

MAXIMUS-3



JL/JLU WRANGLER

MAXIMUS-3 JL TIRE CARRIER

INSTALLATION GUIDES

PLEASE MAKE SURE YOU READ AND UNDERSTAND THE ENTIRE INSTALLATION GUIDE BEFORE YOU START. WE EXPECT YOU TO HAVE BASIC MECHANICAL ABILITIES TO PERFORM THIS INSTALLATION.

WE RECOMMEND THAT YOU SEPARATE AND IDENTIFY ALL THE PARTS AND HARDWARE KITS YOU RECEIVED WITH YOUR SHIPMENT BEFORE YOU PROCEED TO DISASSEMBLE YOUR JEEP.



Component List:**Quantity****Tools Required:****BASE**

Tire Carrier Tubular Frame	1
Hinge Assembly	2
Hinge Pins, Washers, Retainer Clips	2
Hinge Bolts & Washers	4
Tie Rod Link Plate Assembly	1
Wheel Mount Base Assembly (Male/Female)	1
M10 Hex Bolt	4
M10 Flanged Nut	4
M10 Washer	4

- ✓ Metric Drive Sockets
- ✓ Metric Open Wrenches
- ✓ Metric Allen Keys Set
- ✓ Torx Bit Socket #50
- ✓ L-shape Torx Key #50

SPORT (Base kit, plus the following)

Body-Tub Reinforcement Brace	1
M8 Flat Washers	6
M8 Thick Washers	6
M8 Flange Nuts	6
M8 Hex Head Bolts	6
5/8" Shim Washers	6

Accessories Mast	1
M8 SS Button Socket Bolt	3
M8 SS Washers	3
Back-up Camera Bracket Assembly	1
M3 Stainless Steel Screw	1
M6 Hex Head Bolt	2
M6 Washer	2

IMPORTANT

Follow these instructions precisely. There are three mandatory fine-tune adjustment areas in this install guide.

Failure to follow the guide and properly adjust the carrier, may result in:

- Noise & Vibrations
- Damage to the vehicle
- Pose a general safety risk

Maximus-3 is not liable for any damaged caused from improperly installed products. It is the purchaser's responsibility to ensure both the installation and maintenance is performed properly as set-forth in this guide.

INSTALLATION STEPS

1. REMOVE SPARE TIRE FROM THE FACTORY TIRE MOUNT.

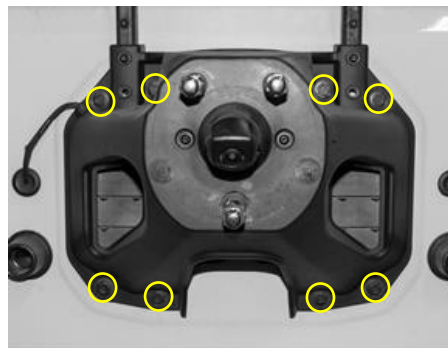
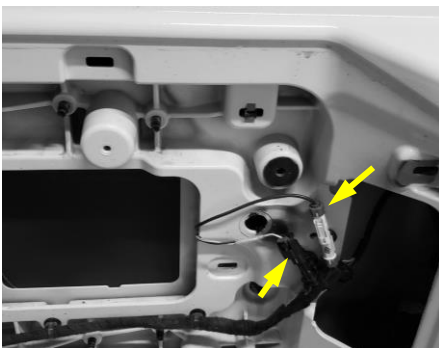
2. REMOVE THE FACTORY SPARE TIRE MOUNT:

Remove the rear tailgate interior panel: the panel is held-in by snap-clips. Carefully pull out starting from bottom left corner and remove.

Disconnect the 3rd brake light and backup camera wire connectors and carefully remove the wire harness from tailgate by pulling the grommet plug from outside.

Using 13mm socket remove all M8 bolts marked in the image below (qty. 8) and remove the tire mount assembly.

Note: Retain the hardware for reused.



