



**PRODUCT: JL/JT Dog Leg Tie Rod, Rubicon Edition**

REV: C | 10-07-2020 | II-7622

**READ INSTRUCTIONS IN FULL BEFORE INSTALLATION.  
QUESTIONS? CALL 916-631-8071 M-F 7:00 AM – 5:00 PM PST**

The MetalCloak experience includes the ease of installation of our products. We design for most contingencies, but installation may be different based on different Jeep condition, configuration and/or year.

We are continually trying to improve our products and instructions – please help us by providing feedback and pictures if you find any part of the instructions that do not match your particular Jeep or are not easily understandable.

If you have any difficulties at all, please give us a call. Thank you and enjoy your MetalCloak Products!

**IMPORTANT NOTE: We use Stainless Steel Hardware where possible. Therefore, a tube of Silver Anti-seize is provided and should be used on all bolts—only a small amount is needed.**

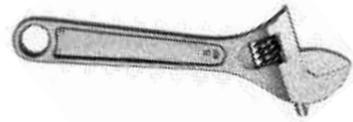
**WARRANTY INFORMATION:** This article is sold without warranty expressed or implied. No warranty or representation is made as to this products ability to protect the user from injury or death. The user assumes that risk. The effectiveness, warranty and longevity of this equipment are directly related to the manner in which it is INSTALLED, USED and/or MAINTAINED. THE USER ASSUMES ALL RISK. By purchasing this product and opening the packaging, purchasers expressly acknowledge, understand and agree that they take, select and purchase these MetalCloak products from Armored Works, LLC, its affiliates and distributors and agents as is and with all faults. The entire risk as to the quality and performance of these MetalCloak products is with the purchaser. Working on your vehicle can be a dangerous activity. If you are unsure of what you are doing, please leave mechanical or safety critical work to a skilled mechanic. We take no responsibility for the incorrect use and/or installation of MetalCloak products.

## Section 1: Tools & Notes on Installation

**Tools Required:** This list is the recommended tools for ease of installation. Other versions of the same tool can be used. For example, Allen Wrenches instead of Allen Drive Sockets.



Ratchet



Large Adjustable Wrench



21mm Socket    14mm Socket  
13mm Socket    18mm Socket  
19mm Socket    7/16" Socket  
17mm Socket



Tape Measure

Hammer



5/16" Wrench  
14mm Wrench



Electric Drill  
3/8" Drill Bit



3/16" Allen Socket



**HOW TO USE THIS GUIDE:** The installation guide contains ALL steps for installation. Please read and follow the instructions in order of each page top to bottom, and left to right.

**Jeep Model:** Instructions may apply to multiple Jeep models, but are labeled separately where appropriate (i.e. TJ vs. LJ).

**Options:** Because of the number of component options we offer, these instructions may contain steps that will not match your particular configuration. You can skip these steps.

**Images:** Pictures are provided and parts are labeled throughout the instructions. Each text box contains guidance based on the pictures next to it. The text will refer to alphabetical labels (A, B, etc.) found in the images.

