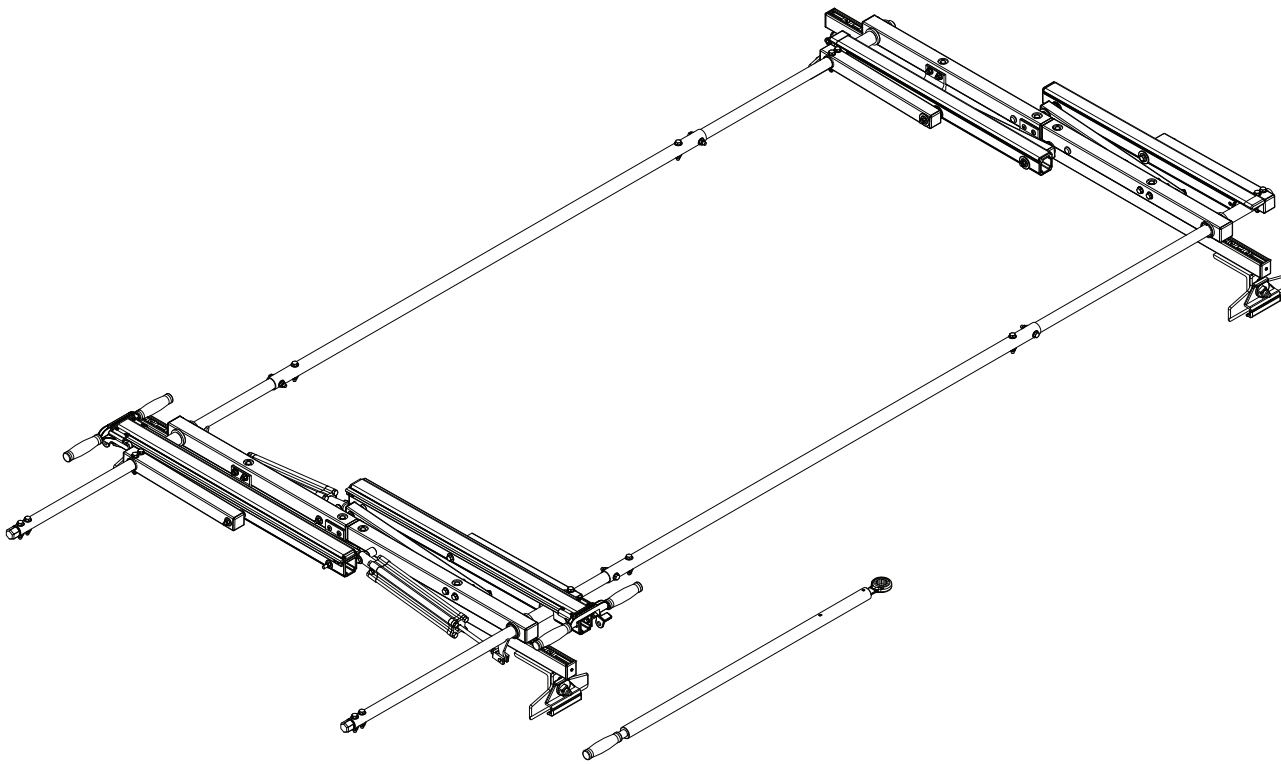


# PRIME DESIGN™

A Safe Fleet Brand

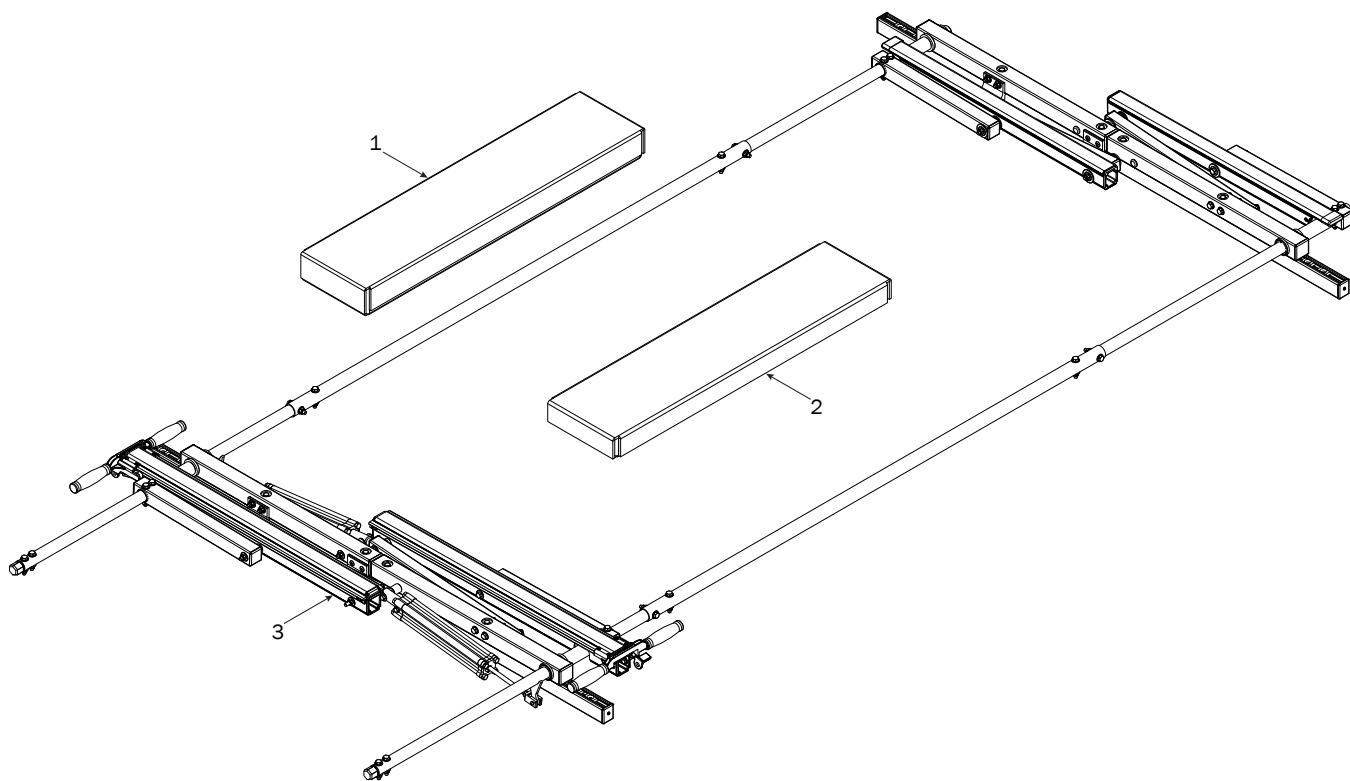


## *SHIP THROUGH BASE & PALLETIZED ROTATION ASSEMBLY*

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

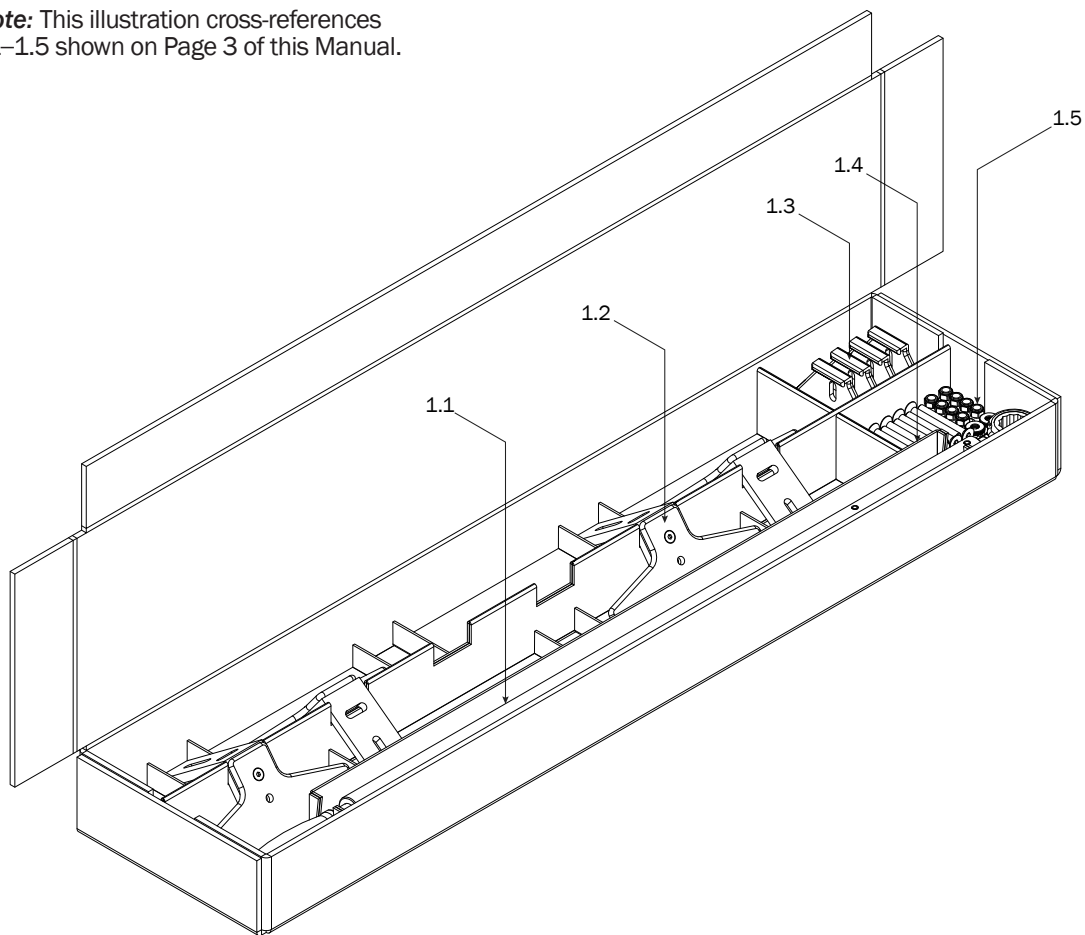
# VRR-GM31G-ST

## CONTENTS OVERVIEW

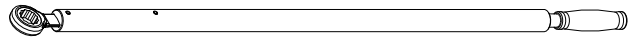


## 1—VRR-GM31G-ST-BASE

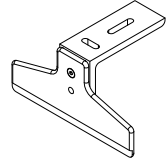
**Installer's Note:** This illustration cross-references with parts 1.1–1.5 shown on Page 3 of this Manual.



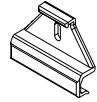
- 1.1—Ratcheting Handle ..... (Qty 1)  
Stow into vehicle cargo hold.



