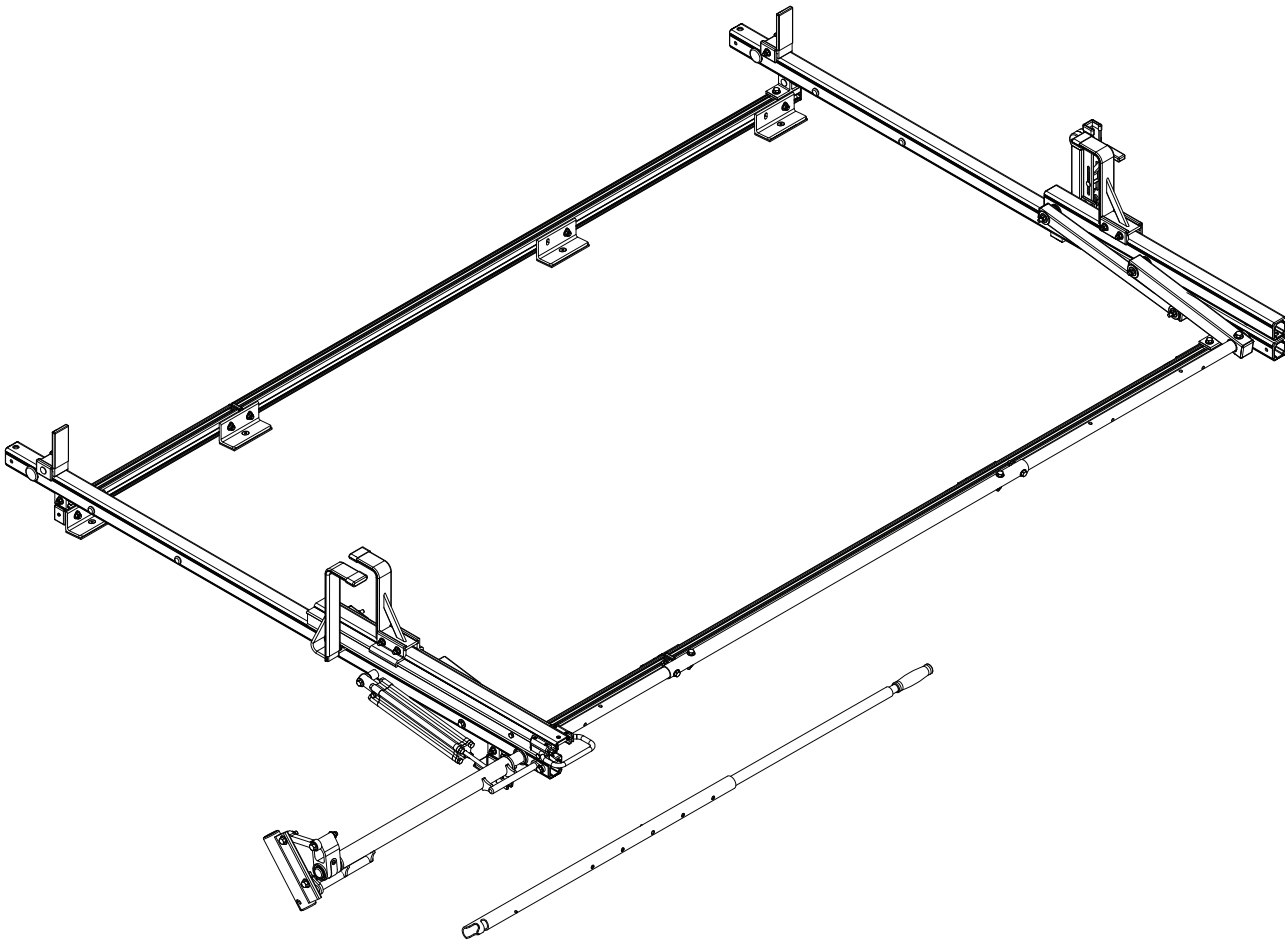


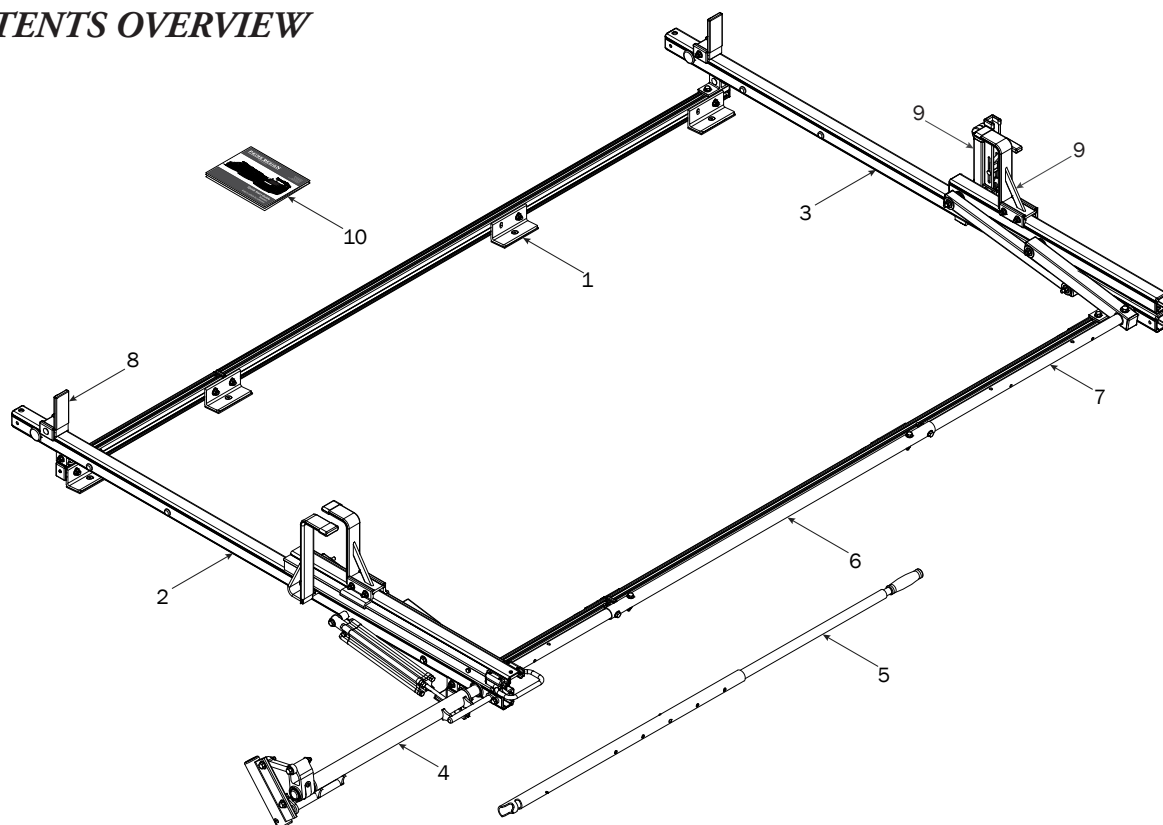
# PRIME DESIGN™

A Safe Fleet Brand

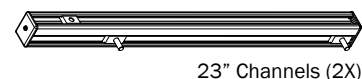


# HBR-E

# CONTENTS OVERVIEW



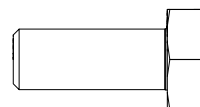
1—FBM-0095 ..... (Qty 1)  
Channels w/ Hardware



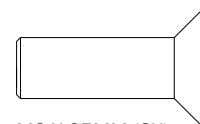
Channel Bracket (4X)



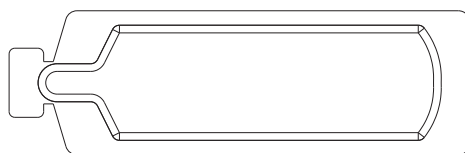
5/16" Lock Washer (4X)



M8 x 20MM (4X)



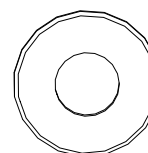
M8 X 25MM (8X)



Anti-Seize (1X)



M8 Lock Nut (10X)



5/16" Flat Washer (14X)

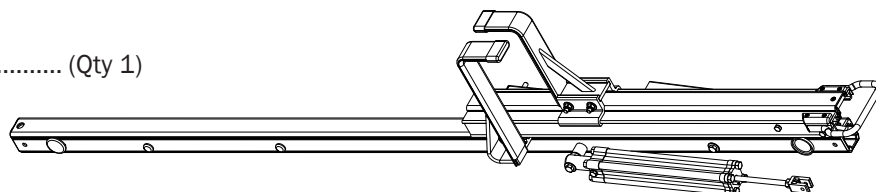


Mounting Bracket (8X)

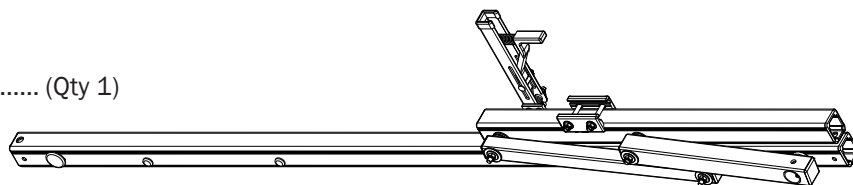


Foam Pad (8X)

