

## **INSTALL INSTRUCTIONS**

**Application : 2018-2019 Jeep Wrangler JL**

**JL Rear Tire Carrier Only: 518RTC0B**

**JL Rear Mid-Width Bumper & Carrier: 5182R1B-TC**

**JL Rear Full-Width Bumper & Carrier: 5183R1B-TC**

## I WARNING

Read the instructions completely before beginning installation. Before tightening bolts, drilling or cutting where required, check to make sure there are no obstructions such as brake, fuel or electrical lines which may be damaged. Also keep in mind this is an after-market product and MAY require minor shimming and/or trimming, reaming, etc. for proper fit. Road Armor is not responsible for any damages to vehicle.

## ⓘ IMPORTANT NOTICE

- Be sure to inspect and test fit your product to ensure proper fitment before having it coated, painted, bed lined, etc.
- Road Armor will not be responsible for the cost of coating your unit if any problems with fit or finish are not noted and addressed beforehand.

## SAFETY FIRST!

- FOLLOW ALL INSTRUCTIONS, YOUR SAFETY AND THE SAFETY OF OTHERS IS MOST IMPORTANT.
- WEAR APPROPRIATE EYE PROTECTION AND EXERCISE CAUTION WHEN DRILLING / CUTTING

## REQUIRED TOOLS

Metric and SAE Socket Sets and Wrenches

Bearing / Race Driver Set

Grease Gun / Grease (Packing Bearings)



Drill & 2" Metal Hole Saw

2" Flap Wheel (Clean Hole)



3" Cutoff Wheel (or 1.5" Hole Saw)

36mm Socket (Spindle Nut)



## INCLUDED HARDWARE

- |  |                                     |
|--|-------------------------------------|
| (1) 1/2" x 1.5" Bolt Tabs              | (3) 1/4" x 1" Bolts                 |
| (2) 1/2" x 3" Bolts                    | (3) 1/4" Nut                        |
| (10) 1/2" Nuts                         | (6) 1/4" USS Washers                |
| (22) 1/2" Large Washers                | (2) 5/16" x 1.5" Bolts              |
| (10) 1/2" Lock Washers                 | (2) 5/16" Nut                       |
| (7) 1/2" Keeper Washers                | (4) 5/16" USS Washers               |
| (7) 1/2" x 1.5" Carriage Bolts         | (5) 3/8" x 1" Bolts                 |
| (1) 1/2" Right & Left Hand Jam Nuts    | (5) 3/8" Nut                        |
| (1) 1/2" Right & Left Hand HEIM Joints | (10) 3/8" USS Washers               |
| (1) 1/2"-20 Right & Left Hand Rod End  | (4) License Plate Screw & Nylon Nut |
| (2) 1/2"x1" Spacer Sleeves             | (3) M14 Wheel Studs                 |
| (1) Tailgate Isolator                  | (1) 1" Nylon Nut                    |

## &

## TIRE CARRIER PARTS

- (1) 1" Large Washer
- (1) Large O-RING
- (1) Timken Seal
- (2) Timken Bearing & Race Set
- (1) ROAD ARMOR Logo Cap
- (2) 16 Gauge Shims
- (1) Main Carrier Frame
- (1) PSG Side Spindle Mount
- (1) Tailgate Mount
- (1) STD Length Wheel Mount (2 Pcs.)
- (1) Isolator Bracket
- (1) License Plate / Camera Mount (2 Pcs.)

