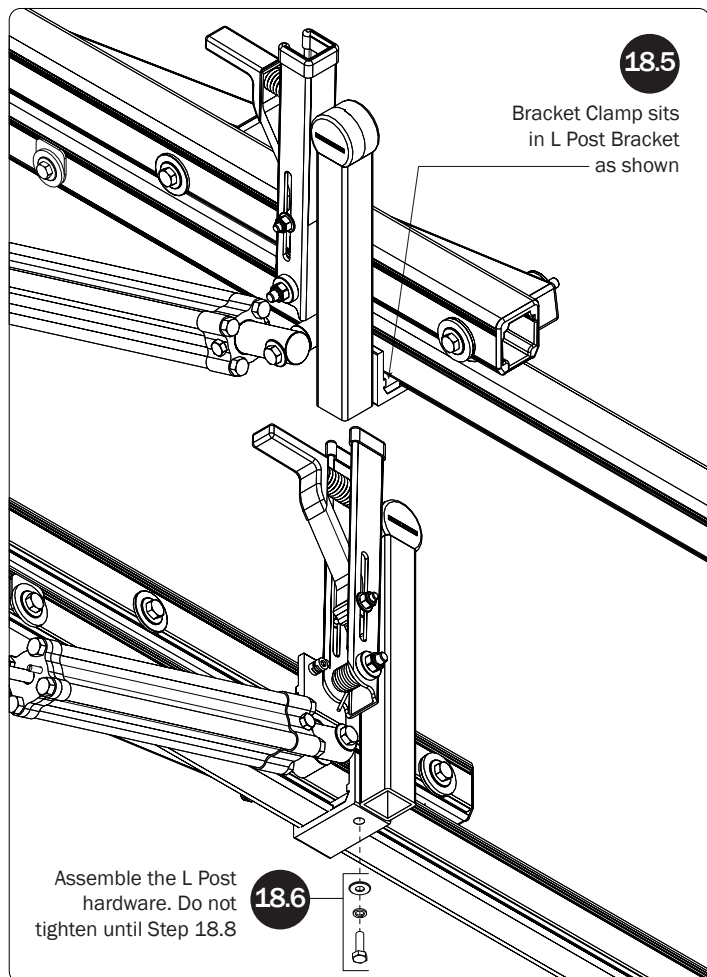
Slide L Post Bracket Clamp into bottom groove, then slide into L Post Bracket as shown



**Note:** The orientation of the bolt hole faces away from the Crossbar

**18.5**

Bracket Clamp sits in L Post Bracket as shown

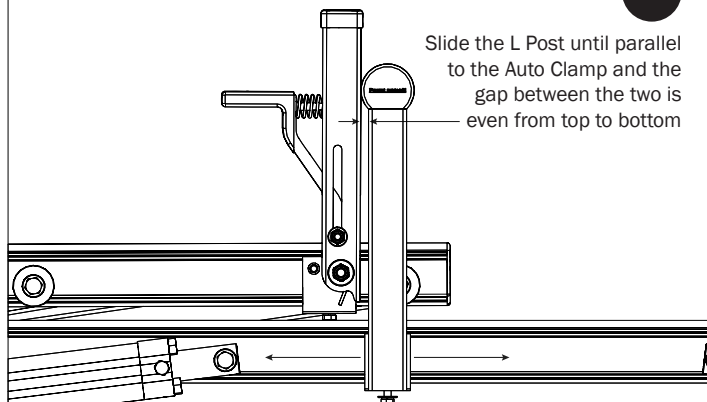


Assemble the L Post hardware. Do not tighten until Step 18.8

**18.6**

18.7

Slide the L Post until parallel to the Auto Clamp and the gap between the two is even from top to bottom