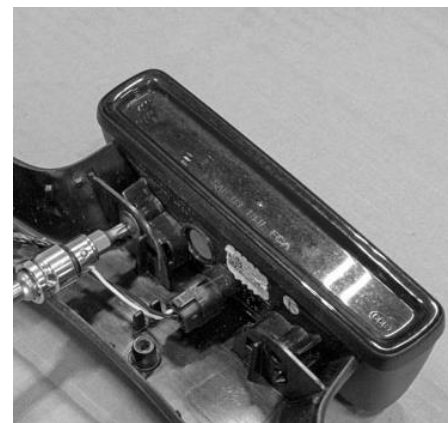
3. REMOVE FACTORY 3RD BRAKE LIGHT AND WIRING FROM FACTORY TIRE MOUNT:

Remove the 3rd brake light bracket cover by removing the T25 Torx screws marked in the image below (qty. 7).

Then remove the T25 Torx Screws holding the 3rd brake light mounting bracket to the spare tire carrier mount.

Carefully remove the 3rd brake light wiring harness from the inside of the 3rd brake light mounting bracket assembly. Do not damage the wiring harness or connector as they will be reused in this installation

Remove the 3rd brake light from the mount by removing the T25 Torx Screws then disconnect the light from the wiring harness from the connector. Note: Save the hardware for reuse.

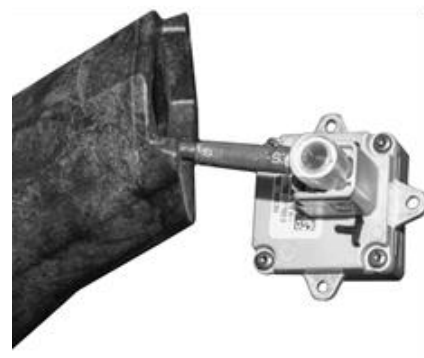
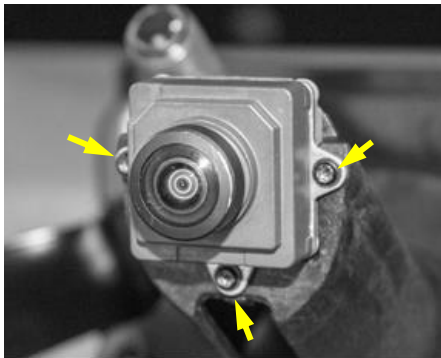
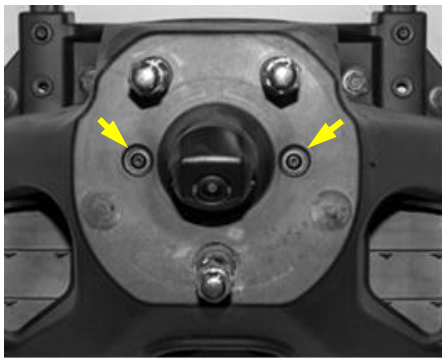


4. REMOVE THE BACKUP CAMERA FROM FACTORY TIRE MOUNT:

Remove T25 Torx screws shown in the image below (qty. 2). Push the lug nut studs to remove the lug nut plate and backup camera mount from the factory tire mount.

Remove the backup camera from the lug nut plate by removing the T8 Torx screws as shown in the image below (qty. 3), then disconnect from the wiring by unplugging the connector on the back side of the camera. Note: Retain the hardware for reused.

Remove the backup camera wire from the back side of the lug nut plate. Note: Do not damage this wiring harness or connector as it will be reused in this install.

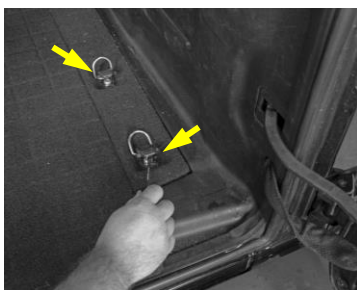


5. REMOVE THE REAR PASSENGER SIDE INTERIOR PANEL:

If you have a subwoofer, first remove the floor tie-down strip, and remove one torx screw from the front of the plastic panel.

