

2021 Ford Bronco
RTR Adjustable Spare Tire Carrier
Part number 14021.004.14.C

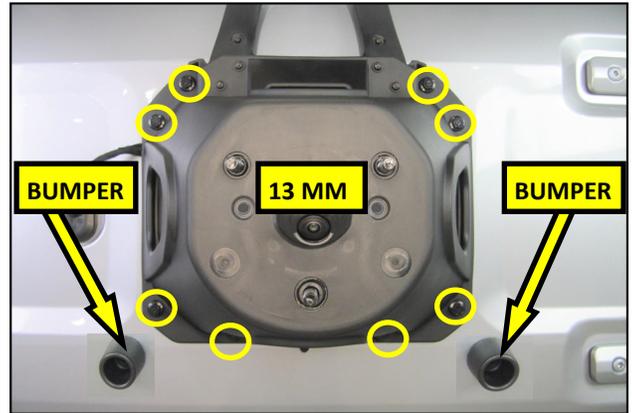
Components Included

1. Tire Carrier Base	1	10. Lower Brake Light Bracket	1
2. Tire Carrier Hoop	1	11. Brake Light Housing	1
3. Tire Carrier Hub	1	12. Alignment Plate	1
4. Upper Hinge	1	13. Coax Harness Extension	1
5. Lower Hinge	1	14. 6 Pin Harness Extension	1
6. Adjustment Bracket	1	15. High Strength Bolt pack	1
7. Camera Mount	1	16. Hardware pack	1
8. Camera Retainer	1	17. Lug nut kit	1
9. Upper Brake Light Bracket	1	18. Instructions	1

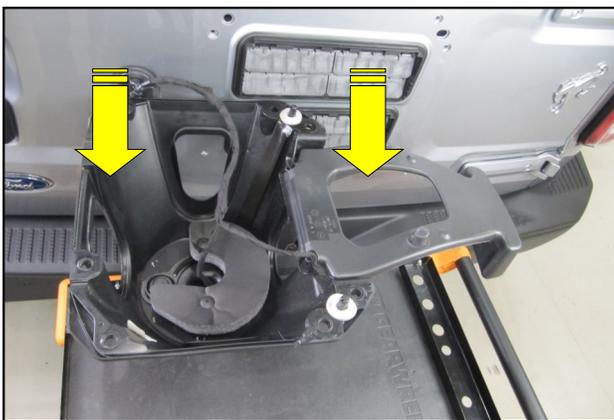
NOTE: Safe installation of this part will require the aid of an assistant. RTR advises the use of Loctite® Threadlocker Blue 242, or equivalent, on all threaded fasteners during assembly, unless otherwise instructed.



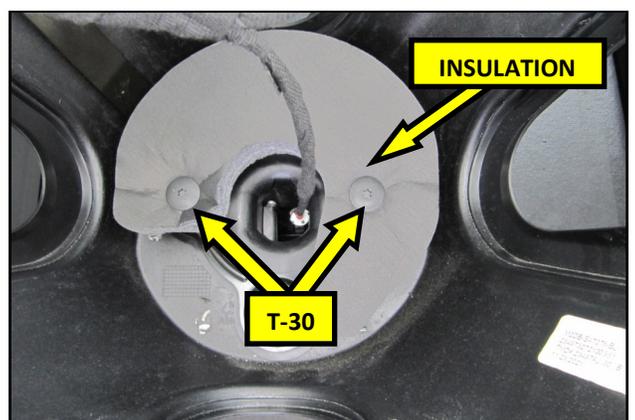
1. With the vehicle parked on level ground, open the tailgate approx. 5 to 10 degrees and remove the spare tire. Note the movement in the tailgate due to the spare tire removal. The noted movement due to tire weight should be accounted for during final alignment.



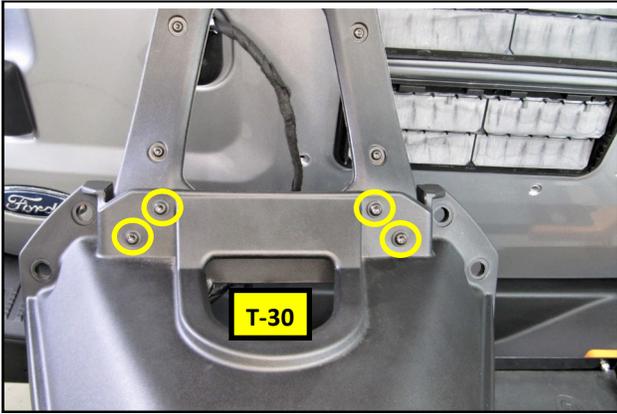
2. Using a plastic trim removal tool, pry the rubber bumpers out of the tailgate. Remove the eight bolts securing the OEM tire carrier to the vehicle and set them aside.



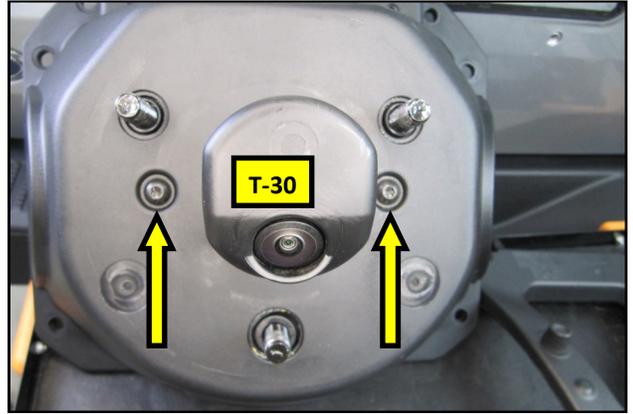
3. Set the tire carrier onto a tool cart or equivalent.



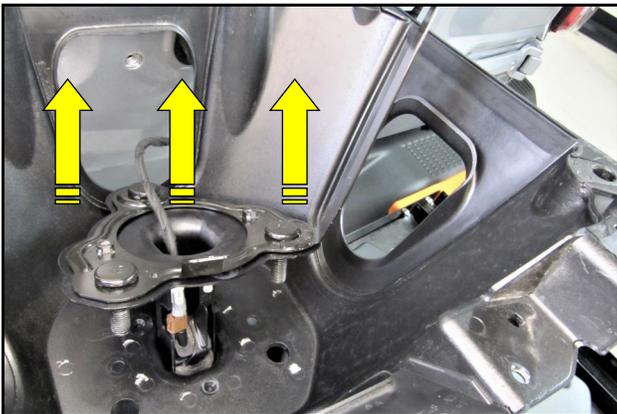
4. Using a T-30 TORX® driver, remove the two plastic fasteners in the insulation pad and remove the insulation from the tire carrier.