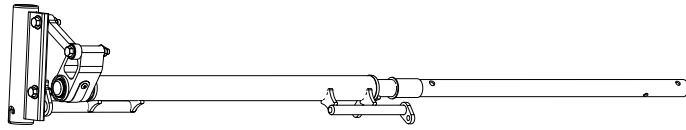
2—Rear Crossbar Assembly ..... (Qty 1)



3—Front Crossbar Assembly ..... (Qty 1)



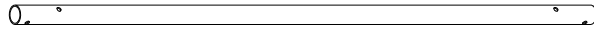
4—Rear Drive Shaft ..... (Qty 1)  
Right Hand, A Version, 50.00"



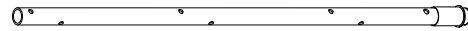
5—HHR Handle Assembly ..... (Qty 1)  
35.00"



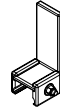
6—Connecting Bar ..... (Qty 1)  
4.00'



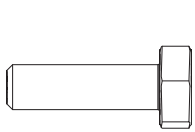
7—Front Drive Shaft ..... (Qty 1)  
B Version, 35.75"



8—Ladder Stop Assembly ..... (Qty 2)  
1.75"



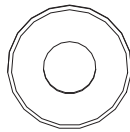
9—L & Z Post Kit..... (Qty 1)  
Adj. Z Post, 7.25", L Post, w/HKT-0160



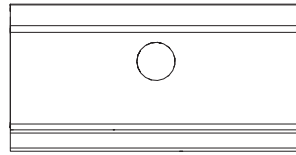
M6 x 20MM (1X)



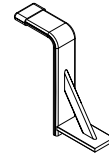
1/4 Lock Washer (1X)



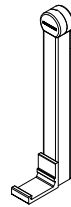
1/4 Flat Washer (1X)



L Post Bracket Clamp (1X)



Z Post (1X)

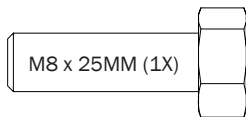


L Post (1X)

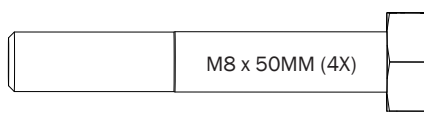
10—USQSG-Ergorack ..... (Qty 1)  
Quick Start Guide, Rotation



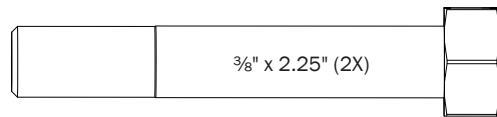
11—HKT-8163 (Not called out in Overview)..... (Qty 1)



M8 x 25MM (1X)



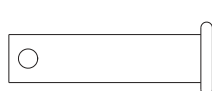
M8 x 50MM (4X)



3/8" x 2.25" (2X)



Cotter Pin (1X)



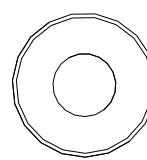
Clevis Pin (1X)



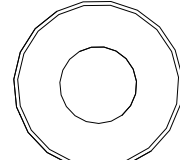
M8 Lock Nut (5X)



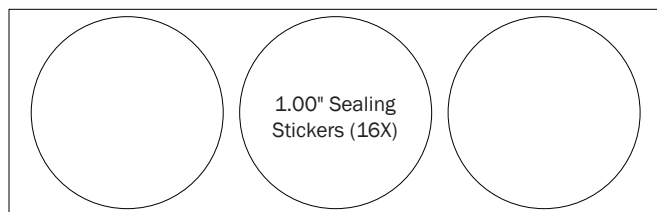
3/8" Lock Nut (2X)



5/16" Flat Washer (10X)



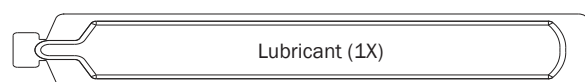
3/8" Flat Washer (4X)



1.00" Sealing  
Stickers (16X)



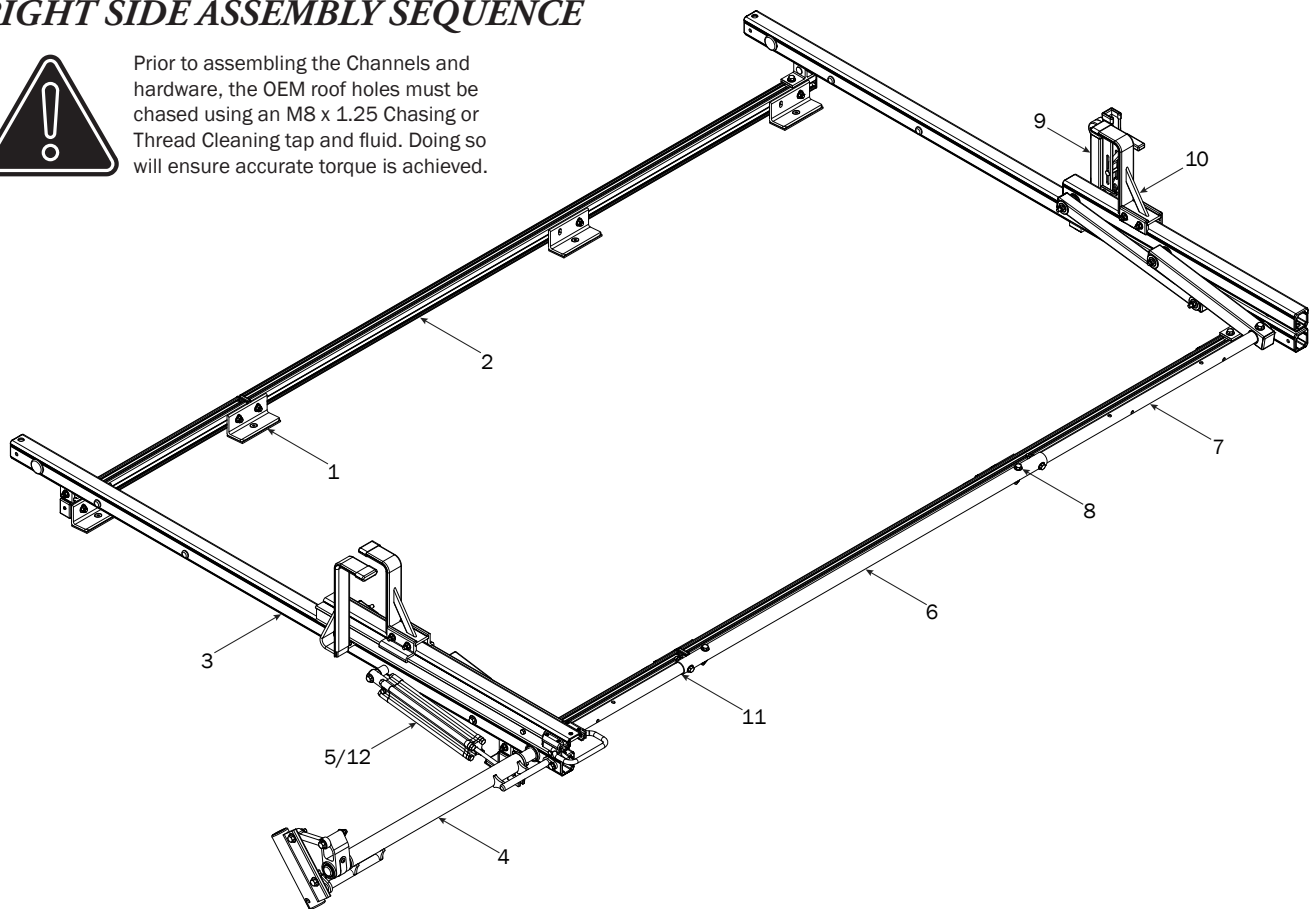
Anti-Seize (1X)



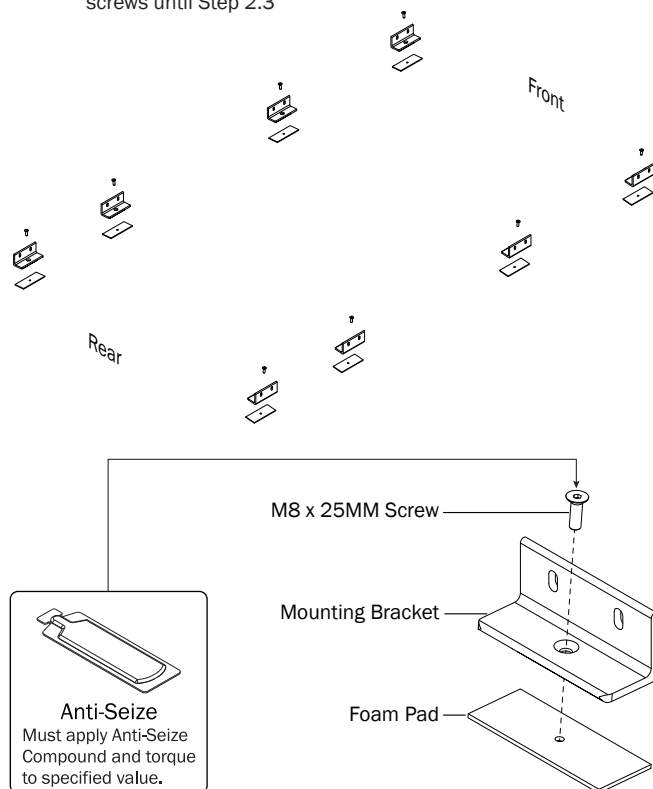
Lubricant (1X)