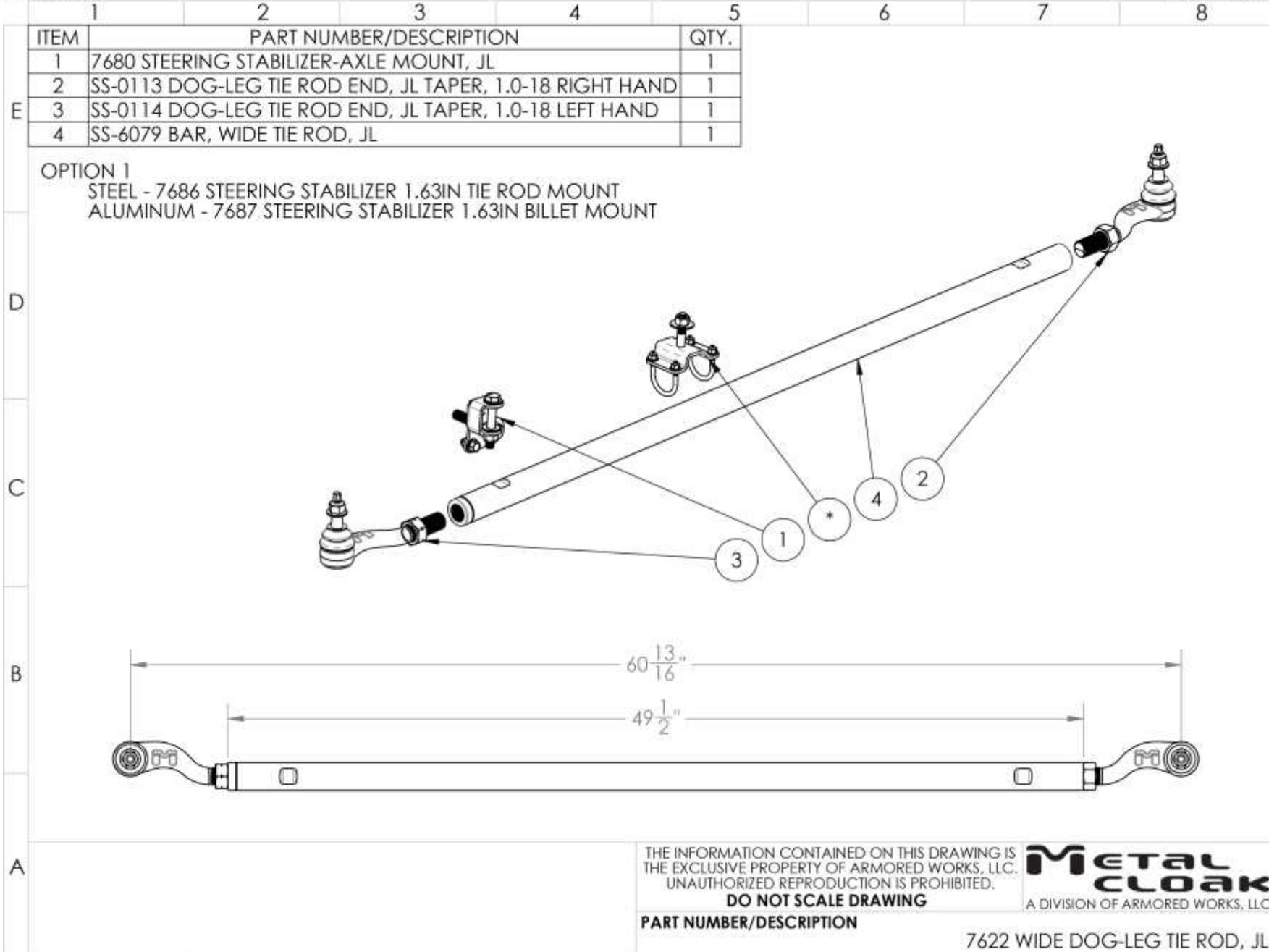
**Installation Notes:** Terms may be used in the body of the instructions that you may not be familiar with, if you have any questions feel free to contact us at the number below, or email [techhelp@metalcloak.com](mailto:techhelp@metalcloak.com)

**QUESTIONS:** Any questions or comments about the instructions? Call us at 916-631-8071 M-F 7:00 AM – 5:00 PM PST.

## Section 2: Product Components

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SHEET 1 OF 1



## Section 3: Installation Instructions



**Important Note:** *Stick on wheel weights are recommend on your wheels, clip on weights "may" have a slight interference with the tie rod.*

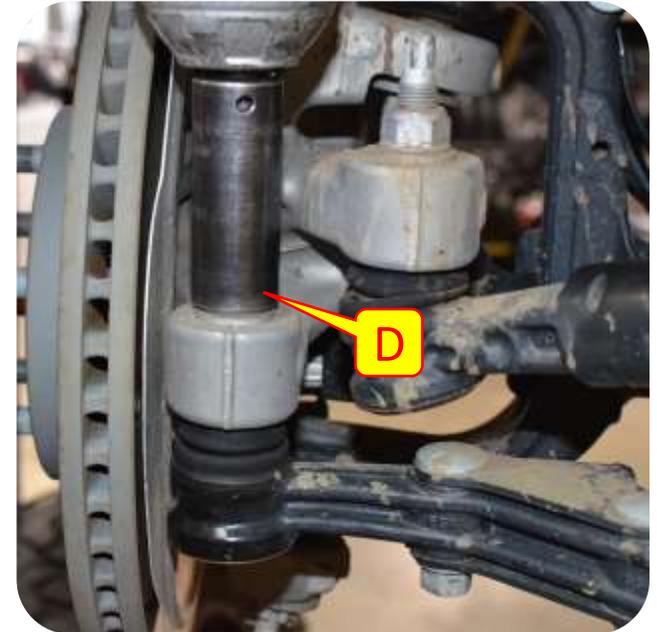
**Important Note:** *The tie rod nylock nuts that are included are a one time use ONLY; they should be replaced with a new one if removed.*