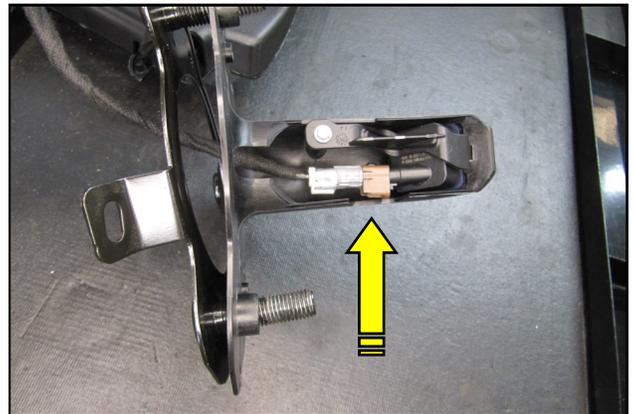
5. Using a T-30 TORX® driver, remove the four screws securing the third brake light to the tire carrier.



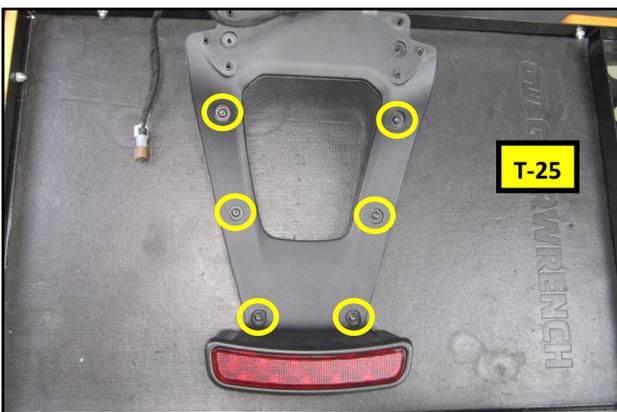
6. Using a T-30 TORX® driver, remove the two screws on the face of the tire carrier.



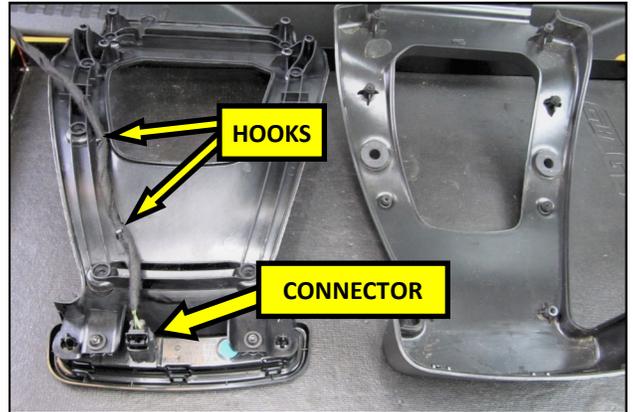
7. Remove the steel bracket and camera assembly from the tire carrier.



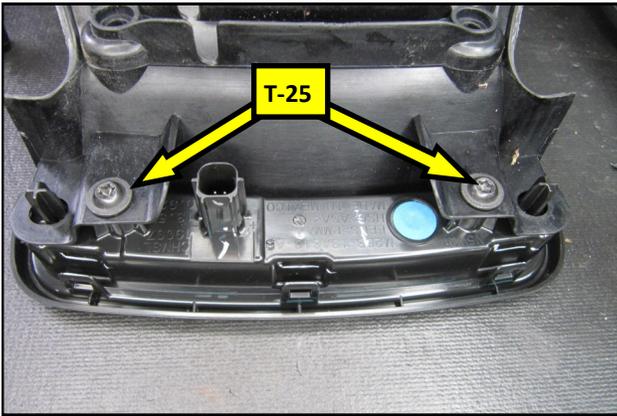
8. Disconnect the camera harness from the camera assembly and set it aside.



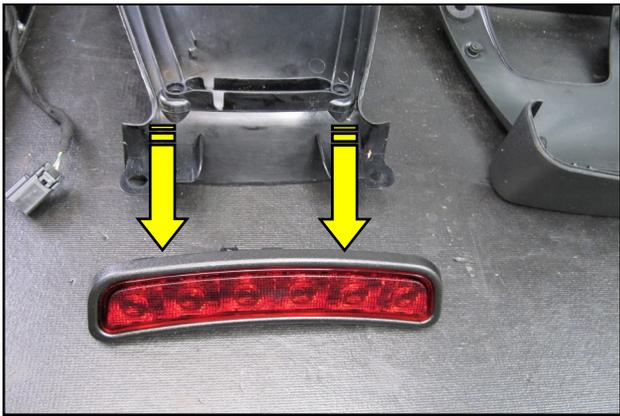
9. Using a T-25 TORX® driver, remove the six screws in the third brake light housing.



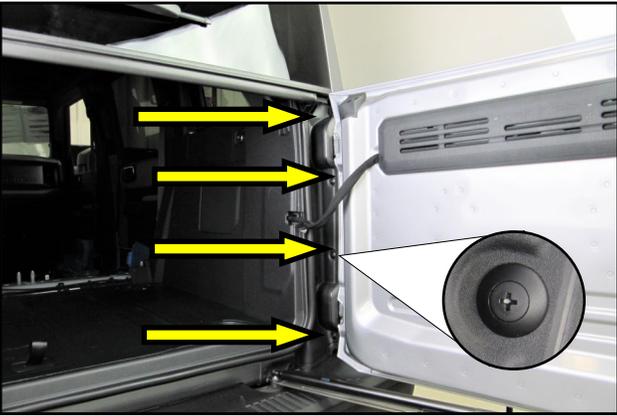
10. Separate the two halves of the housing to gain access to the light. Unhook and disconnect the wiring harness.



