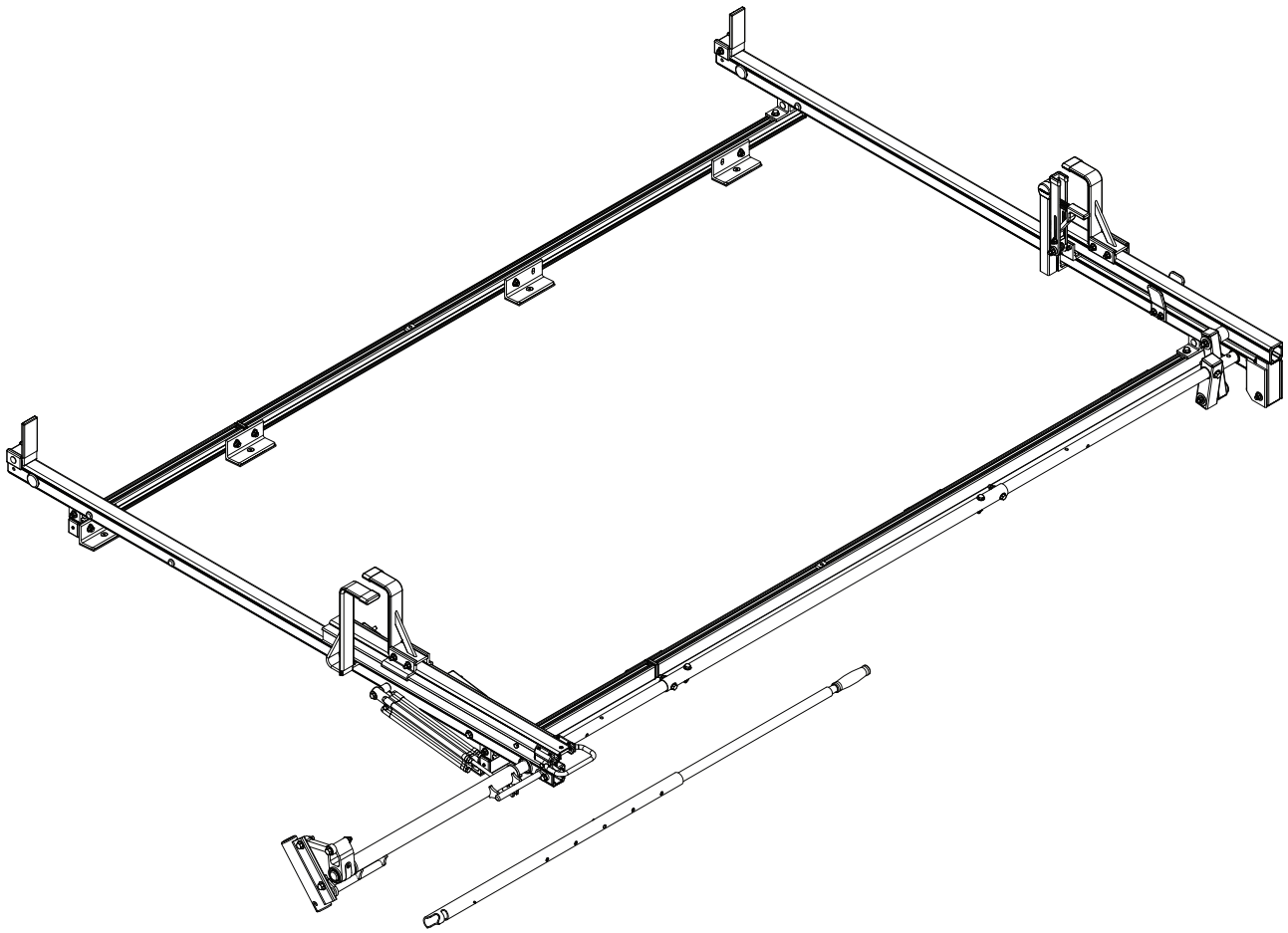
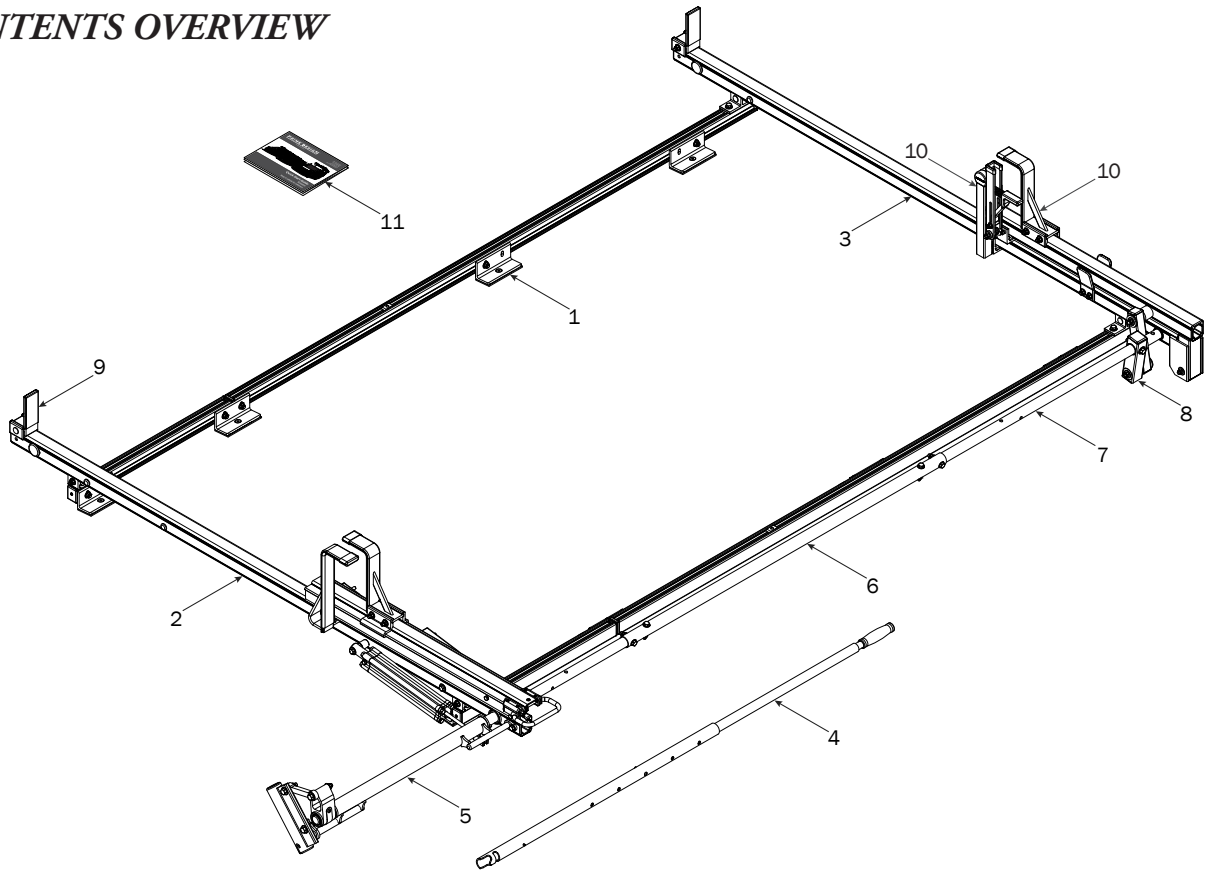
PRIME DESIGN™

A Safe Fleet Brand



HBI-E

CONTENTS OVERVIEW

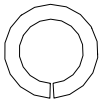


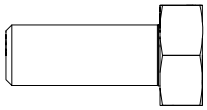
1—FBM-0102..... (Qty 1)
Channels w/ Hardware

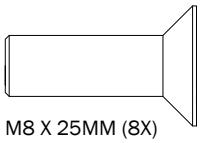

23” Channels (2X)

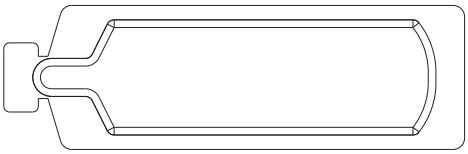

78” Channels, Pre-assembled (2X)

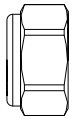

Channel Bracket (4X)

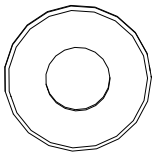

5/16" Lock Washer (4X)


M8 x 20MM (4X)


M8 X 25MM (8X)


Anti-Seize (1X)

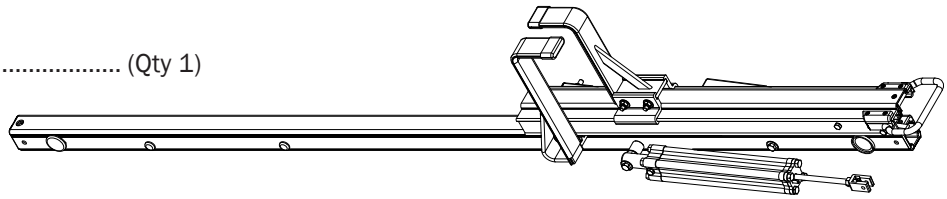

M8 Lock Nut (10X)


5/16" Flat Washer (14X)

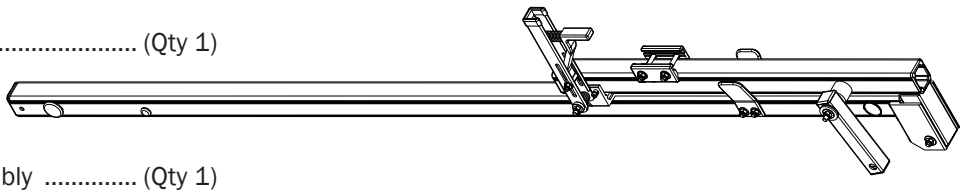

Mounting Bracket (8X)


Foam Pad (8X)

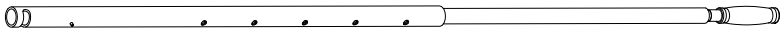
2—Rear Crossbar Assembly..... (Qty 1)



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

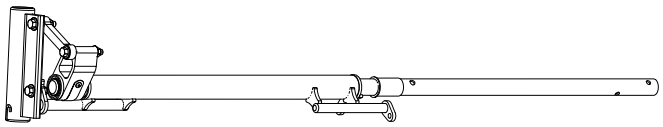


4—HRR Removeable Handle Assembly ..... (Qty 1)