# **\*\*37 INCH TIRES MAXIMUM\*\***

**1** Main Carrier Frame

**2** PSG Spindle/Frame Bracket

**3** Tailgate Mount

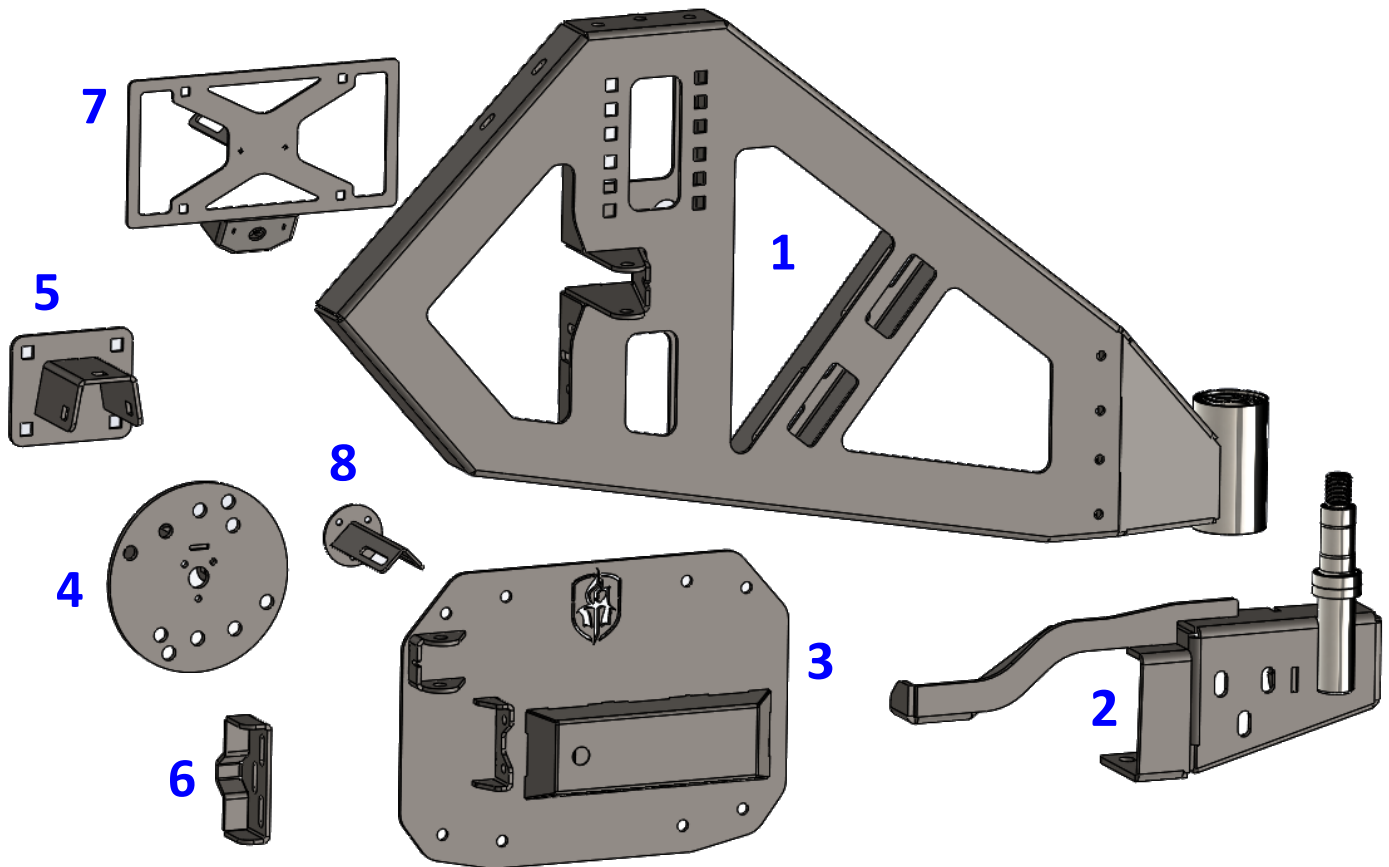
**4** Wheel Bracket

**5** Wheel Bracket Base

**6** Isolator Bracket

**7** Main License Plate & Back-Up Camera Bracket

**8** License Plate Bracket Base



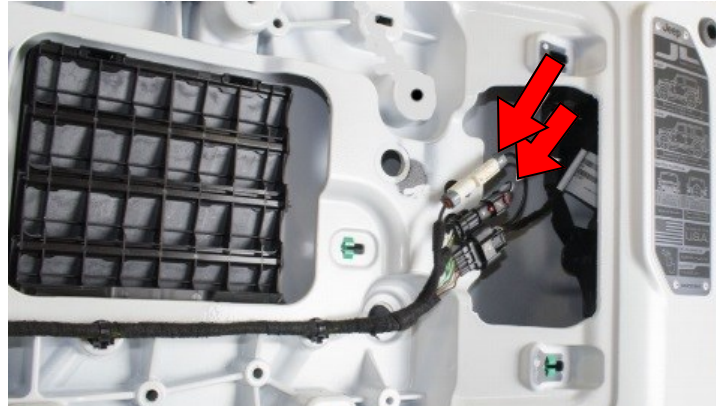
# **\*\*37 INCH TIRES MAXIMUM\*\***



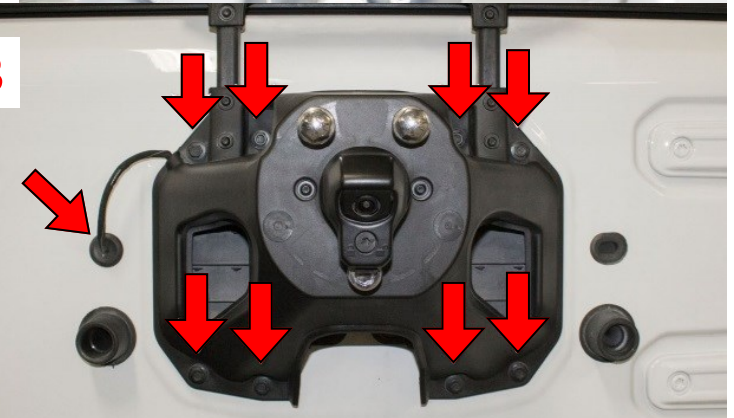
- 1 Remove the spare tire from tail gate and set it aside.
- 2 On the inside of the tailgate, remove the plastic cover. Unplug two top plugs and unclip all harnesses and grommets.
- 3 Using a 13mm socket, remove the 8 bolts securing the spare tire carrier mount to the tailgate. **\*\*SAVE BOLTS\*\***
- 4 Remove both vent plates in center of tailgate from back side of vents.



2

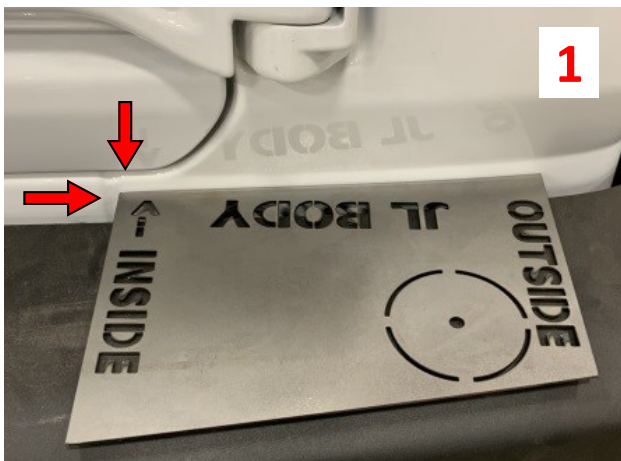


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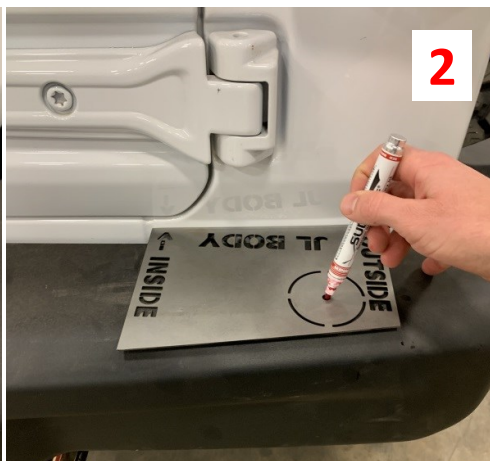