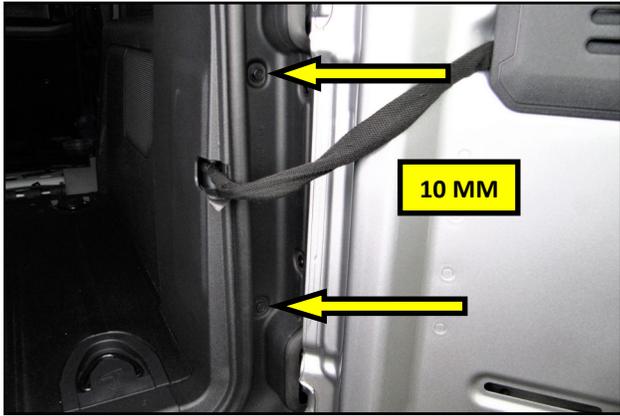
11. Using a T-25 TORX® driver, remove the two screws in the brake light bracket and remove the bracket.



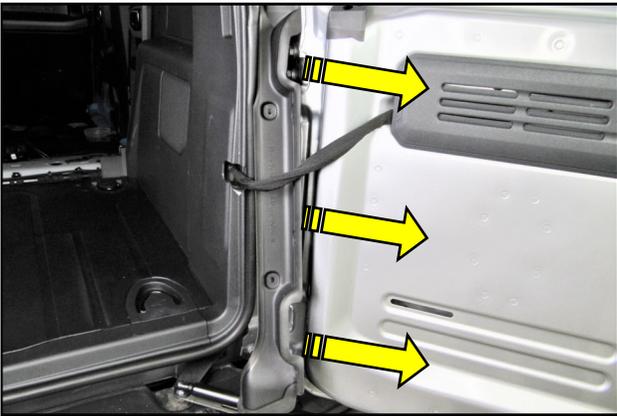
12. Remove the brake light from the housing and set it aside, This light will be reused with the RTR tire Carrier.



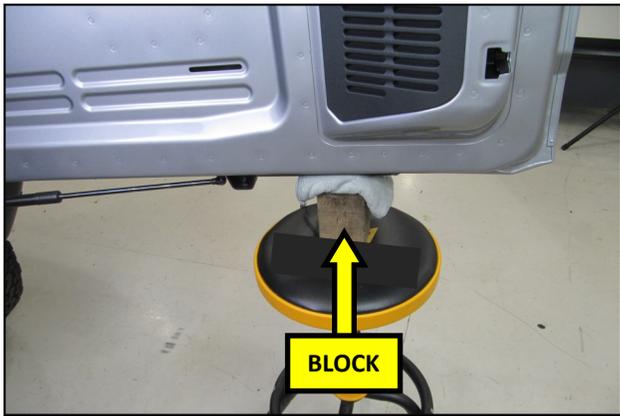
13. Open the tailgate to expose the hinge cover. Using a No. 2 Phillips driver, remove the four plastic rivets in the cover



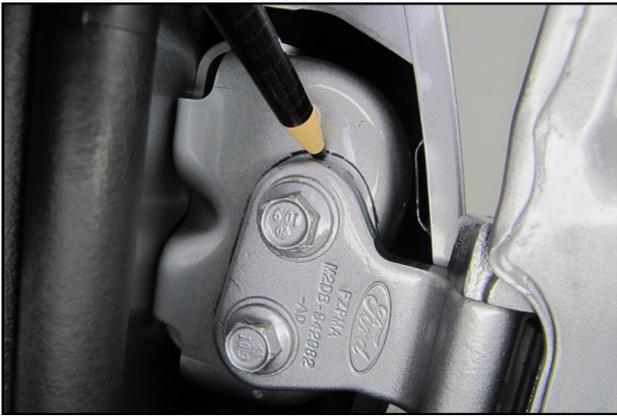
14. Using a 10 mm socket, remove the two screws in the hinge cover.



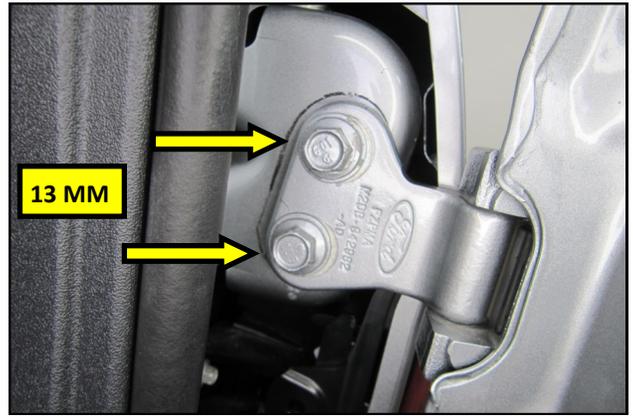
15. Remove the hinge cover from the vehicle and set it aside.



16. Using a shop stool and a padded block of wood, support the bottom of the tailgate as shown.



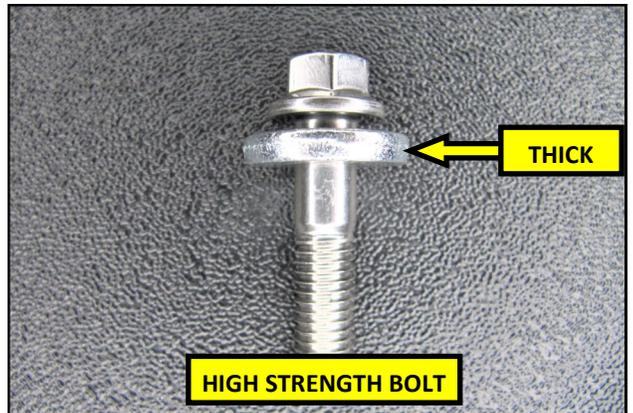
17. Using a grease pencil or equivalent, mark the position of the upper and lower tailgate hinges onto the vehicle as shown.



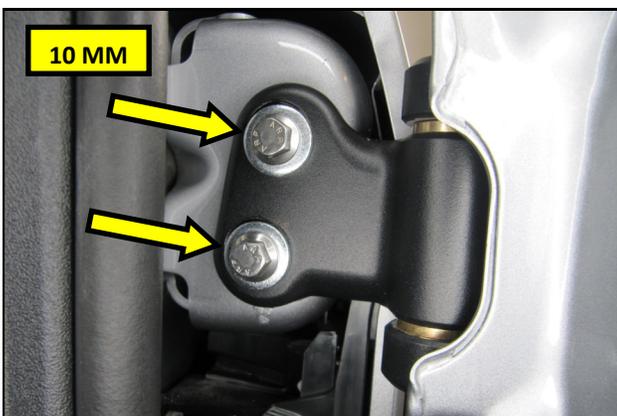
18. Using a 13 mm socket, remove the two upper, interior hinge bolts.



