



## Rusty's 1997-2006 TJ/LJ Wrangler Tire Carrier INSTALLATION INSTRUCTIONS JBTJ5055

Last Revised: 1/17/2024

### Introduction:

Rusty's recommends that this installation be performed by a certified automotive technician or a person with professional mechanical knowledge. Installing this kit without this expertise may jeopardize the handling and safety of the vehicle.

Read instructions several times before starting. Be sure you have all the needed parts and know where they install. Read each step completely as you go. Exhaust modifications may be necessary. Prior to drilling or cutting, check behind the surface being worked on for any wires, lines, or hoses that could be damaged. After any drilling or cutting, remove burrs and grind smooth any surfaces. An inclinometer or similar tool may be needed to measure driveshaft angles before and after the installation.

### Warning:

- It is the owners' responsibility to inspect all Rusty's products for proper torque specs to prevent loosening of components.
- Seat belts and shoulder harnesses should be worn at all times.
- Re-check all bolts and nuts after the first 100 miles and after any off-road usage during the first 300 miles.
- Although all of our products are made from the highest quality materials possible, they are not a substitute for Safe and Careful driving. In other words, have good safe on-road / off-road sense. Know the terrain, the speed limitations, and any obstacles that may lie ahead. Please remember to preserve our right to enjoy public land through the proper use of off-road vehicles.

### Before Starting Installation:

1. Carefully Read all warnings and instructions completely before beginning.
2. Verify all parts have been received in this kit by checking the parts list on page#2 of this document.
3. Only install this kit on the vehicle for which it is specified.
4. Park the vehicle on a clean, dry, flat, level surface and block the tires so the vehicle cannot roll in either direction.
5. Be certain the vehicle is safely secured on jack stands or a vehicle lift prior to working around or under a vehicle. Never rely on a jack alone to support a vehicle's weight; use appropriately rated stands to support the vehicle's frame and any other heavy components.





**Parts List:**

**Note:** Please be sure that you have all the provided parts listed below before continuing with the installation.

<b>Part #</b>	<b>DESCRIPTION:</b>	<b>Quantity</b>
RA-TC1-TJ	Rusty's TJ HD Adjustable Tire Mounting Bracket #1	1
RA-TC2-TJ	Rusty's TJ HD Adjustable Tire Mounting Bracket #2	1
RA-TC3-TJ	Rusty's TJ HD Hinge Mounts	2
RA-TC4567-TJ	Rusty's TJ HD Tire Carrier Assembly	1
RA-TC8-TJ	Rusty's TJ 3rd Brake Light Mounting Bracket	1
LED-3BL	LED 3rd Brake Light	1
MC-FF621-01B	Oilite Bearings (1/2" I.D. x 3/4" O.D.) Flange (1" O.D. x 1/8" Thickness) - Preinstalled In HD Hinge Mounts	4
88628169	1/2" x 3" Shoulder Bolt (Stainless Steel)	2
F-37264	3/8"-16 Zinc Finish Steel Top Lock Nut	2
74454919	1/2"-13 x 1-1/2" Length Grade 8 Hex Head Cap Screw	8
67488965	1/2"-13 Grade 8 Hex Lock Nut	8
05724646	1/2" SAE Flat Washer	16
83503066	1/2" Zinc Coated Wheel Stud	3
05729157	9/16"-12 x 1-1/2" Length Grade 8 Hex Head Cap Screw	4
05724653	9/16" SAE Flat Washer	4
74454620	3/8"-16 x 1-1/4" Length Grade 8 Hex Head Cap Screw	1
05724620	3/8" SAE Flat Washer	1
67483446	3/8"-16 Serrated Flange Nut	1
MC-30645T861	Tailgate Tether 1/8" Diameter x 12" Length	1
67563080	1/4"-20 x 3/4 Length Button Head Cap Screw	2
09331745	1/4"-20 UNC Manual Threaded Insert Installation Tool	1
08411266	1/4"-20 Knurled Threaded Nut Insert	1
67563163	1/4"-20 x 1-1/4" Length Button Head Cap Screw	2

List Continued on Page# 3





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**Parts List:**

**Note:** Please be sure that you have all the provided parts listed below before continuing with the installation.

<b><u>Part #</u></b>	<b><u>DESCRIPTION:</u></b>	<b><u>Quantity</u></b>
67483768	1/4"-20 Serrated Flange Nut	2
52593571	1/4"- 20 Grade 8 Hex Lock Nut	1
67444042	M8 x 1.25mm Hex Lock Nut	8
68025162	M8 x 16mm O.D. Flat Washer	8



For Questions or Suggestions, contact our Tech Department (256-442-0607)

## Installation Instructions

Note: Save all factory components and hardware for reuse, unless noted.

