

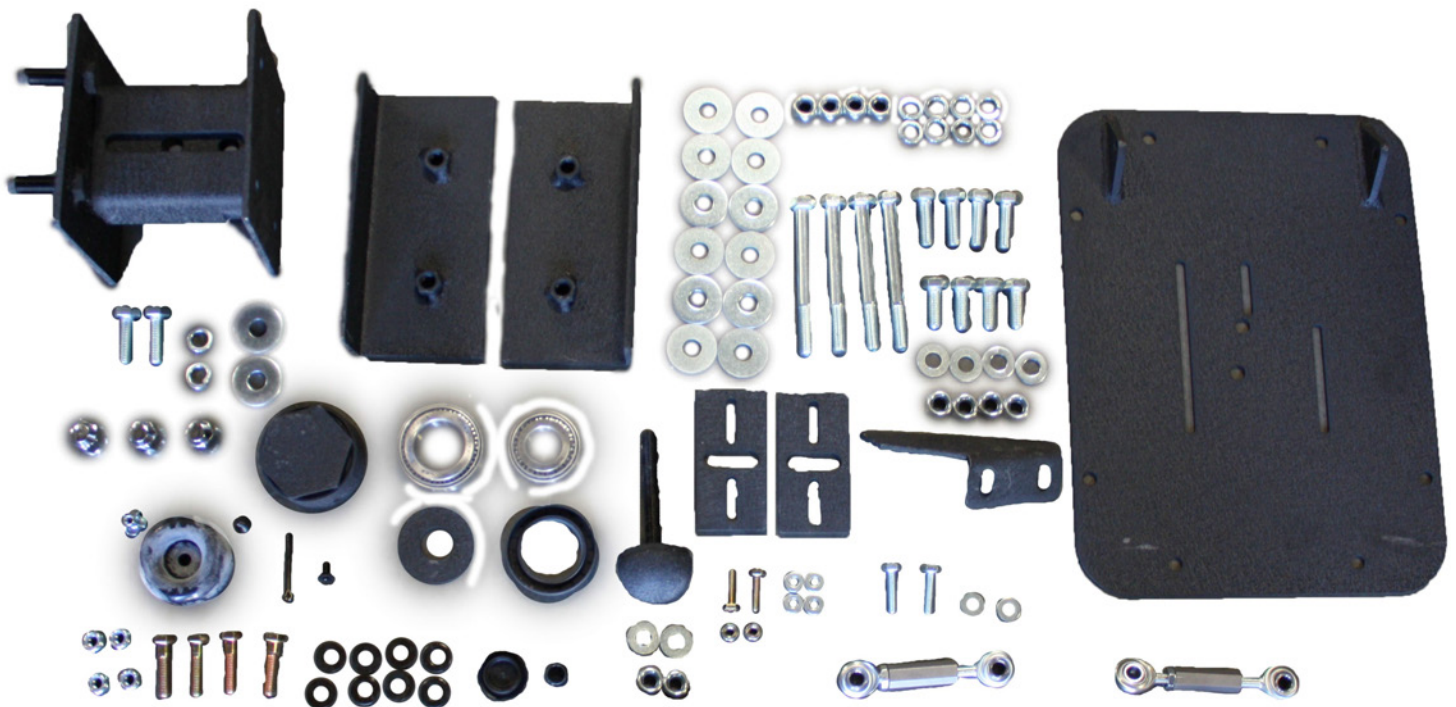
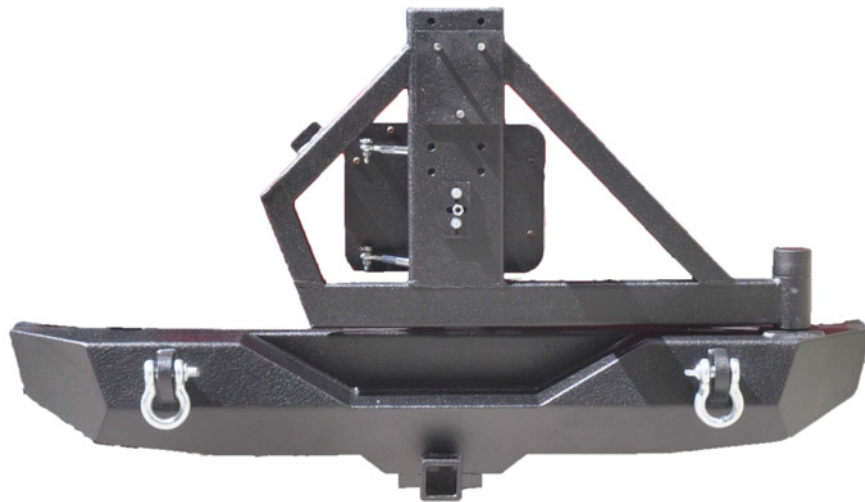