## Section 3: Installation Instructions



### Step 1: Preparation for Tie Rod

- A. Use a jacks to support the front axle of the jeep while you remove the wheels.
- B. Using a 18mm socket disconnect the factory steering stabilizer.
- C. Using a 13mm socket disconnect the stock steering stabilizer bracket from the axle. *(The hardware for the stock bracket will not be reused. MetalCloak recommends reinstalling or saving the hardware if you choose to install the MetalCloak front axle disconnect skid plate.)*
- D. Use a 21mm socket to remove the nuts at each end of the tie rod. Remove tapered studs from knuckles. You may need to hit with a hammer or use a tie rod removal tool to remove.



## Section 3: Installation Instructions



### Step 2: Install Tie Rod

E. Assemble tie rod dog leg ends on tie rod.

**Note:** *The Tie Rod ends have different handed threads and the rod is made accordingly. The dog legged end with the notched nut should be installed on the notched end of the tie rod bar.*

F. Using a 5/16 wrench install the grease zert into the dog leg tie rod ends.



## Section 3: Installation Instructions

### Step 3: Install Tie Rod Stabilizer Mount

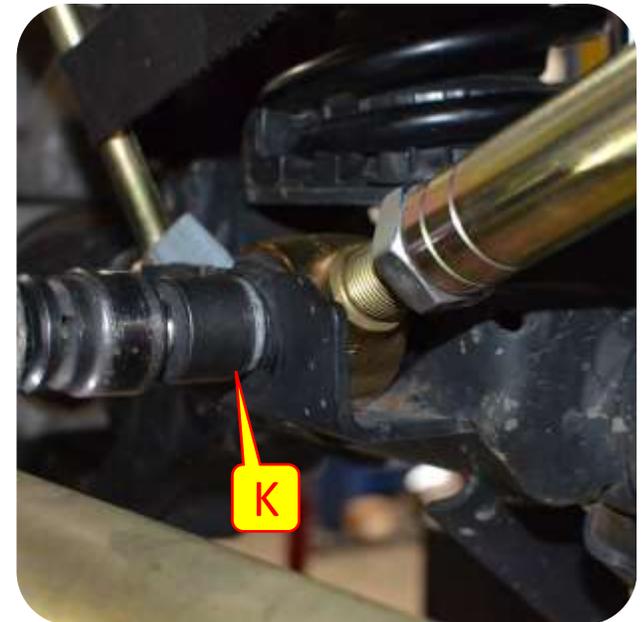
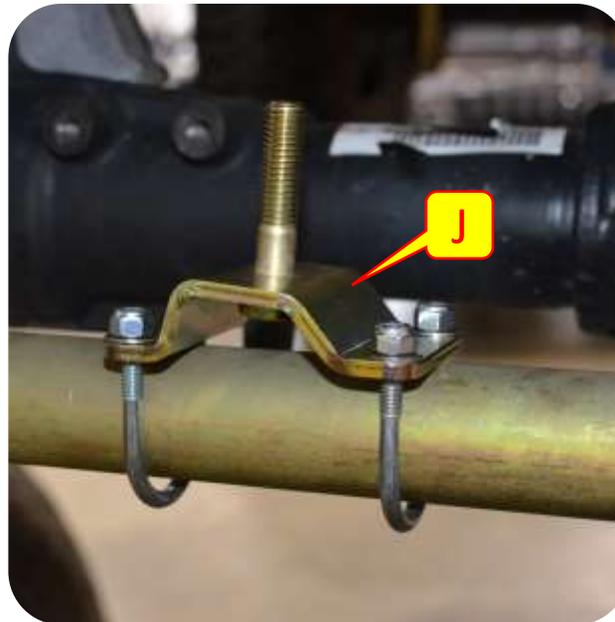
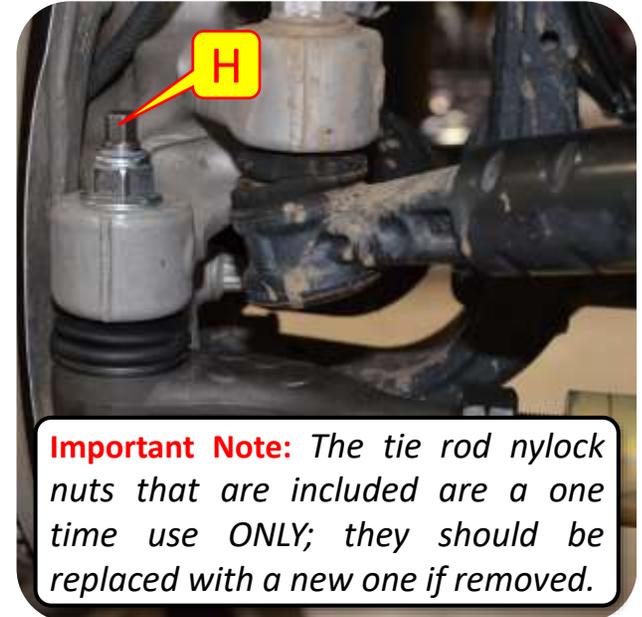
H. Using a 21mm socket install the tie rod into the knuckles.