Remove the seat belt retainer trim. This panel is held in place by two metal retainer clips. Pry from the front with a panel removal tool or a flat screwdriver.

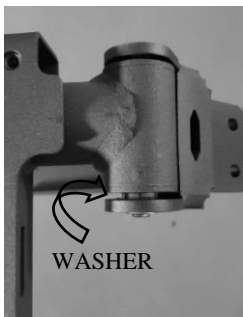
Now the panel is held on by snap-clips. Carefully pull the trim panel out of place (start at the front of the vehicle).



6. PREASSEMBLE MAXIMUS-3 TIRE CARRIER:

Insert Maximus-3 Hinge Assemblies over frame bushings as shown. Note: for each hinge, insert 1 stainless steel washer between bottom side of frame bushing and the hinge.

Align holes and connect by inserting pins from top. Note: pins are tight interference fit so you may need to use wood or plastic hammer or type of isolator to pound/press pins in (using metal hammer on pins will lead to rust). Insert the c-clips to secure the pins.



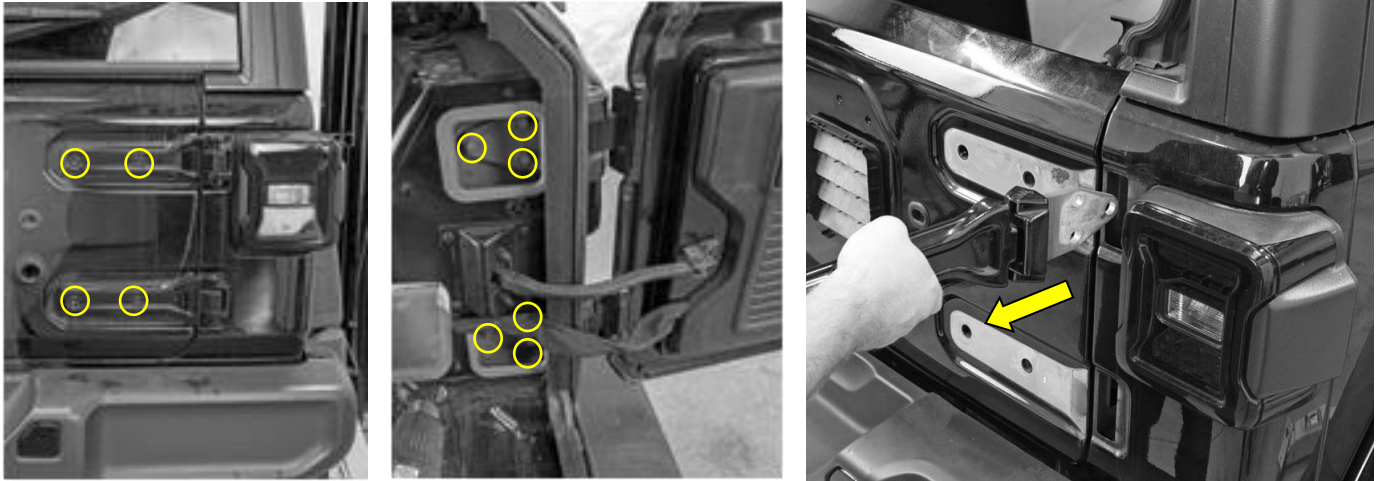
7. REMOVE THE FACTORY TAILGATE HINGES

Open the rear window glass and close the tailgate fully shut.

Using T55 Torx drive, remove the T55 Torx bolts holding the hinges to the tailgate (qty. 4).

Now reach over the tailgate or climb into the cargo area from passenger door and remove the stickers that cover the tailgate hinge bolts access. Note: if possible, save the stickers for reuse.

Now remove the M8 hex bolts holding the hinges to the body-tub from inside (qty. 6). Note: keep the tailgate closed.