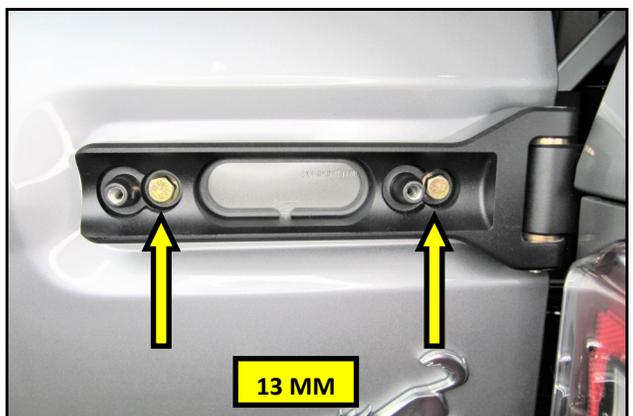
19. Using a T-45 TORX® driver, remove the two upper exterior hinge bolts and set the hinge aside. The OEM hinge and hardware will not be reused in this installation.



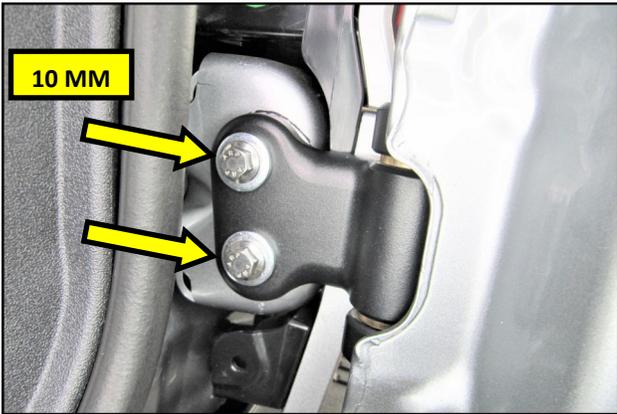
20. The High Strength, ARP® bolts and Thick Washers are to be used for mounting the Inner hinge to the vehicle. **NOTE:** The RTR Upper and Lower Hinges have location specific profiles. Match The RTR Inner Hinge to the marking in step 17 before installing the Hinge.



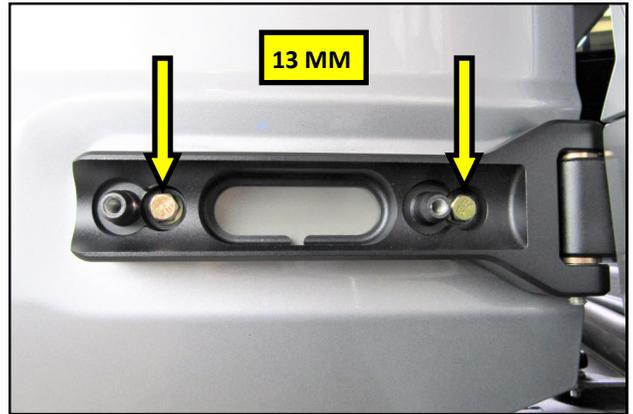
21. Using the High Strength Bolts and Thick Washers, mount the Upper Hinge onto the vehicle as shown. Leave the Bolts snug at this time to allow for final adjustment.



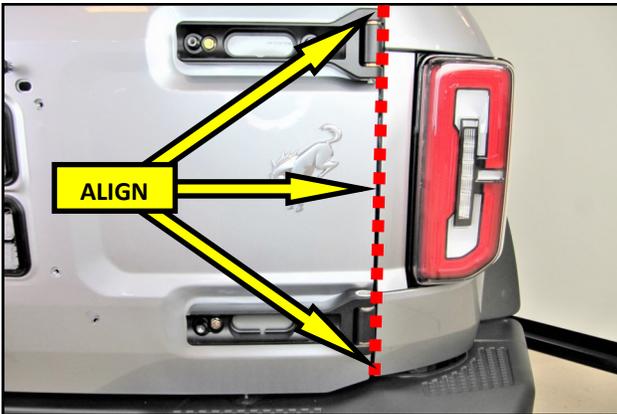
22. Install the RTR Upper Hinge onto the tailgate as shown, using the supplied M8 Flange Bolts. Leave the Bolts snug at this time to allow for final adjustment.



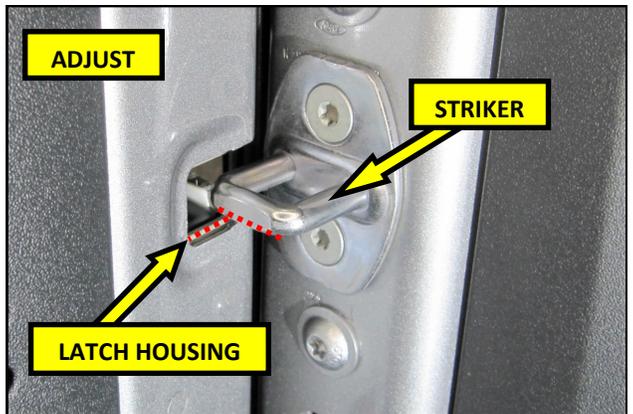
23. Using the High Strength Bolts and Thick Washers, mount the Lower Hinge onto the vehicle as shown. Leave the bolts snug at this time to allow for final adjustment.



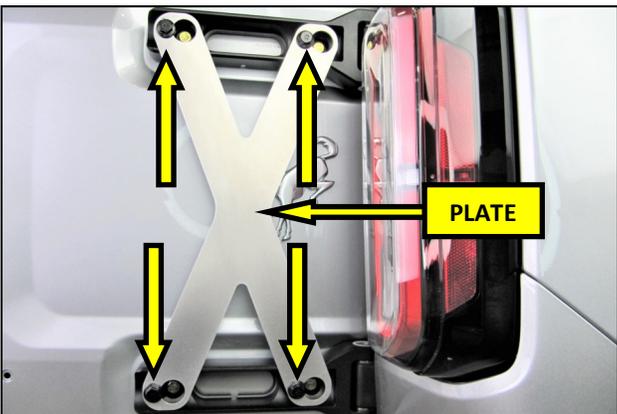
24. Install the RTR Lower Hinge onto the tailgate as shown, using the supplied M8 Flange Bolts. Leave the Bolts snug at this time to allow for final adjustment.