**Note:** once the tie rod is attached to the knuckles, install the tires and lower the vehicle to the ground and adjust your steering toe.

I. Once your steering toe is adjusted use an adjustable wrench and tighten the dog leg end nuts.

J. Install the steering stabilizer tie rod mount to the tie rod loosely with the provided hardware.

K. Using a 21mm socket remove the front track bar bolt at the axle side (Just remove the bolt, leave the trackbar in place).



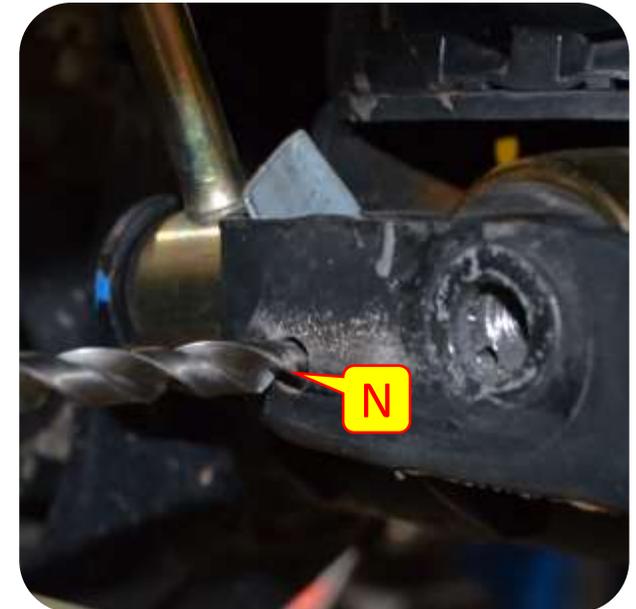
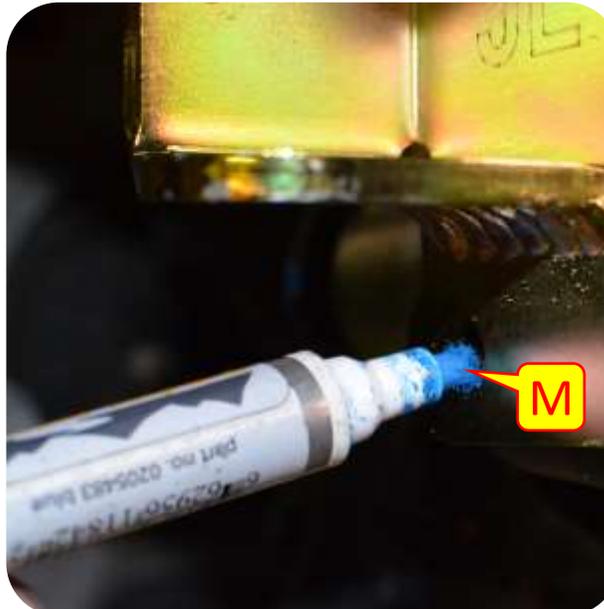
## Section 3: Installation Instructions



### Step 4: Install Steering Stabilizer Axle Mount

- L. Install the steering stabilizer Axle mount using the track bar bolt.
- M. Mark the second hole in preparation for drilling.
- N. Remove the steering stabilizer axle mount and drill the marked location with a 3/8" drill bit (*MetalCloak recommends drilling a pilot hole and stepping up to a 3/8" drill bit*).