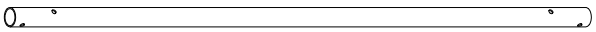


PRIME DESIGN, A SAFE FLEET BRAND • Address: 1689 Oakdale Avenue #102, West St Paul, Minnesota 55118 • Phone: 651-552-8554 • Toll Free: 1.8.PRIME.RACK • Fax: 651-552-1799 • Email: info@primedesign.net • Website: www.primedesign.net
TM & © 2019 PRIME DESIGN. PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENT NO.'s 6764268, 6971563, 2364879, 8857689, 8511525, 8991889, 2271515, 2364897, 9506292, 9481313, 9481314, 9796340, 6202807, 6427889, 9415726 AND OTHER PATENTS PENDING

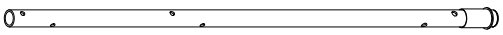
5—Drive Shaft ..... (Qty 1)
Rear, Right Hand, 50.00”



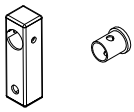
6—Connecting Bar ..... (Qty 1)
48.00”

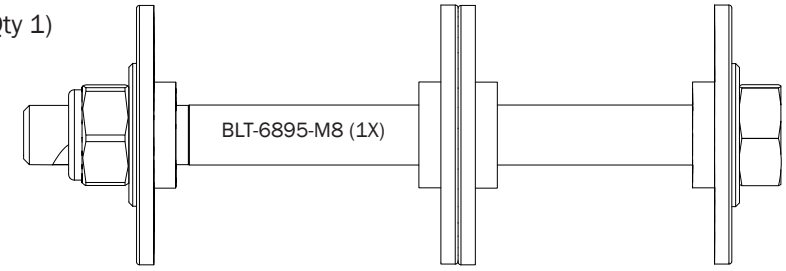


7—Front Drive Shaft ..... (Qty 1)
B Version, 38.75”

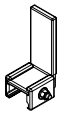


8—Drive Arm ..... (Qty 1)
Incline Version with Bushing and Hardware

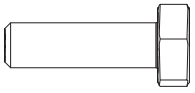




9—Ladder Stop Assembly ..... (Qty 2)
1.75”



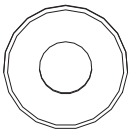
10—L & Z Post Kit..... (Qty 1)
Adj. Z Post, 7.25”, L Post, w/HKT-0160



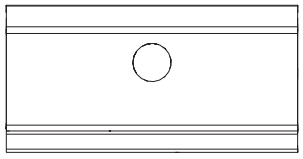
M6 x 20MM (1X)



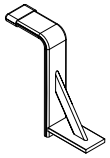
¼ Lock Washer (1X)



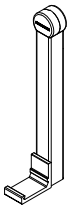
¼ Flat Washer (1X)



L Post Bracket Clamp (1X)

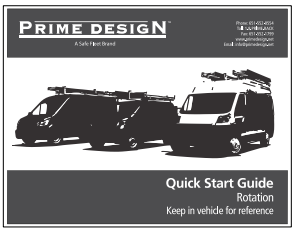


Z Post (1X)



L Post (1X)

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



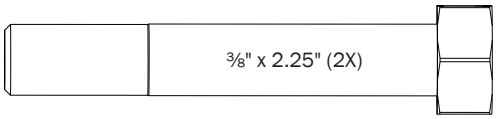
12—HKT-8163 (Not called out in Overview)..... (Qty 1)



M8 x 25MM (1X)



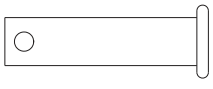
M8 x 50MM (4X)



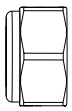
⅜" x 2.25" (2X)



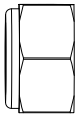
Cotter Pin (1X)



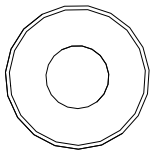
Clevis Pin (1X)



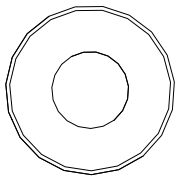
M8 Lock Nut (5X)



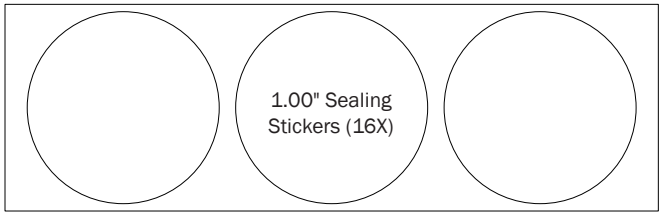
⅜" Lock Nut (2X)

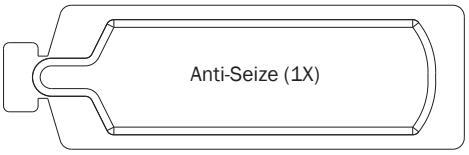


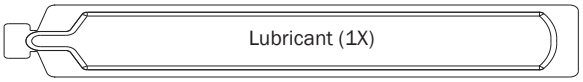
5/16" Flat Washer (10X)



⅜" Flat Washer (4X)





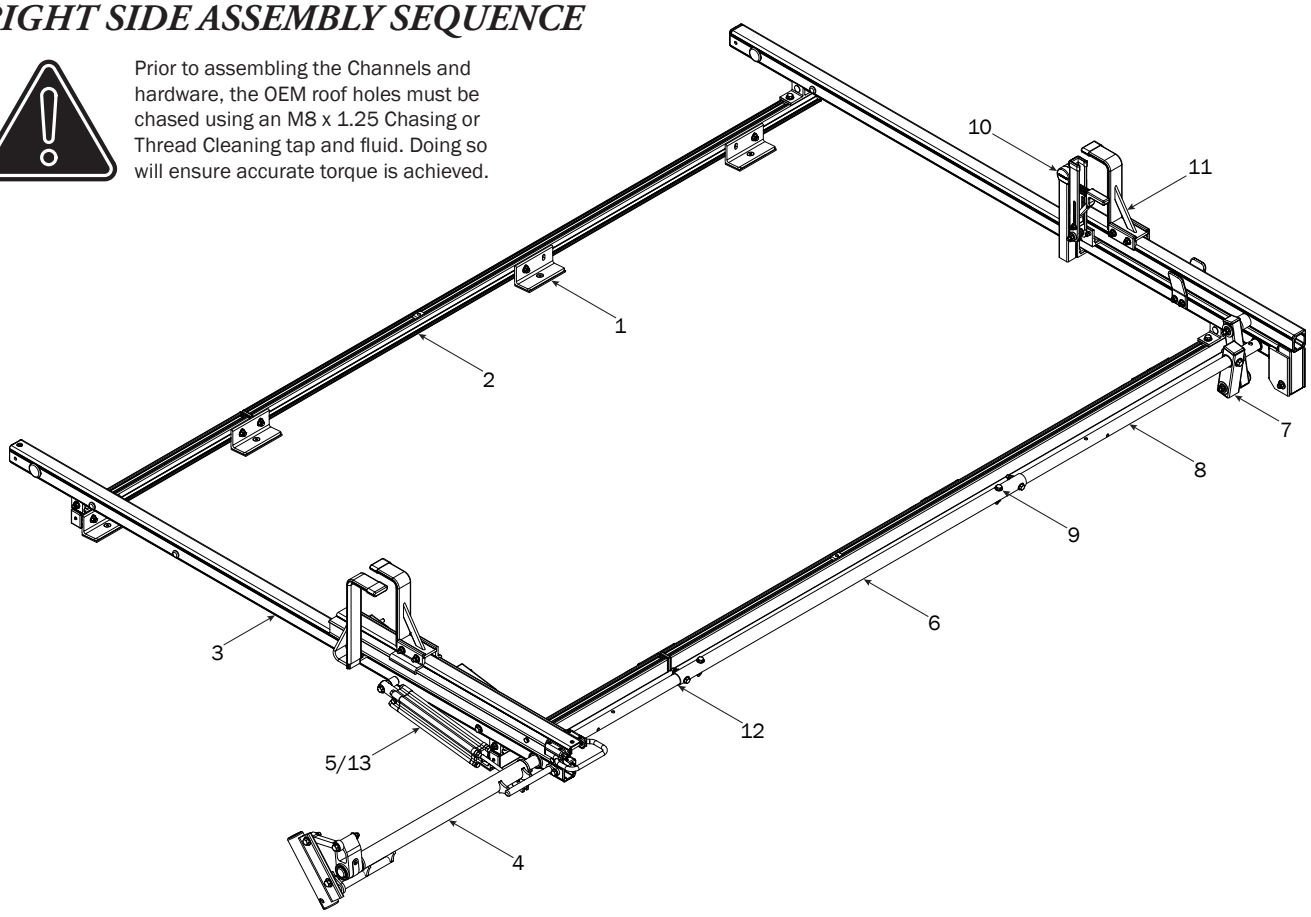


TM & © 2019 PRIME DESIGN. PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENT NO.'s 6764268, 6971563, 2364879, 8857689, 8511525, 8991889, 2271515, 2364897, 9506292, 9481313, 9481314, 9796340, 6202807, 6427889, 9415726 AND OTHER PATENTS PENDING

PRIME DESIGN™ A Safe Fleet Brand

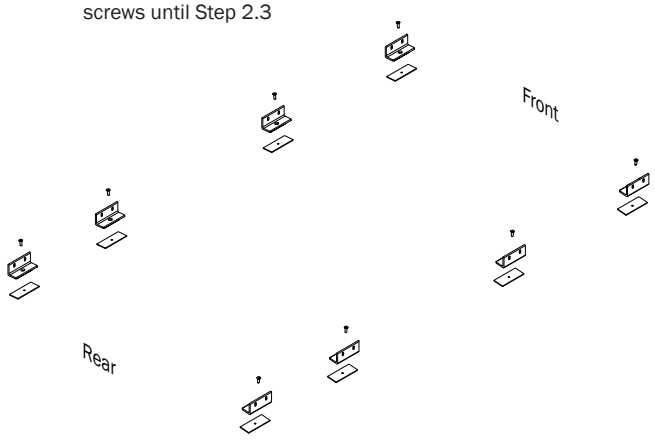
RIGHT SIDE ASSEMBLY SEQUENCE

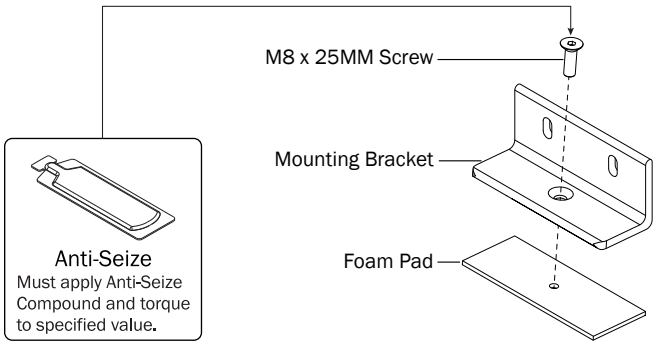
Prior to assembling the Channels and hardware, the OEM roof holes must be chased using an M8 x 1.25 Chasing or Thread Cleaning tap and fluid. Doing so will ensure accurate torque is achieved.