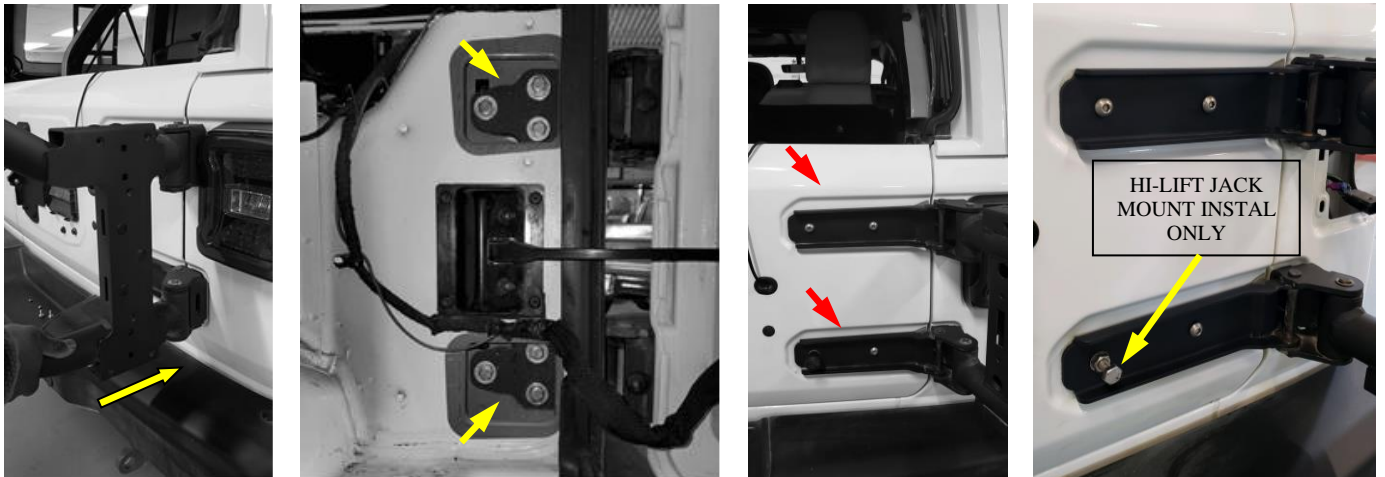
8. INSTALL MAXIMUS-3 TIRE CARRIER ASSEMBLY:

Note: for this step you will need to get access through the rear cargo area to install the hardware while a second person holds the Maximus-3 Tire Carrier Assembly in alignment position from outside.

With help from a second person, install Maximus-3 Tire Carrier Assembly by inserting and aligning to the factory mounting points on the inside body-tub.

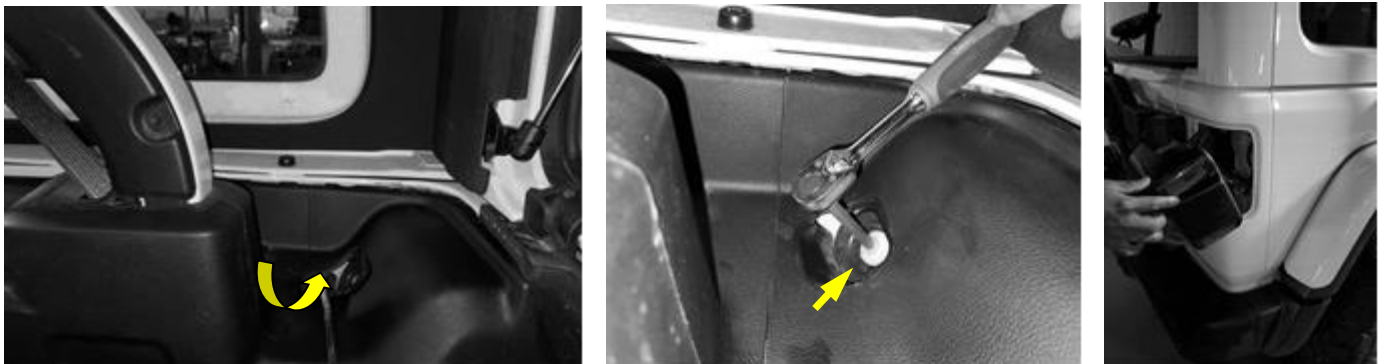
Using the long M8 hex bolts and flat washers (3 Bolts and washers Per Hinge) bolt the hinges to the vehicle from inside. Adjust the Carrier, make sure hinges are pushed against the body and then tighten all 6 bolts to 27 ft.lb.