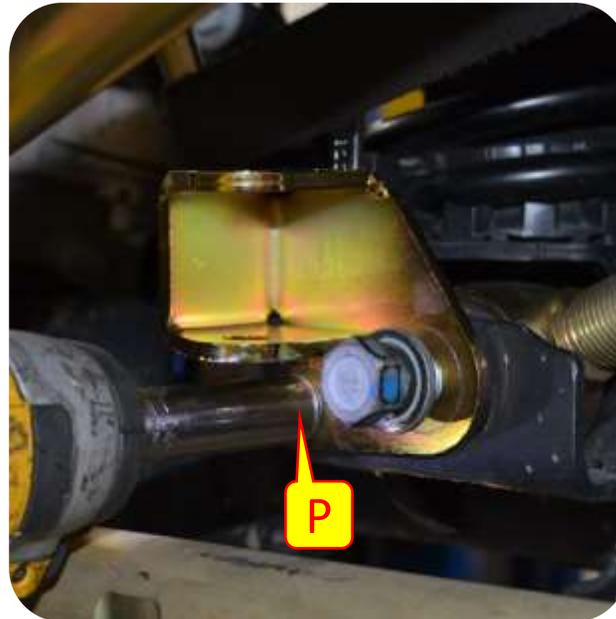
**Note:** *MetalCloak recommends painting any exposed metal to help prevent rust.*



## Section 3: Installation Instructions

### Step 4: Install Steering Stabilizer Axle Mount

- O. Install the steering stabilizer axle mount.
- P. Using a 14mm socket and wrench fully tighten the axle mount bolt
- Q. Tighten the track bar bolt using a 21mm socket.

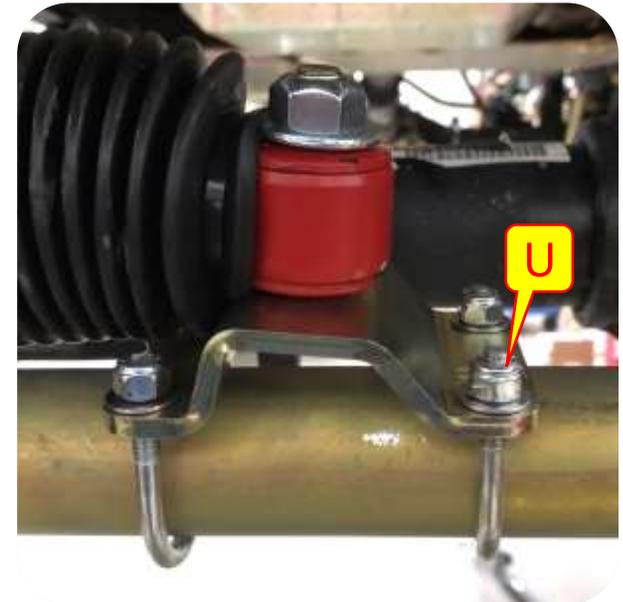
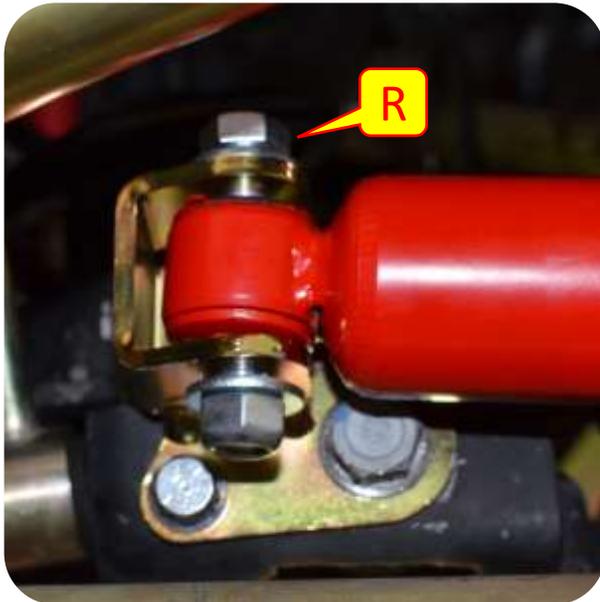