MOUNTING BRACKETS

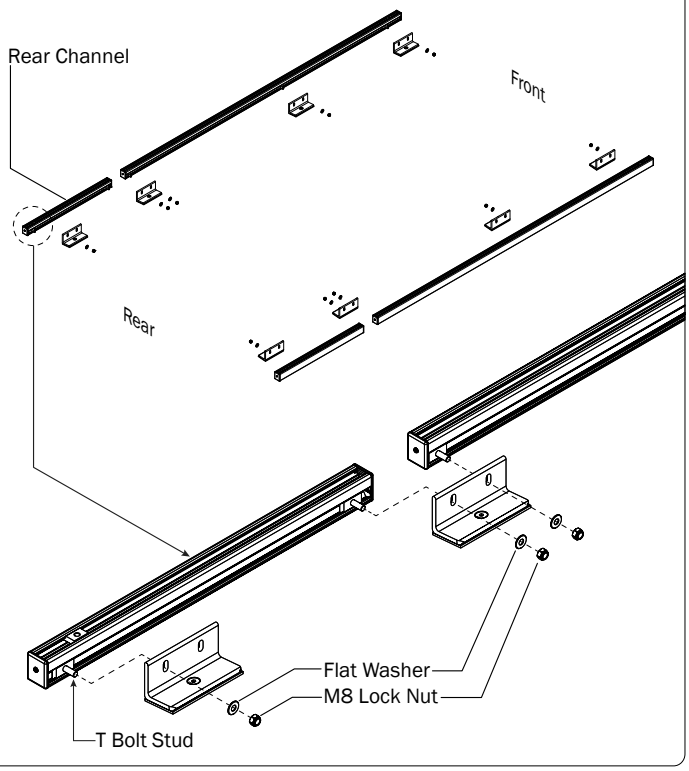
1 Apply Anti-Seize to all M8 x 25MM Flat Head Screws and install the Channel Mounting Brackets with Foam Pads onto the vehicle's roof mounting holes. Do not tighten screws until Step 2.3





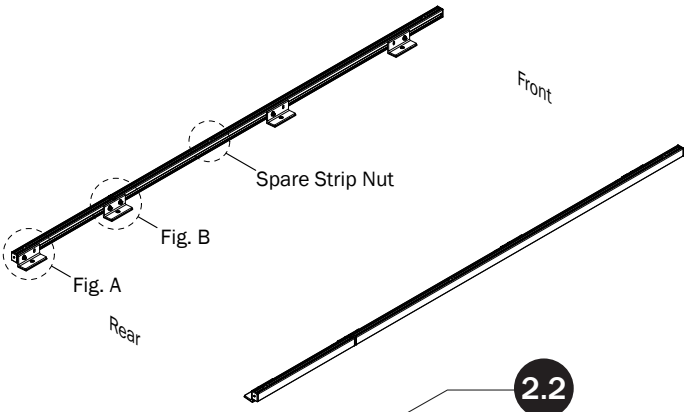
CHANNELS

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



TM & © 2019 PRIME DESIGN. PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENT NO.'s 6764268, 6971563, 2364879, 8857689, 8511525, 8991889, 2271515, 2364897, 9506292, 9481313, 9481314, 9796340, 6202807, 6427889, 9415726 AND OTHER PATENTS PENDING

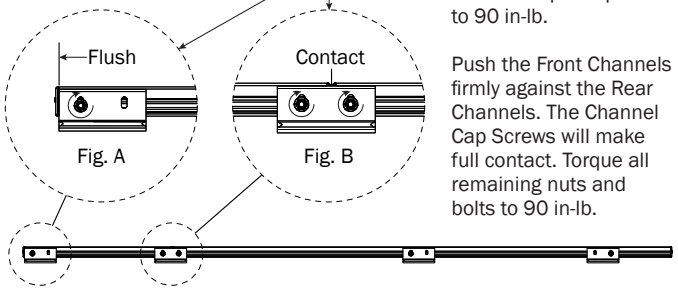
The Front Channels include two aluminum Strip Nuts per Channel for use in a three Crossbar configuration. For two Crossbar configurations, disregard the rear Strip Nut in each Front Channel.



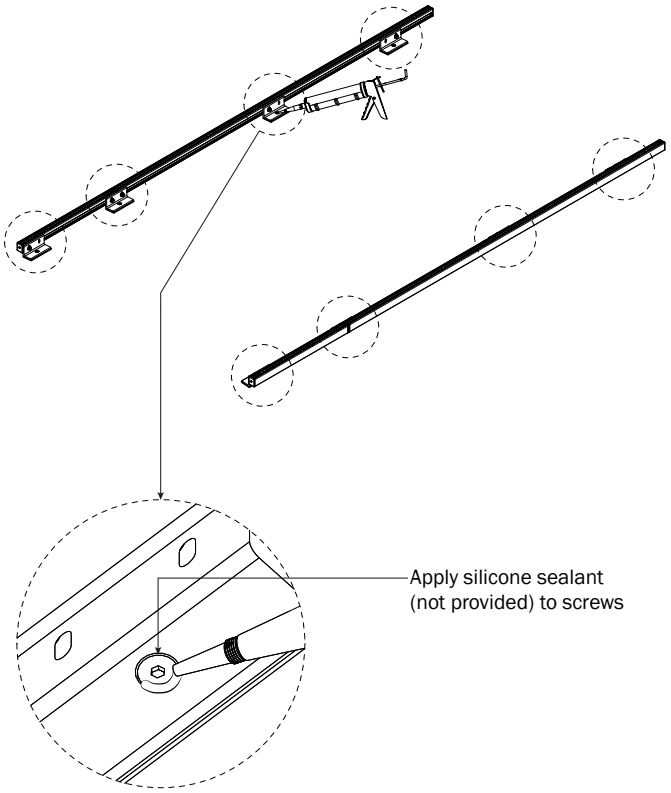
2.2

Move the Rear Channel until the Mount contacts the End Cap. Torque nut to 90 in-lb.

Push the Front Channels firmly against the Rear Channels. The Channel Cap Screws will make full contact. Torque all remaining nuts and bolts to 90 in-lb.



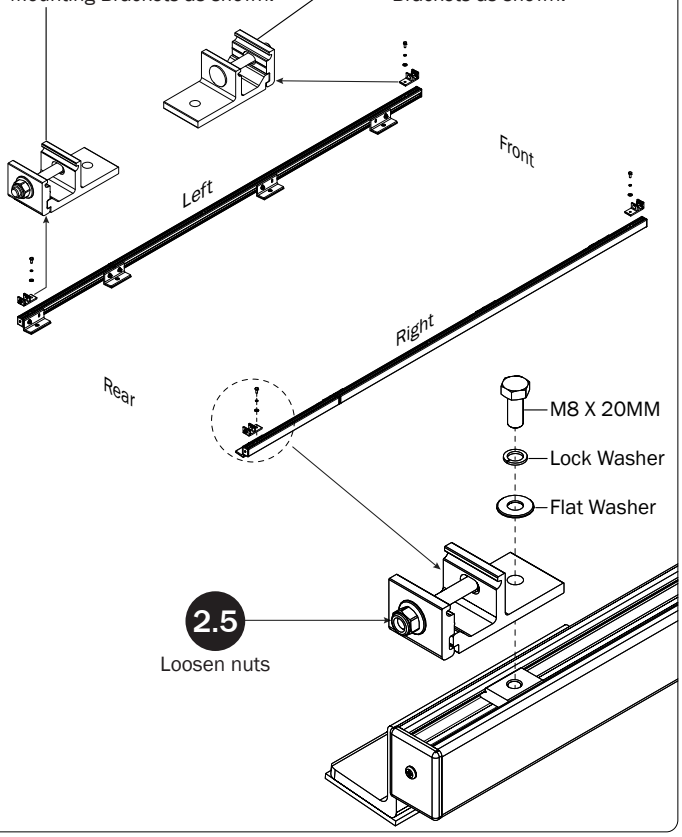
2.3 Torque all M8 x 25MM Flat Head Screws to 150 in-lbs. Apply Silicone Sealant to screw heads to seal against water intrusion.



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

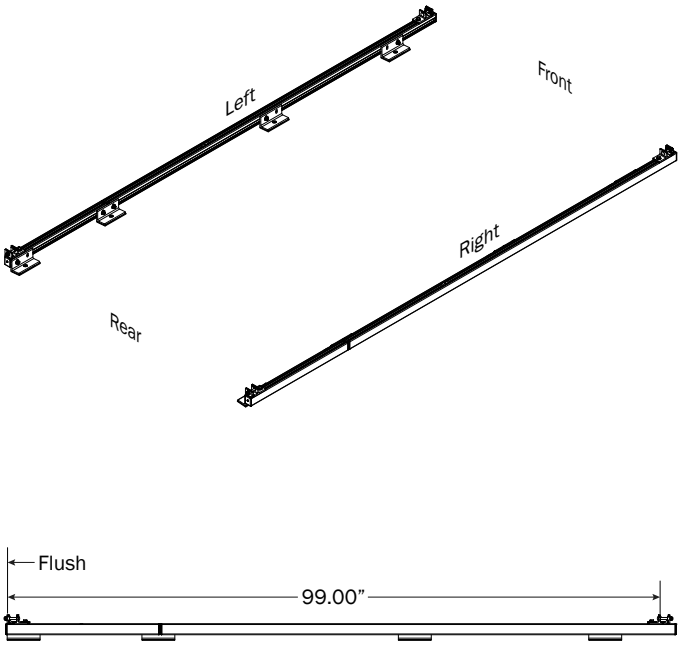
Position the rear and center Mounting Brackets as shown.

Position the front Mounting Brackets as shown.