# RS-2 SINGLE ACTION REAR

## BUMPER WITH TIRE CARRIER

INSTALL MANUAL FOR 2007-2016

JEEP WRANGLER ALL MODELS.



## Rear Bumper Installation Instructions

- 1) Remove factory rear bumper, (this includes all tow hitch receivers and recovery hooks)
- 2) Open the tailgate and locate the plastic vent on the inside of the door. Remove the vent by lightly prying on the upper left corner of it until it pulls out,. Be careful not to force the vent out or break it.



- 3) Once the vent is off, locate the small wiring harness just inside the vent and unclip it. This is the wire to the factory third brake light.

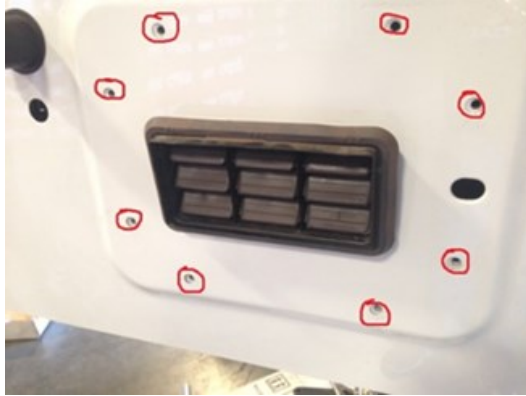


- 4) Next, remove the rubber plug and wire from the tailgate that is connected to your rear brake light. The plug should pull through if you disconnected the wires correctly. If it is not



coming out easily, help the rubber fitting from the inside of the tailgate by pushing from the rear and pulling at an angle downward at the same time.

5) Remove the factory spare tire carrier by removing the 8 bolts (13mm) attached to the tailgate.



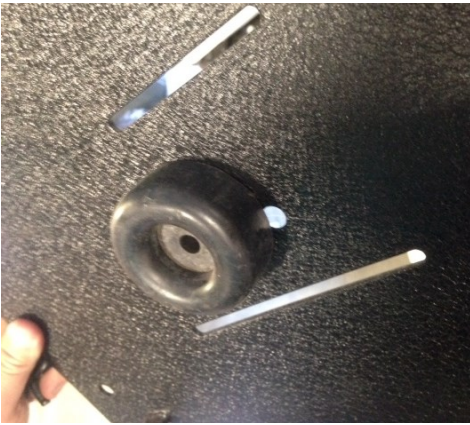
6) Next remove the vent in the middle of the tailgate by gently prying on one of the corners until it pulls out (no bolts/ screws need to be removed) The vent is secured with plastic tabs. Be careful not to break them. Also remove the rubber plug to the right of the vent (circled)



7) Remove the rubber stock tire stabilizer on the right from the tailgate. To remove, pull it out and rotating it at a slight angle to avoid damage. Leave the stabilizer, that is on the left side, on the tail gate. The new tire carrier will rest against it when in the closed position.



8) Next take the rubber donut and, using the *supplied hardware*, place it on the connector plate as shown in the drilled hole. UPDATE: Use the lower left hole.



9) Now place the rear door plate on the tail gate and use the factory (13mm) bolts. Mount the rear door plate where the factory tire carrier was previously. It should line up as shown, with tabs on the drivers side of vehicle.



10) With the rear door plate mounted, you are now ready to install the bumper. To start insert the nut plates into the frame rails and line up the nuts to the factory holes in the frame.



11) Next insert the 4 large 3"x 12mm through bolts through the frame rail with the threads facing the rear of the Jeep, make sure to put the washers onto the bolts as well. NOTE: You'll have to put the head of the bolt above the exhaust canister to get it into the hole.