Using M10 Stainless Steel Truss Bolts and flat Washers, bolt the tailgate to the hinges (qty. 4). Torque to 32 ft.lb.

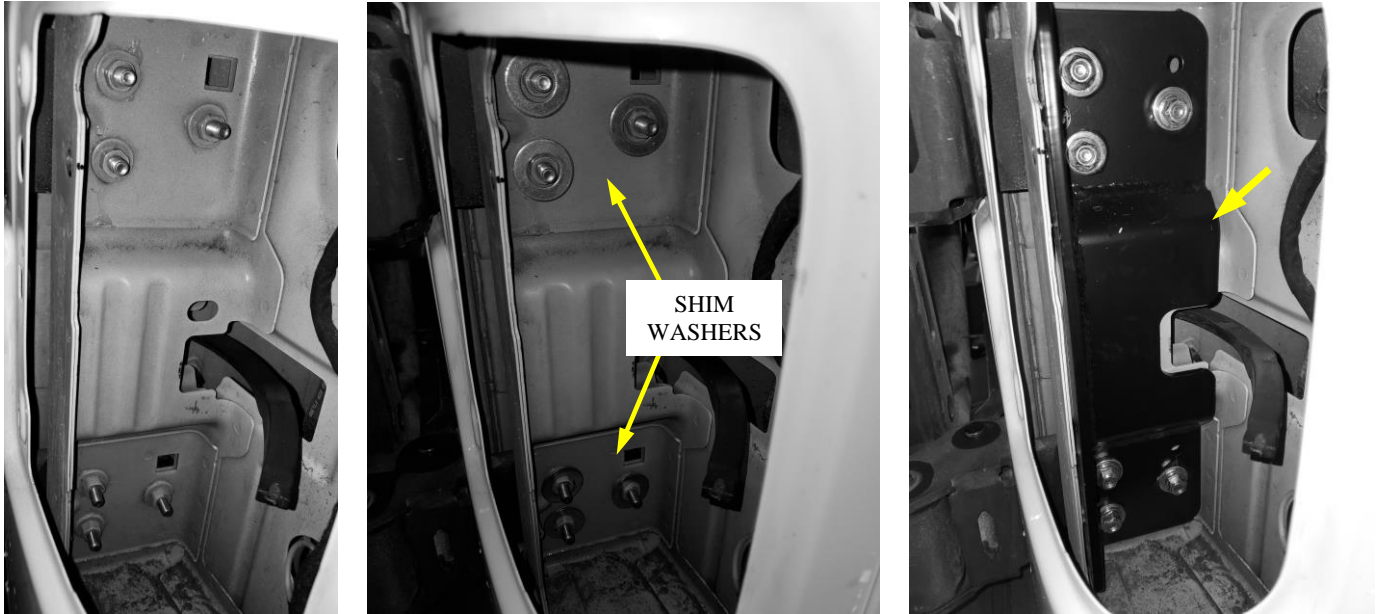


9. INSTALL BODY-TUB REINFORCEMENT BRACE PLATE:

First remove passenger side taillight: first remove the plastic access cover, then using T40 torx bit remove nylon taillight screw and release taillight, disconnect wire connector and remove the light.



Install the Reinforcement Brace Plate: Slide the 5/8" shim washers over the weld nuts (Qty. 6), place the Reinforcement Brace in place over the Shim Washers and secure using thick M8 Washers and Flanged Nuts supplied. Torque to 25 ft.lb
Reassemble the taillight.



10. INSTALL MAXIMUS-3 ADJUSTABLE TIRE MOUNT ASSEMBLY:

Using the M10 hex bolts, washers and flanged nuts provided, bolt the Base Mount (female) to the carrier – use the top or bottom mounting locations according to your tire size and height preference. Top location for 37" and up tire sizes. Note: Use medium Loctite and tighten well to 38 ft.lb.