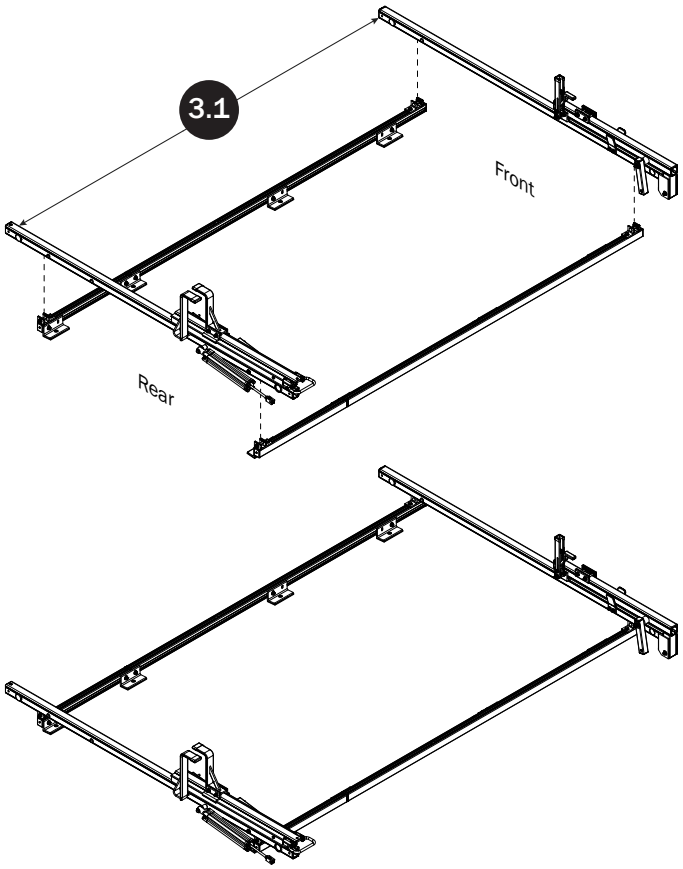
2.5 Loosen nuts

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.

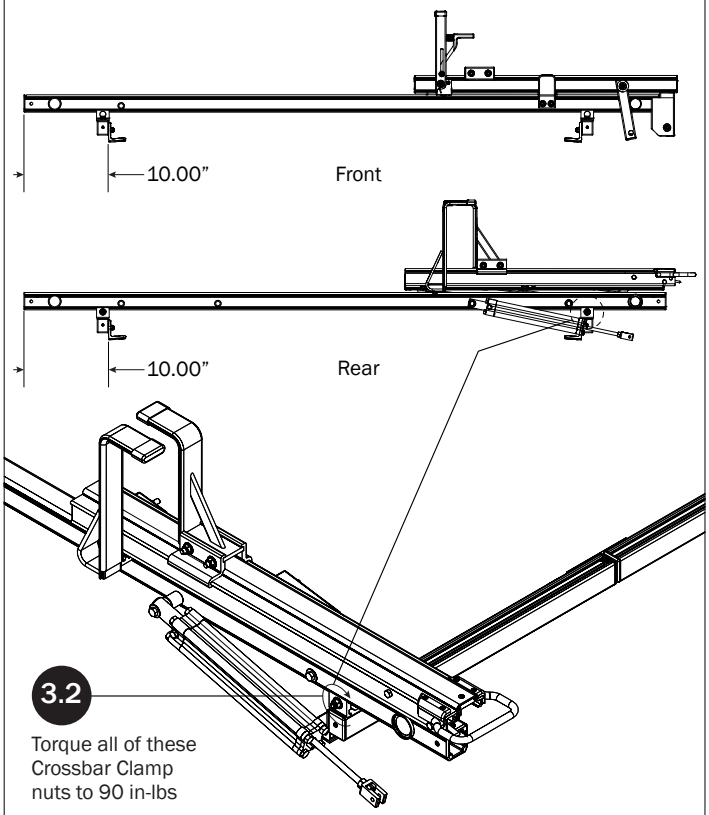


TM & © 2019 PRIME DESIGN. PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENT NO.'s 6764268, 6971563, 2364879, 8857689, 8511525, 8991889, 2271515, 2364897, 9506292, 9481313, 9481314, 9796340, 6202807, 6427889, 9415726 AND OTHER PATENTS PENDING

CROSSBARS

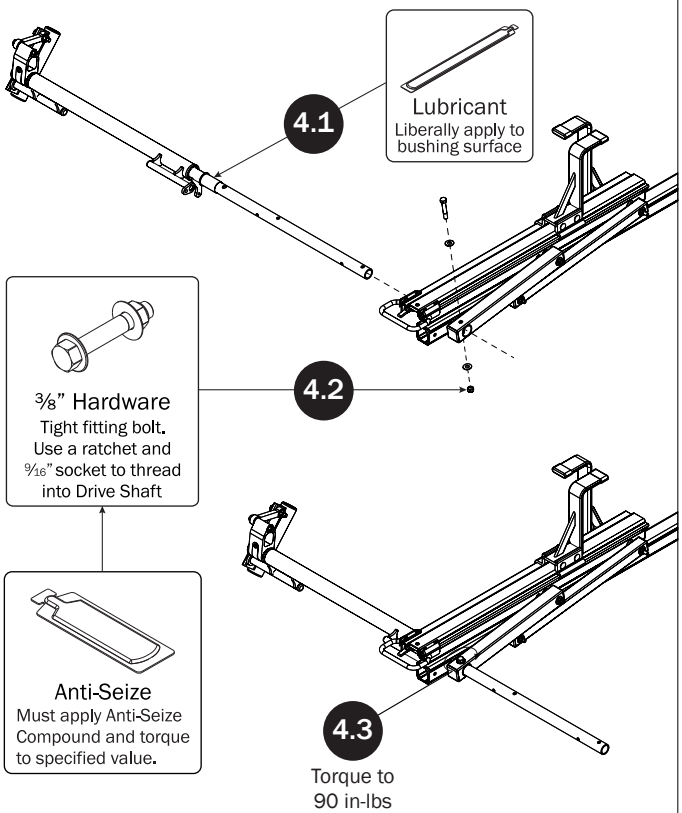


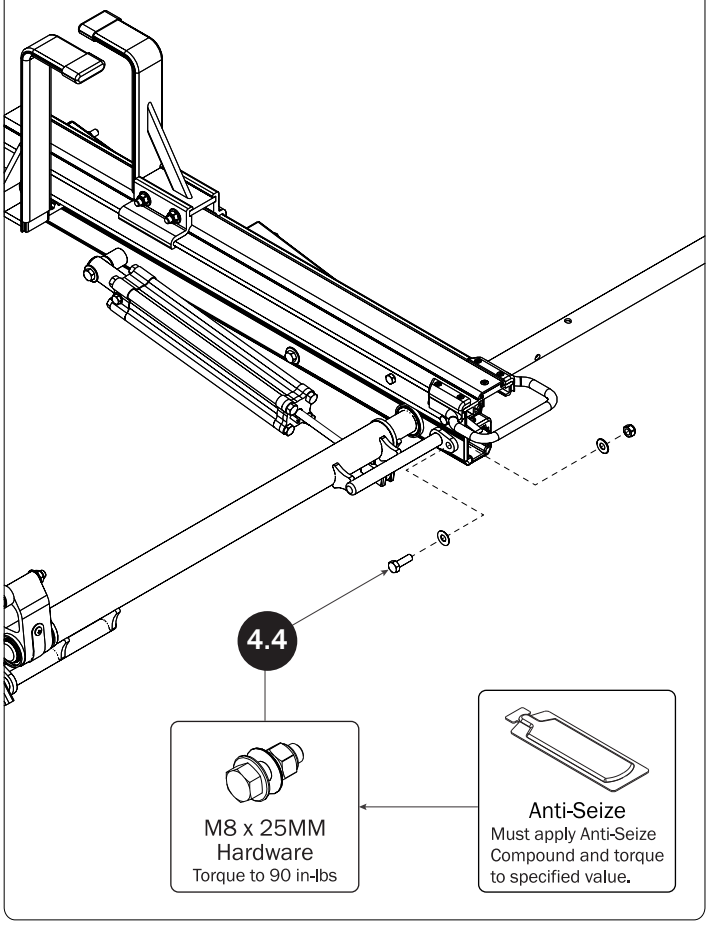
CROSSBAR ADJUSTMENT



REAR DRIVE SHAFT

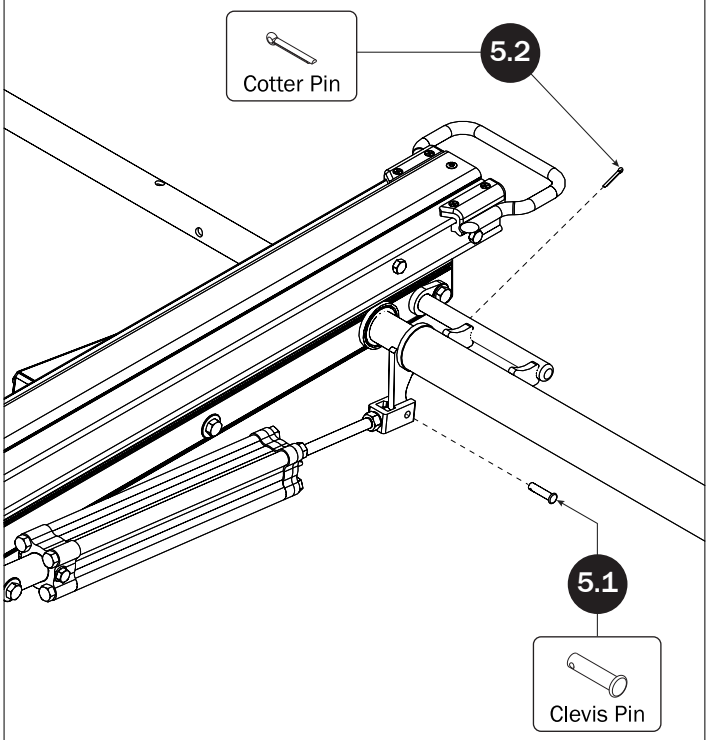
NOTE: For instructional clarity, the FBM Mounting System will not be shown for the remainder of this Assembly Manual.