1. Remove the spare tire, then remove the rear lens cover to access and remove the bulb. Remove the wiring harness out of the spare tire bracket. This wiring harness will be spliced to the new supplied light in further steps. Remove the spare tire bracket from the tailgate, retain the hardware as it will be reused.
2. Using masking tape place to horizontal lines of tape on each side of the tailgate, Cut a vertical line in the masking tape on the tailgate seam of the driver and passenger side. This is done to relocate the tailgate back in the original position.
3. Remove the plastic covers on the tailgate hinge. Remove the four bolts that secure the factory hinges to the tailgate, carefully hold the tailgate in place while removing these four total bolts. Once these bolts are removed, hold the tailgate in place and swing the hinges out of the way. Open the tailgate latch while still holding the tailgate securely to remove from the vehicle. Place the tailgate on a clean work surface.
4. Remove the factory tailgate hinges from the body by removing the two bolts in each of the factory hinge assemblies.
5. Locate to the passenger side interior and move the carpet forward of the roll bar tube, drilling is required in the next step.



6. The upper and lower hinge mounting points on the body now need to be drilled to 5/8". Use the existing holes as your center pilot hole, drilling very slowly to ensure a true round hole. This will drill out the nut on the back side of the body. (**Note:** It is important to us caution and make sure that is nothing that may be hit buy the drill inside the rear inner fender well.)
7. Once all four of mounting points are drilled to 5/8", deburr the inside and outside of the tub ensuring a flat mounting surface. It may be necessary to use a small Dremel or die grinder to clean the burrs or shavings from the inside of the body. Clean the area, then mask and paint any exposed metal surfaces before continuing with installation, allow proper drying time before moving on.

## **Installation Instructions (Continued)**

8. Pull the rear bottom portion of the plastic inner fender forward to access the inside mounting points for the lower hinge. Position the supplied lower hinge bracket into place, then have an assistant position the lower inner hinge support bracket in place. Install the supplied 9/16"-12 x 1-1/2" Length Grade 8 Hex Head Cap Screws and 9/16" SAE Flat Washers threading them into the inner support bracket, start them only do not tighten. Now install the supplied 3/8"-16 x 1-1/4" Length Grade 8 Hex Head Cap Screw, 3/8" SAE Flat Washer, and 3/8"-16 Serrated Flange Nut in the inner hinge support bracket, you will place the nut by accessing it from the square opening. Loosely start only, do not fully tighten.

(PLEASE NOTE: We supply two brackets only one of these will be used and the other will be discarded. Make sure to confirm fitment prior to discarding.)



9. Locate to the roll bar mounting point on the passenger side. Remove the (Qty:2) factory Torx head bolts. Locate the inner hinge support bracket aligning it with the two roll bar mounting points. Reinstall the (Qty:2) factory Torx bolts, do not fully tighten though allowing for slight movement.



## Installation Instructions (Continued)

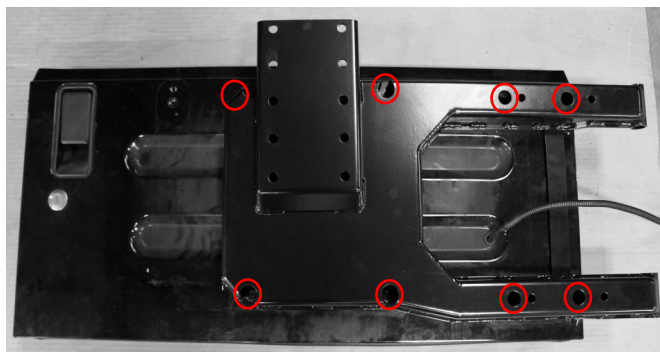
10. Locate the upper hinge bracket into place. Install using the supplied (Qty:2) 9/16"-12 x 1-1/2" Length Grade 8 Hex Head Cap Screw, and (Qty:2) 9/16" SAE Flat Washer by threading them into the inner support bracket.