CRITICAL STEP: NOW ADJUST MAXIMUS-3 TIRE MOUNT OFFSET LENGTH:

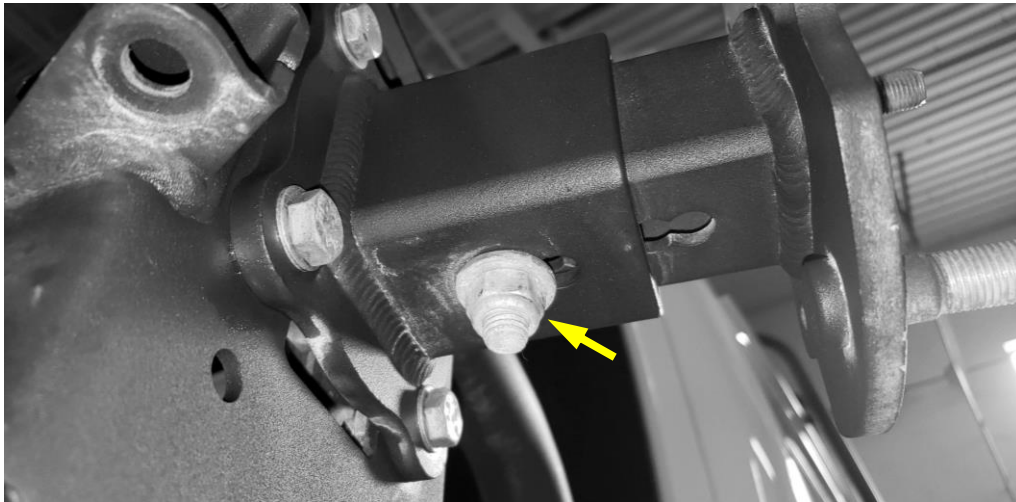
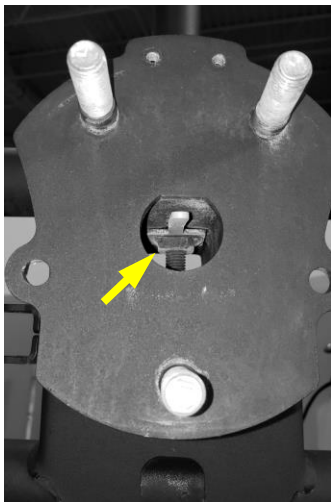
With your large spare tire upside down (wheel mounting surface up), measure wheel-tire depth/backspacing (this is the distance from the wheel center hub mount surface to the face of the tire (rubber side wall).

Adjust Maximus-3 Wheel Mount (male) such that the distance between the mount surface and the Carrier tube surface is about $\frac{1}{2}$ " to $\frac{3}{4}$ " shorter than the wheel-tire depth dimension you measured previously.

Now bolt the Wheel Mount (male) to the Female Base Mount using the long M12 hex bolt, washer and flag-nut supplied with head of the bolt facing up.

IMPORTANT: Tighten the hex bolt until flag-nut is pulled up tight against the part to eliminate play, then install the M12 safety lock nut and washer at the bottom side and tighten to 65 ft.lb.

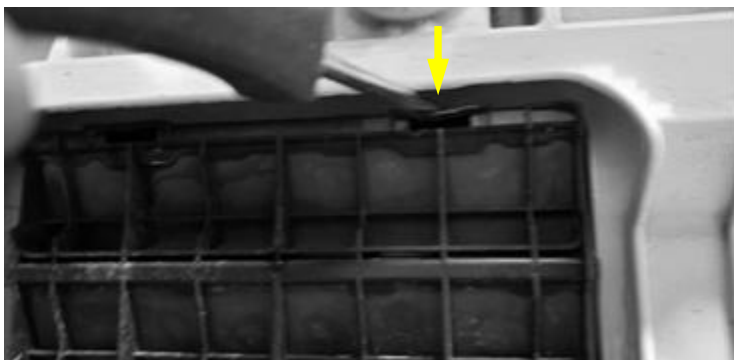




11. REMOVE TAILGATE AIR VENT COVER & BUMPER PADS:

Remove driver side air vent cover. The air vent is held in place by two molded retainer clips. Using a small flat screwdriver push down on the top clips and push outwards to remove the vent. Discard as it will not be reused in this install.