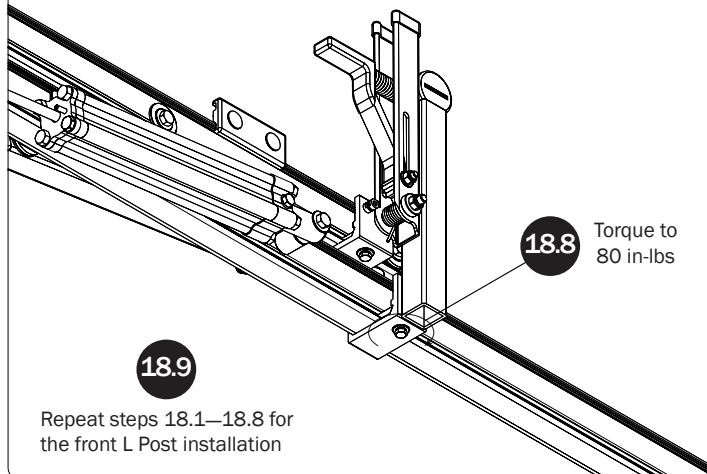


18.8

Torque to 80 in-lbs

18.9

Repeat steps 18.1—18.8 for the front L Post installation

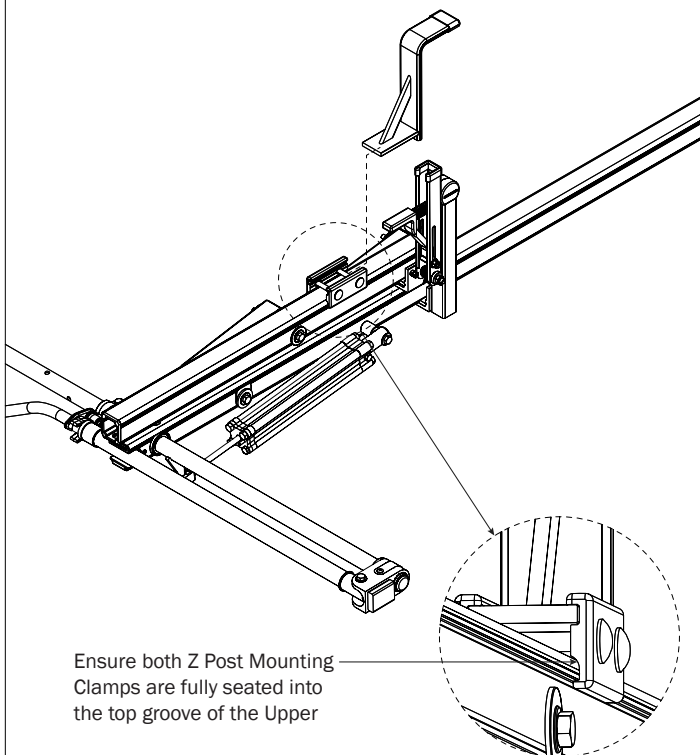


## Z POSTS

SEE QUICK START GUIDE FOR ADJUSTMENTS

19.1

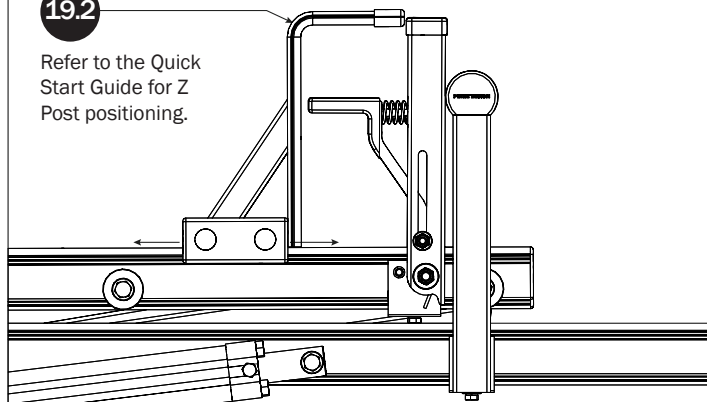
Slide the Z Post into the Mounting Clamp Assembly



Ensure both Z Post Mounting Clamps are fully seated into the top groove of the Upper

19.2

Refer to the Quick Start Guide for Z Post positioning.