- 1.2—Mounting Bracket, Gutterless ..... (Qty 4)



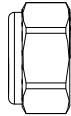
- 1.3—Z Plate ..... (Qty 4)



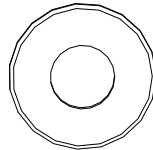
- 1.4—HKT-0106 ..... (Qty 1)  
Mounting Bracket Hardware Kit



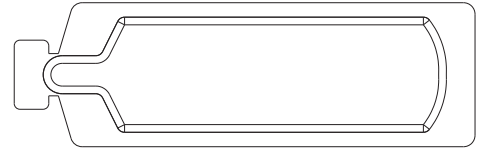
M8 X 65MM (8X)



M8 Lock Nut (8X)

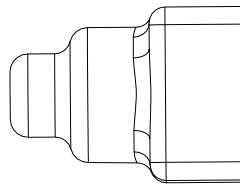


5/16" Flat Washer (8X)

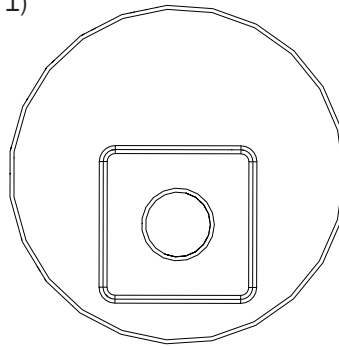


Anti-Seize (1X)

- 1.5—HKT-8417 ..... (Qty 1)  
Z Plate Hardware Kit



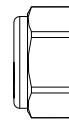
Z Plate Cam Bolt Cap (4X)



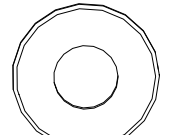
Z Plate Cam (4X)



M8 X 45MM (4X)

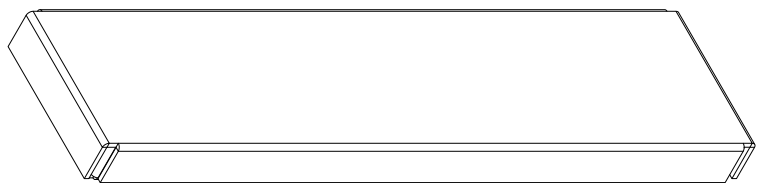


M8 Lock Nut (4X)