**JL REAR CARRIER INSTALATION WITH OEM STEEL or ROAD ARMOR BUMPER**

- 1 Use JL SPINDLE HOLE TEMP, on last page of instructions, align it with rear JL body seam and edge of template as shown.
- 2 Mark hole location as shown below. \*This can be done on JL OEM STEEL or ROAD ARMOR Rear Bumpers (No-Hole)



1



2



3

Once hole location is marked, use 2" hole saw to carefully drill bumper from top down as show



STOP

**REMOVE REAR OEM BUMPER or ROAD ARMOR STEALTH BUMPER AT THIS TIME**

STOP

**STEP AVAILABLE IN 5182R BUMPER INSTALL GUIDE**

4

Once bumper is removed use 2" flap wheel to clean and deburr rough edge of hole. \*Removal in Rear Bumper Install\*

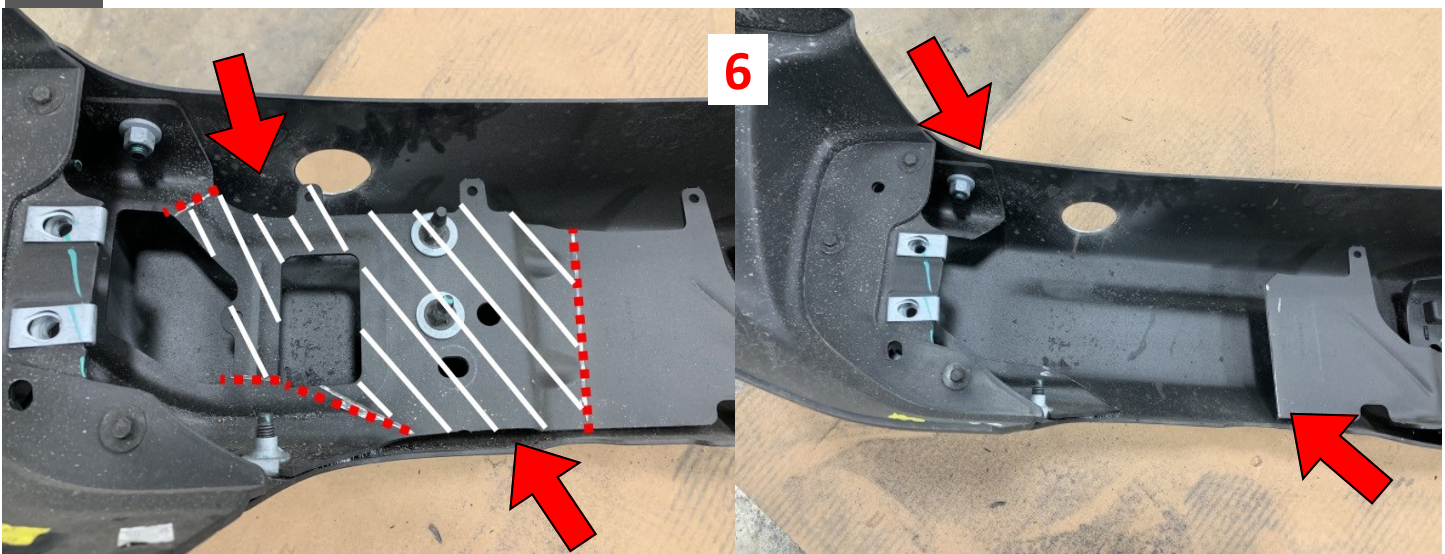
5

Use masking tape and surround metal edges of hole and paint using black textured paint to prevent rusting.



6

JL Rear Bumper will require the removal of sheet metal section below, mark, cut/remove, and paint edges as shown:



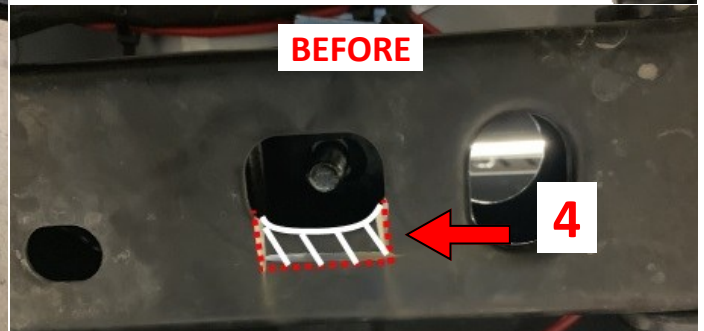
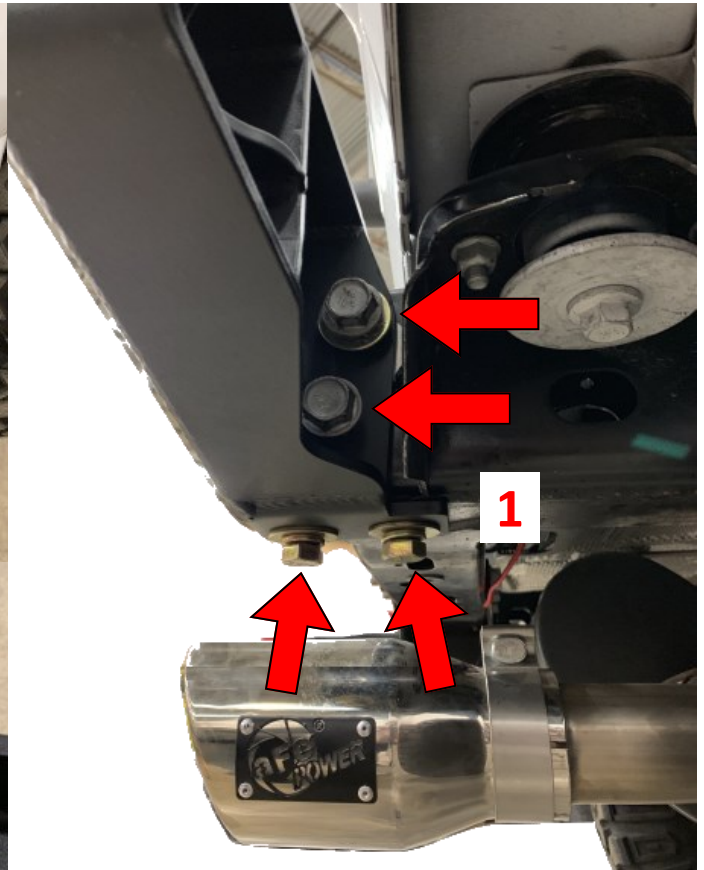
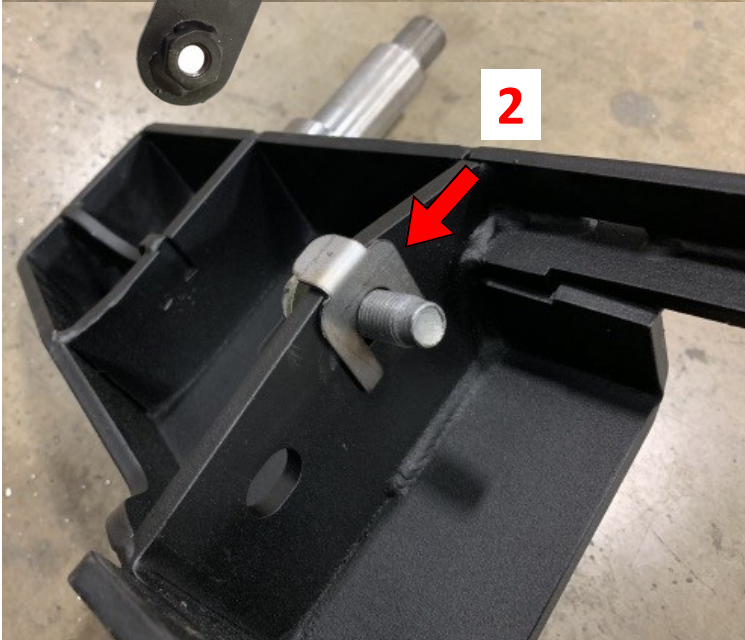
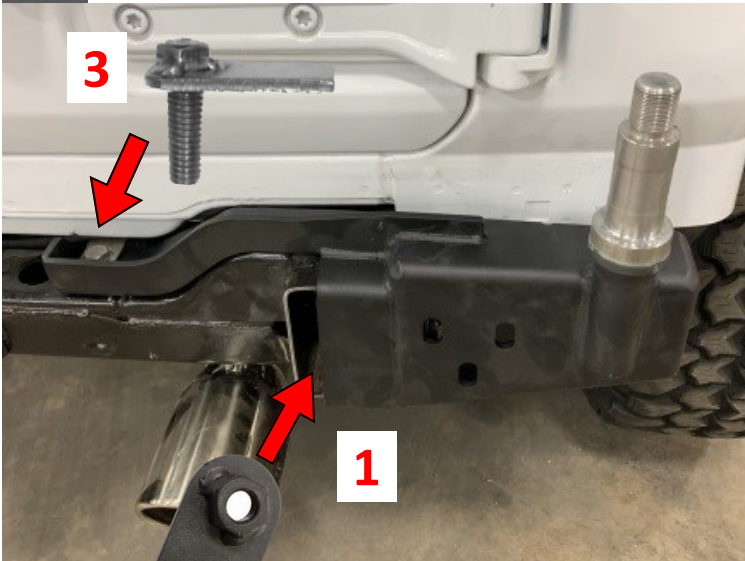
STOP

**INSTALLATION OF KIT TIRE CARRIER WILL FOLLOW BELOW**

STOP



- 1 Install 1 - 1/2" DOUBLE NUT PLATE into PSG side frame rail, along with SPINDLE BRACKET using OEM & 2 - 1/2" BOLTS.
- 2 **\*\*Use kit 16 gauge shims to adjust pitch of spindle angle if using 35" tires or larger on "side/top" OEM bolt as shown\*\***
- 3 Use 1 - 1/2" BOLT TAB through kit SPINDLE BRACKET and rear frame crossmember as shown below:



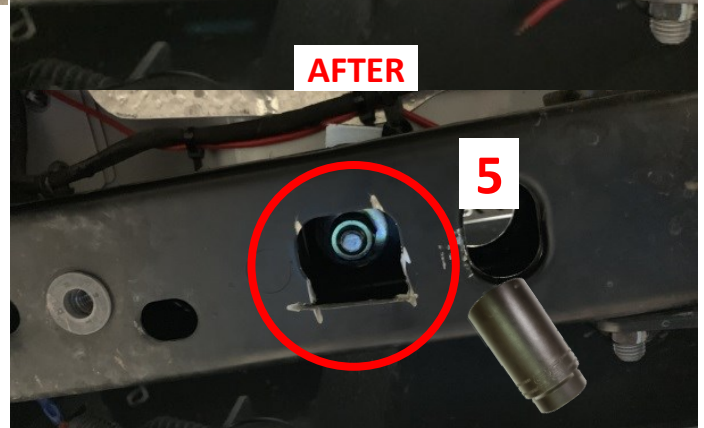
**BEFORE**

**4**

**AFTER**

**5**

- 4 Mark and cut small amount of sheet metal from passenger side bottom of rear crossmember to fit 3/4" socket.
- 5 Install 1 - 1/2" NUTS & Washers to secure SPINDLE BRACKET (Gusset) to PSG side rear crossmember.