11. The (Qty:4) 9/16" bolts used to secure the hinge brackets should now be slightly tightened, only allowing the brackets to have slight up and down movement.



12. Having the tailgate placed on a clean work surface, place the Rusty's off-road tire carrier in place aligning it with factory holes in the tailgate. Install the supplied M8 x 1.25mm Hex Lock Nut (Qty:8) M8 x 16mm O.D. Flat Washer (QTY:8) hardware back in position shown circled below, do not fully tighten, the floating nut strips on the passenger side may require a pick or small screwdriver to line them up. At this point, all bolts should be installed but not tightened completely until instructed.



## Installation Instructions (Continued)

13. Now facing the tailgate and tire carrier as it would mount on the jeep, pull the tire carrier to you or downward from the top of the tailgate. Fully tighten all eights mounting bolts on the tailgate to 25-28 ft.-lbs.
14. Apply a small amount of anti-seize or grease to the top and bottom of the bearings on the tire carrier.
15. With the help of an assistant, place the tire carrier and tailgate into the hinges at the body. Install the supplied (Qty:2) 1/2" x 3" Shoulder Bolt (Stainless Steel). Place the (Qty:2) 3/8"-16 Zinc Finish Steel Top Lock Nut on the bottom of the hinge, and fasten the shoulder bolt, snug, but do not fully tighten.
16. Carefully close the tailgate to the first click of the latch (**Note:** The tailgate will not be fully closed at this time).
17. Using an assistant, align the tailgate with the masking tape lines, have the assistant hold in place or shim the tailgate once correctly aligned.
18. With the tailgate and hinges located so that everything is aligned properly, tighten the (Qty:4) 9/16" Bolts that secure the upper and lower hinge brackets to the vehicle. Start by tightening the exposed hardware located on the far right hole locations first on the upper and lower hinge brackets to 130 ft.-lbs. Now slowly open the tailgate to access the hardware covered by the tailgate assembly. Tighten to 130 ft.-lbs. Fully close the tailgate and check that the tape lines are aligned properly. Adjust if needed. Retighten all hinge hardware to 135 ft.-lbs



19. At this time you should fully tighten the (Qty:2) factory Torx head bolts located on the top inner hinger support bracket where it is mounted near the roll bar on the passenger side that was installed during step # 9.
20. At this time you should fully tighten the 3/8" hardware located on the bottom inner hinge support bracket where it is mounted inside of the rear passenger side inner fender well that was installed during step # 8.
21. The (Qty:2) 1/2" shoulder bolts and 3/8" nuts at the hinge points will be tightened to adjust the drag on the tailgate. Tighten the top and bottom equally, open and cycling the tailgate open and closed as you tighten. Slightly tighten them a little more because the weight of the tire will ease the tailgate drag.

## **Installation Instructions (Continued)**

22. At this point, everything should be tightened and adjusted properly. Open the tailgate to ensure that the tailgate opens and closes smoothly. Double check your tape lines to make sure that everything is still aligned, then remove the tape from the vehicle.
23. The tire carrier is designed to work with several wheel bolt patterns. Refer to the Spare Tire Bolt Pattern Diagram on page# 11 to match the bolt pattern for your vehicle's wheel bolt pattern. Press the three supplied wheel studs into the correct locations in the Rusty's TJ/LJ HD Adjustable Tire Mounting Bracket #1 using a large socket and bench vice.
23. Locate the Rusty's TJ/LJ HD Adjustable Tire Mounting Bracket #2. Note there are several possible mounting holes to attach this bracket to the tailgate assembly. The size of the spare tire and the bumper design will determine which hole locations on the tailgate bracket will be the best for your application. There are several ways to determine the best location; we recommend placing the spare tire face down and mocking up the tire mounting bracket Part A into the wheel. Measure from the flat surface of the bracket to the bottom edge of the tire. Use this distance to determine which tailgate bracket mounting holes are best for bracket #2. Secure the bracket to the tailgate using the supplied hardware: in the bottom two holes ONLY :(Qty:2) 1/2"-13 x 1-1/2" Length Grade 8 Hex Head Cap Screw, (Qty:4) 1/2" SAE Flat Washer, & (Qty:2) 1/2"-13 Grade 8 Hex Lock Nut. Do not tighten at this time.