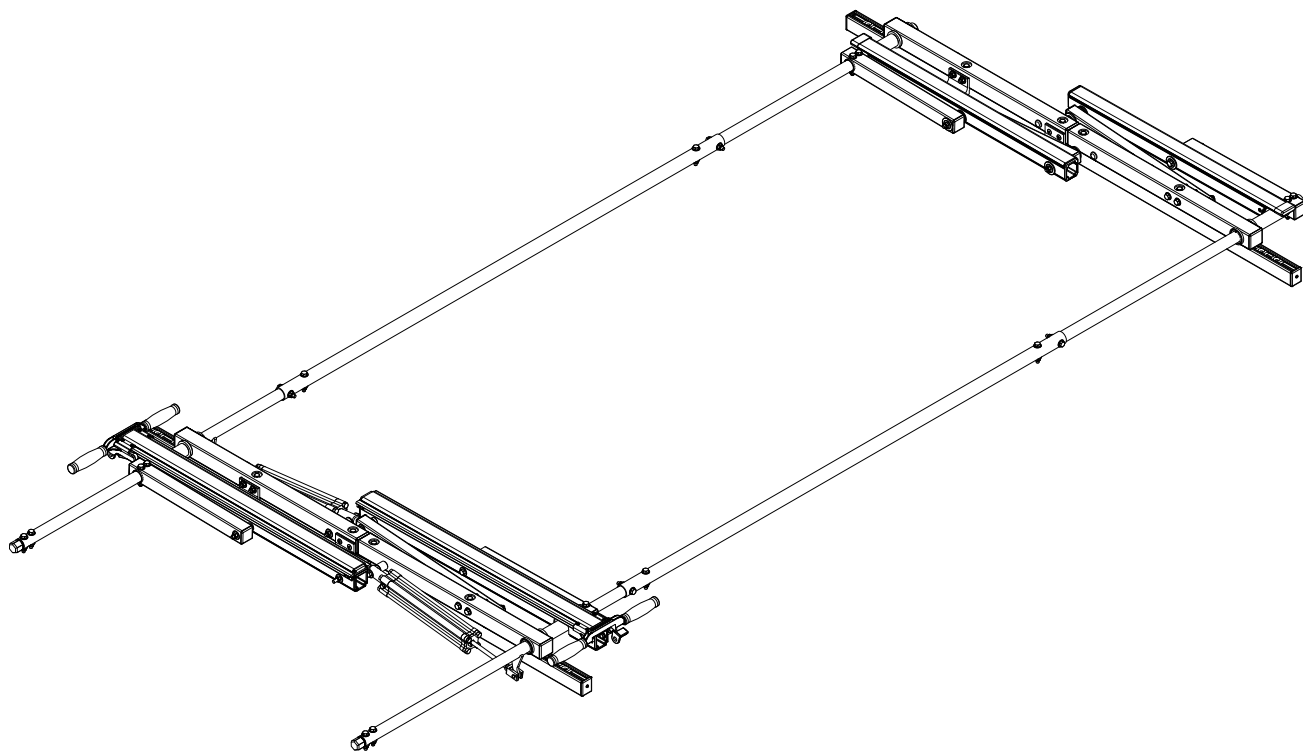


5/16" Flat Washer (4X)

- 2—STB-0001 SHIP THRU BOX ..... (Qty 1)  
Do not open. Stow into vehicle cargo hold.



3—VRR-9003 ..... (Qty 1)  
 Factory Assembled Rotation Assembly



### ***RECOMMENDED ASSEMBLY TOOLS (NOT INCLUDED)***

**Installer's Note:** Do not use power tools to tighten fasteners. Power tools may lead to overtightening and cause damage to the vehicle, or the Ladder Rack hardware. Use only hand tools as shown below.

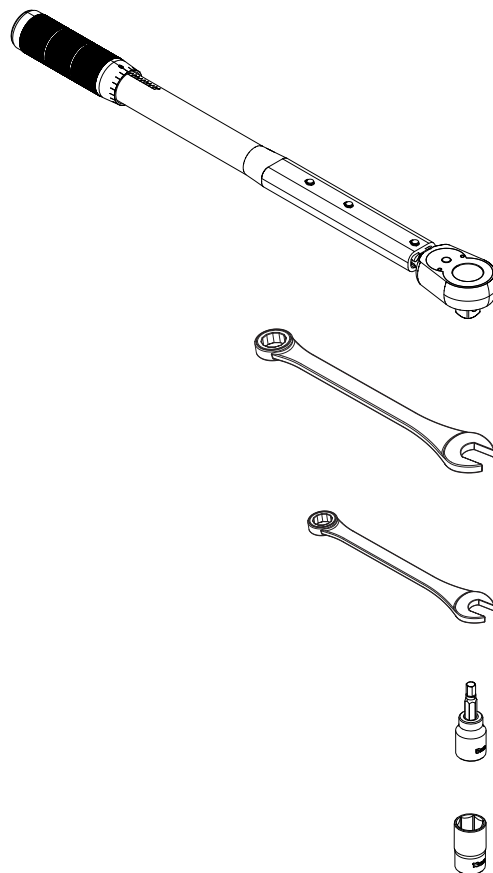
Torque Wrench (inch-pound), 3/8" drive

Combination Wrench, 19MM  
*Used for Mounting Bracket Cam*

Combination Wrench, 13MM  
*Used for Mounting Bracket Cam,  
 then followed with Torque Wrench*