**RIGHT SIDE ASSEMBLY SEQUENCE**

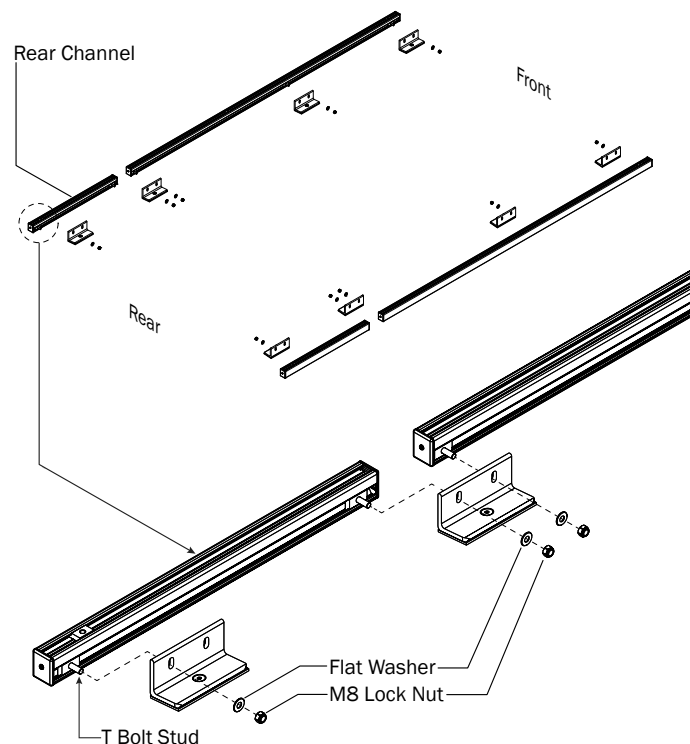
Prior to assembling the Channels and hardware, the OEM roof holes must be chased using an M8 x 1.25 Chasing or Thread Cleaning tap and fluid. Doing so will ensure accurate torque is achieved.

**MOUNTING BRACKETS****1**

Apply Anti-Seize to all M8 x 25MM Flat Head Screws and install the Channel Mounting Brackets with Foam Pads onto the vehicle's roof mounting holes. Do not tighten screws until Step 2.3

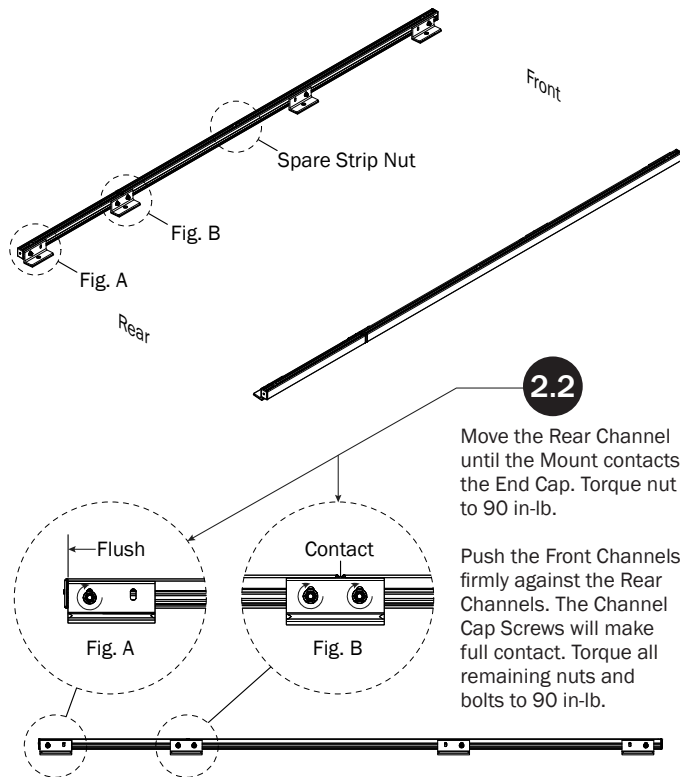
**CHANNELS****2.1**

Apply Anti-Seize to all M8 T Bolt studs, then attach to Mounts using the indicated hardware. Do not tighten until Step 2.2



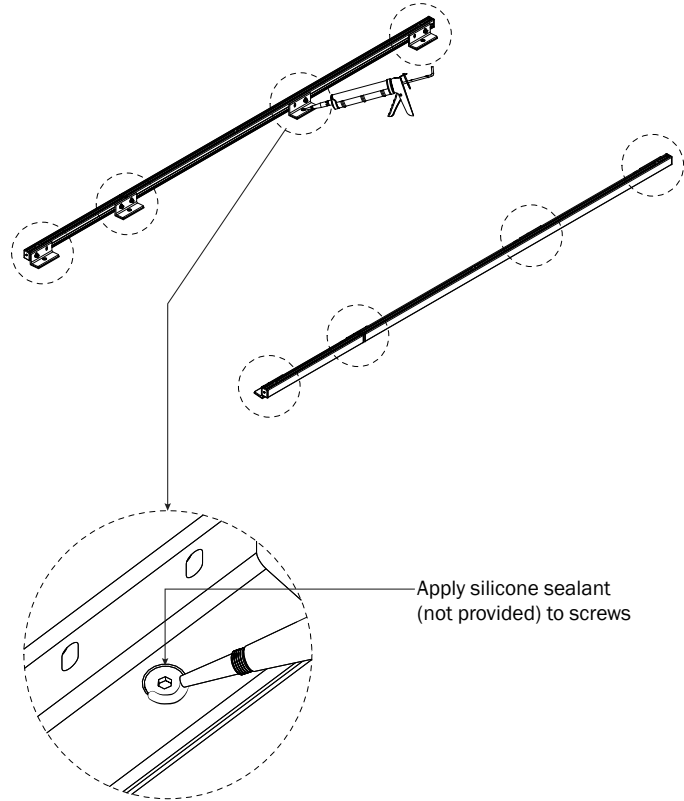


The Front Channels include two aluminum Strip Nuts per Channel for use in a three Crossbar configuration. For two Crossbar configurations, disregard the rear Strip Nut in each Front Channel.



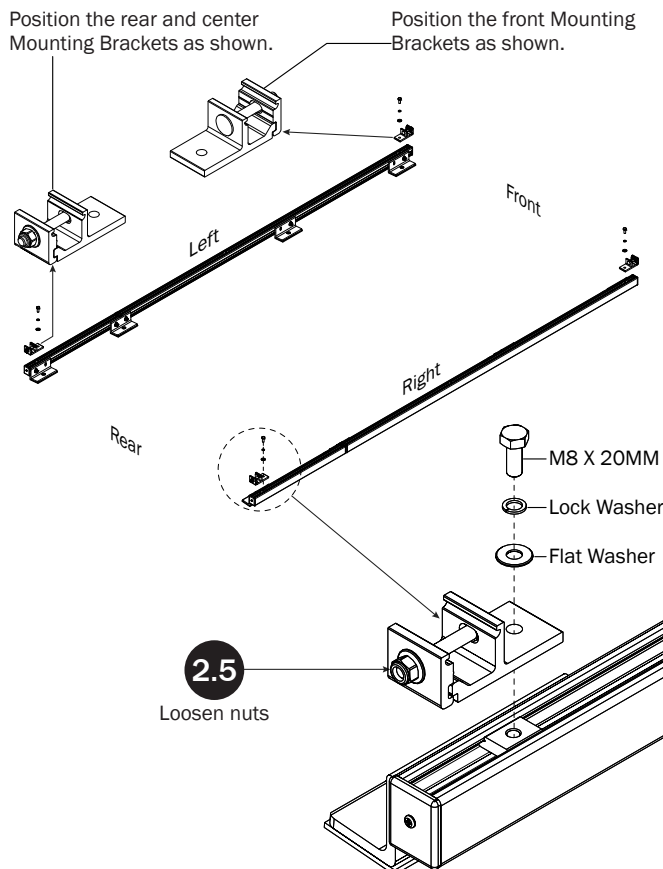
2.3

Torque all M8 x 25MM Flat Head Screws to 150 in-lbs. Apply Silicone Sealant to screw heads to seal against water intrusion.