## Section 3: Installation Instructions



### Step 5: Install the Steering Stabilizer

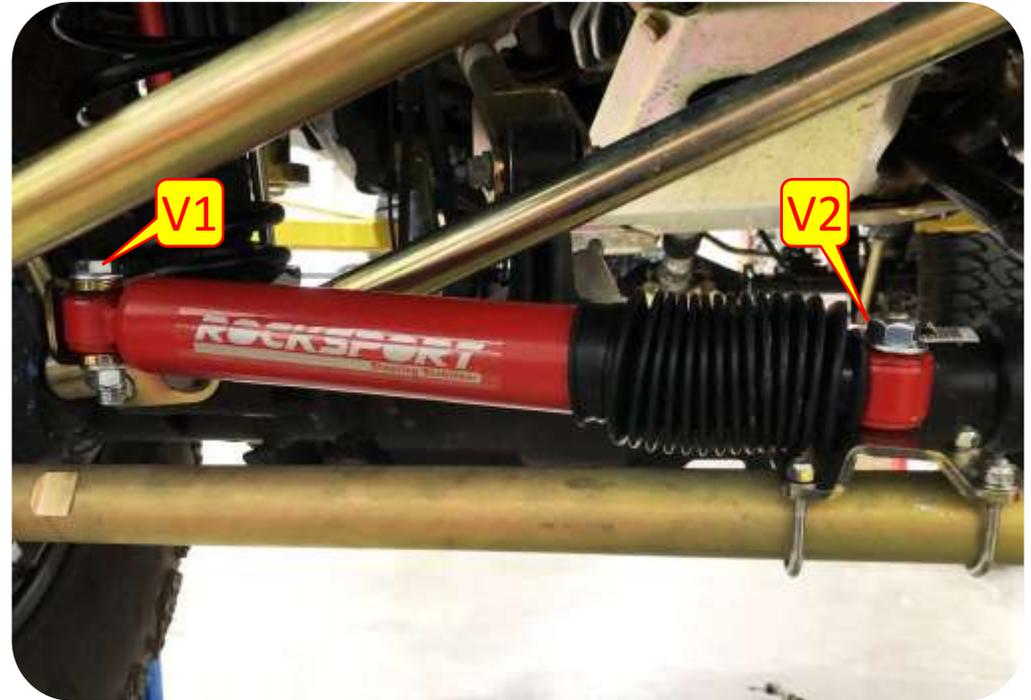
- R. Install the axle side of the steering stabilizer using the provided hardware hand tight.
- S. Turn the steering wheel all the way driver and fully extend the steering stabilizer.
- T. Move the tie rod bracket to the new location and install the stabilizer hand tight.
- U. Using a 7/16" socket tighten the tie rod mount U-bolts to the tie rod.



## Section 3: Installation Instructions

### Step 5: Install the Steering Stabilizer

V. Using a 19mm socket tighten both ends of the steering stabilizer.



**Note:** MetalCloak's recommends after installation that you check your steering by turning the wheel "from lock to lock" by turning the wheel all the way to the right and then all the way to the left; make sure there is not any interference that may limit the turning radius of the Jeep.

## Section 3: Installation Instructions

### Step 6: Billet Mount Option

**Important Note:** MetalCloak highly recommends using anti-seize on all bolts.

- A. Using the provided allen head bolts loosely mount the billet bracket to the tie rod.
- B. Turn the steering wheel all the way driver and fully extend the steering stabilizer.
- C. Move the billet mount to the new location and install the stabilizer hand tight using the provided washer and bolt.
- D. Using a 3/16" allen socket tighten the bolts of billet mount to the tie rod. Make sure the bolts are tightened evenly.
- E. Using a 17mm socket tighten the stabilizer bolt.

