

ROCK HARD 4X4 JEEP WRANGLER TJ/LJ /YJ/CJ 1976-2006 REAR BUMPER WITH TIRE CARRIER PART #: RH-2001-C **Installation Manual**



Customer Service / Tech Support: sales@rockhard4x4.com Thank you for your purchase! Please read all instructions carefully prior to beginning installation of your Rock Hard 4x4 product.

PACKING LIST:

- 12 7/16" HARDENED FLAT WASHERS
- 4 7/16" STD. X 1 3/4" GRADE 8 BOLTS
- 4 7/16 X 1 ½" SERRATED WASHER HEAD BOLTS
- 8 7/16" LOCK WASHERS
- 8 7/16" GRADE 8 NUTS
- 2 1/2" STD. WING NUTS
- 2 ½" SAE FLAT WASHER
- 6 1 1/4" X .072 SHIM
- 2 1-1/4" X .4375 SPACER
- 1 10 X 1 1/2" SELF-TAPPING SCREW
- 1 GREASE FITTING 1/4" X 28
- 2- 1/4"X 5/8" STD BUTTON HEAD
- 2- 1/4" STD NYLOCK NUT
- 3- 5/16"STD 1-1/4" BOLTS
- 1- 5/16"STD X 1" BUTTON HEAD BOLT
- 1- 5/16"STD NYLOCK NUT
- 3- 5/16" X 2" BOLT
- 5- 5/16" SAE FLAT WASHER
- 2- 1/4" X2" BOLT
- 2- 1/2" COLLARS
- 1- STRICKER BOLT
- 1- 7/16"STD NUT WITH WELDED TAB
- 3- WHEEL STUDS
- 1- RUBBER BUMPER
- 8 7/16 X 1 ¼ " HEX HEAD
- 8 **7/16 LOC WASHERS**
- 8 7/16 GRD 8 NUTS
- 8 7/16 GRD 8 SAE WASHER
- 1 ALUM.SPECIAL NUT
- 1 LATCH
- 1 LATCH HANDLE
- 1 LATCH PLATE (3-HOLES)
- 2 SMALL BACKING PLATES
- 4 LARGE BACKING PLATES
- 1 ALUM, END CAP

- 1 TAIL GATE GUARD LONG W/END CAPS
- 1 2 X 2 END CAP

REQUIRED TOOLS:

TORX 27
TORX 30
TORX 50
½" OR 13 MM SOCKET
18MM WRENCH
5/8" WRENCH
½" DRILL BIT
13MM WRENCH OR SOCKET
11/16" WRENCH
PHILLIPS SCREWDRIVER
3/8" SOCKET
CRESCENT WRENCH
4MM ALLEN
7/16" SOCKET OR WRENCH
3/16" ALLEN

Thank you for your purchase! Whether you bought this Rock Hard 4x4 product from one of our fantastic dealers or our factory direct team, we thank you for your business.

Rock Hard 4x4 is a family owned and operated business. We are headquartered in Saint Paul, Nebraska where we design, fabricate, and produce every single one of our products. Every single part we manufacture is 100% Made in the USA and exclusively in house by the Rock Hard 4x4 team.

We outsource zero processes.

To you, that means the product you are installing is the highest quality and longest lasting component on the market.

To us, that means you've selected a part we've spent years developing. Each Rock Hard 4x4 part has gone through more research and development and evolution than most people realize. While our parts may have the same striking look year after year, subtle revisions and refinements we implement maintain their status as the most durable and easy to install on the market.

We invite you to send us your feedback! Please email, call, write, or catch us on an off road trail near you to share your tales, share comments, and ask questions.

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- 1. Remove factory rear bumper and tire mount from vehicle tailgate.
- 2. We have added a third slot of installation holes on our rear bumper frame mount depending if your vehicle has a body lift or not. This will aide in fitment and functionality of tire carrier swing as well since you can now raise or lower your entire bumper to meet your vehicle's profile.
- IF INSTALLING FRAME BRACE KITS DO SO AT THIS TIME

 TJ / LJ and CJ use bolt holes provided in side of Frame

 Brace kit and frame rails. Insert bolt heads from inside

 frame rails, through Frame Brace, so nuts can be installed

 on outside of frame rails.

 YJ due to leaf spring perch, welding is required.
- 3. Install Rock Hard 4x4 rear bumper using four 7/16" x 1 ¾" grade 8 bolts, four nuts, 8 flat washers, and four lock washers on four outside bumper holes.

IF 4 HOLES ARE NOT PREDRILLED FROM FACTORY:

- 1. Some rear cross members come with only 2 holes drilled per side from factory. If this is the case, install rear bumper using 2 bolts per side. Insert bolts from inside cross member out so the nuts, washers, and large metal plates are inside Rock Hard 4x4 mounting bracket.
- 2. Use a sharpie or other marking device to mark where to drill other 2 holes on driver side and passenger side of cross member.
- 3. Remove rear bumper.
- 4. Drill holes using ½" drill bit. Be careful on TJ to not hit gas tank.

JEEP TJ TIP:

- 1. If inner holes on each side are difficult to reach, remove 4 rearward fuel tank mounting bolts to lower fuel tank. You should now be able to insert smaller mounting plates (1 per side inside cross member) and bolts.
- 4. Use four 7/16" x $1\frac{1}{2}$ " serrated washer head bolts, four flat washers, four lock washers, and four nuts on the bolts to the inside of the bumper with the head of the bolts to the fuel tank.

