
*VERIFY YOU HAVE ALL THE COMPONENTS BEFORE STARTING THE INSTALLATION. REFER TO THE ENGINEERING DRAWINGS AT THE END OF THIS DOCUMENT FOR A COMPLETE PARTS LIST*


Start by removing your rear bumper. Use a floor jack or a helper to help hold your new rear bumper up to the rear cross member.

Install the $7 / 16^{\prime \prime}$ Hex Bolts, Nuts and Washers into the two outside mounting
 holes first. Leave these slightly loose while you finish the bumper installation


Install the 7/16" Hex Bolts, Washers and Frame Backing Plate as shown into the second set of holes in the rear Cross Member. You man need to lower the gas tank skid plate to access these holes to be able to insert the Frame Backing Plate behind the Cross Member. Leave these bolts loose while you finish the bumper installation.


Install the Bottom Bracket as shown using 3/8" Hex Bolt and washers into the bumper. You will need to use the existing leaf spring mounting bolt to install the bracket to the frame.

Use the supplied $1 / 4^{\prime \prime}$ thick Spacer Washer to fill the gap if needed

If the threads are no longer usable after you remove this bolt, you may need to drill and tap this hole to the next larger size.

Once all the bolts are installed, make sure the bumper is centered on the Jeep and level side to side. Tighten all the mounting bolts securely. Once the bumper is secure reinstall the gas tank skid plate if you removed it previously.

Place bottom bearing LM29749 onto the spindle, tapered side up. It should slide down all the way and spin freely. If not, you are using the wrong bearing.

Make SURE to check the bearing number to be sure you have the correct one.

Be sure not to mix up the top and bottom bearings as this can damage the spindle and bearings.

Pack the bearings using red wheel bearing grease using the palm method. You can find an explanation and video of this online.


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Next place the tire carrier Swing Arm upside down as shown in the image below. Insert the greased bottom bearing LM29749 into the housing with the tapered side facing into the housing.


Place the Bearing Seal onto the housing. The cupped side of the Bearing Seal should face into the housing. Lightly tap the seal into the housing opening using a hammer and a block of wood. Be careful to evenly tap the seal into place until its flush with the bottom of the housing.


With a helper, slowly place the Swing Arm onto the Spindle. While holding the Swing Arm parallel with the bumper, place the top tapered bearing into the housing. Be sure it seats properly and install the Bearing Washer and large Nut.

Hand tighten the Nut first and make sure the Swing Arm operates smoothly.


It is a good idea to add a little blue loctite to the Nut to prevent loosening. Slowly tighten the nut using a 1-1/2" Socket. Check the swing arm movement every 1/8th turn. The Swing Arm movement should not be restricted and should move freely. Overtightening could damage the bearings.

Install and tighten the Spindle Cap.


Install the tire carrier Swing Stop. Be sure to adjust it to allow the Swing Arm to open completely and allow full use of your tailgate and tighten securly. If you have accessories mounted on your tire carrier, you can adjust this slightly to help avoid the accessories hitting the Jeep when you open the Swing Arm.

***The Swing Stop is designed to allow the swing arm to rest in the open position when the Jeep is out of level. It is also a safety feature that will help stop the tire carrier Swing Arm from swinging around and damaging your Jeep. Repeatedly allowing the Swing Arm to swing around uncontrolled could damage the swing stop. Always open the Swing Arm and allow it to gently rest against the Swing Stop.***

Install the Tire Mount and Tire Mount Bracket onto the Swing Arm using 7/16" Hex Bolts, Nuts and Washers. You will want to mount this in the lowest position that will work for your size tire. Measure the radius of your tire then transfer that measurement up from the top of the bumper to find the optimal position for your Tire Mount.


With the tire mounted, there could be a small gap between the back of the wheel and the Tire Mount Plate approximately $1 / 4^{\prime \prime}-1 / 2^{\prime \prime}$. This is ok because the tire is pressed against the Tire Carrier Back Plate. The tire should be tight against the back plate and not able to wiggle side to side or up and down. This keeps the tire from shaking on the tire carrier.