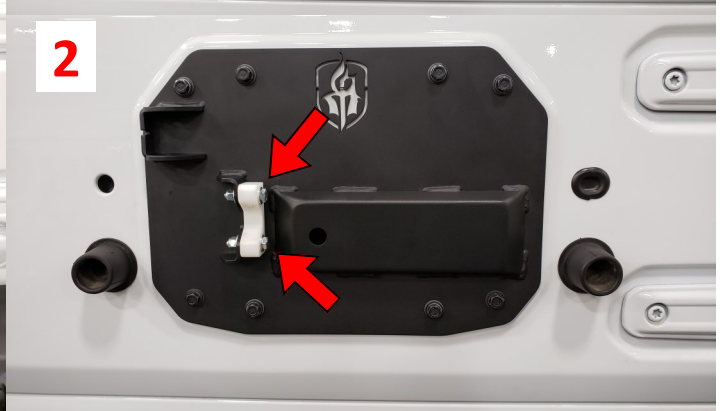
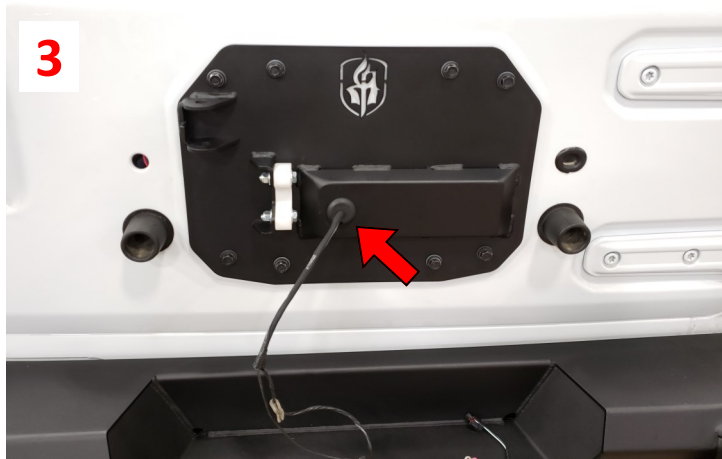




**INSTALLATION of OEM BUMPER or ROAD ARMOR STEALTH BUMPER AT THIS TIME**

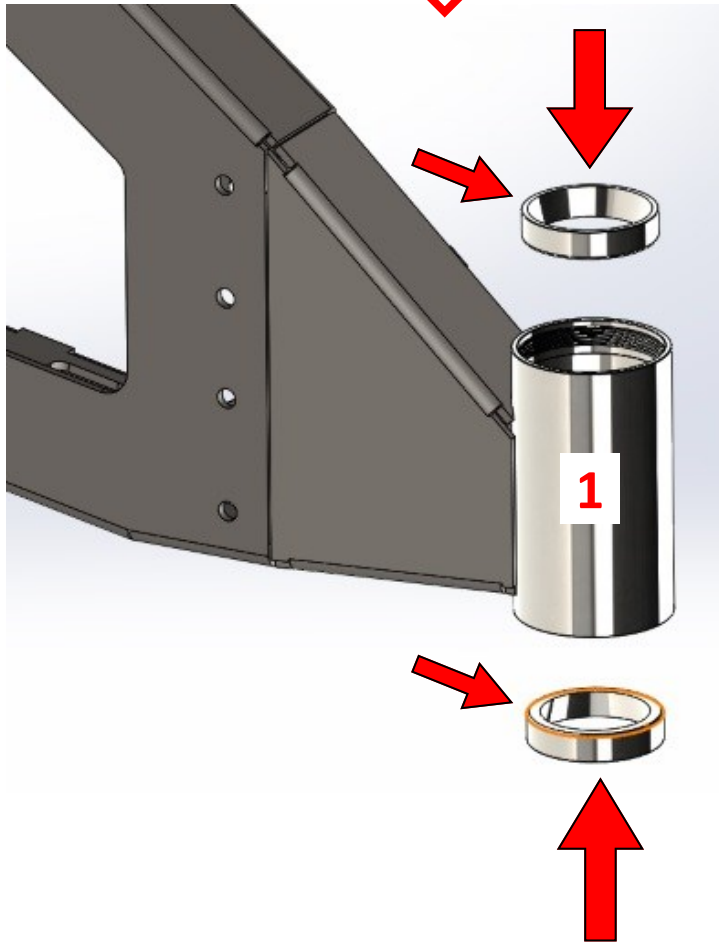


- 1** Install TAILGATE MOUNT using OEM bolt previously removed as shown:
- 2** Install TAILGATE ISOLATOR using 2 - 5/16" HARDWARE.
- 3** Feed both OE wire harness through TAILGATE MOUNT.