25. Carefully close the tailgate. Check the tailgate to body alignment and adjust as necessary, leaving all hardware snug at this time to allow for final adjustment.



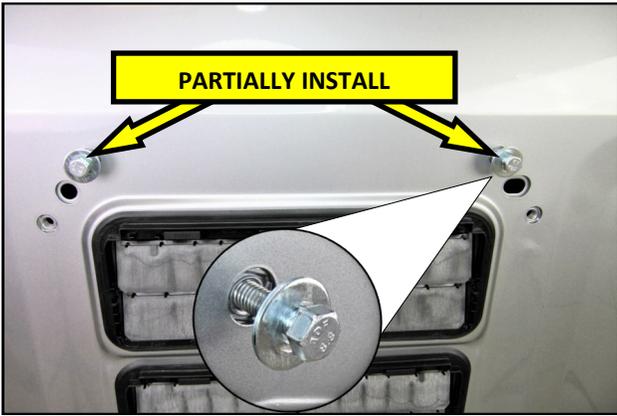
26. To compensate for added weight of the spare tire, RTR suggests adjusting the tailgate upward until the latch housing is in slight contact with the striker. The actual amount of upward adjustment will vary depending on tire size & weight.



27. Using four of the OEM tire carrier bolts from step 2, mount the Alignment Plate to the Upper and Lower Hinges. Once proper positioning has been achieved, torque all four exterior Hinge Bolts final tight-30 lb.ft. Remove the OEM bolts and Alignment Plate. RTR Recommends retaining the Alignment Plate for future use.



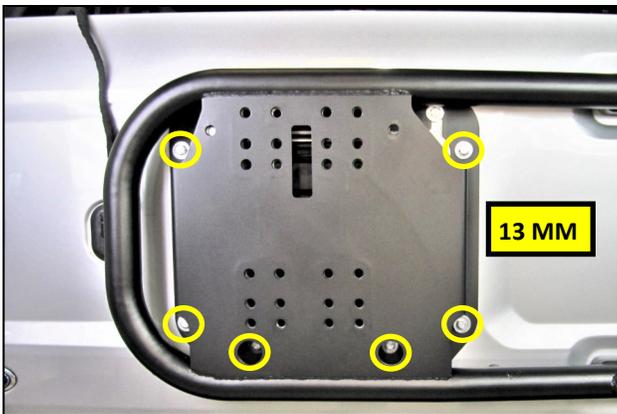
28. Insert the supplied Low Profile Plugs into the tailgate bumper holes in the from step 2.



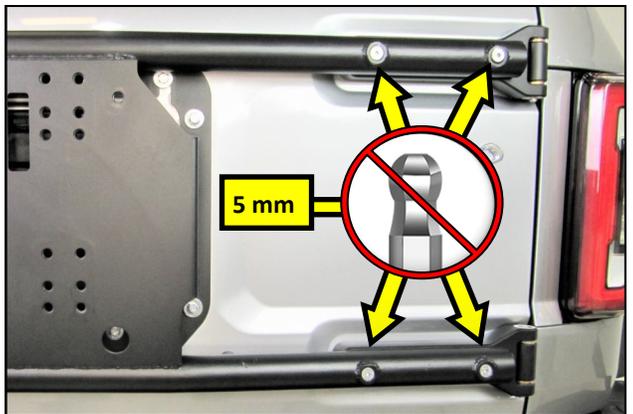
29. Partially install two of the supplied M8 Hex Head Bolts with the Over Size Washers into the top 2 holes in the tailgate.



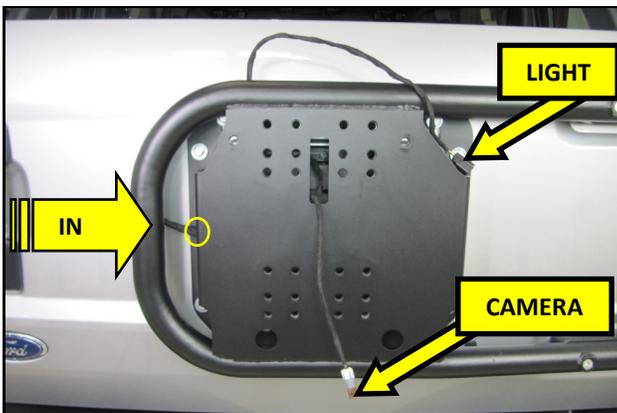
30. With help from an assistant, carefully lower the Tire Carrier Hoop onto the hardware from step 28 and into the RTR Hinges.



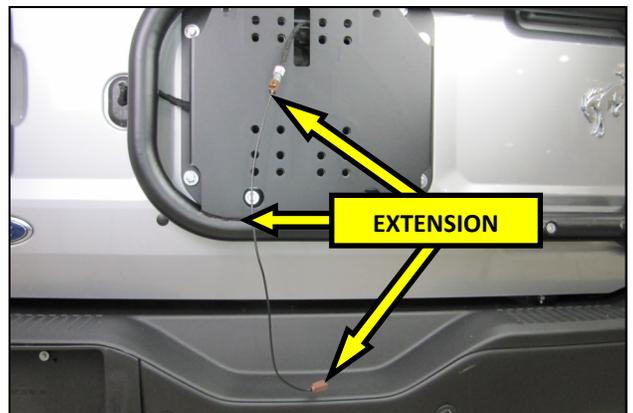
31. Loosely install the six remaining sets of Hex Head Bolts and Washers into the Tire Carrier



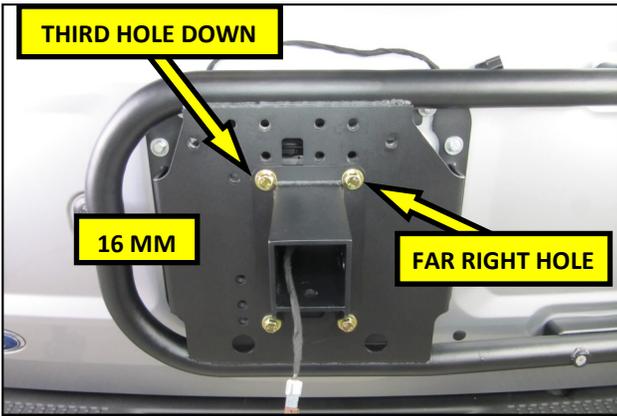
32. Using a 5 mm hex bit socket, in like new condition, carefully install the Flat Head Bolts through the Hoop arms and into the RTR Hinges. Do not use a ball driver bit for this step. Torque the flat head Bolts to 17 lb.ft. Torque the remaining Tire Carrier Bolts from Steps 29, 30 and, 31 to 30 lb.ft.