5MM Hex Bit Socket, 3/8" drive

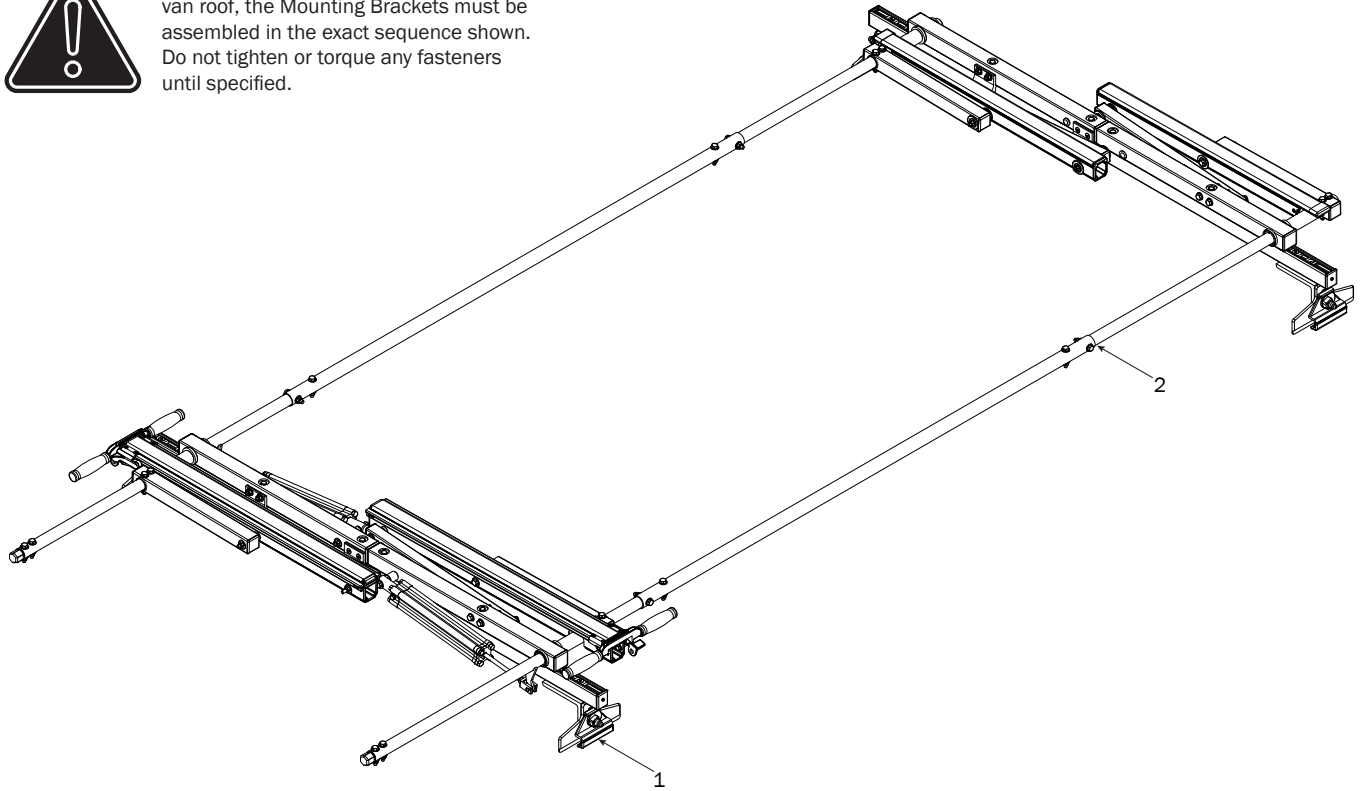
6 pt. 13MM Socket, 3/8" drive



## FBM ASSEMBLY SEQUENCE

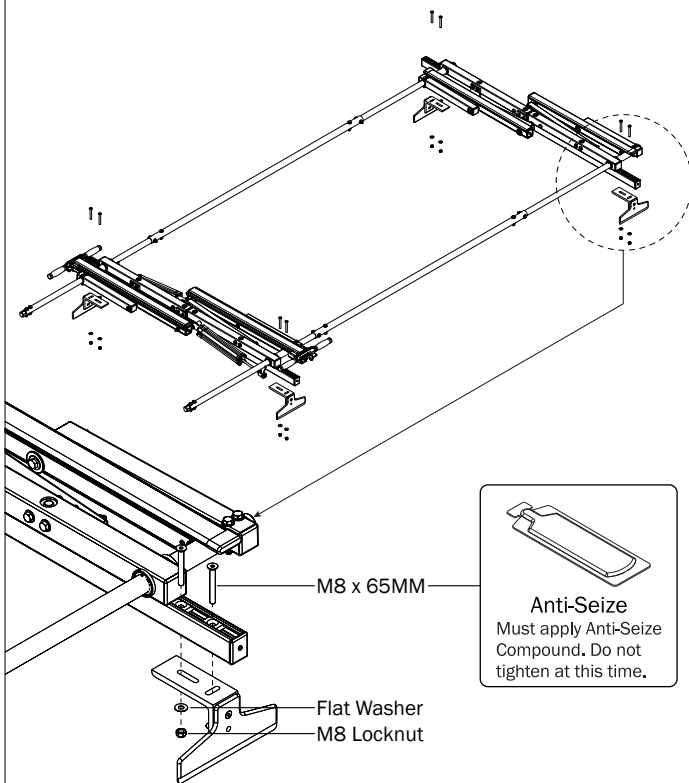


Due to the compound curves on the GM van roof, the Mounting Brackets must be assembled in the exact sequence shown. Do not tighten or torque any fasteners until specified.

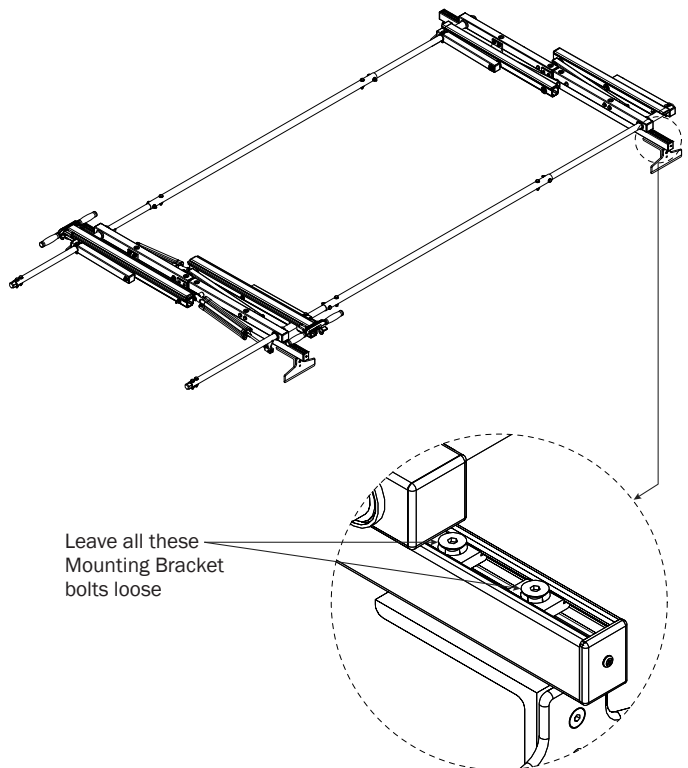


## MOUNTING BRACKETS

- 1.1** Apply Anti-Seize to all M8 x 65MM Flat Head Screws, then install the Mounting Brackets using the hardware shown.