25. Locate the supplied third brake light bracket, install the supplied LED light using the (Qty:2) 1/4"-20 x 1-1/4" Length Button Head Cap Screw and (Qty:2) 1/4"-20 Serrated Flange Nut, fully tighten.

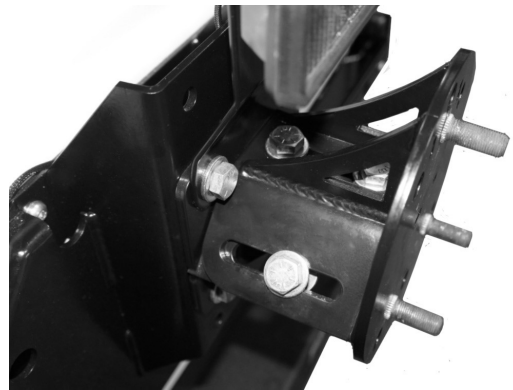
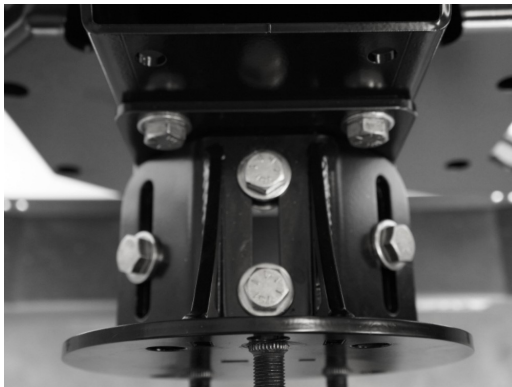


## Installation Instructions (Continued)

26. Attach the completed 3rd brake light assembly to the two upper mounting holes that secure the Tire Mounting Bracket # 2 to the tire carrier assembly. Tighten the 1/2" hardware to 80 ft.-lbs.



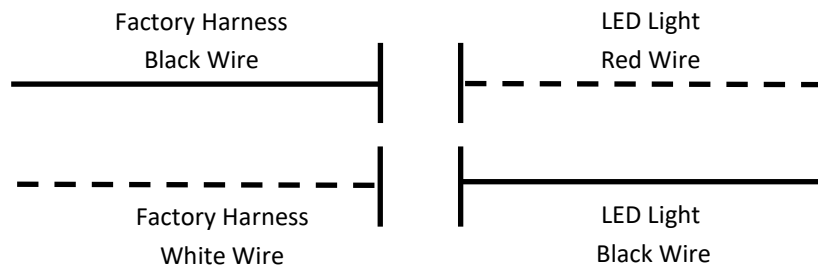
27. Align the slots on the Rusty's TJ/LJ HD Adjustable Tire Mounting Bracket #1 & #2. Secure the two mounting brackets to one another with the supplied hardware: (Qty:4) 1/2"-13 x 1-1/2" Long Grade 8 Hex Head Cap Screw, (Qty:8) 1/2" SAE Flat Washer, & (Qty:4) 1/2"-13 Grade 8 Hex Lock Nut. Snug the hardware so that the bracket is still able to be adjusted but does not move loosely to allow for depth adjustment (Note: Install two of the 1/2" bolts, washer, and locknuts into the top center slotted mounting point of the mounting brackets as pictured below.)



28. With the help of an assistant, temporarily mount the spare tire to the tire carrier assembly and install a lug nut to hold the tire in place.
29. Adjust the tire mounting bracket to get the tire as close to the tire carrier as possible. Once you have determined the best location for your spare tire, tighten the hardware. If necessary, tighten one or two bolts and then remove the spare tire to provide easier access to the remaining hardware. Important Note: It is strongly recommended that the tire is mounted as close to the tailgate as possible.