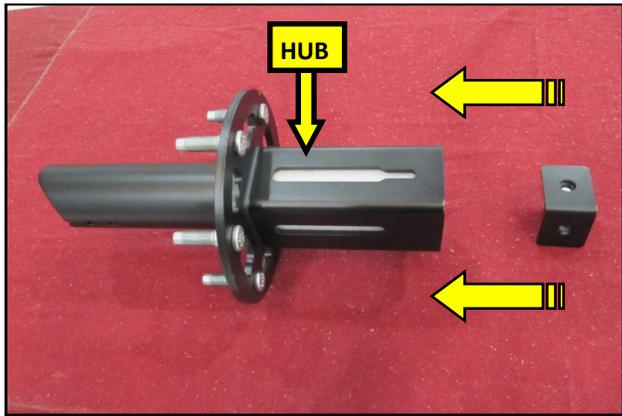
33. Feed the camera and brake light harnesses through the opening on the side of the Carrier. Feed the camera harness out through the front of the Carrier and the brake light harness out through the top as shown.



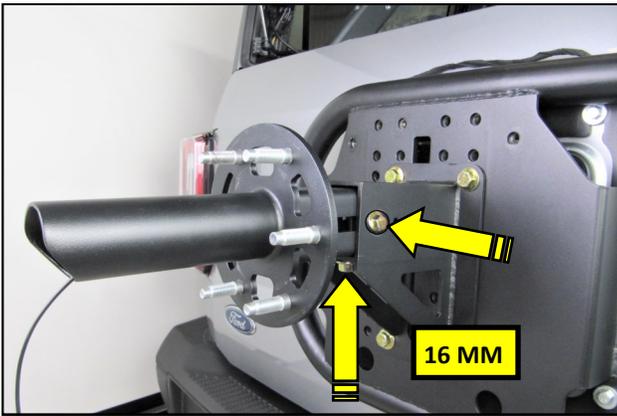
34. Select the appropriate Camera Extension Harness (Coaxial or 6 Pin) for the application and connect it to the OEM harness as shown. Discard the unused Harness Extension. It will not be used.



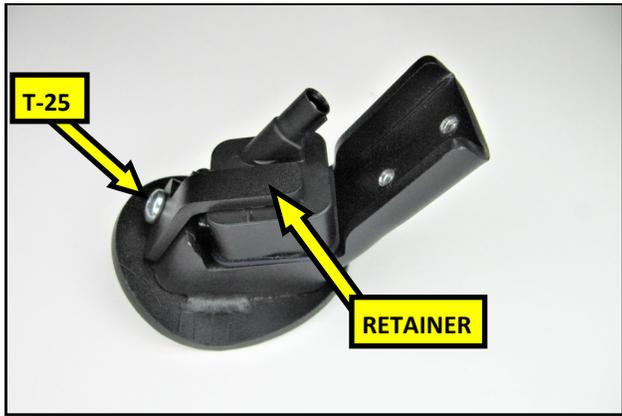
35. Feed the Camera Extension Harness in through the bottom of the Carrier Base. Mount the Carrier Base as shown, using the M12 (large) Flange Bolts and torque the Bolts to 45 lb.ft. The recommended mounting position is intended to accommodate up to a 35" tire with the stock bumper. The Base can be moved to accommodate larger size tires and RTR Accessory Plate options.



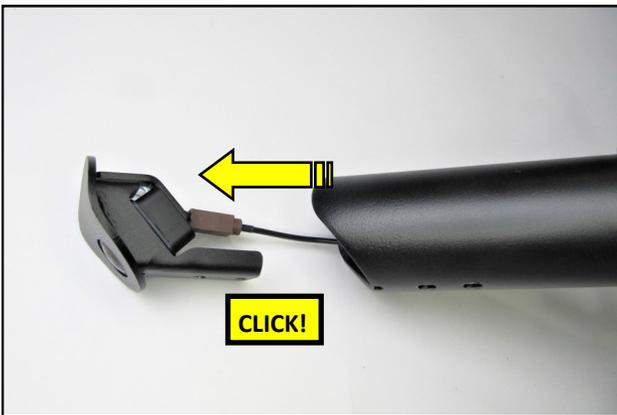
36. Slide the Adjuster Bracket into the Carrier Hub as shown, with the weld nuts on the Bracket aligned with the slots in the Hub.



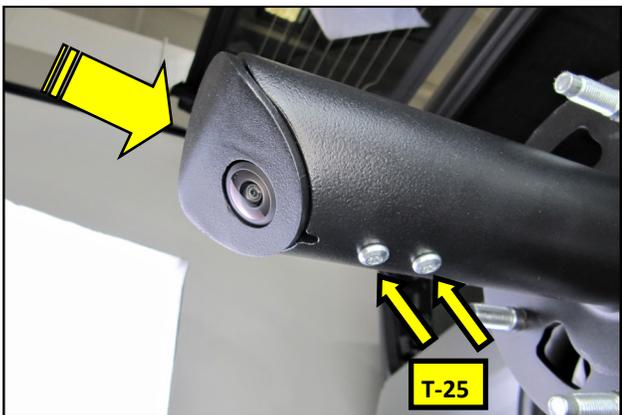
37. Feed the Extension Harness through the Hub and slide the Hub into the Base as shown. Thread two of the M12 Flange Nuts into the Adjuster Bracket. Leave the Bolts snug for now.