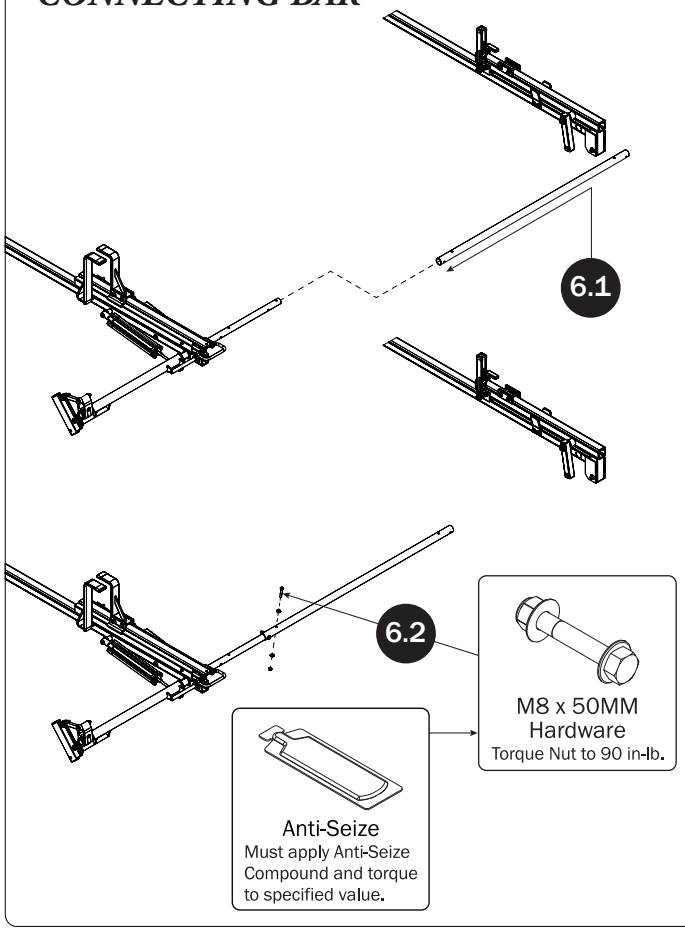


PRIME DESIGN, A SAFE FLEET BRAND • Address: 1689 Oakdale Avenue #102, West St Paul, Minnesota 55118 • Phone: 651-552-8554 • Toll Free: 1.8.PRIME.RACK • Fax: 651-552-1799 • Email: info@primedesign.net • Website: www.primedesign.net
TM & © 2019 PRIME DESIGN. PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENT NO.'s 6764268, 6971563, 2364879, 8857689, 8511525, 8991889, 2271515, 2364897, 9506292, 9481313, 9481314, 9796340, 6202807, 6427889, 9415726 AND OTHER PATENTS PENDING

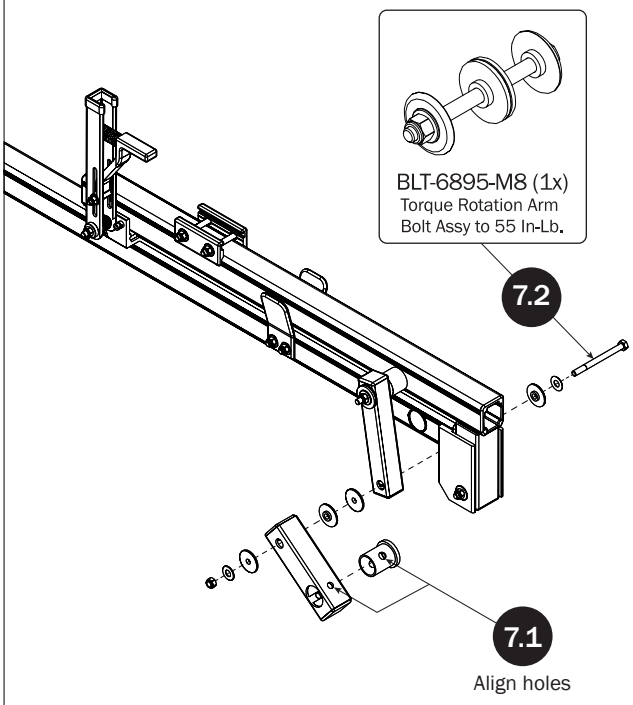
CYLINDER HARDWARE



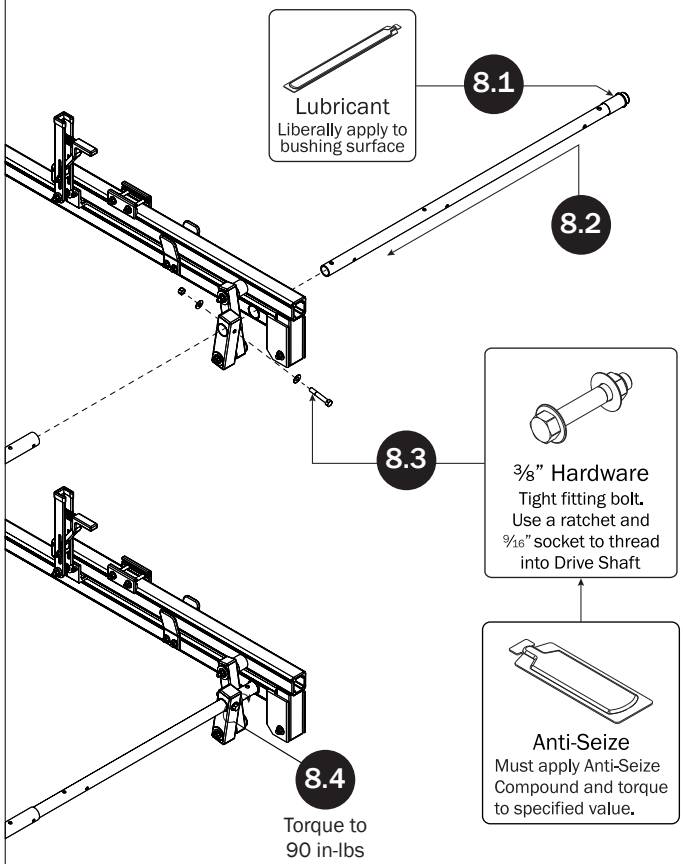
CONNECTING BAR



FRONT DRIVE ARM



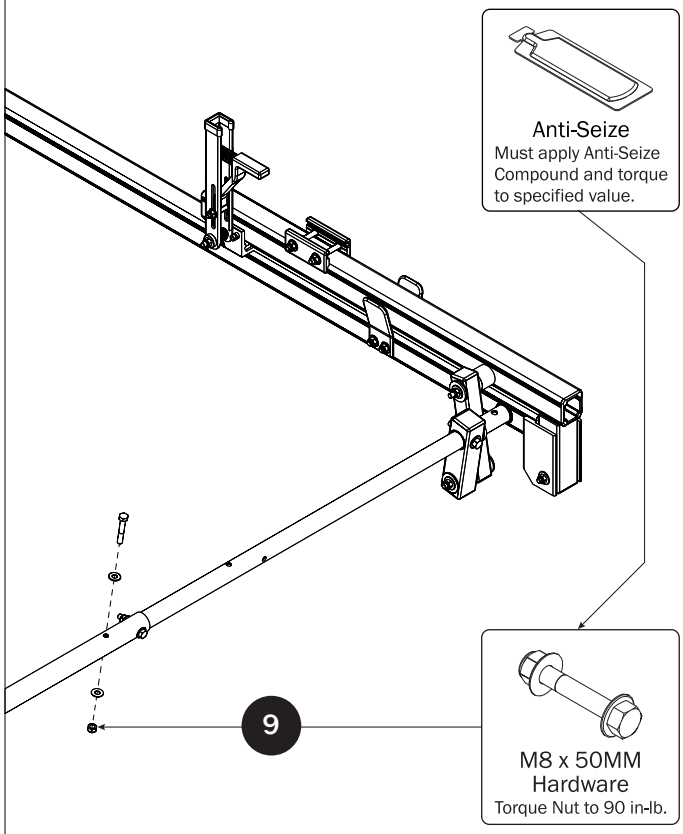
FRONT DRIVE SHAFT



TM & © 2019 PRIME DESIGN. PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENT NO.'s 6764268, 6971563, 2364879, 8857689, 8511525, 8991889, 2271515, 2364897, 9506292, 9481313, 9481314, 9796340, 6202807, 6427889, 9415726 AND OTHER PATENTS PENDING

PRIME DESIGN™ A Safe Fleet Brand

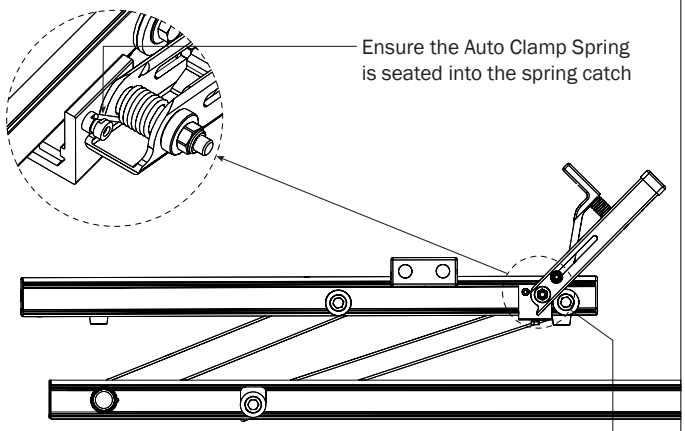
CONNECTING BAR FASTENERS



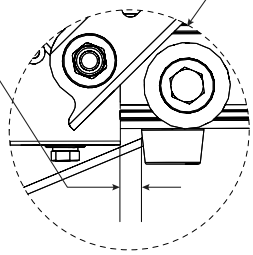
L POSTS

SEE QUICK START GUIDE FOR ADJUSTMENTS

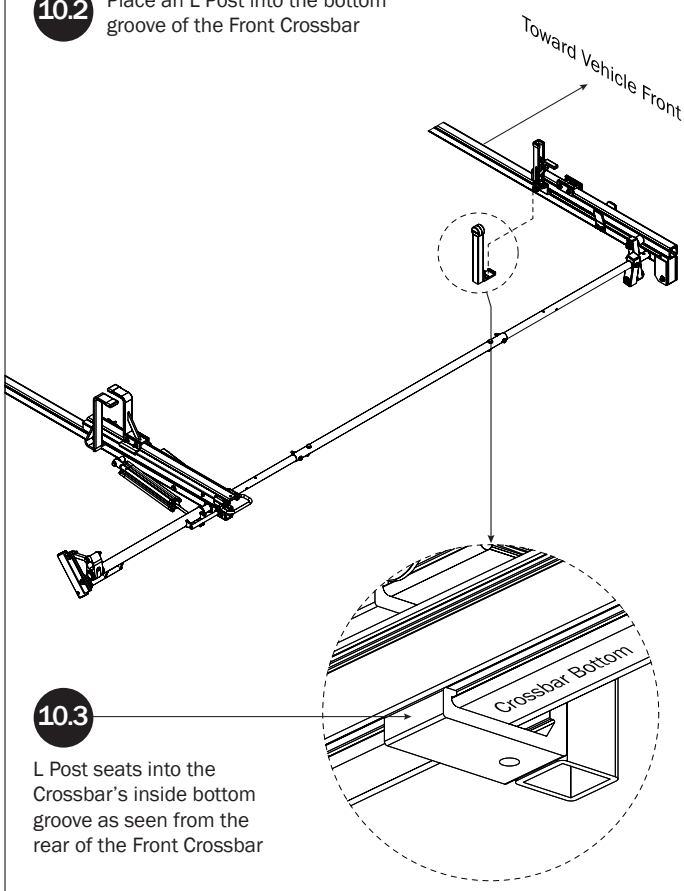
NOTE: The front Auto Clamp come preset from the factory for packaging purposes only. To assemble the L Post to the Crossbar, the Auto Clamps must be repositioned.