Remove factory spare tire bumper pads from the tailgate and plug the holes with plastic grommet plugs supplied with the tire mount hardware kit.



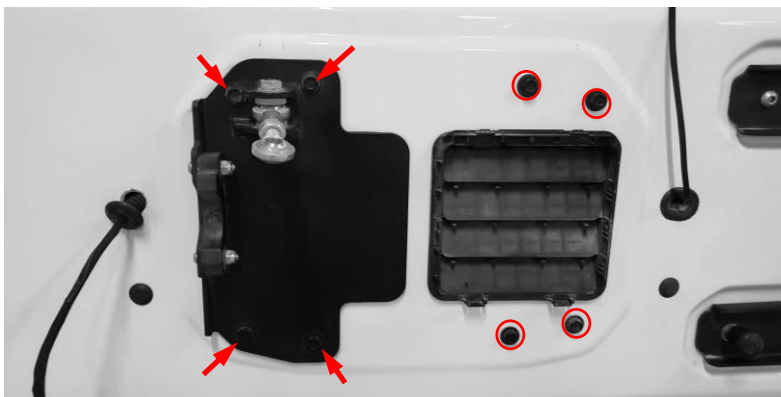
12. INSTALL MAXIMUS-3 TIE ROD LINKAGE PLATE:

Clean the tailgate surface to prepare for mounting the linkage plate.

Bolt Maximus-3 Tie Rod Linkage Plate to the tailgate using the factory tire mount bolts you removed in step #2 (qty. 4) – use medium Locktite on threads. Do not tighten for now as you may need to adjust it later.

Use the remaining factory tire mount bolts and nylon washers to plug the unused holes on the tailgate (qty. 4).

Push the Carrier Arm onto the tailgate and adjust the Tie Rod Plate such that the Nylon block captures the Carrier's horizontal tube. Adjust the plate vertically and tighten – use medium Locktite and tighten to 18 ft.lb.

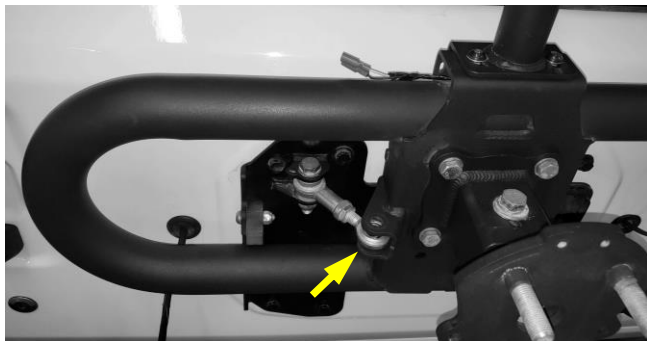


13. CONNECT AND ADJUST THE TIE ROD LINKAGE:

With the tailgate closed shut, push the Carrier into the Nylon Stop Block and adjust the Tie Rod length to line up the rod eye to the hole in linkage tab on the Carrier.

CRITICAL STEP: Then, now reduce the length by 2 full turns to obtain preload setting. The tension/preload setting will become more apparent later.

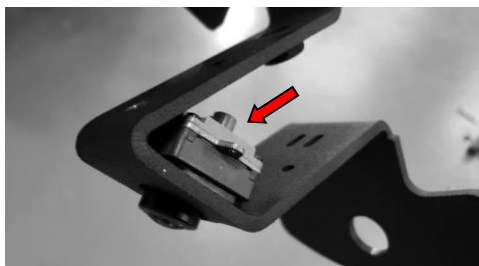
With the tailgate slightly open bolt the Tie Rod to the channel tab on the Carrier using the M12 hex bolt, flat washers, shim washers and lock nut. Now you should feel tension in the tailgate when closing – tailgate operation will feel smoother when the spare tire is installed later.