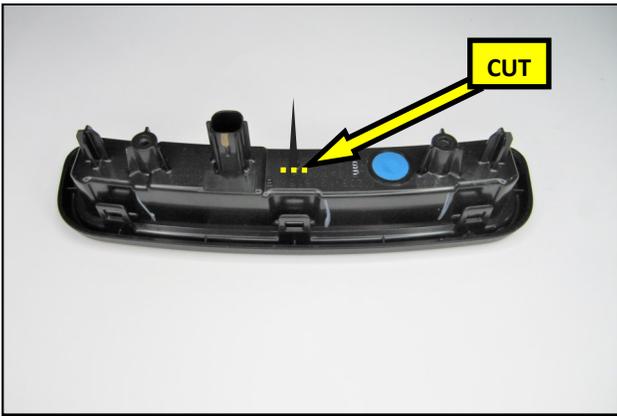
38. Transfer the OEM camera into the RTR Camera Mount and secure it using supplied Retainer and one of the # 10 (Large) Pan Head Screws.



39. Connect the Extension harness to the OEM Camera



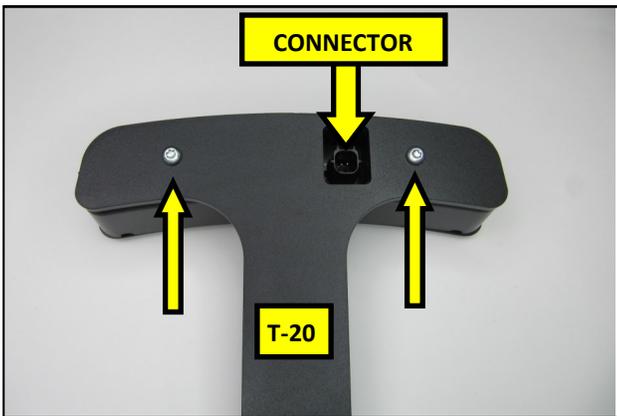
40. Carefully Insert the Camera and Mount assembly into the snout on the Hub and secure it using the 2 remaining #10 Pan Head Screws.



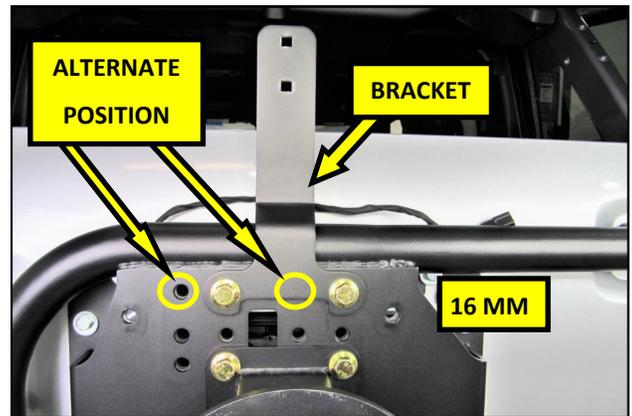
41. Using a pair of diagonal cutting pliers, carefully trim off the center post on the back of the OEM brake light.



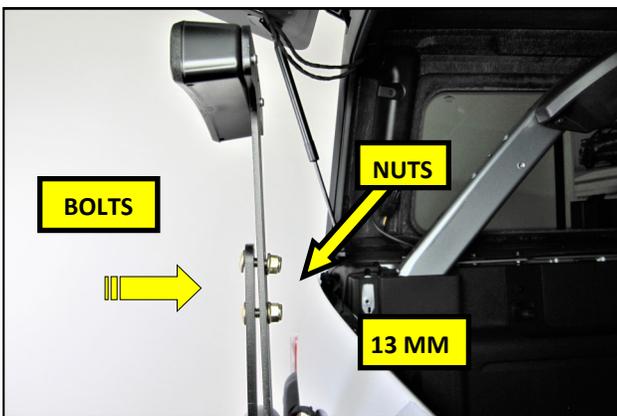
42. Place the OEM brake light into the RTR Brake Light Housing.



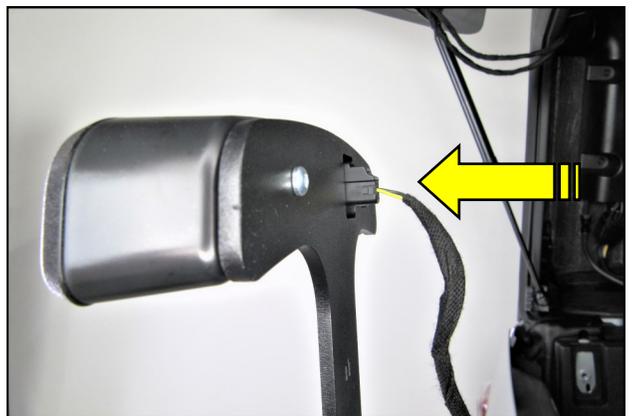
43. Set the RTR Upper Brake Light Bracket onto the OEM Light and Housing as shown. Use the two # 8 (Small) Pan Head Screws to secure the assembly. Do not over tighten. Threadlocker will not be needed for this step.



44. Mount the Lower Brake Light Bracket to the Tire Carrier using two Large Flange Bolts. Torque the Bolts to 45 lb.ft. **NOTE:** The Lower Bracket can be mounted off center, towards the drivers side to be more centered with larger tires. There is also sufficient bolt length for the Hub flange and the Light Bracket to use the same holes.



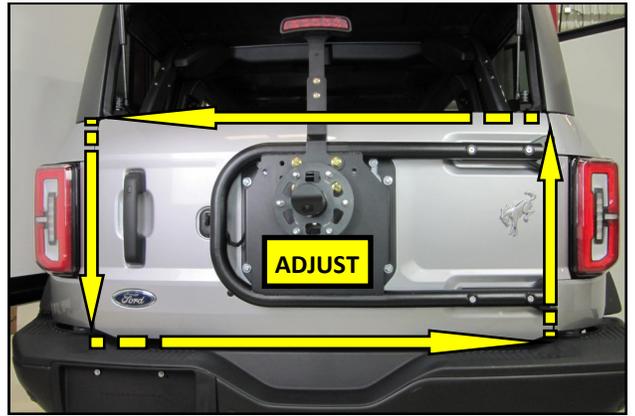
45. Join the two Brake Light Brackets together using the two Carriage Bolts and Lock Nuts. The Upper Bracket is slotted and will accommodate larger tire sizes. Torque the Lock Nuts to 14 lb.ft. Threadlocker will not be needed for this step.