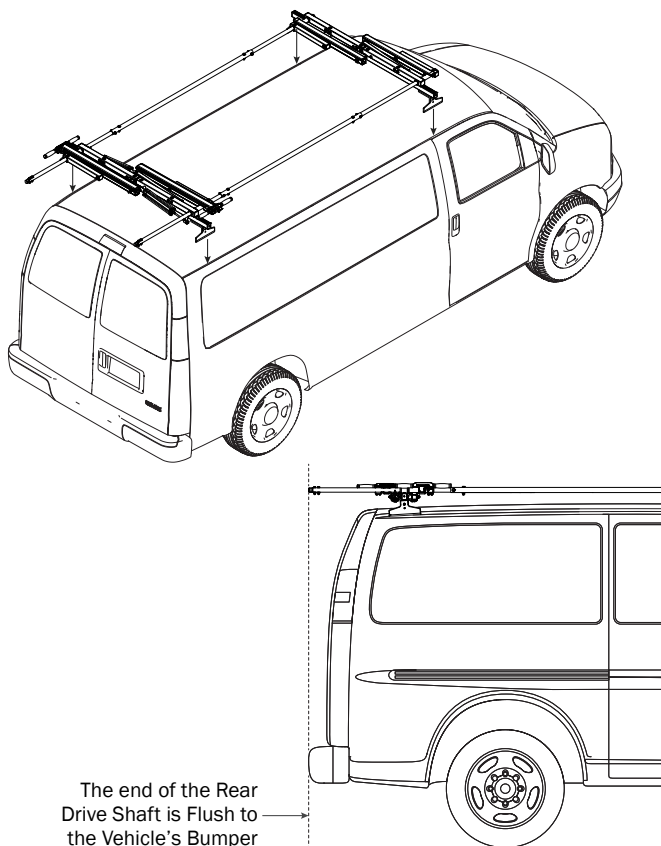


- 1.2** Leave all indicated screws on all the Mounting Brackets loose at this time. Do not tighten screws until Step 1.7



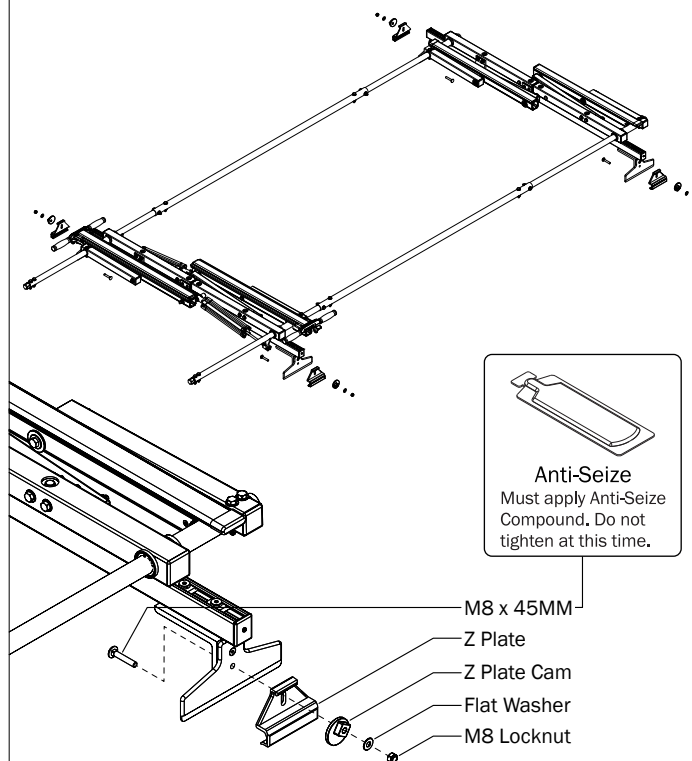
1.3

Using two or more people, lift and position the Ladder Rack onto the vehicle.



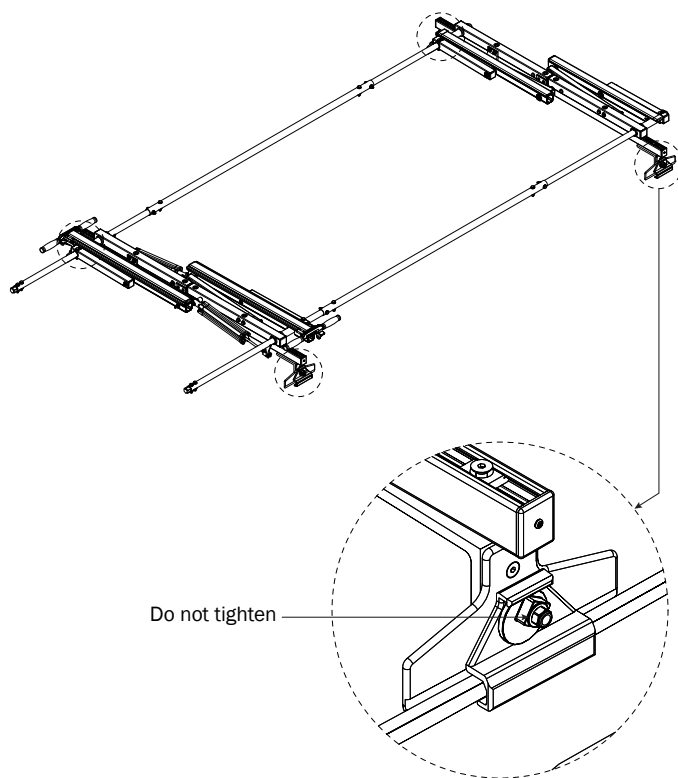
1.4

Apply Anti-Seize to all M8 x 65MM Carriage bolts, then install the Z Plates using the hardware shown. Do not tighten screws until Step 1.8



1.5

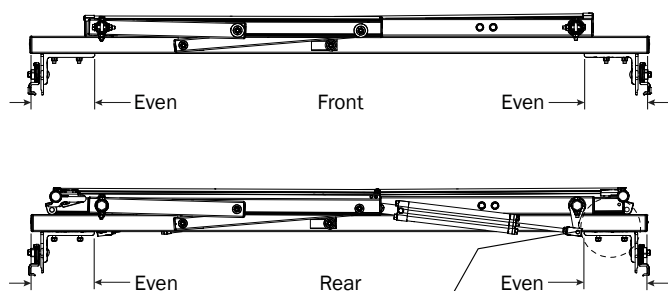
Leave all indicated screws on all the Mounting Brackets loose at this time.