## Installation Instructions (Continued)

30. Tighten all of the hardware to secure the mounting brackets. Torque the 1/2" hardware to 80 ft.-lbs.
31. Locate the factory wiring harness and run the wiring through the tire carrier to the rear to the third brake light. The factory wires will be black and white. Adjust the wire length and cut the excess if needed. Use butt terminals to connect the factory black wire to the red LED wire, then connect the factory white wire to the black LED wire. Place wire loom over the wires.



32. Double-check all fasteners for proper torque. Re-install the spare tire and secure with three lug nuts.
33. Locate the supplied tether and hardware. Open the tailgate to roughly 90 degrees. Install the tether to the upper inner hinge support bracket tab with the (Qty:1) 1/4"-20 x 3/4 Length Button Head Cap Screw and (Qty:1) 1/4"-20 Grade 8 Hex Lock Nut. Tighten this bolt slightly, still allowing the tether to rotate but not loosely rattling.



## Installation Instructions (Continued)

34. This step will depend on the tire size and wheel offset. If the TJ/LJ is a hard top, open the rear glass and ensure it will clear the tire, by closing the glass. We recommend a 1" spacing between the glass and the tire when closing. Check the clearance on the tire to body on the passenger side rear corner. With larger tires, we recommend having at least 1" of clearance between the tire and rear corner. Once these factors are set correctly, pull the tether to the tailgate. Ensure the tether is level (horizontally straight) and mark the hole location on the tailgate with a paint pen or sharpie. Center punch the marked hole and carefully drill to the marked hole to 3/8". (**Note:** Make sure that you only drill through the first layer of metal.) Install the supplied 1/4"-20 Knurled Threaded Nut Insert with the 1/4"-20 UNC Manual Threaded Insert Installation Tool. (Note: Refer to the instructions supplied with the 1/4"-20 UNC Manual Threaded Insert Installation Tool.) Locate the tether back to the installed riv nut and install the supplied (Qty:1) 1/4"-20 x 3/4 Length Button Head Cap Screw. Level the tether once again and fully tighten the 1/4"-20 x 3/4 Length Button Head Cap Screw.

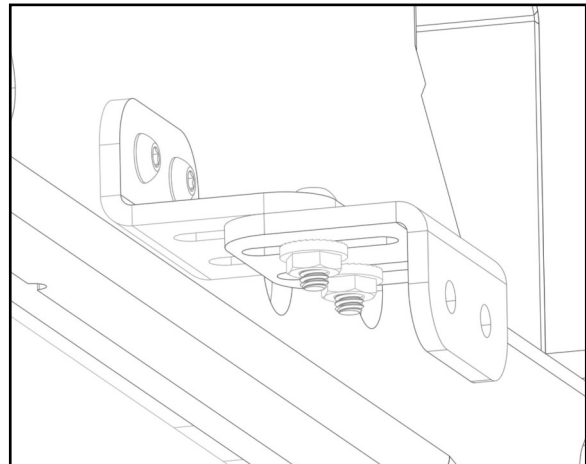
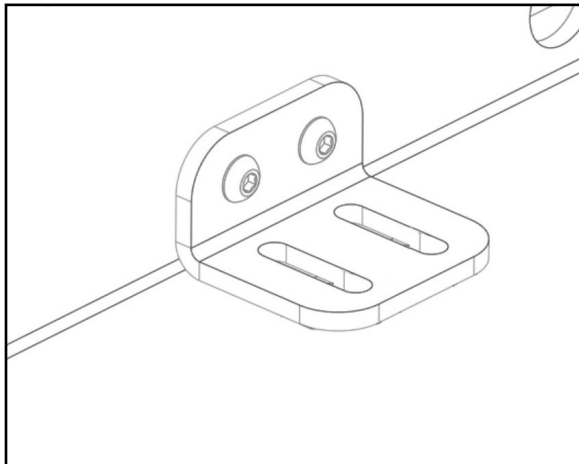


35. Attach the tether to the 1/4"-20 Knurled Threaded Nut Insert installed in the previous step using the supplied (Qty:1) 1/4"-20 x 3/4 Length Button Head Cap Screw. Level the tether once again and fully tighten the 1/4"-20 x 3/4 Length Button Head Cap Screw.
36. Tighten all of the hardware to secure the mounting brackets. Torque the 1/2" hardware to 80 ft.-lbs.
37. Double-check all fasteners for proper torque. Re-install the spare tire and secure with three lug nuts.