10.1 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.

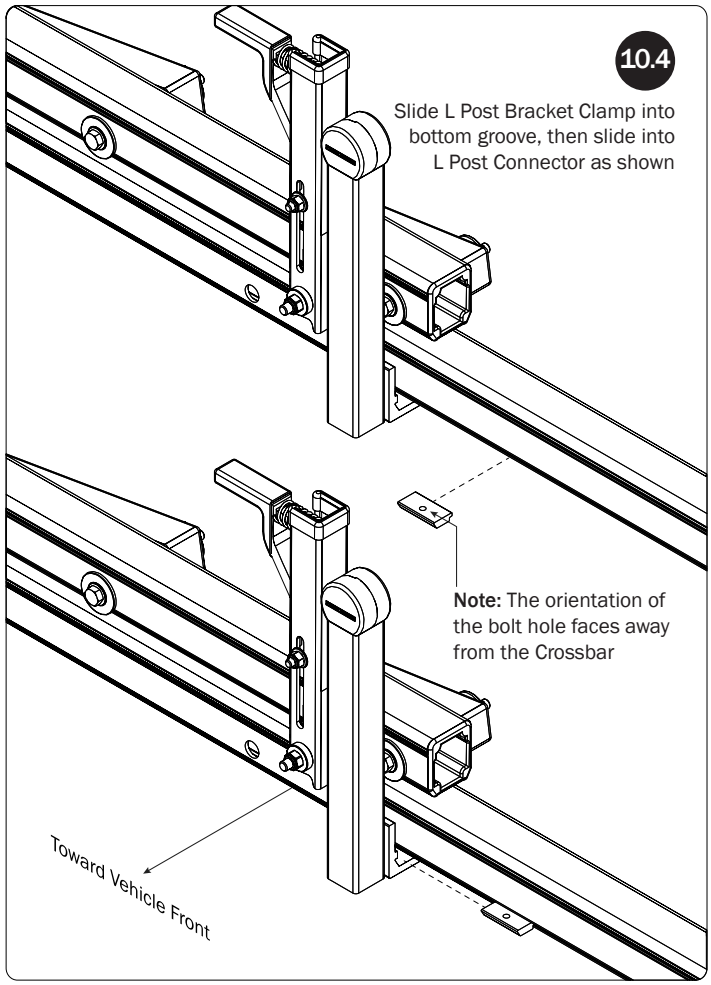


10.2 Place an L Post into the bottom groove of the Front Crossbar



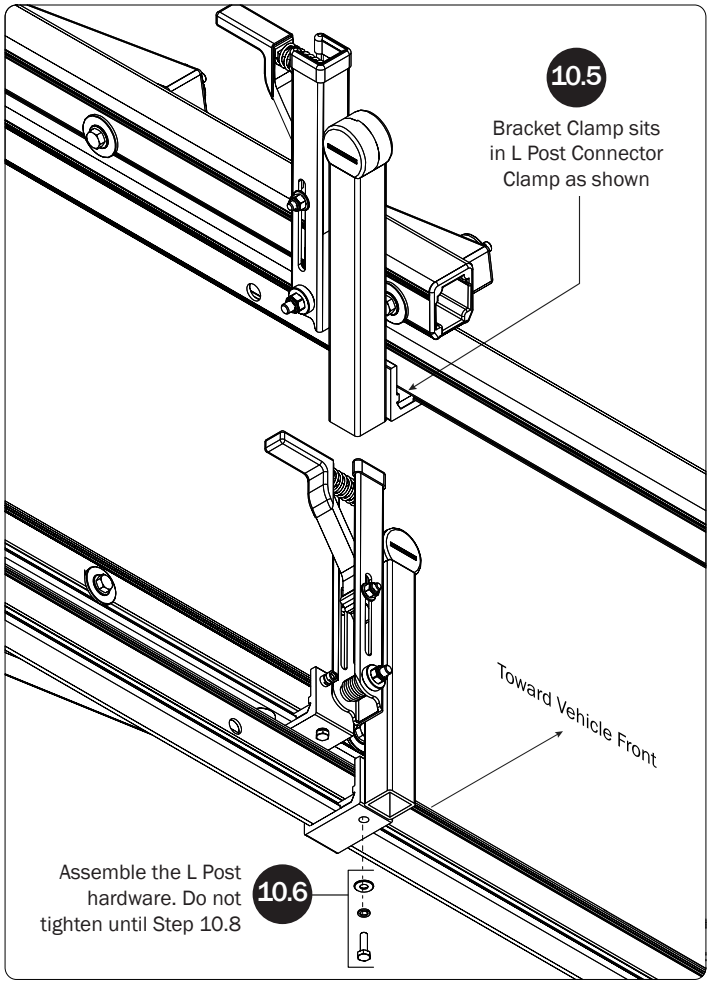
10.3 L Post seats into the Crossbar's inside bottom groove as seen from the rear of the Front Crossbar

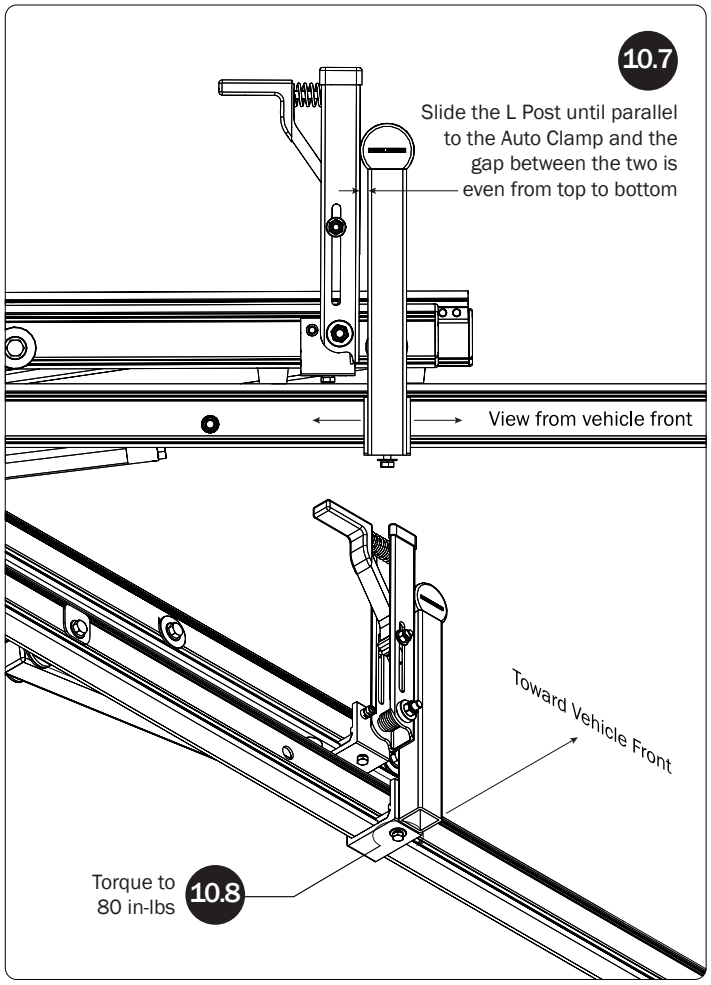
10.4 Slide L Post Bracket Clamp into bottom groove, then slide into L Post Connector as shown



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

PRIME DESIGN, A SAFE FLEET BRAND • Address: 1689 Oakdale Avenue #102, West St Paul, Minnesota 55118 • Phone: 651-552-8554 • Toll Free: 1.8.PRIME.RACK • Fax: 651-552-1799 • Email: info@primedesign.net • Website: www.primedesign.net
TM & © 2019 PRIME DESIGN. PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENT NO.'s 6764268, 6971563, 2364879, 8857689, 8511525, 8991889, 2271515, 2364897, 9506292, 9481313, 9481314, 9796340, 6202807, 6427889, 9415726 AND OTHER PATENTS PENDING