## CROSSBAR ADJUSTMENT

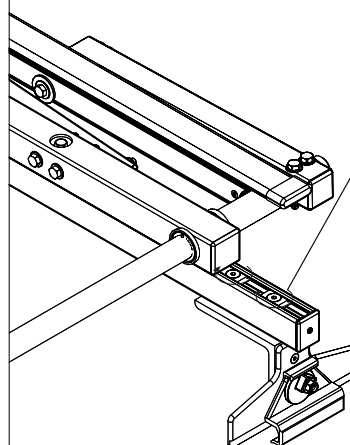
1.6

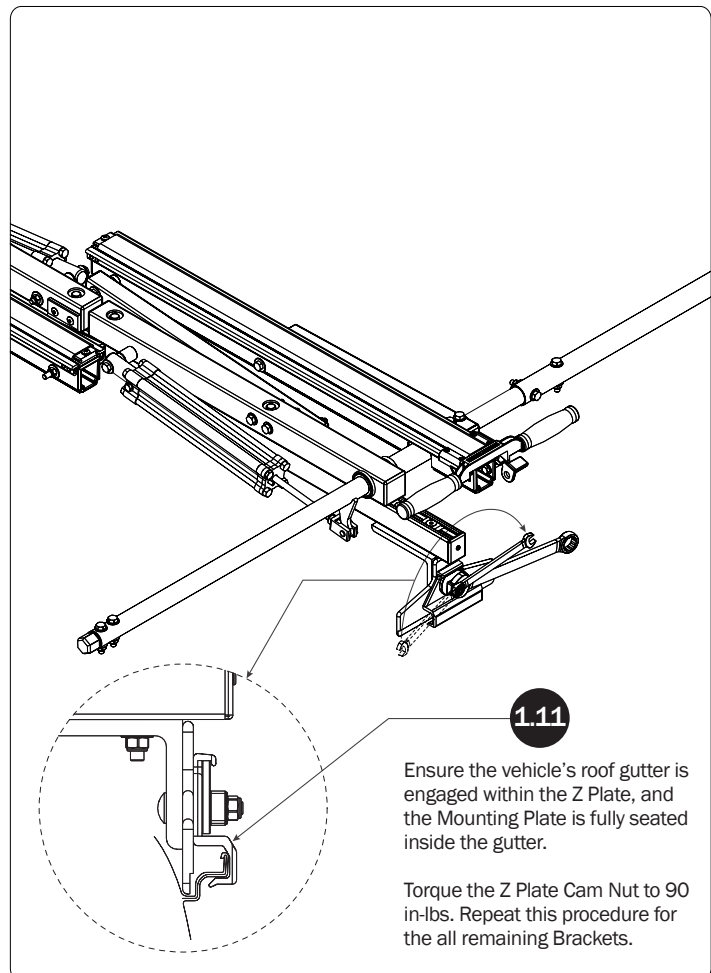
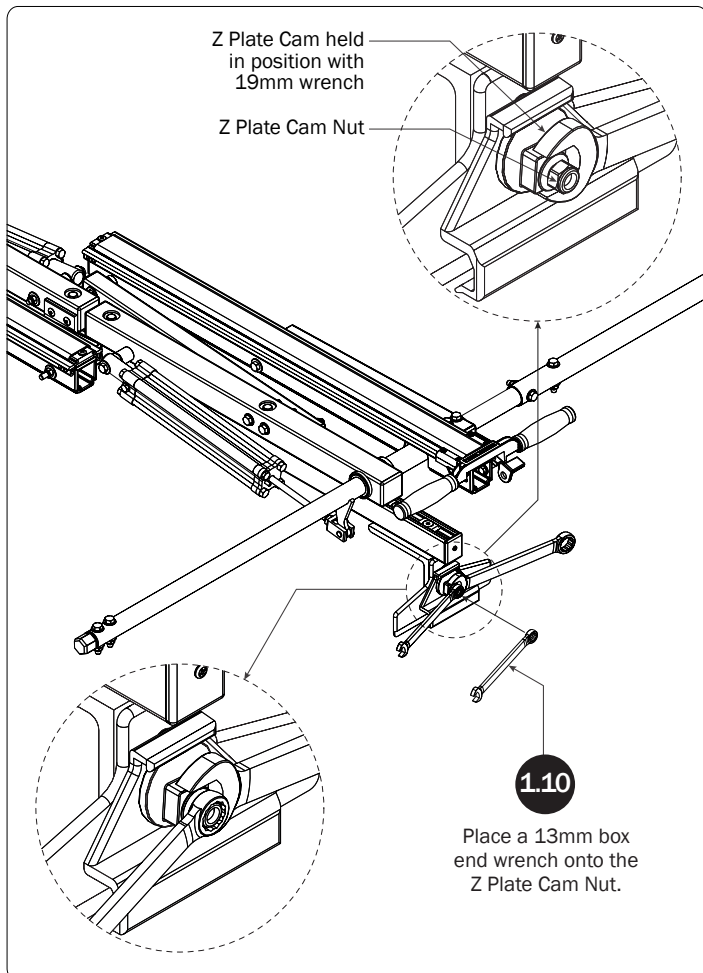
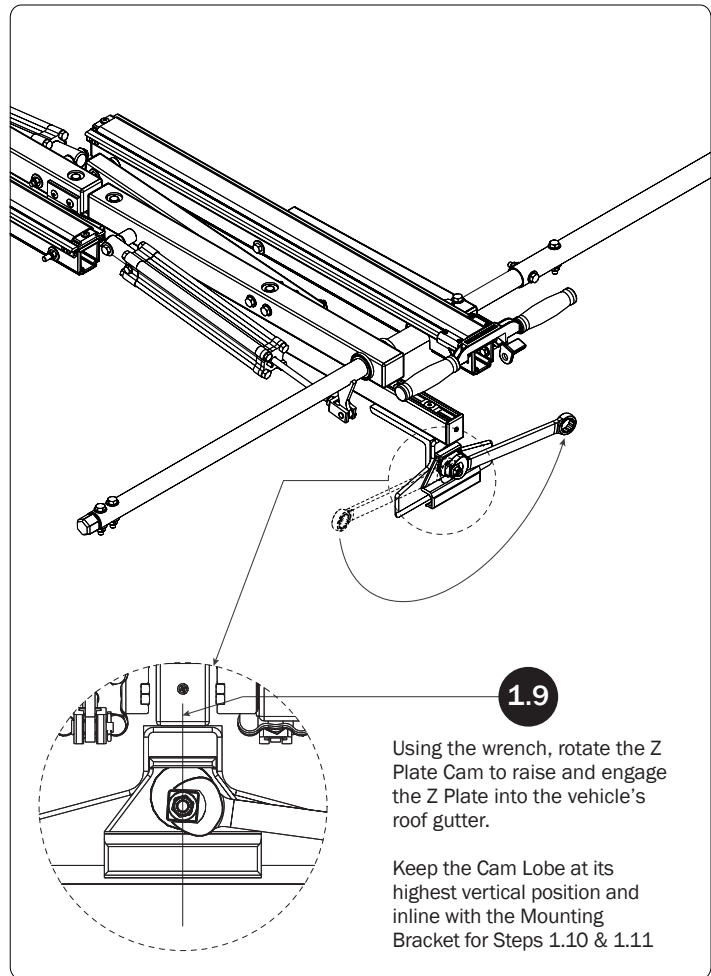
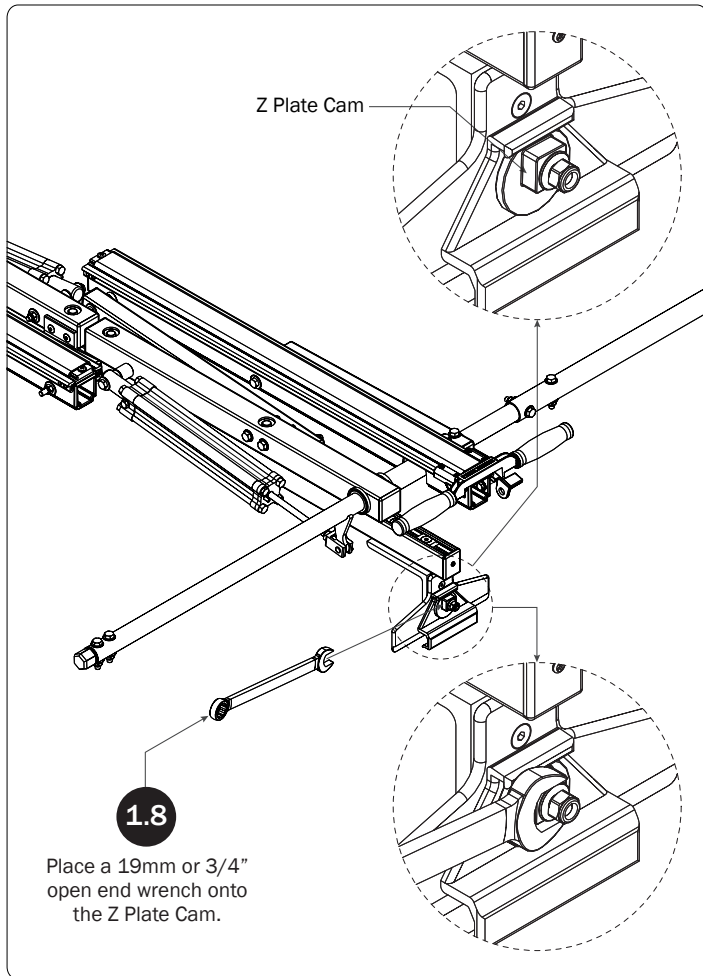
Position all Crossbars onto the Mounting Brackets as shown below.