## Installation Instructions (Continued)

Note: Save all factory components and hardware for reuse, unless noted.

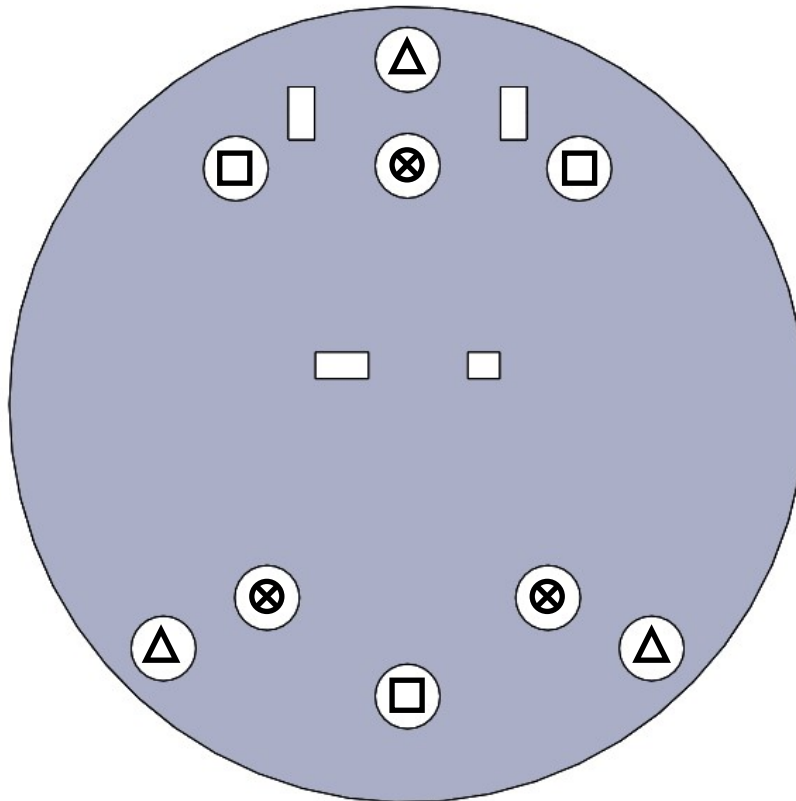
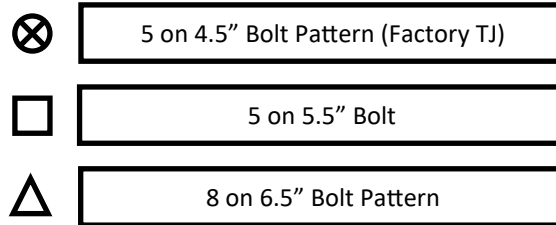
38. Install the supplied Spare Tire Support to the tire carrier assembly by completing the following steps.
- Locate the two 1/4" threaded hole locations in the tire carrier assembly directly below the center where the spare tire mounting brackets are located to find the two hole locations to mount the spare tire support brackets
  - Attach the supplied (Qty:1) Short L Shaped Spare Tire Support to the tire carrier assembly with the use of (Qty:2) 1/4"-20 x 3/4" Length Button Head Cap Screws. (Image 54-B)
  - Attach either (Qty:1) Short L Shaped Spare Tire Support or (Qty:1) Long L Shaped Spare Tire Support to the support installed in step 54-B with the use of (Qty:2) 1/4"-20 x 3/4" Length Button Head Cap Screws, (Qty:4) 1/4" SAE Flat Washer, and (Qty:2) 1/4"- 20 Grade 8 Hex Lock Nut. Tighten until the brackets are seated against one another but still can be moved back and forward. (**Note:** The backspacing and width of the wheel and tire will determine what bracket is needed to support the spare tire. (Image 54-C))
  - Press the Spare Tire Support firmly against the spare tire and tighten the hardware installed in step 54-C.



39. The installation is now complete!

## Spare Tire Bolt Pattern Diagram

Refer to the diagram below to make sure that you install the supplied wheel studs to match the correct bolt pattern on your vehicle. The 5 on 4.5" bolt pattern is what comes standard on all of the 1997-2006 Jeep TJ Wrangler models.



## WARNING

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