PRO TIP: On some 2003 and newer vehicles, you may have to drill the four holes towards the center of the bumper. **You must use all 8 bolts.** Before tightening hardware ensure your bumper is centered. Mark four inside holes to be drilled on frame. Remove bumper, drill holes, reinstall bumper, center and tighten all bolts. Do not drill into fuel tank.

5. Install latch striker using 7/16" nut with tab welded to nut. Do not tighten at this time. *See Photo 3 and Photo 4.*





Photo 3 Photo 4

6. Remove passenger side taillight using Phillips head screwdriver.

- 7. Install 1 ¼" x .060 shim on 1 ¾" shaft. Start with 1 to 2 shims if 31" tire and no can mounts or Rock Rack is being installed. 2 or 3 shims for larger tire and accessories. This will take some experimenting for your individual vehicle and tire carrier setup. This can all be done without fully disassembling swing arm post after you've finished installing bumper and have mounted spare tire and any accessories.
- 8. Install $1 \frac{1}{4}$ " x .4375 long spacer on top of shims.
- 9. Install swing arm on 1 ¼" shaft. *Take care to not damage seal.*
- 10. Install second $1 \frac{1}{4}$ " x .4375 spacer on shaft inside of seal.
- 11. Install extra shims on shaft to store them for future use if needed.
- 12. Install large aluminum special nut on shaft and tighten only to take up and down play out of swing arm.
- 13. Install Release Handle on latch with two ¼" x 5/8" button head bolts and ¼" nylock nuts. *See Photo 6.*



Photo 6

14. Install latch on underside of swing arm with Release Handle in slot. Use three 5/16" x $1\frac{1}{4}$ " bolts and tapered plate for nut. Install plate inside swing arm tubing. *See Photo 7.*



Photo 7

- 15. Fully open tire carrier swing to test stainless safety lock pin. This pin prevents accidental tire carrier closure when vehicle is on a side hill.
- 16. When swing is open the stainless safety lock pin should drop into bumper hole at the same time as it hits dead stop at full open. This also exposes the zerk fitting when it comes time to grease tire carrier swing post.
- 17. Lift stainless safety lock pin to close swing. Once closed, striker should center on latch. Carefully release latch and tighten striker bolt. Recheck for binding and readjust if needed. Make sure latch is closing on second catch. This is a two stage latch just like a car door.
- 18. Install zerk fitting into side of tire carrier swing arm post (hub).
- 19. Install ½" collars on high lift jack mounts on rearward facing side of bottom of swing arm. Install your high lift

- jack and adjust collars to keep jack away from powdercoating.
- 20. Install ½" washers and wing nut on outside of jack. You can adjust the ½" bolt in slot on tire carrier swing arm depending on your jack's hole spacing.
- 21. To mount spare tire to tire carrier swing arm, install wheel stud in single hole at top of spare tire mounting plate. Start stud with hammer and drive in with long punch. Install wheel and screw on lug nut. Pull wheel stud into tire mount to seat stud by tightening lug nut. Put other two bolts in with punch to seat wheel studs.
- 22. Install height adjustment mount to tire carrier using 4 bolts, washers, and nuts with bolt heads on back side (facing Jeep) and nuts on inside (facing spare tire.)
- 23. Install in/out adjustment mount onto height adjustment mount. Bolt heads on top, nuts on under side. 2 per side for a total of 4.
- 24. Install all optional accessories onto swing (can mounts, Rock Rack, etc) according to the way you want to configure your rear bumper.
- 25. Open swing and check where bottom of swing arm hits plastic rest on rear bumper. Swing should be below top of plastic by approx 1/16" to 1/8". This puts a preload on plastic rest and prevents vibrating. Weight is now on plastic rest and not bearings. This is where you can add or remove shims to ensure tire carrier arm just hits plastic rest during closure. *See Photo 8.*



Photo 8

26. Install round rubber bumper stop using 5/16" x 1" button head bolt and 5/16" nylock nut. Test swing arm closure ensuring closure latch makes it to second catch. Should take a good hard swing to close tire carrier. *See Photo 9.*



Photo 9

- 27. If latch rattles at striker pin a washer can be added behind round rubber bumper stop to tighten. Make sure latch locks on second stop.
- 28. Fill hub completely with grease at this time until grease begins to "burp" out under hub and pushes seals out. Do not overfill as you may damage seals. Remove zerk fitting to release pressure then reinstall. Wipe away any residue and push seals back in place with large flathead screwdriver. Test tire carrier operation.

- 29. Install tailgate plate at this time. Bolt $1 \frac{3}{4}$ " tubing on back of tailgate where factory rubber bumpers and tire mount was bolted. Use $\frac{1}{4}$ " x 2" bolt and $\frac{5}{16}$ " x 2" bolts with washers.
- 30. Install one of the factory rubber bumpers with number 10 x 1 ½" self tapping screws on to backside of swing ensuring it lines up with center of tubing on tailgate. You can shim or trim the rubber bumper on back side of tire carrier to adjust as needed to ensure tight fit. You want the rubber bumper to hit tailgate tube when there is about ¼" to 3/8" from swing arm to rubber bumper stop on lower rear bumper. Substantial pressure on tailgate tubing is ideal.
- 31. Install aluminum end cap on swing tubing at latch handle. Make sure latch handle is in center of slot, bend if needed. Use plastic or rubber hammer to drive on end cap.

CONGRATULATIONS! Now go wheel your rig with a whole new level of confidence and capability.

Please send photos of your install and wheeling adventures to pics@rockhard4x4.com. We love seeing our products on the trail!

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