1.7

Torque all of these Screws to 90 in-lbs

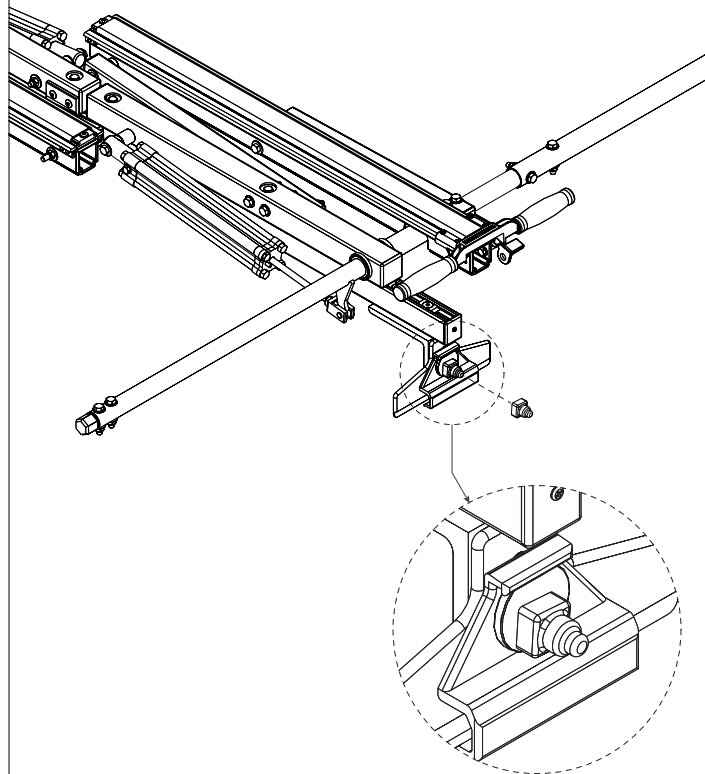






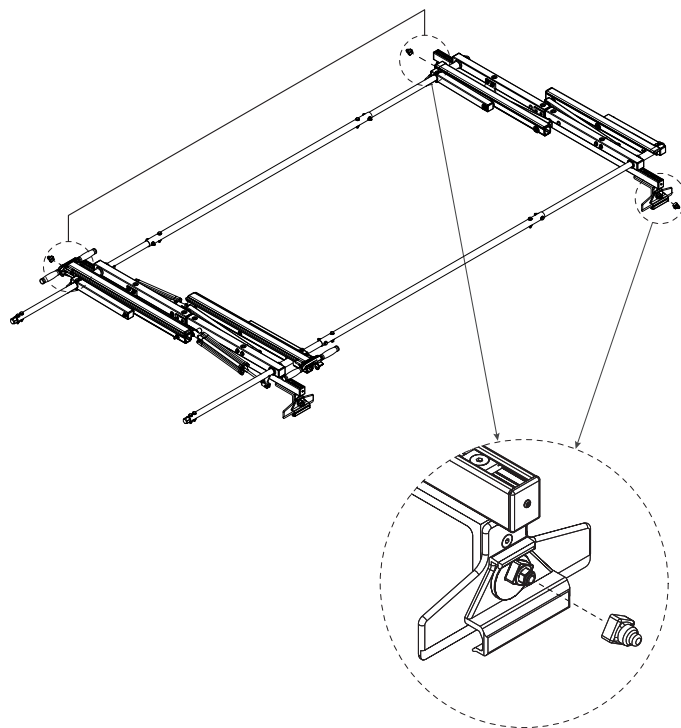
1.12

Press a plastic Z Plate Cam Nut Cap onto the Cam Nut.