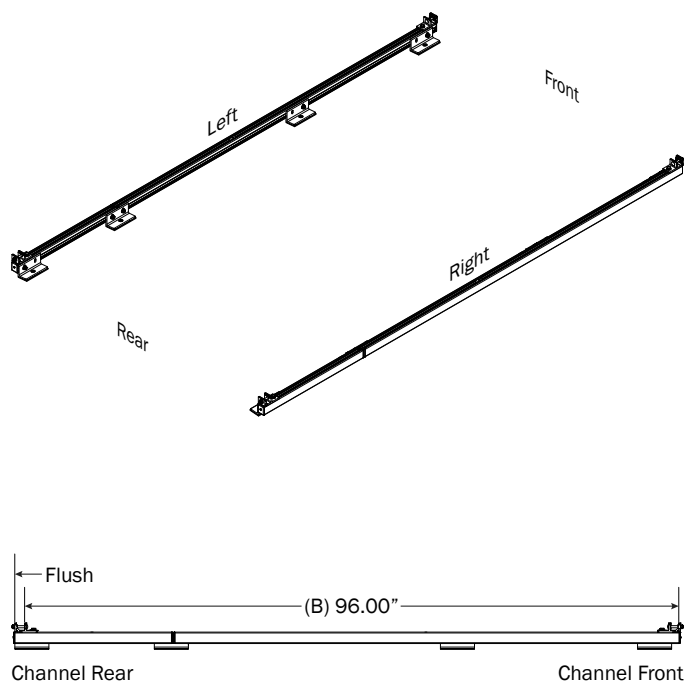
2.4

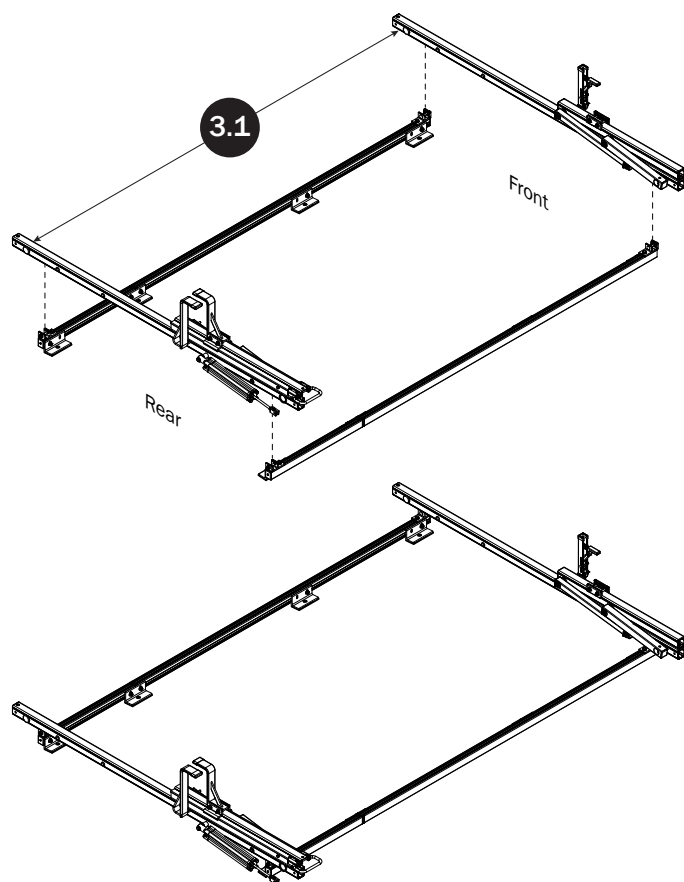
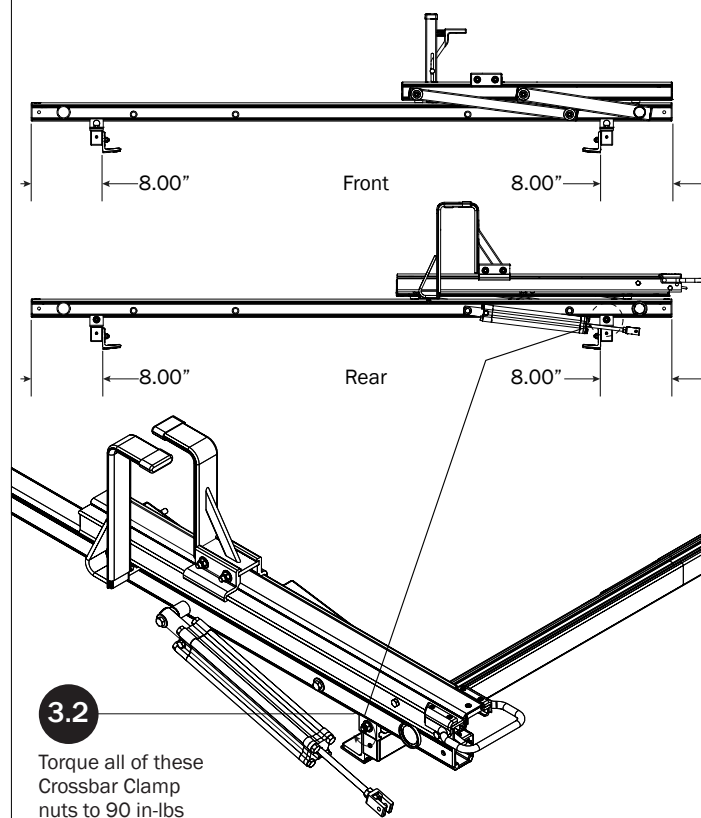
Attach Mounting Brackets to the Aluminum Strip Nuts located in the Channels



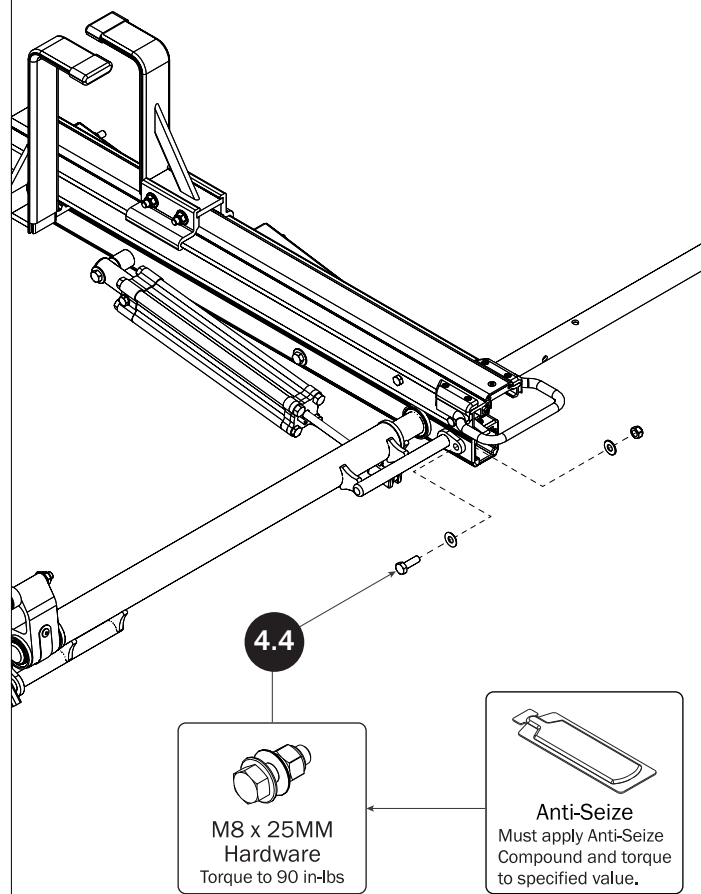
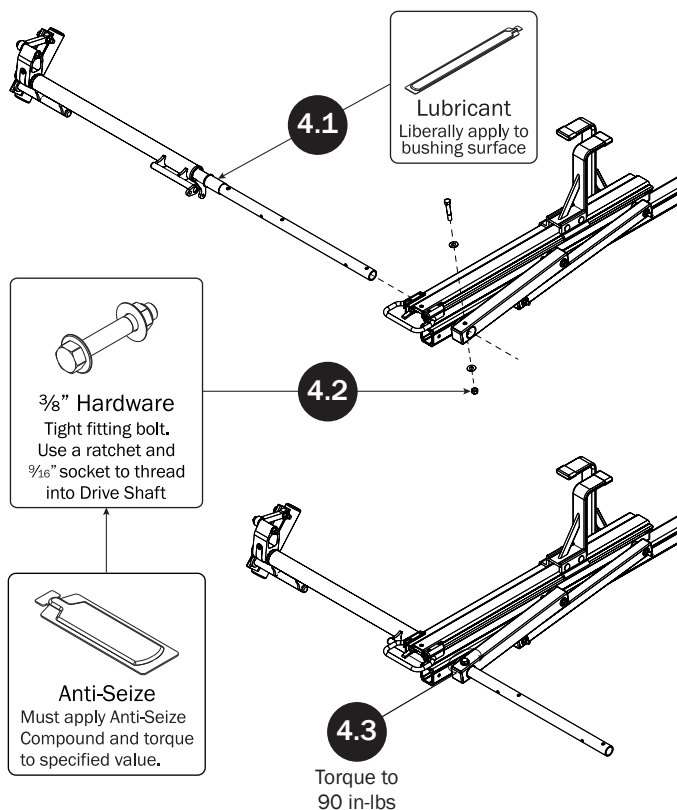
2.6

Position Mounting Brackets to designated dimension shown below, then torque the M8 X 20MM bolt to 90 in-lbs. Proceed to Step 3.1.