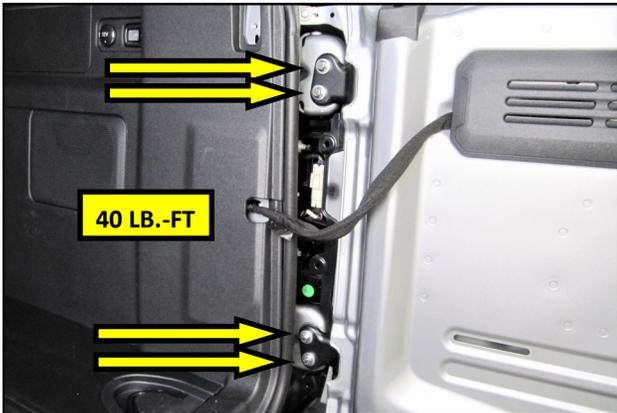
46. Reconnect the harness to the third brake light.



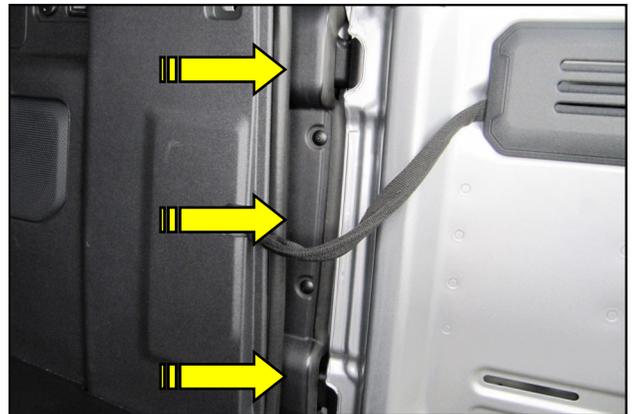
47. Secure the wire harness to the Upper Brake Light Bracket using the supplied Cable Tie. Trim the excess length.



48. Check the tailgate to body alignment and adjust as necessary.



49. Torque the 4 Inner Hinge Bolts, final tight to 40 lb.ft.



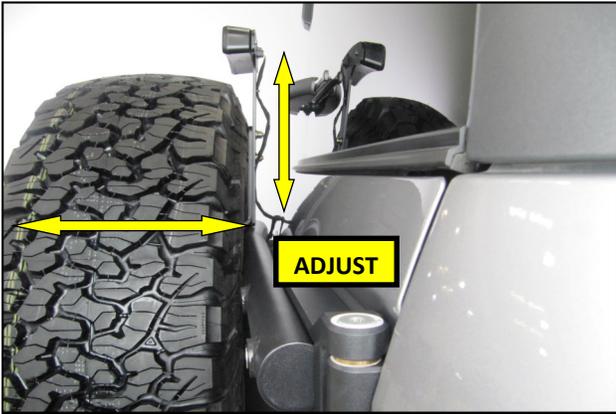
50. Reinstall the OEM hinge cover removed in steps 13, 14, and 15.



51. With the help of an assistant, slide the spare tire onto the RTR Tire Carrier. Take caution to avoid cosmetic damage to the powder coat finish.



52. Using four of the supplied Spline Drive Lug Nuts and Socket, snug the spare tire down onto the RTR Tire Carriers Hub.



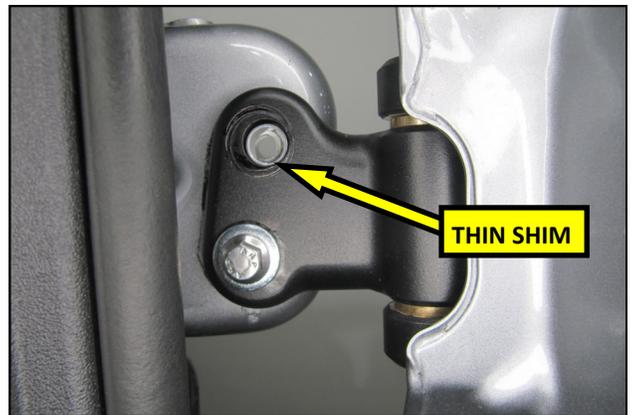
53. Check tire to Carrier clearance and adjust if necessary using the two bolts from step 37. Once the proper position is achieved, torque the Bolts to 45 lb.ft Adjust the brake light height if necessary using the Nuts from step 44.



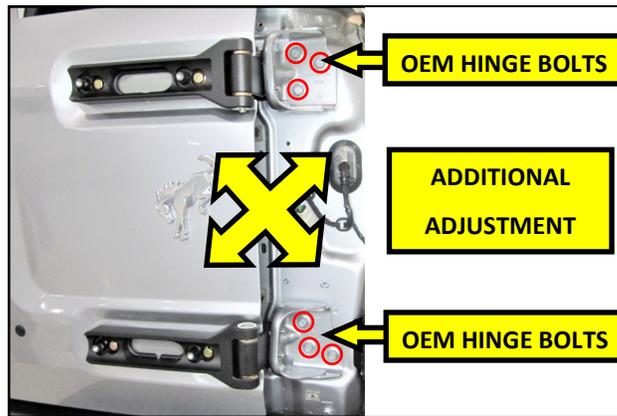
54. Install the 2 remaining Lug Nuts and torque all six to 41 lb.ft.



INSTALL OPTION A. RTR has included two sets of Position Control Shims– Thick and Thin. With additional weight of larger tires, Fuel cans, or trail jacks added to the Tire Carrier it may be necessary to readjust the tailgate position to compensate.



A2. These Shims can be inserted, one at a time, into the Inner Hinge Flanges to help control movement. Any combination of Thick and Thin Shims can be used. Any unused Shims should be retained for possible future use.



INSTALL OPTION B. Because of varying manufacturing tolerances and or severe off roading, additional tailgate adjustment may be needed and can be found behind the right tail lamp. Loosen the six OEM hinge bolts and align the tailgate as needed. Torque the bolts to 30 lb.ft.