1.13

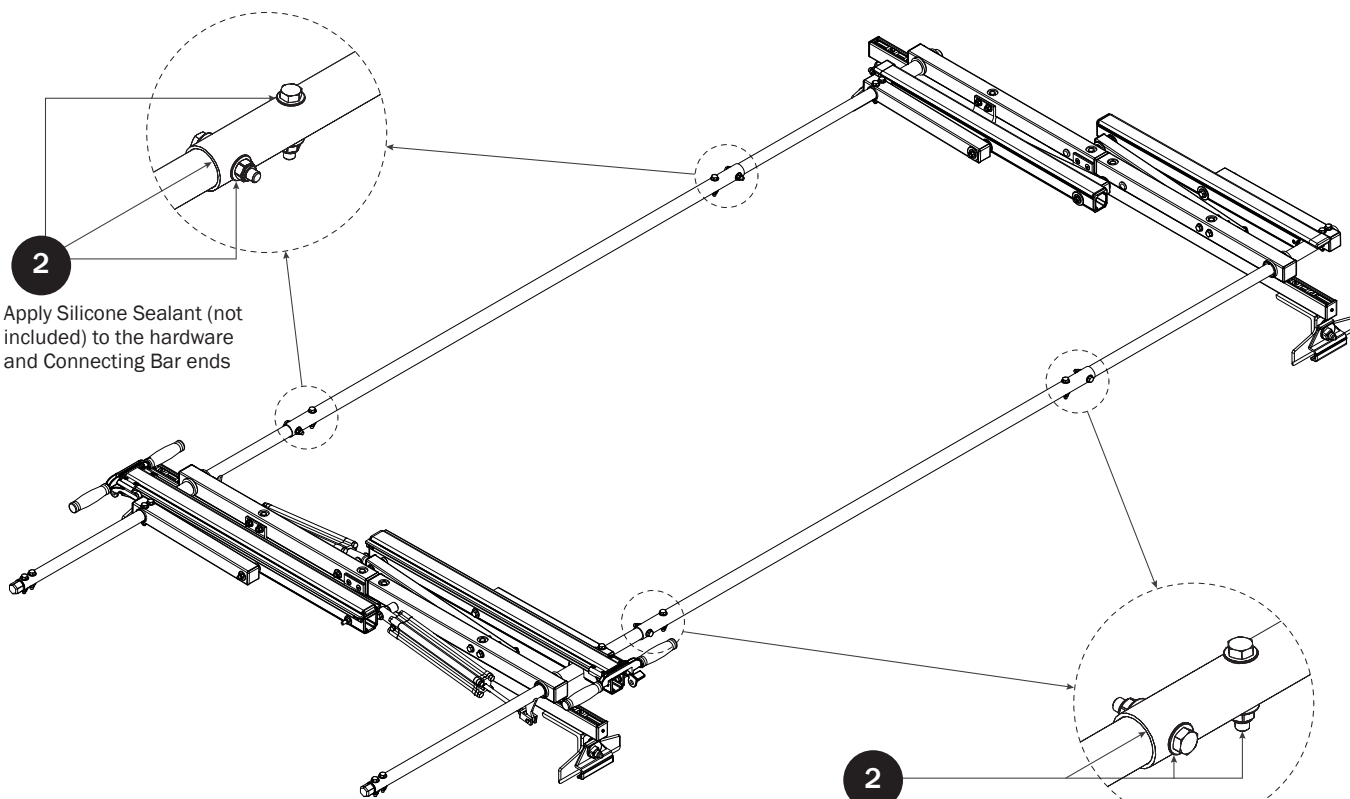
Press the remaining plastic Z Plate Cam Nut Caps onto the remaining exposed Cam Nuts.



### DRIVE SHAFT SEALING

2

Apply Silicone Sealant (not included) to the hardware and Connecting Bar ends



2

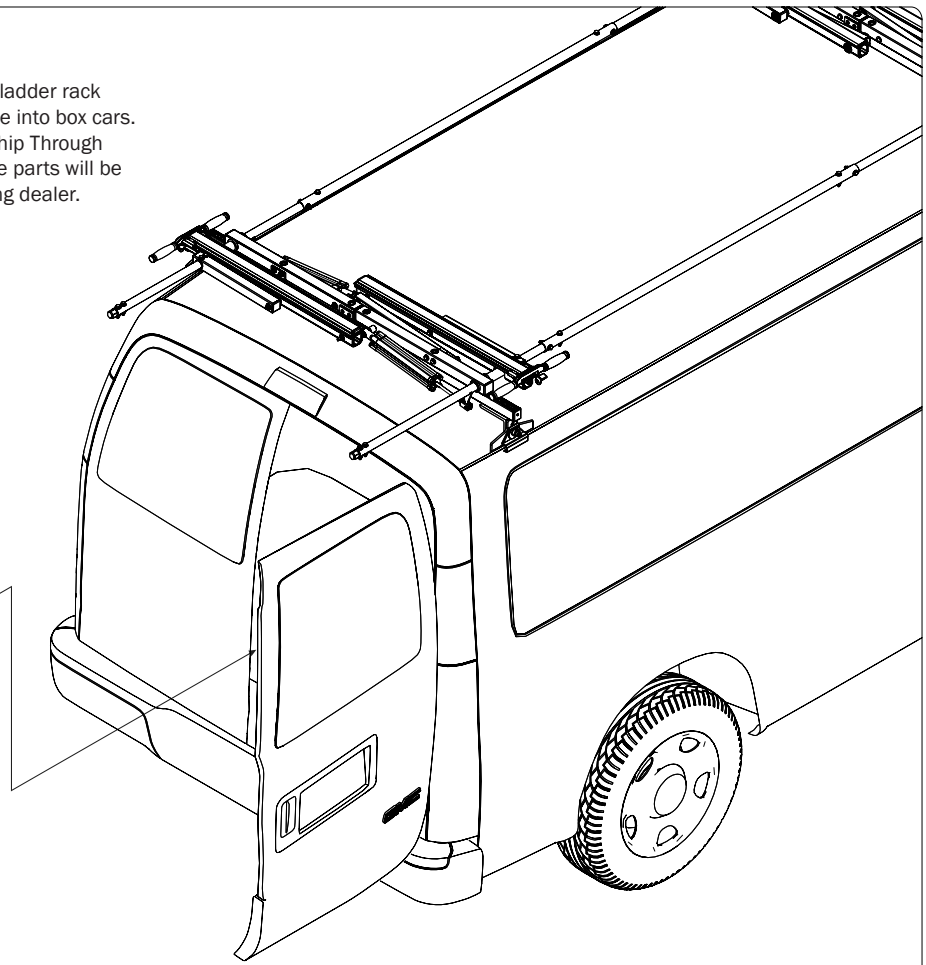
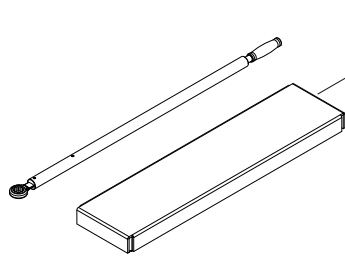
Apply Silicone Sealant (not included) to the hardware and Connecting Bar ends



## BOX AND HANDLE



This completes the highest level of ladder rack assembly prior to placing the vehicle into box cars. Place the Ratcheting Handle and Ship Through Box into the van's cargo hold. These parts will be installed and tested by the delivering dealer.



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