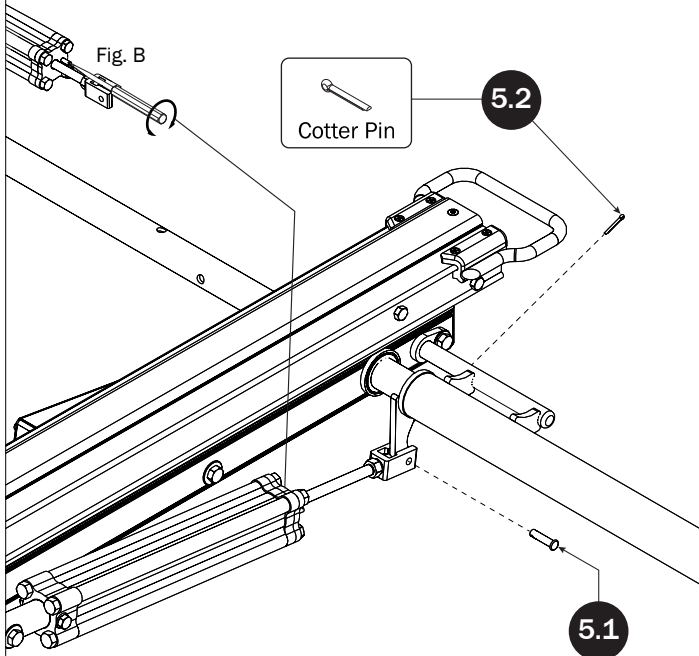


**CROSSBARS****CROSSBAR ADJUSTMENT****REAR DRIVE SHAFT**

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



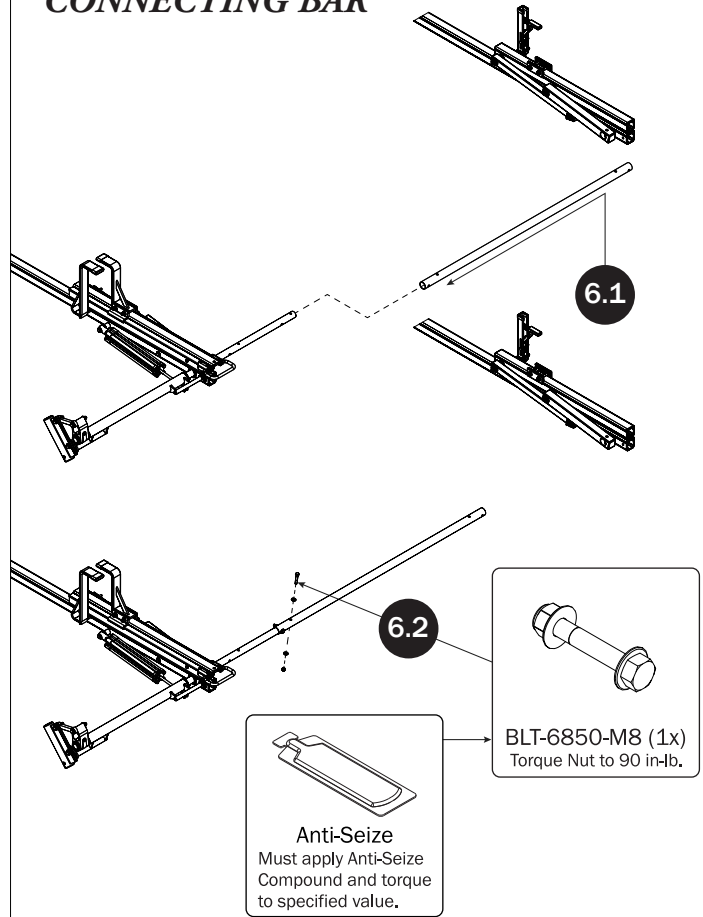
## CYLINDER HARDWARE



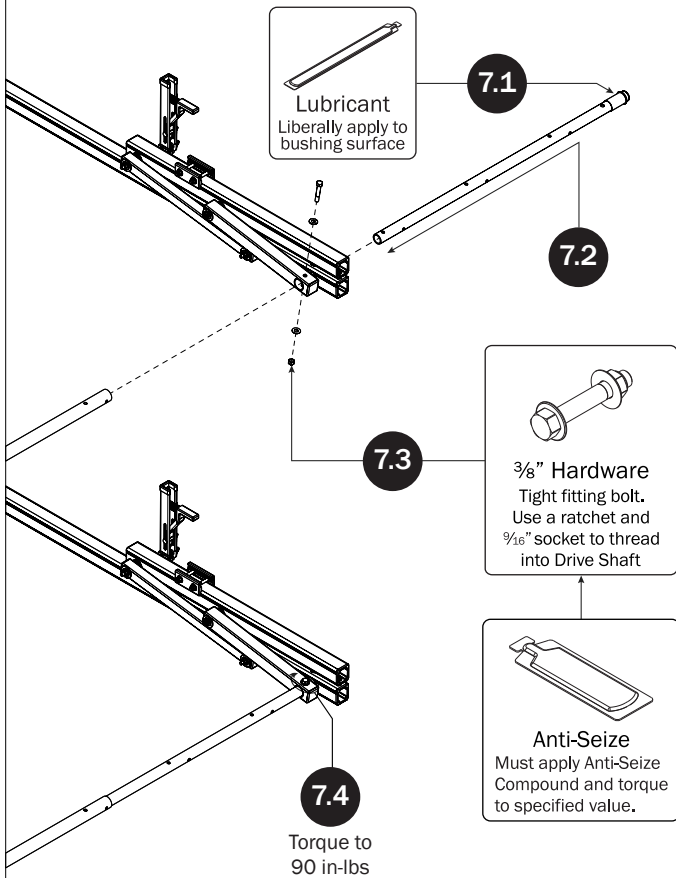
NOTE: Loosen the Cylinder Flow Control Screw (Fig. B) as needed to allow movement for this step sequence.

When finished with Cylinder Hardware, tighten the Flow Control Screw all the way closed then turn back open 1½ turn.

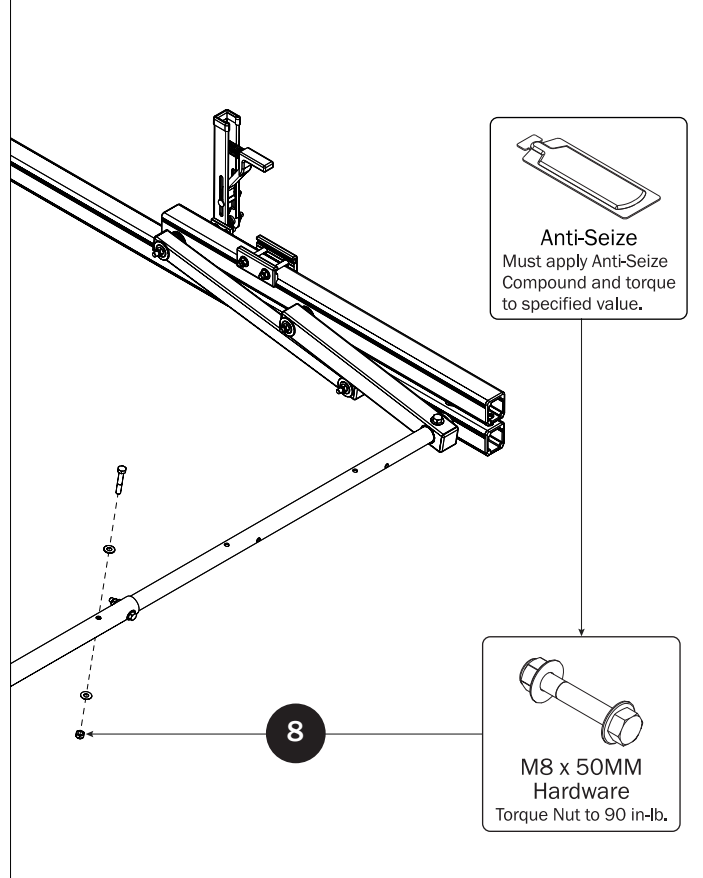
## CONNECTING BAR



## FRONT DRIVE SHAFT



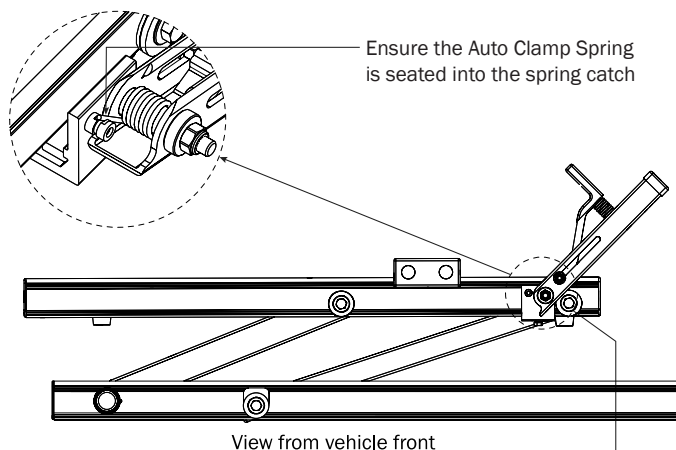
## CONNECTING BAR FASTENERS



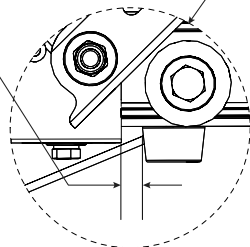


**L POSTS****SEE QUICK START GUIDE FOR ADJUSTMENTS**

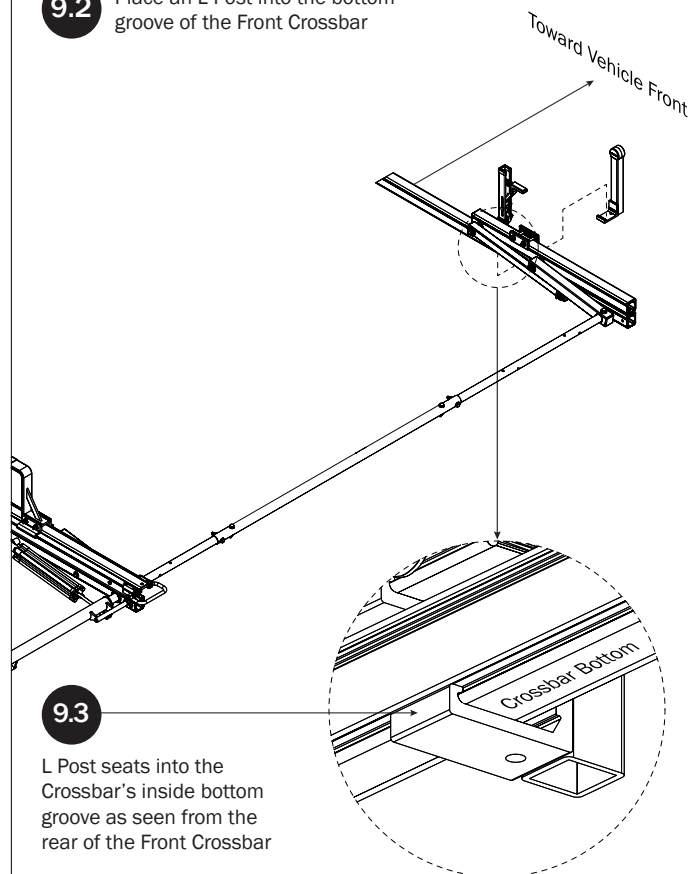
**NOTE:** The front Auto Clamp come preset from the factory for packaging purposes only. To assemble the L Post to the Crossbar, the Auto Clamps must be repositioned.