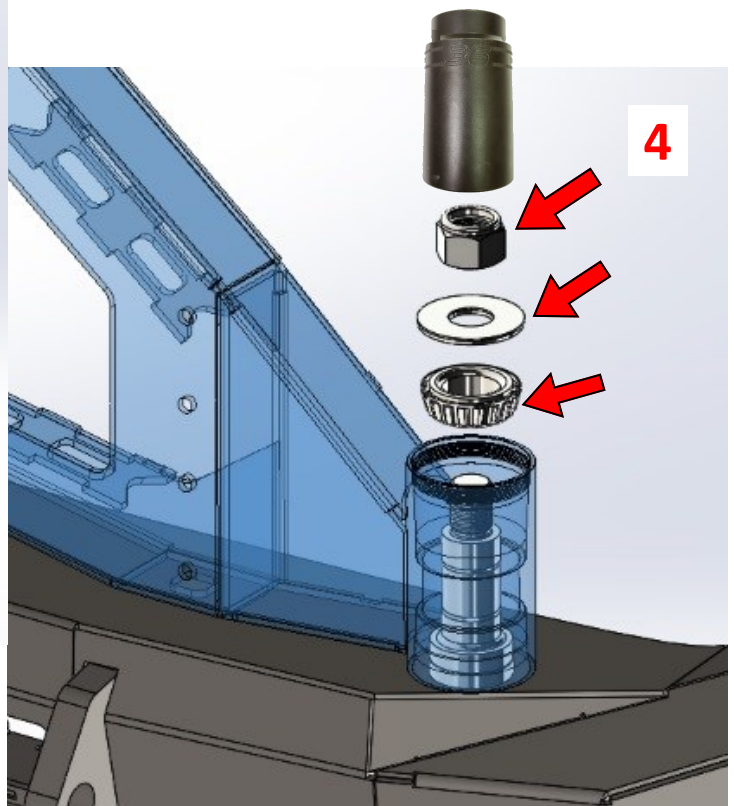
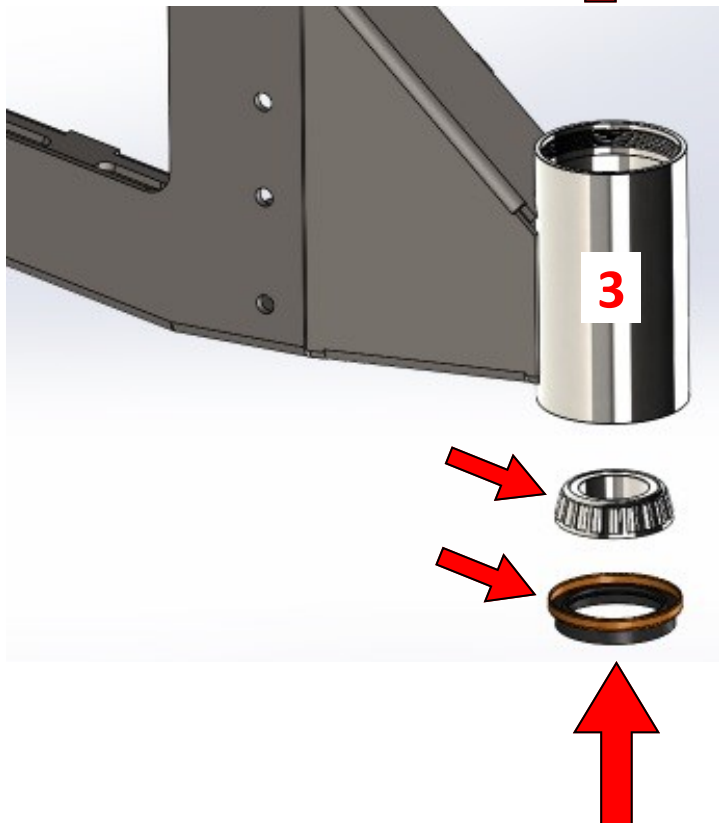
◇ PREPARING REAR TIRE CARRIER ◇



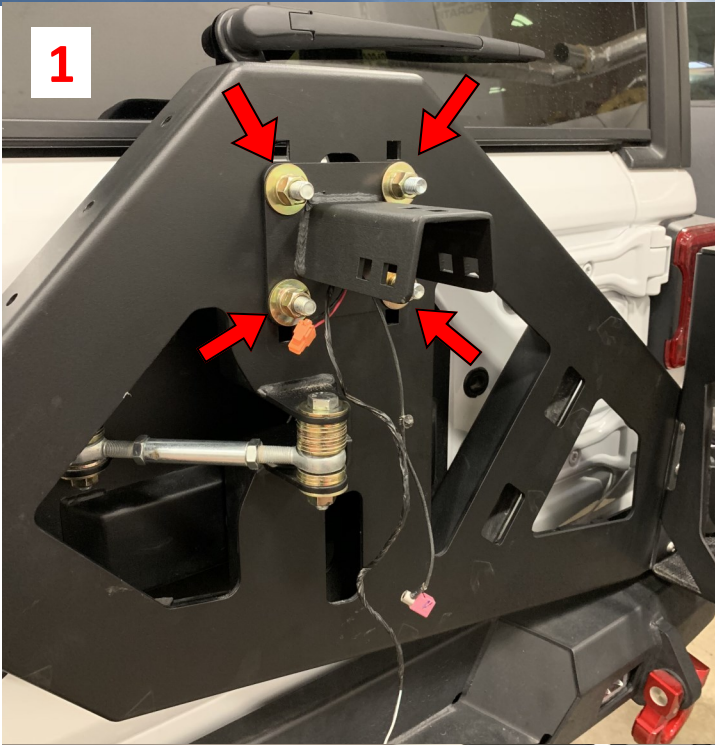
- 1 Using race driver tool, Install 2 - BEARING RACES into CARRIER FRAME.
- 2 Using grease gun, pack 2 - BEARINGS with grease. **\*\*Lightly Grease SPINDLE & HOUSING as well\*\***
- 3 Install 1 - BEARING into bottom part of SPINDLE HOUSING followed by 1 - BEARING SEAL. **\*Use seal driver to prevent damage\***



- 4 Install 1 - BEARING, WASHER and NUT into SPINDLE BRACKET as shown below . Use 36mm socket to secure the SPINDLE NUT. **\*\*DO NOT OVER TIGHTEN SPINDLE NUT\*\***