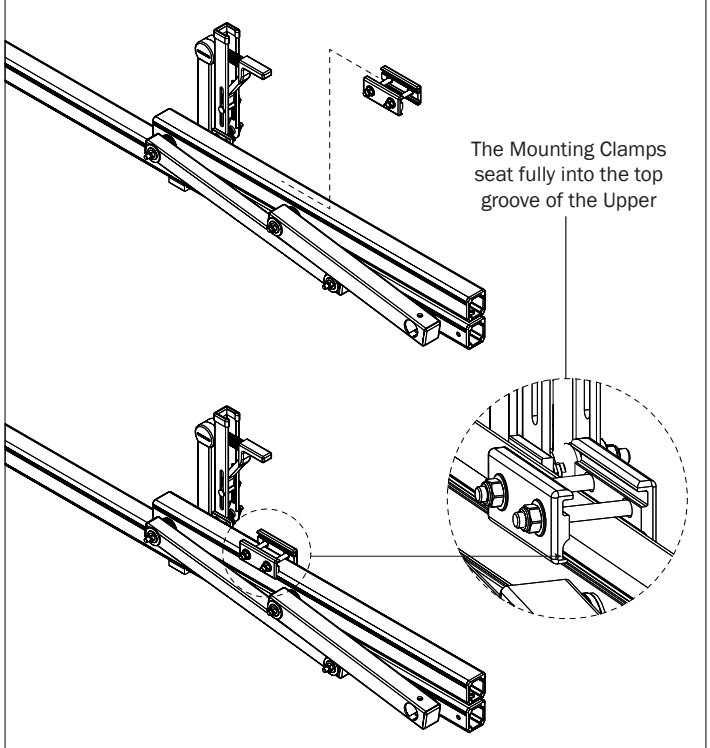


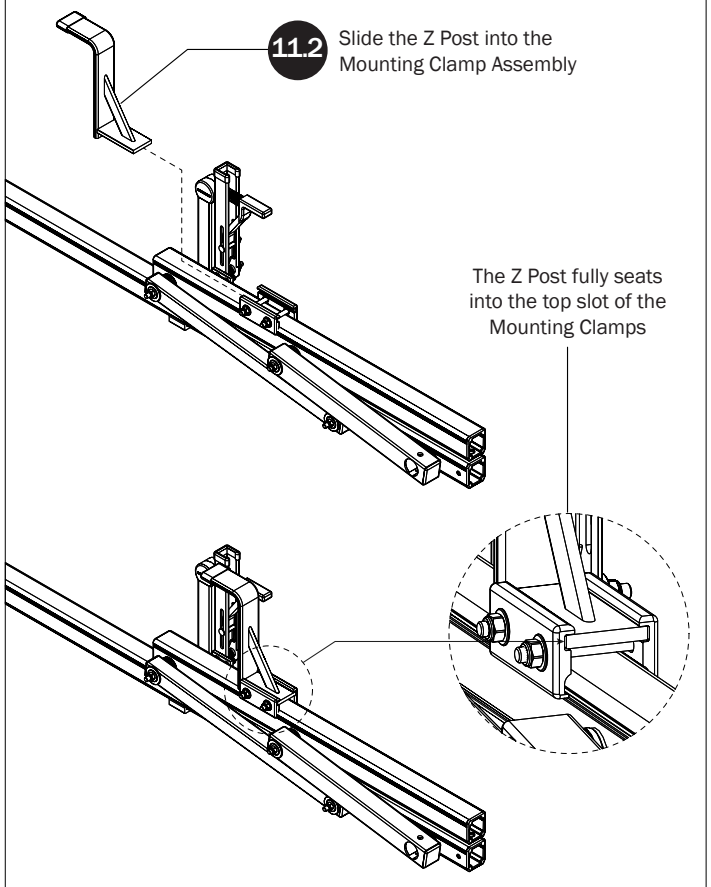


Z POSTS

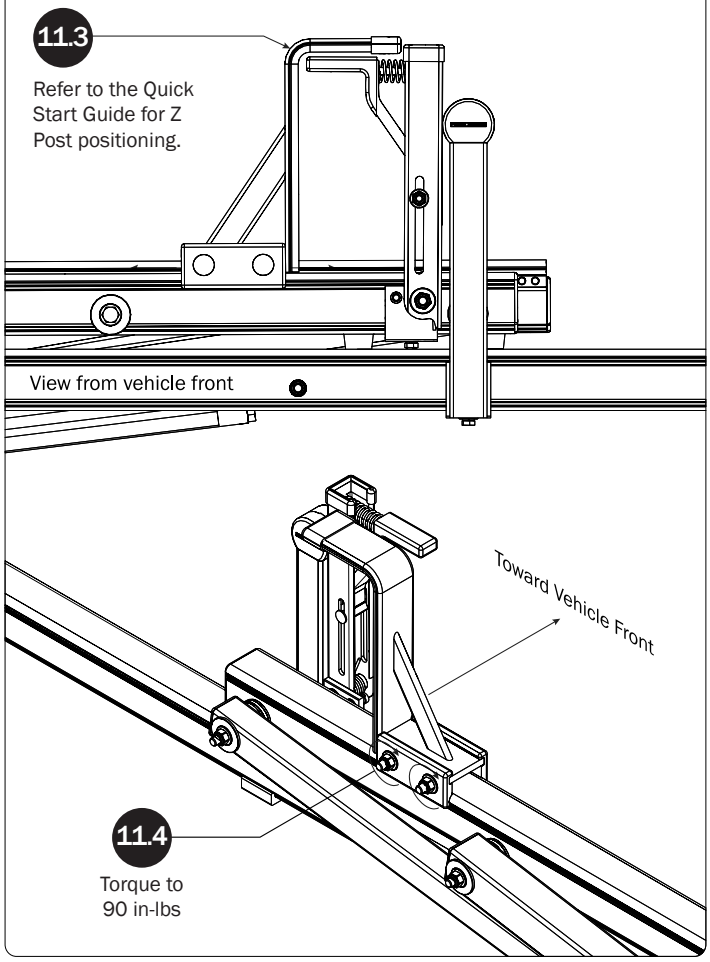
SEE QUICK START GUIDE FOR ADJUSTMENTS

11.1 Assemble the Z Post Mounting Clamp Assembly onto the Rotation Upper. Do not tighten until Step 11.4

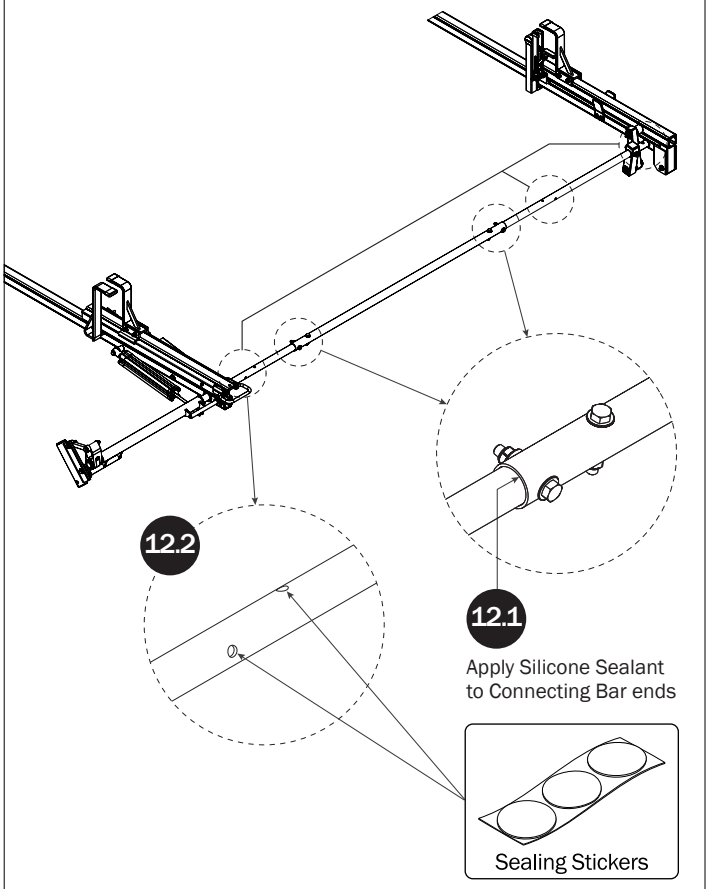




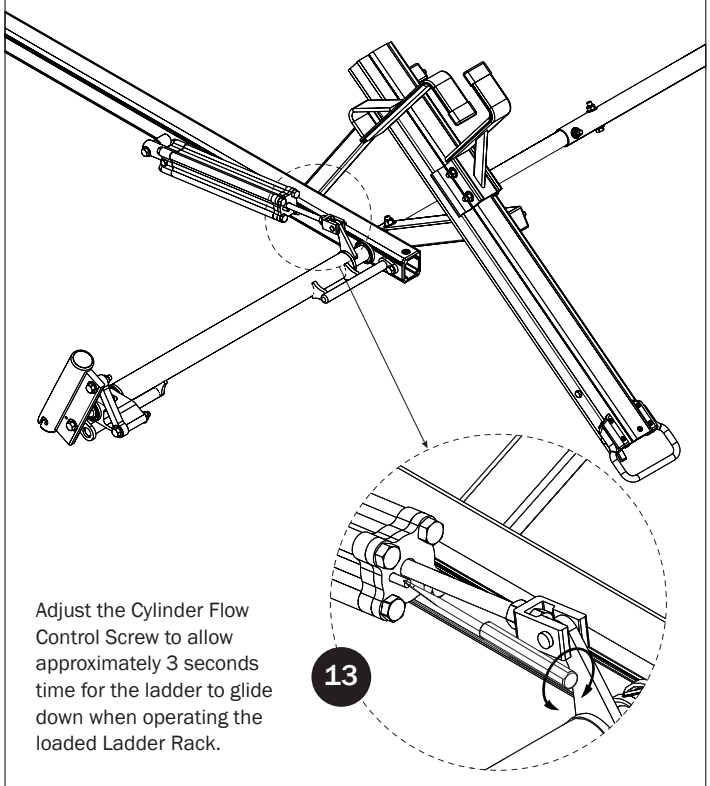
TM & © 2019 PRIME DESIGN. PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENT NO.'s 6764268, 6971563, 2364879, 8857689, 8511525, 8991889, 2271515, 2364897, 9506292, 9481313, 9481314, 9796340, 6202807, 6427889, 9415726 AND OTHER PATENTS PENDING