12) Next place the spacer plate over the bolts.



13) Have a friend or two lift the bumper with you and place the holes in the middle of the bumper on to the bolts sticking out of the rear of the frame. Install the nylon nuts on the 4 through bolts sticking out of the rear to hold the bumper to the frame. Next, install the short-

er bolts through the sides of the bumper and into the nut plates you previously installed into the frame.

Note: Once you have the side bolts in place let the bumper down gently so it doesn't move and damage the body of your Jeep.



14) Next tighten the four center bolts in the rear cross-member first to allow the bumper to properly align itself. Torque to 60 ft/lbs.



15) Tighten the 4 side bolts that are loosely inserted into the nut plates with a ratchet. Torque to 60 ft/lbs



16) Ensure that the bumper is level. If it is not level repeat steps 12-15 making adjustments to level the bumper. NOTE: If the bumper is not level have a friend hold it level and tighten the side bolts first and then tighten the rear cross-member bolts. The bumper should be mounted as level as possible.





17) Take out your new tire carrier and locate the larger bearing that goes with it. Slide the bearing down the axle with the race facing upward. You may need to sand down the shaft, if the coating is too thick, so you can slide bearing all the way to the bottom of the axle.

18) Next, press the bearing races into the carrier. Start with placing the large bearing onto the axle with the race as shown in the picture above. Lower the tire carrier over the threaded post on the bumper. NOTE: Good to have a friend here to hold it level for this process. Now drop in the race from the smaller bearing, fat-side down, followed by the bearing itself just as shown in first picture below. Screw on the castle nut and start tightening. You can use an adjustable wrench or large socket with ratchet. The top race will press-in with little effort. The lower race will be tight. At the beginning, check the lower race to see if going in straight. This process may feel snug at times, but you will know when you are fully seated when it stops abruptly. The top of the castle nut should sit just below the top of the threaded shaft. Now remove castle nut and carrier so you can pack bearings and install the seal on to the bottom of the carrier.



19) Next step is packing the bearings with grease. Once bearing is packed, turn the carrier upside down and place the large bearing in the bottom of the carrier, small side first. Next, install the seal over the bearing by tapping the seal in with piece of wood across it and a rubber mallet. NOTE: It's ok if peels away a little rubber off of the seal when tapping it in.



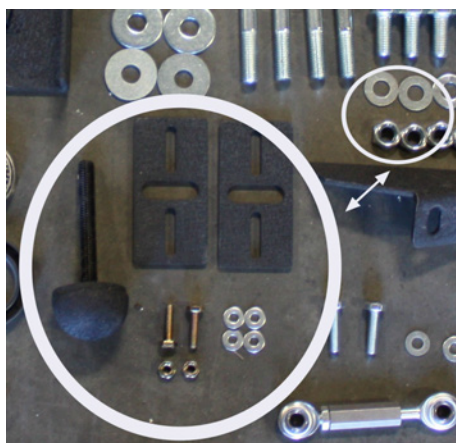
20) Carefully place the carrier back on the shaft with small bearing on top. Now add the fat washer before the castle nut. Tighten castle nut until it stops abruptly again and back off nut just far enough to get the cotter pin thru the hole in the shaft. NOTE: If you don't have enough room for cotter pin, that is a sign that you need to press the bearing race in a bit more. Simply put a little more torque on the castle nut and you will be able to press it in more.



21) Bend the end of cotter pin to secure. Set the cap onto the whole assemble with the holes lined up that are highlighted below and then insert the small tapered head screw and tighten.