Beginning with the Front 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.

**9.1****9.2**

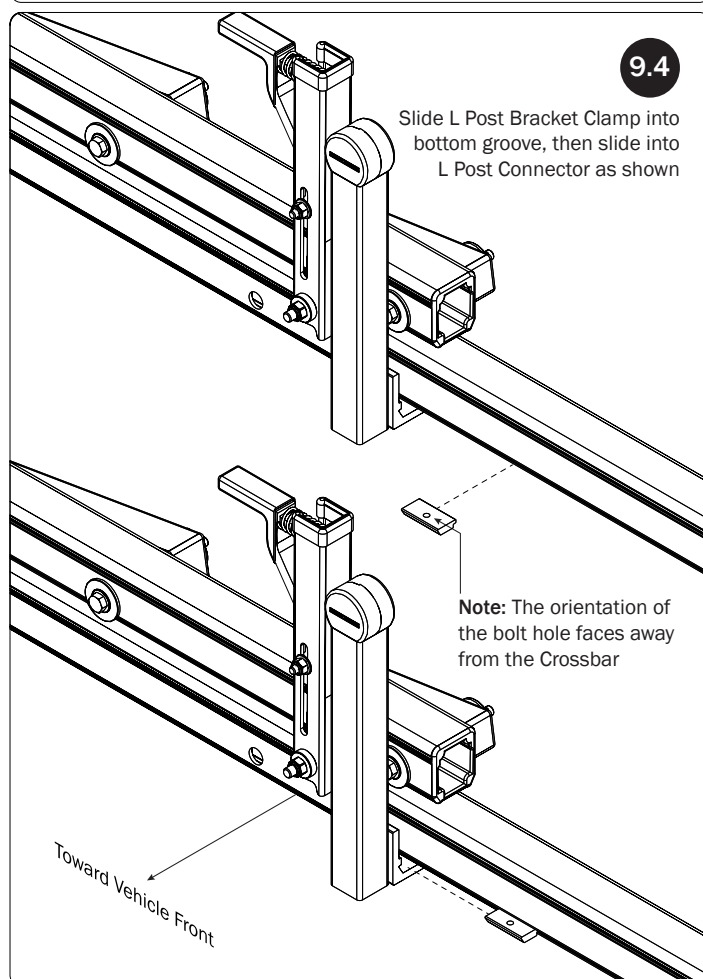
Place an L Post into the bottom groove of the Front Crossbar

**9.3**

L Post seats into the Crossbar's inside bottom groove as seen from the rear of the Front Crossbar

**9.4**

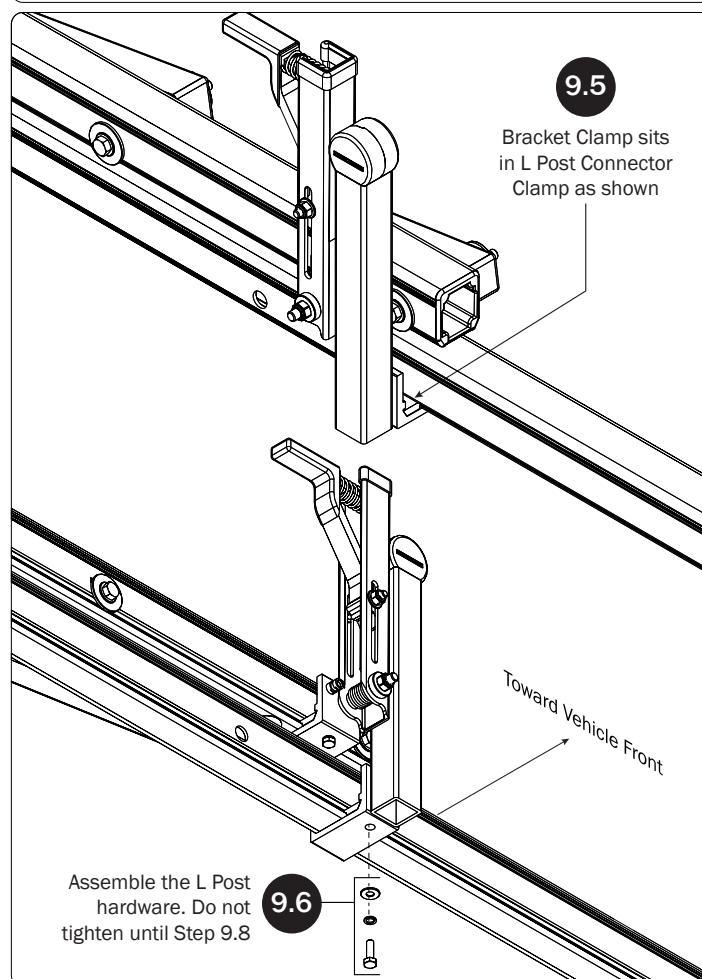
Slide L Post Bracket Clamp into bottom groove, then slide into L Post Connector as shown



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

**9.5**

Bracket Clamp sits in L Post Connector Clamp as shown



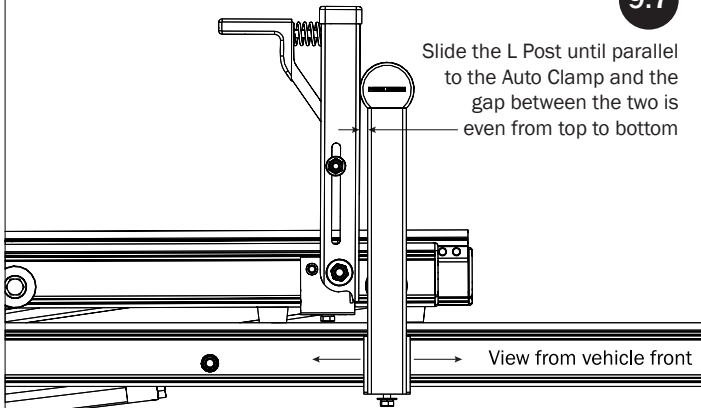
Assemble the L Post hardware. Do not tighten until Step 9.8

**9.6**



9.7

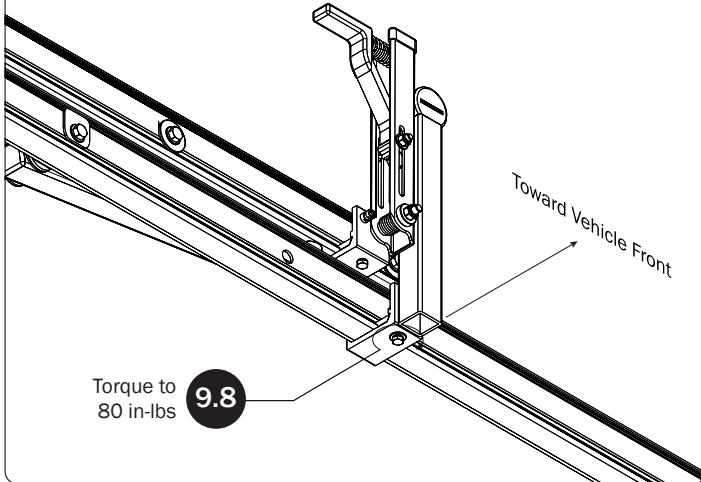
Slide the L Post until parallel to the Auto Clamp and the gap between the two is even from top to bottom