14. INSTALL THE BACKUP CAMERA:

PREASSEMBLE THE FACTORY CAMERA TO MAXIMUS-3 BRACKET:

Insert camera in the bracket and secure with clamp bracket using M4 stainless steel screws supplied – you can pull bracket slightly apart to make it easy to insert the camera in the hole, secure camera to the clamp bracket with sheet metal screw provided (qty. 1).



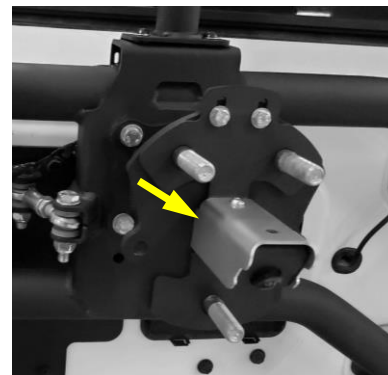
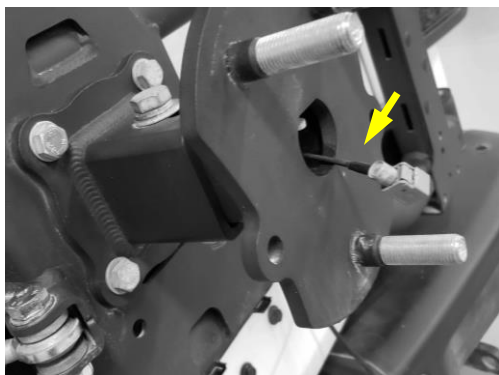
Feed the camera wire through the back of tire mount to the front.

Connect camera wire and then place the bracket assembly over the lug nuts and bolt down at the top with M6 hex bolts and washers supplied (qty. 2).

Now assemble the camera stainless steel shield/guard with M6 stainless steel bolts supplied. Note well: short bolt goes in front hole of bracket over the camera.

Reassemble the camera/light wire harness to the tailgate and reconnect the wires from inside.

Test your camera and make it is working before you move to next step.



15. INSTALL THE CENTER ACCESSORIES MAST AND 3RD BRAKE LIGHT (OPTIONAL):

Feed your 3rd Brake Light wire through access hole in the mount plate, then feed through bottom of Accessories Mast and pull out at top. Connect the wire to the light and secure the light to top of Accessories mast using factory T25 screws removed in step #3. Alternatively, cut the wire and create a new connection to make it easier. Now bolt the Accessories Mast to the carrier using M8 button socket bolts and washers supplied (qty. 3). Secure the wire harness to the Carrier and Tie Rod plate with cable ties. Allow enough slack in the harness length between the tailgate and the Carrier to prevent stretching.



16. INSTALL YOUR SPARE TIRE:

Bolt your spare tire on using your lug nuts and make sure that the tire is pressing against the carrier tube and center Accessories Mast. Note well: When lug nuts are fully tightened you should have about 1/2" to 3/4" squish in the rubber. If there is a gap, then you must readjust the Wheel Mount (male) to the next bolt location until adequate compression is achieved, and vice versa.

17. TEST SYNC OPERATION OF THE TAILGATE:

Test the tailgate operation by opening and closing the tailgate as you normally would. You should have a rattle free, one-touch synchronized opening and closing of the tailgate and the Tire Carrier. With the tailgate closed, check to make sure that the Carrier is captured tight in the Nylon Stop-block by shaking (pushing/pulling) on the Carrier. Readjust the Tie Rod length accordingly if needed. Cycle the tailgate with the tire installed and make sure there is no droop and the tailgate aligns correctly, fine-tune alignment as needed.



Your installation is complete. If you have questions regarding this installation please contact us at sales@maximus-3.com or call 248-821-6654.

Website: <http://www.maximus-3.com>