**1**

**1**

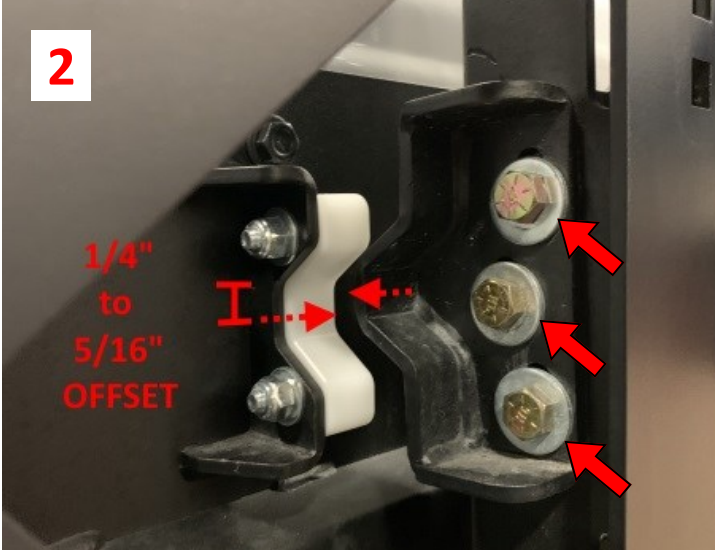
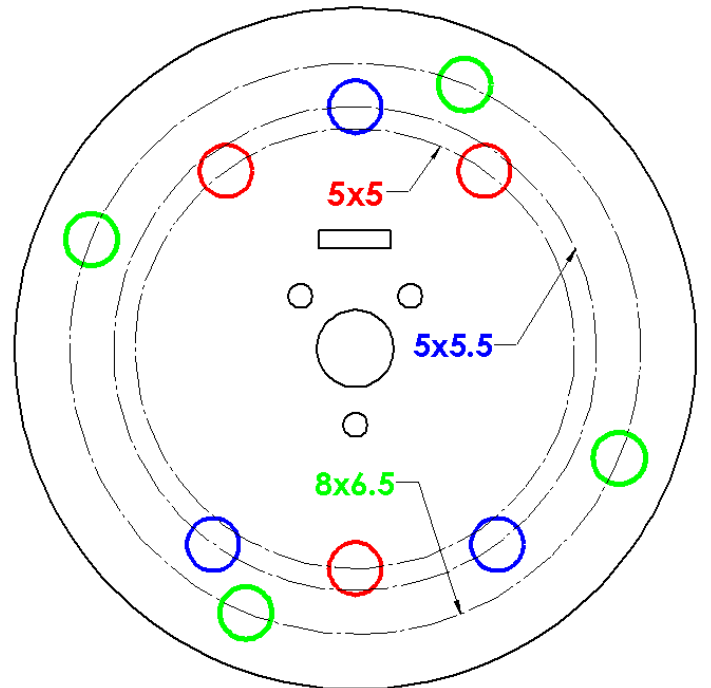
Install 5" WHEEL BRACKET BASE onto CARRIER using 4 - 1/2" CARRIAGE BOLTS & HARDWARE.

**2**

Install ISOLATOR BRACKET onto CARRIER FRAME using 3 - 3/8" BOLTS, NUTS & WASHERS.

**NOTE**

Adjust ISOLATOR BRACKET approximately 1/4" to 5/16" HIGHER than the ISOLATOR as shown for proper tire Pre-LOAD and proper "isolation".



**2**

1/4" to 5/16" OFFSET



**3**

**3**

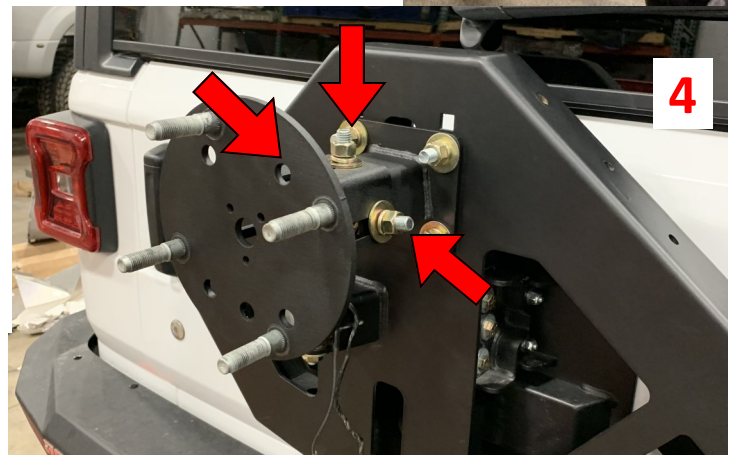
Install 3 - M14 Stud into kit WHEEL BRACKET. 5x5 | 5x5.5 | 8x6.5 patterns are provided above.

**4**

Install WHEEL BRACKET onto WHEEL BRACKET BASE using 3 - 1/2" CARRIAGE BOLTS, NUTS & WASHERS.

**NOTE**

MEASURE "back-spacing" from wheel mount surface to end of the tire bulk.