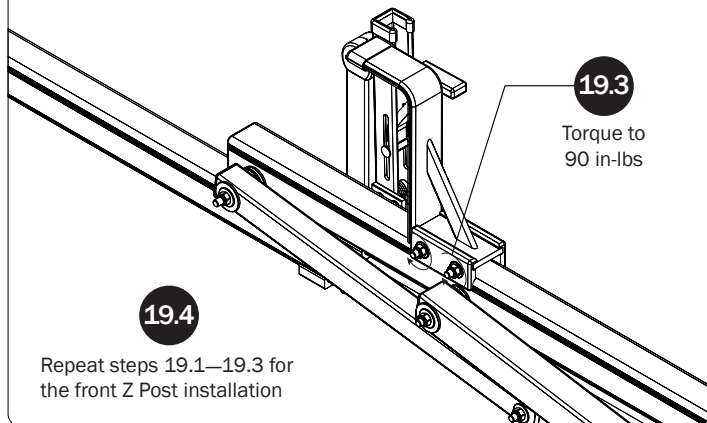


19.3

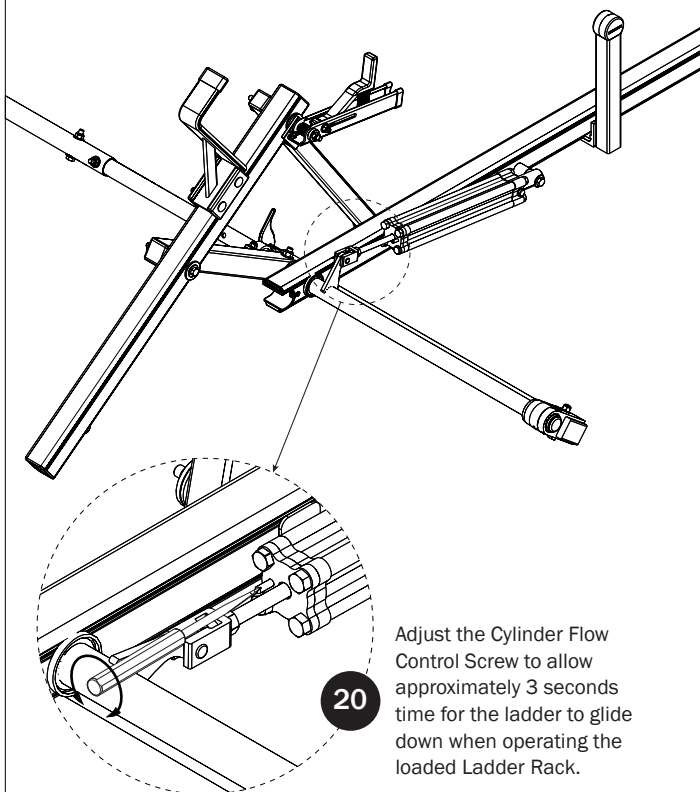
Torque to 90 in-lbs

19.4

Repeat steps 19.1—19.3 for the front Z Post installation



## CYLINDER ADJUSTMENT



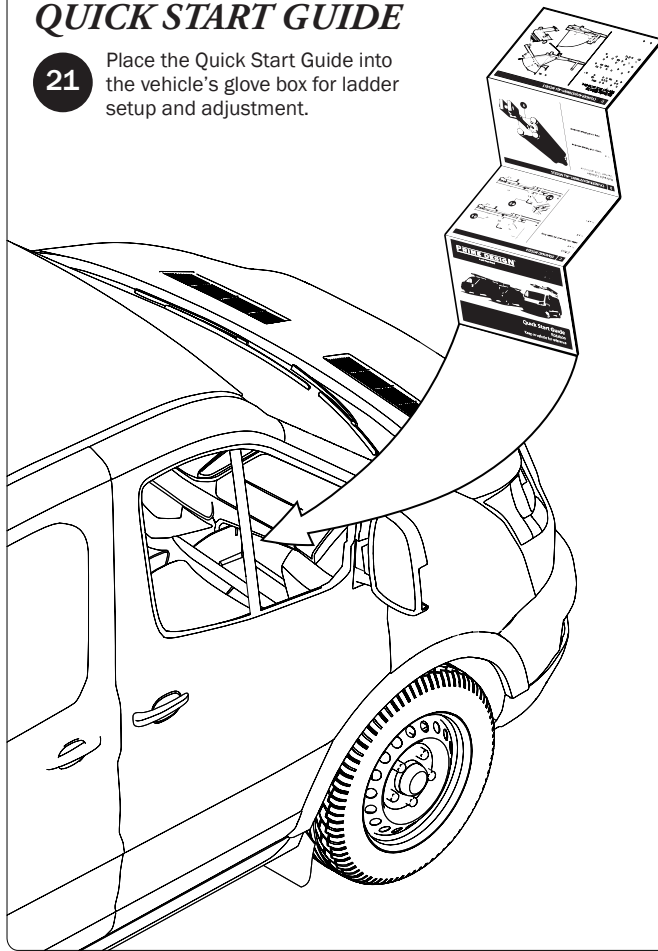
20

Adjust the Cylinder Flow Control Screw to allow approximately 3 seconds time for the ladder to glide down when operating the loaded Ladder Rack.



**QUICK START GUIDE****21**

Place the Quick Start Guide into the vehicle's glove box for ladder setup and adjustment.





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