Torque to 80 in-lbs

9.8

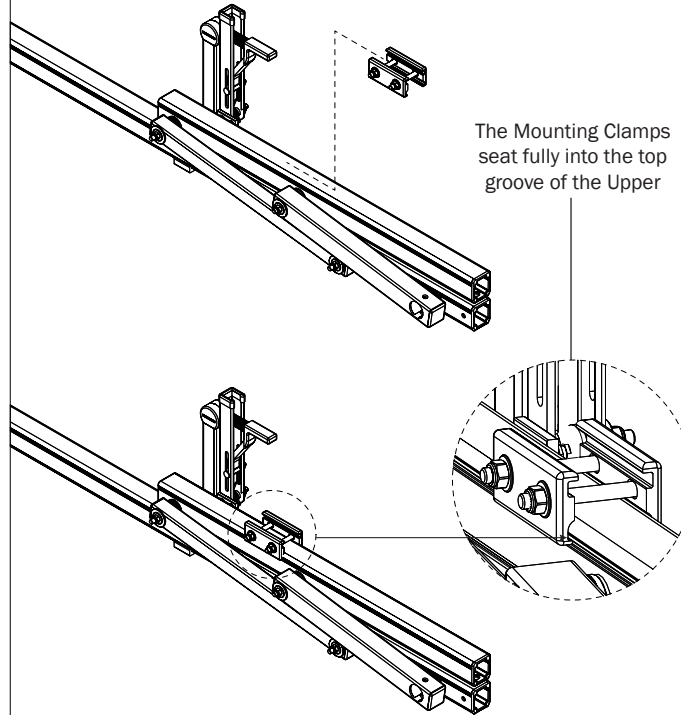
Toward Vehicle Front

**Z POSTS**

SEE QUICK START GUIDE FOR ADJUSTMENTS

10.1

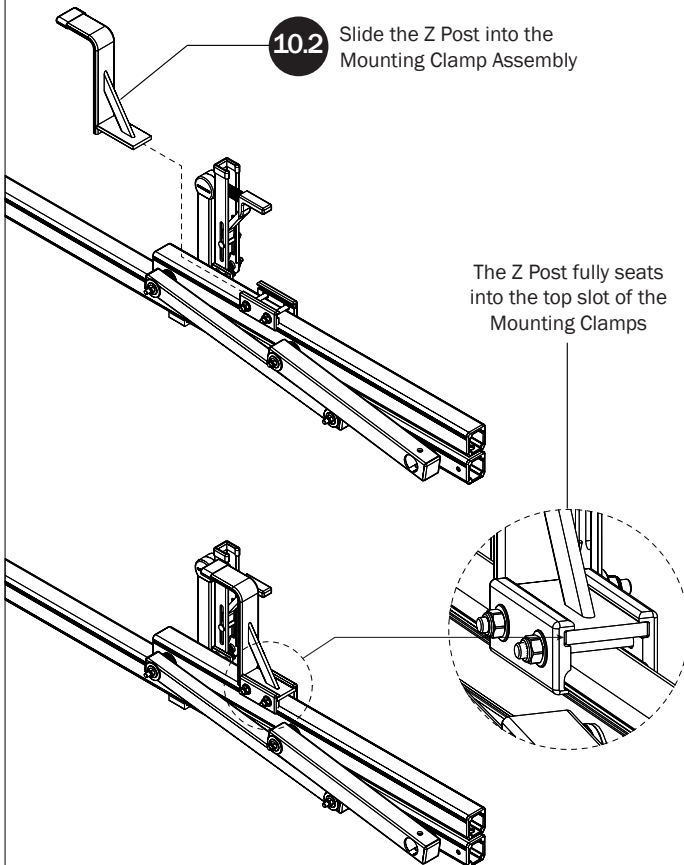
Assemble the Z Post Mounting Clamp Assembly onto the Rotation Upper. Do not tighten until Step 10.4



10.2

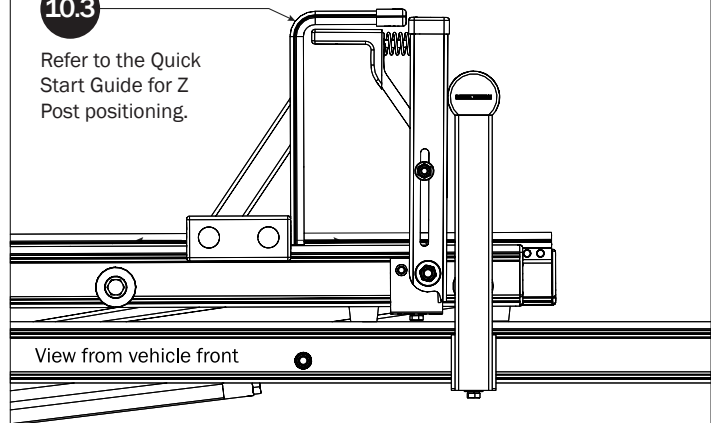
Slide the Z Post into the Mounting Clamp Assembly

The Z Post fully seats into the top slot of the Mounting Clamps



10.3

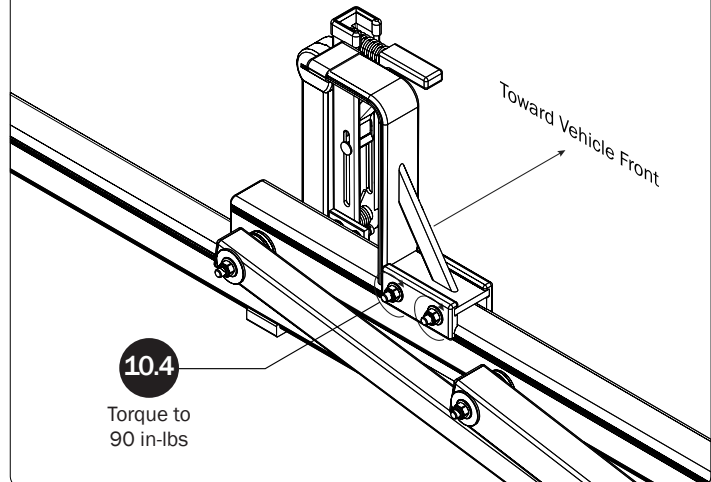
Refer to the Quick Start Guide for Z Post positioning.