DRIVE SHAFT SEALING

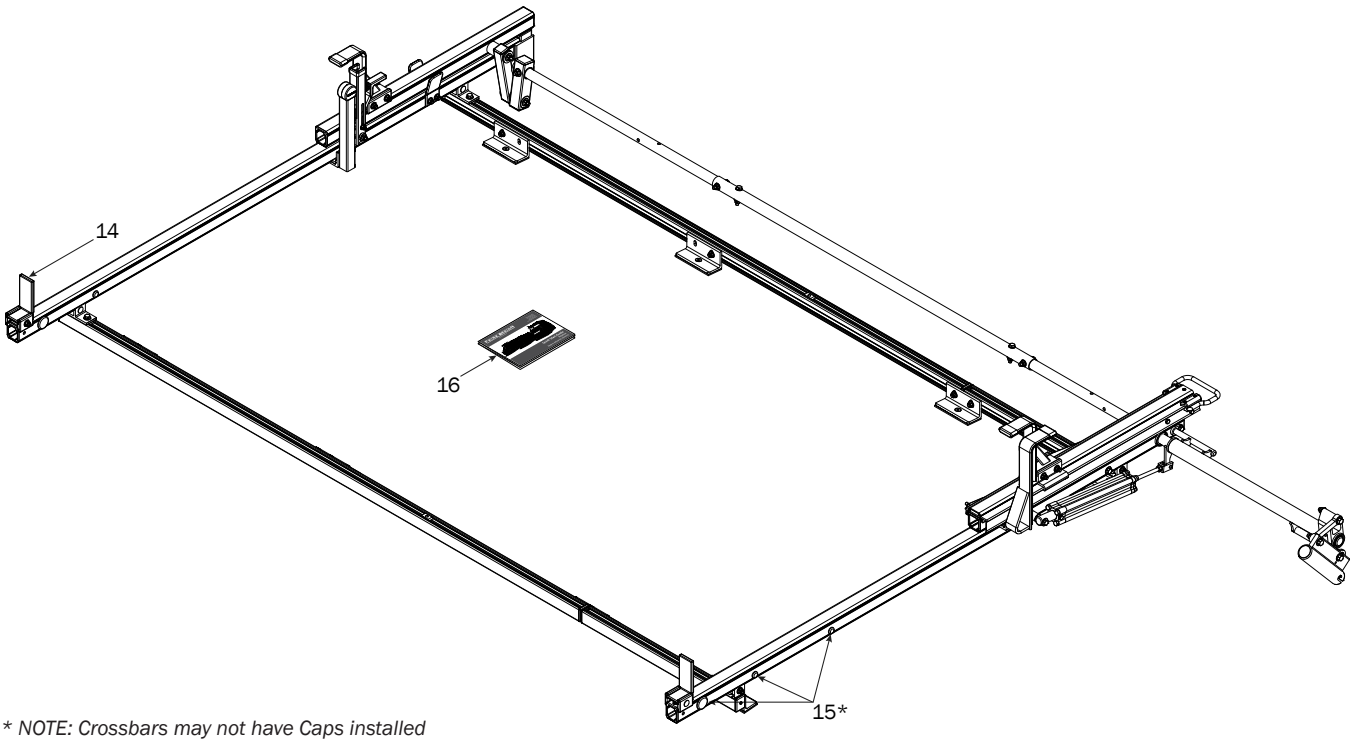


CYLINDER ADJUSTMENT



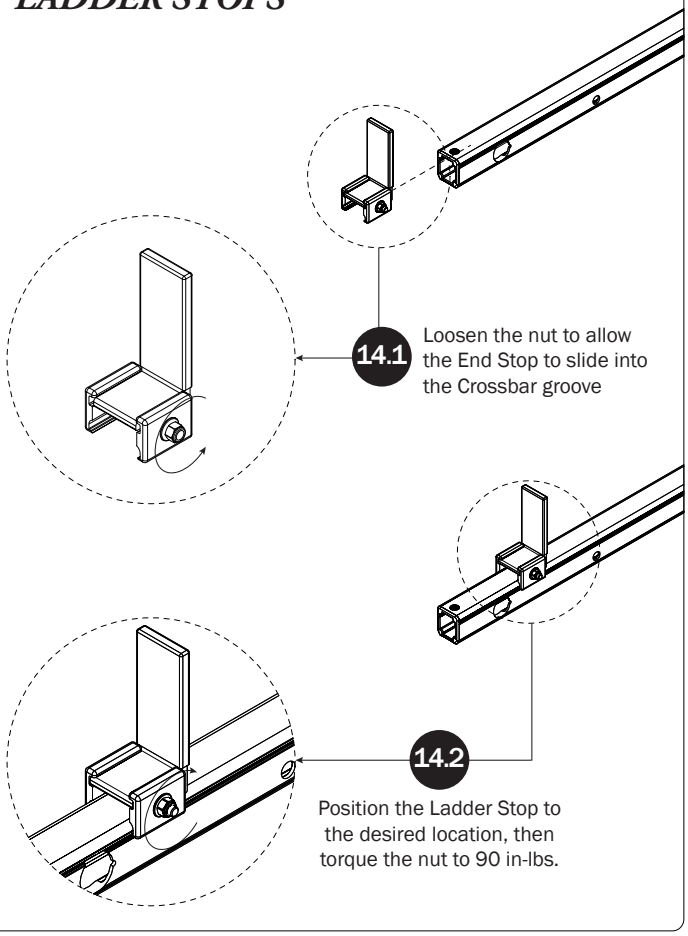
PRIME DESIGN, A SAFE FLEET BRAND • Address: 1689 Oakdale Avenue #102, West St Paul, Minnesota 55118 • Phone: 651-552-8554 • Toll Free: 1.8.PRIME.RACK • Fax: 651-552-1799 • Email: info@primedesign.net • Website: www.primedesign.net
TM & © 2019 PRIME DESIGN. PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENT NO.'s 6764268, 6971563, 2364879, 8857689, 8511525, 8991889, 2271515, 2364897, 9506292, 9481313, 9481314, 9796340, 6202807, 6427889, 9415726 AND OTHER PATENTS PENDING

LEFT SIDE ASSEMBLY SEQUENCE



** NOTE: Crossbars may not have Caps installed from the factory. If factory-installed, proceed to Step 14 and ignore Step 15. If not installed, Caps will be included in the Hardware Kit. Press them into the Crossbars as shown in Step 15.*

LADDER STOPS

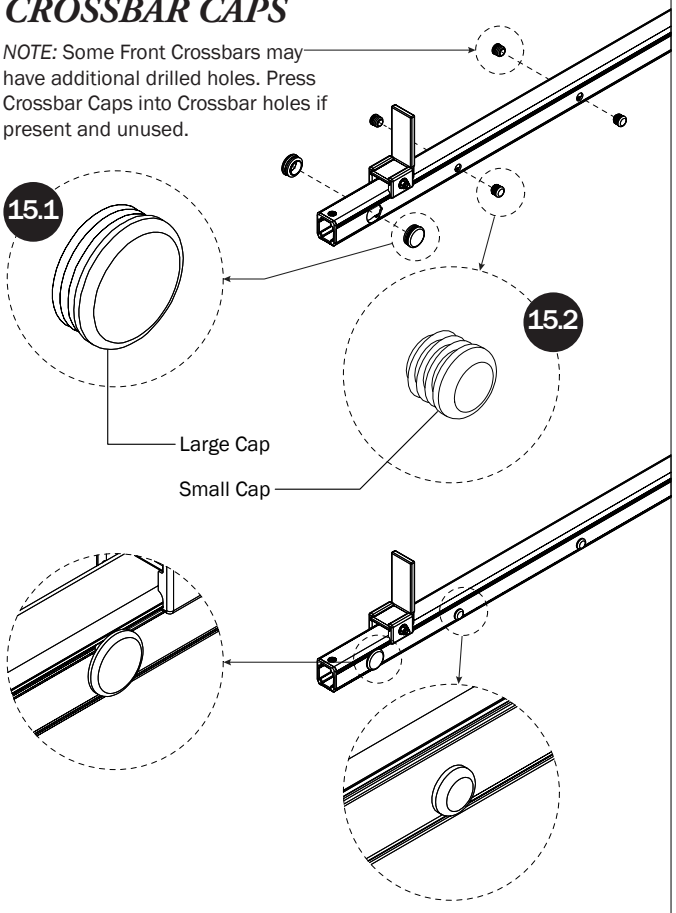


14.1 Loosen the nut to allow the End Stop to slide into the Crossbar groove

14.2 Position the Ladder Stop to the desired location, then torque the nut to 90 in-lbs.

CROSSBAR CAPS

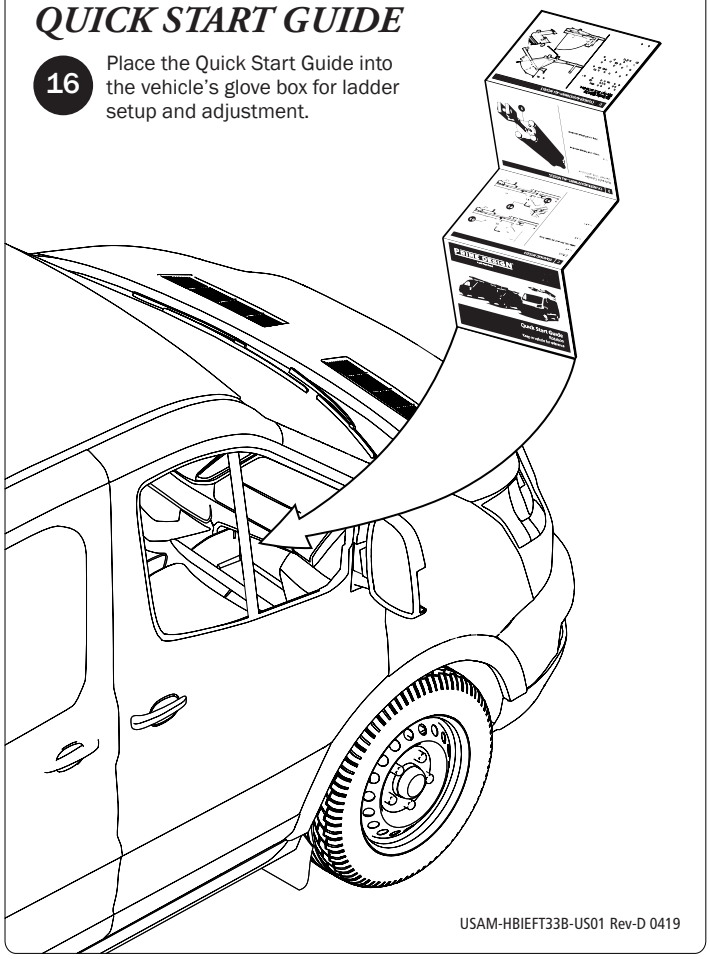
NOTE: Some Front Crossbars may have additional drilled holes. Press Crossbar Caps into Crossbar holes if present and unused.



PRIME DESIGN, A SAFE FLEET BRAND • Address: 1689 Oakdale Avenue #102, West St Paul, Minnesota 55118 • Phone: 651-552-8554 • Toll Free: 1.8.PRIME.RACK • Fax: 651-552-1799 • Email: info@primedesign.net • Website: www.primedesign.net
TM & © 2019 PRIME DESIGN. PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENT NO.'s 6764268, 6971563, 2364879, 8857689, 8511525, 8991889, 2271515, 2364897, 9506292, 9481313, 9481314, 9796340, 6202807, 6427889, 9415726 AND OTHER PATENTS PENDING

QUICK START GUIDE

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



USAM-HBIEFT33B-US01 Rev-D 0419

PRIME DESIGN, A SAFE FLEET BRAND • Address: 1689 Oakdale Avenue #102, West St Paul, Minnesota 55118 • Phone: 651-552-8554 • Toll Free: 1.8.PRIME.RACK • Fax: 651-552-1799 • Email: info@primedesign.net • Website: www.primedesign.net

TM & © 2019 PRIME DESIGN. PROTECTED BY ONE OR MORE OF THE FOLLOWING PATENT NO.'s 6764268, 6971563, 2364879, 8857689, 8511525, 8991889, 2271515, 2364897, 9506292, 9481313, 9481314, 9796340, 6202807, 6427889, 9415726 AND OTHER PATENTS PENDING