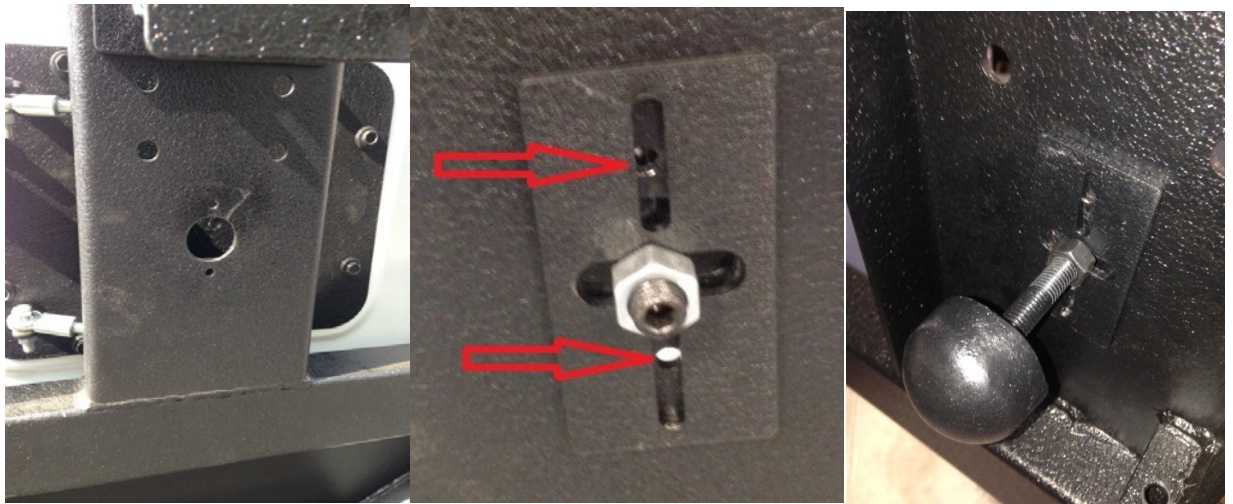
22) Take out the stopper with the threaded end and the two laser cut plates with a + cut into them as shown below.



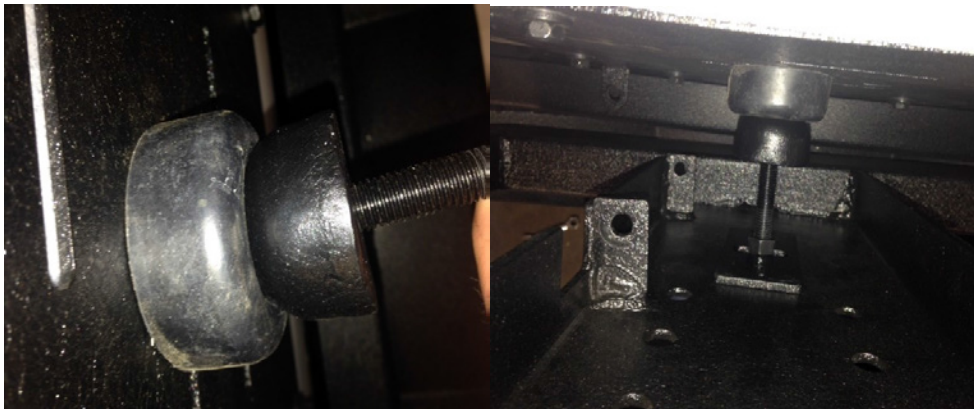


23) Place the plates on both sides of the center hole on the tire carrier. Insert the threaded stopper through the plates with a nut and washer on each side as shown below. Ball-end goes toward the vehicle.

Loosely install the hardware to keep plates on as you will be adjusting the ball position.

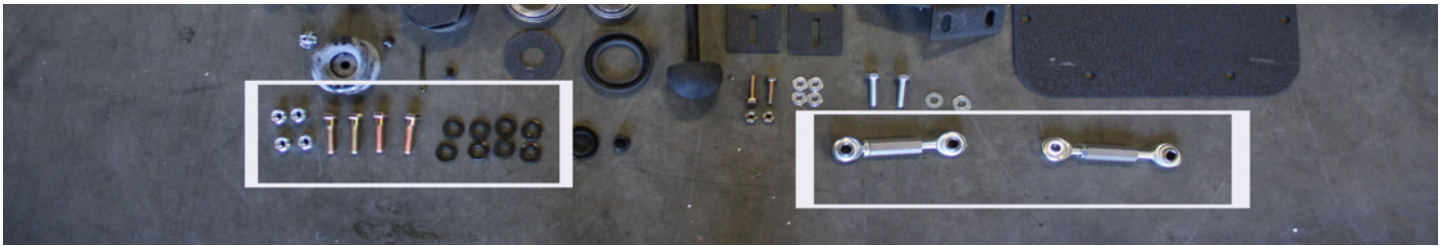


24) Make sure that the stopper lines up with the rubber donut as shown below. Adjust the inside nut to where the ball touches the donut when the carrier is just cracked open. Lock the ball in place with the outer nut. When the tire carrier is completely closed the ball will be pressed up against the factory rubber stopper. This will provide extra rigidity when there is a tire on the carrier.