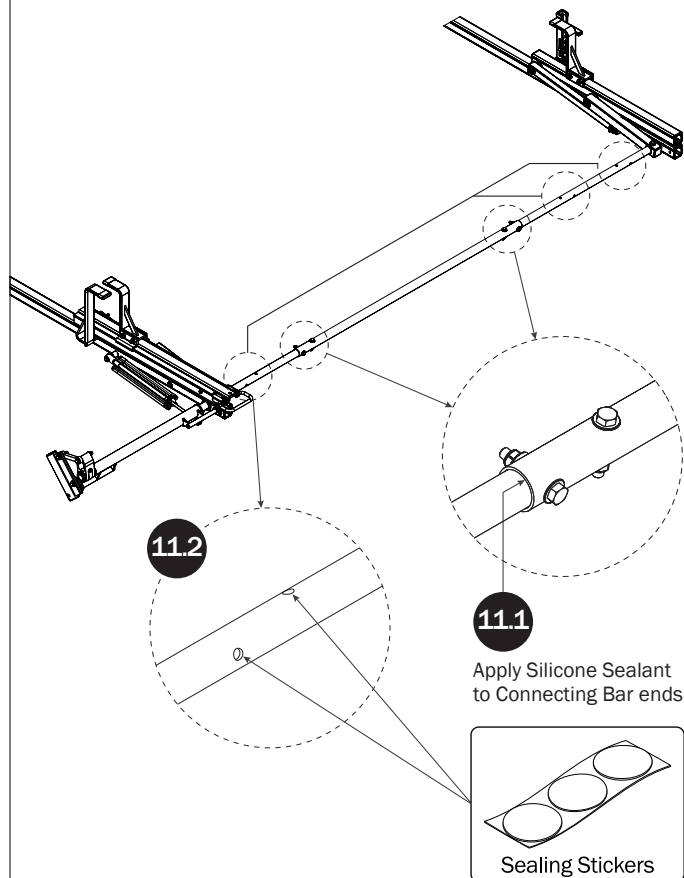
10.4

Torque to 90 in-lbs

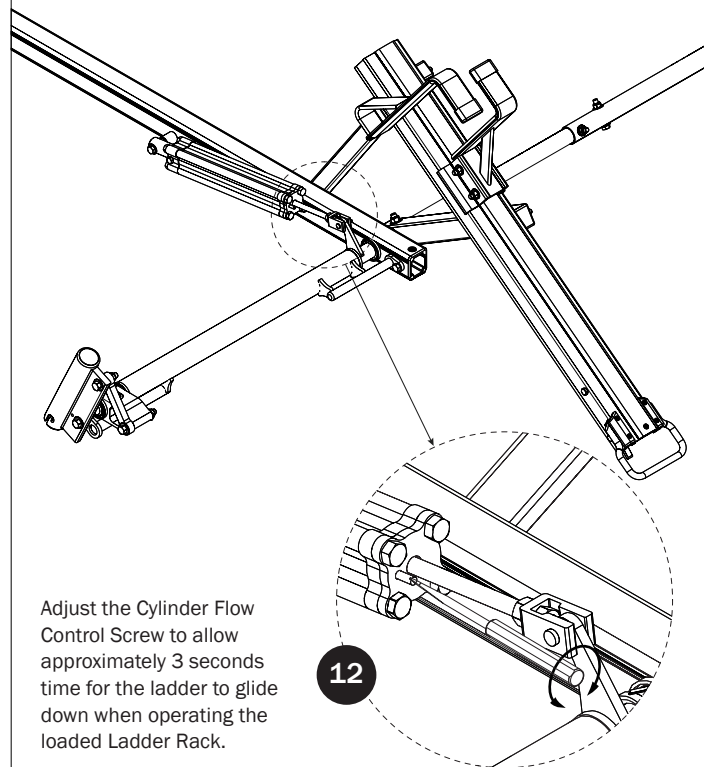
Toward Vehicle Front



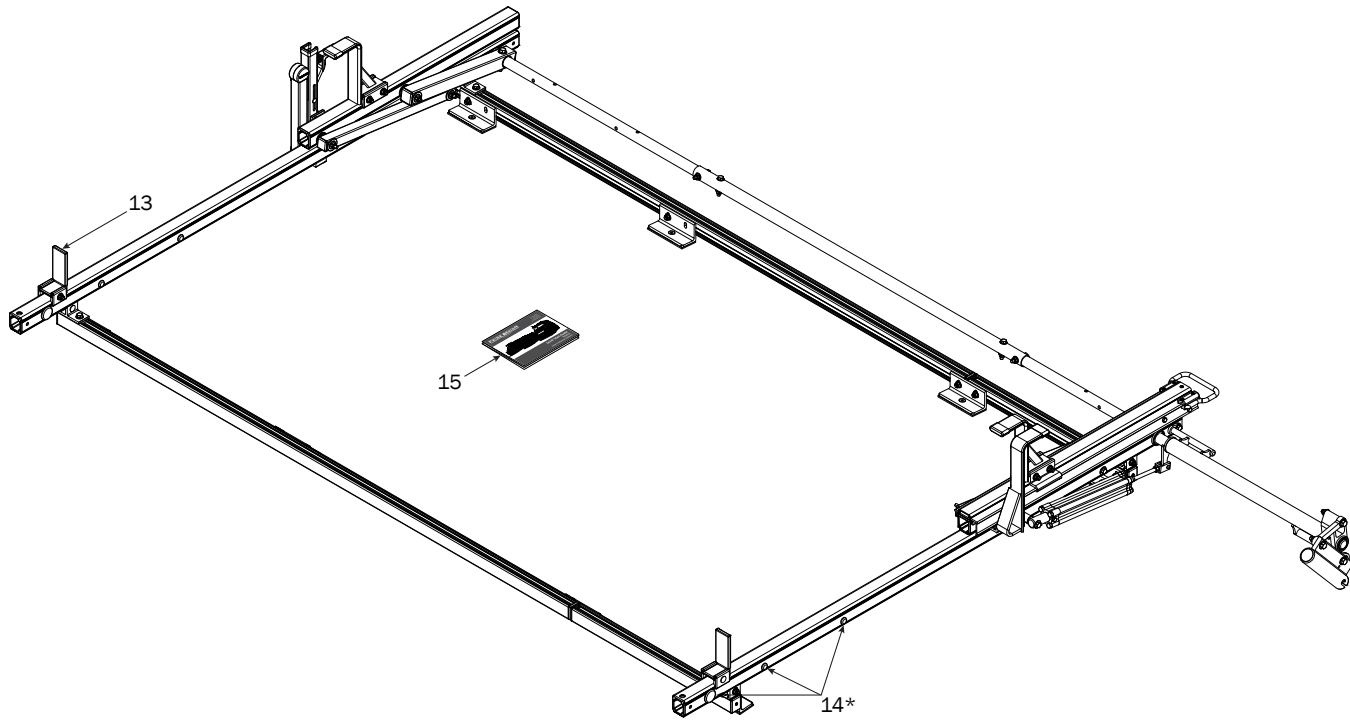
## DRIVE SHAFT SEALING



## CYLINDER ADJUSTMENT

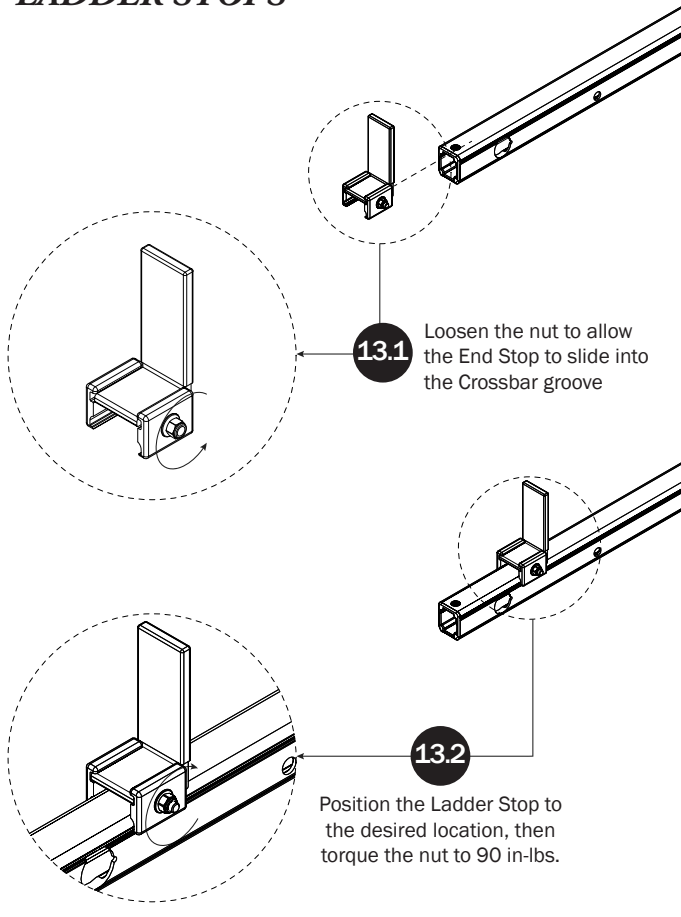


## LEFT SIDE ASSEMBLY SEQUENCE



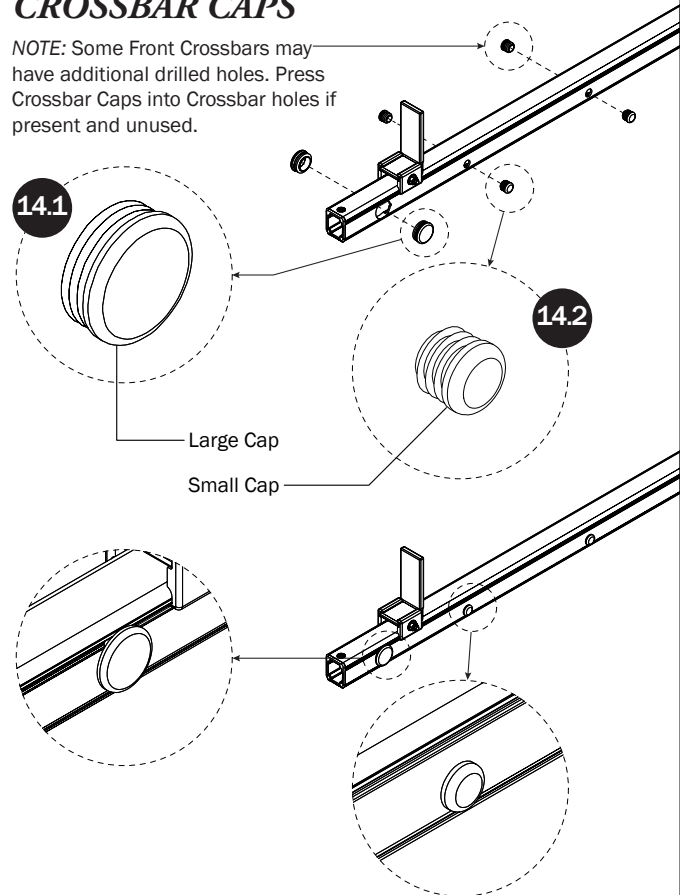
\* NOTE: Crossbars may not have Caps installed from the factory. If factory-installed, proceed to Step 13 and ignore Step 14. If not installed, Caps will be included in the Hardware Kit. Press them into the Crossbars as shown in Step 14.

### LADDER STOPS



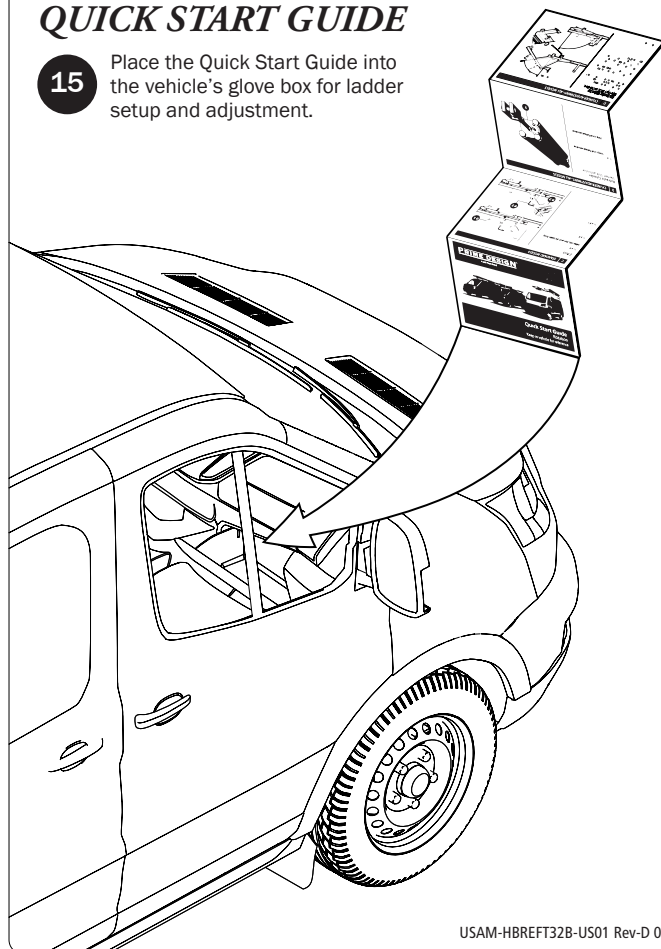
### CROSSBAR CAPS

NOTE: Some Front Crossbars may have additional drilled holes. Press Crossbar Caps into Crossbar holes if present and unused.



**QUICK START GUIDE****15**

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



USAM-HBREFT32B-US01 Rev-D 0419