**4**

**\*TIRE MUST COMPRESS AGAINST KIT CARRIER FRAME\***

**1** Assemble and Install 2 - 1/2" HEIM JOINT, ROD END, 5/8" SPACER and SHIMS onto CARRIER FRAME and TAILGATE MOUNT.

**2** Secure 1/2" HEIM ASSEMBLY using 2 - 1/2"x3" hardware. **\*Adjustment Required\***

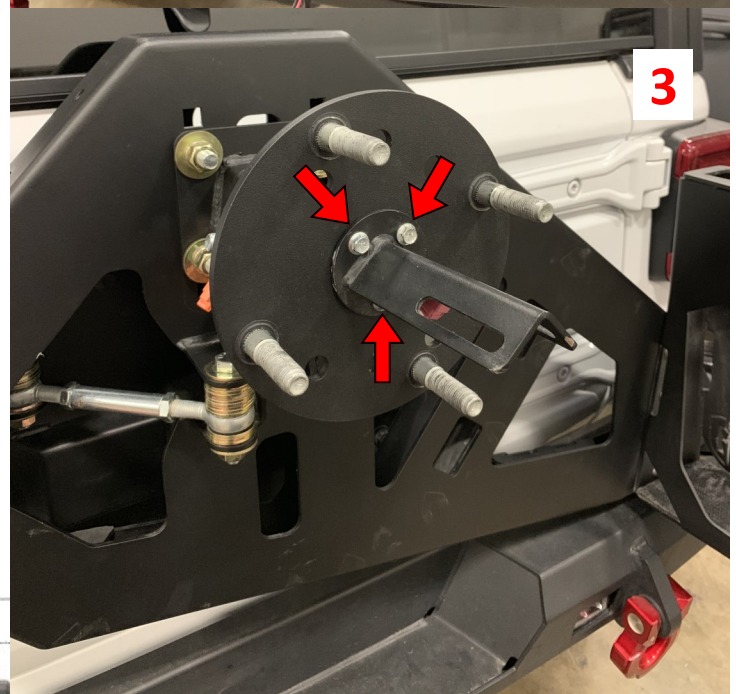
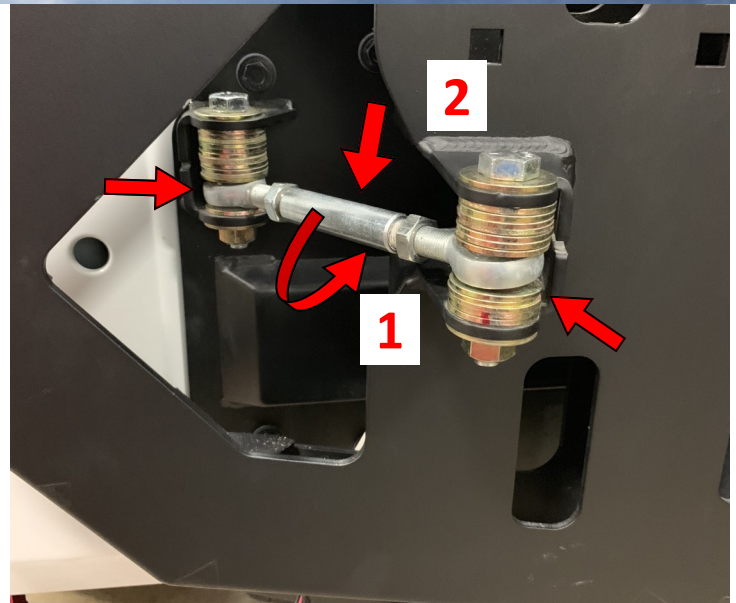
**NOTE** After tire is installed (Pre-LOADED Carrier), 1/2" HEIM ASSEMBLY can be "adjusted snug" to tailgate by opening tailgate, adjusting 1/2" HEIM ASSEMBLY to desired ISOLATOR Pre-LOAD pressure and tighten both 1/2" JAM NUTS. Doing so will isolate any vibration or noise occurring from rear tire carrier assembly during use.

**\*\*DO NOT OVER TIGHTEN HEIM\*\***

**3** Install LICENSE PLATE BRACKET BASE onto center of kit WHEEL MOUNT using 3 - 1/4" HARDWARE.

**\*FEED WIRE HARNESS THROUGHT ALL\***

**STOP** INSTALL TIRE CARRIER ACCESSORIES AT THIS TIME **STOP**



**4-GAL ROTOPAX MOUNT — 518RTC-RPMB**

**HiLift JACK MOUNT — 518RTC-HLMB**

**EXTENDED 8.5" MOUNT — 518RTC-8RM**



1

Install wheel and tire assembly using OEM lug nuts or aftermarket wheel locks at this time.

**NOTE**

**\*\*BE SURE TIRE COMPRESSES AGAINST CARRIER FRAME TO ELIMINATE VIBRATIONS\*\***



2

Remove back-up camera using T-25 & T-8 Torx, remove 2 bolts from OE carrier and 3 bolts from OE bracket

3

Install license plate and backup camera onto LICENSE PLATE BRACKET using OEM Hardware.

4

Install kit LICENSE PLATE BRACKET onto kit LICENSE BASE using 2 - 5/16" HARDWARE.

**NOTE**

**\*\*Road Armor recommends using ORO LITEPLATE with harness to reconnect license light\*\***



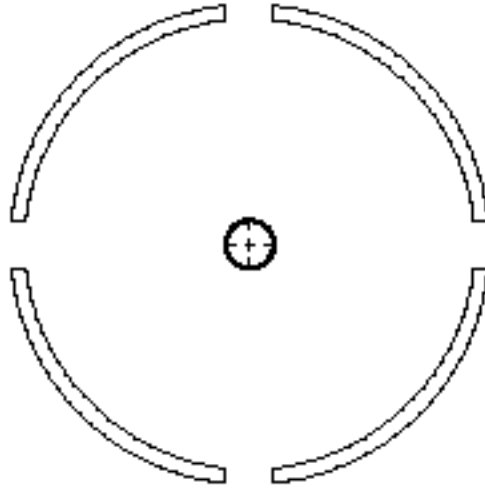
5

Once all weight has been added to carrier, check spindle nut torque, apply light amount of grease to inside of housing and threads to prevent rusting or moisture build-up. **\*\*Secure RA-LOGO-CAP\*\***

**ENJOY YOUR NEW ROAD ARMOR STEALTH TIRE CARRIER**

**\*\*Check and retighten all mounting bolts after 150 miles and periodically after\*\***

OUTSIDE



JL BODY



INSIDE