25) Now you can tighten the smaller nut and bolts. This mechanism is adjustable to compensate for differing Jeeps and minor variations between every Wrangler.



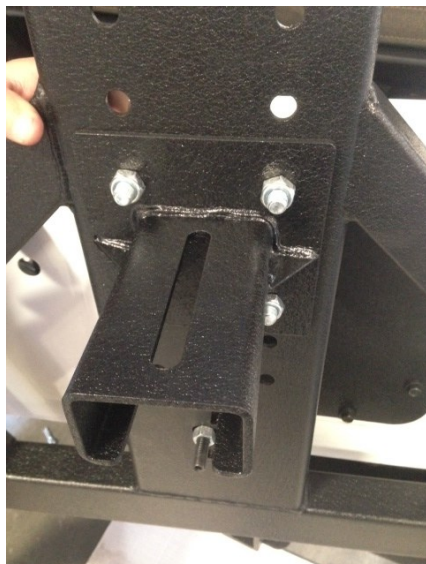


26) Now locate the 2 adjustable heim joints and hardware. Start with bolting the two heims to the tire carrier. NOTE: Don't need to tighten yet. With the tail gate closed and the tire carrier against the ball and donut, attach the other side of the heims to the door plate. (USE THE WASHERS TO SHIM THE HEIMS SO THAT THEY ARE PARALLEL WITH EACH OTHER AND THAT THE ANGLE IS EITHER LEVEL FROM CARRIER TO TAIL GATE OR SLIGHTLY UPWARD FROM CARRIER TO TAIL GATE.) You can space either end or combination of both to achieve the proper angle. NOTE: If the heims are not parallel with each other it could bind up limiting range of motion or worse damage the tail gate.



27) You can shorten or lengthen the heim joint by spinning the middle turn buckle until you have taken away any slack in the tire carrier. Any adjustments to the heims should be made when the door is closed. Tighten the jam nut on the turn buckle when you are finished setting the length, this will ensure it wont back off when your driving.

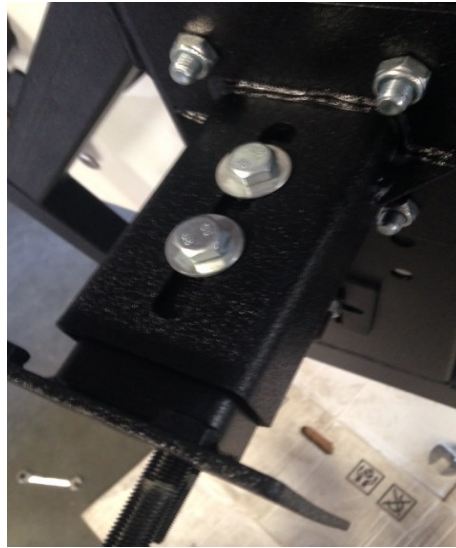
29) Next is putting the spare tire adapter arm onto the tire carrier. To do this line up the arm as shown according to your tire size and how high you want the tire mounted. Place the bolts with washers provided through the four holes and tighten with nuts.



31) Place the final piece of the tire carrier into the slot shown below and use the two bolts provided to loosely attach it.



32) Now take the spare tire you wish to mount and place it onto the 3 studs while the two bolts are still loose and use the tire to press the sliding spare carrier piece back until the tire is snugly against the carrier. Remove the tire without disturbing the sliding piece. Move the sliding portion 1/4" inward and tighten. This is done so it presses the spare firmly against carrier. NOTE: Mounting the tire as low as possible is highly recommended to reduce movement and provide better vision out the back window.



33) Now that everything is tight put your spare tire back onto the studs and secure it using the factory lug nuts. And you're finished!

Enjoy the hassle free use of your Jeep's tailgate again.