Your tire should squeeze againse the back plate of the tire carrier at the top and the bottom.


There could be a small gap between the back face of the wheel and the Tire Mount Bracket depending on your wheel back spacing. Do not over-tighten the lug nuts because this will cause excessive stress on the Tire Mount Bracket.


WARNING!
To prevent excessive tire shaking, your tire must be squeezed and making contact with the Tire Carrier Back Plate. Failure to do so could lead to Tire Bracket failure.

Install the Latch and Latch Spacer onto the end of the Swing Arm. Just snug them up because you may need to adjust it in the following steps.

The Latch Spacer is used to help position the latch relative to the Striker Bolt. Also included in the hardware are $1 / 4^{\prime \prime}$ Washers. These are placed between the Latch and the Swing Arm and can be used for fine adjustment if needed. Start by installing just the Latch and Latch Spacer for now.


Next install the Striker Bolt with Yellow Zinc plated Washers and Metric M10 Nut. Just snug these up for now until all adjustments are made. Also install the small rubber bumper as shown.


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## ***LATCH ADJUSTMENT***

For smooth latch operation, be sure to adjust the latch with the tire carrier loaded with your spare tire and any other normal accessories you will run.

With the tire carrier loaded, adjust the position of the Striker Bolt up or down along the $Y$-Axis until it lines up with the Latch.

Next position the latch on the X-Axis using the Latch Spacer and/or the $1 / 4^{\prime \prime}$ washers to position the head of the Striker Bolt as close to the BLUE highlighted face without rubbing.


Make sure the two large rubber bumpers and the small bumper are threaded all the way in and out of the way of the Swing Arm while you adjust the Latch.

Test the operation of the latch by slowely closing the swing Arm until the latch engages. If needed add or remove spacers from the Latch mounting or adjust the Striker Bolt up or down until the Swing Arm closes easily.

Once adjusted, tighten the Latch and Striker Bolt Securely.


Always close the tire carrier Swing Arm by pushing on the arm near the Latch or the bottom of the tire. This helps to insure the Latch catches the Striker Bolt securely.

Closing the tire carrier Swing Arm from any other location may cause the Latch not to engage properly.

> ***Always check to make sure the Latch is secure before driving.***

With the swing arm closed, unthread the small rubber bumper until it touches the arm, then add another $1 / 2$ to 1 full turn. This bumper should limit the Swing Arm movement and keep the Latch from rattling against the Striker Bolt.

When adjusted correctly you should not have to slam the Swing Arm closed for the latch to operate correctly but you will need to use a little force.

You may need to adjust the latch if you remove accessories from your tire carrier or change tire size.

Install the Bumper Mount Bracket onto the inside of the Swing Arm as shown using 5/16" Hex Bolt, Nut and Washers.

Install the large Rubber Bumpers and adjust them so that when the Swing Arm is closed they are compressed against the Jeep Tail Gate. These bumpers will help limit Swing Arm movement and vibration.

When adjusted correctly you should not hear any rattles while shaking the loaded tire carrier. If the tire shakes excessively while driving you may need to adjust these bumpers.
You can use a little green or blue loctite on the bumper threads to keep them from changing position during daily use.



## **Maintenance**

## Tire Carrier \& Swing Arm:

- Once per year or as needed, add bearing grease to the Tire Carrier Swing Arm Spindle via the grease fitting on the side of the spindle. We suggest using a Lithium type automotive multi-purpose grease or wheel bearing grease (Red) that is water resistant.
- Periodically check and re-tighten all fasteners. Adjust the swing arm bumpers to ensure rattle free operation.
- Periodically check your Bumper and Tire Carrier and accessory mounts for scratches, dings, or rust spots which can happen over time or after heavy use. It is important to address these areas as soon as possible to prevent rust and corrosion from spreading. We recommend using Rustoleum ${ }^{\circ}$ brand Black Semi-Gloss Protective Enamel (oil based). Apply using a foam brush by dabbing to match the powder coat texture.



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Hardware Kit (contents may vary)


PACKAGED SEPERATE IF BUMPER IS BARE STEEL LOD LOGO (x1)







HEX BOLT 7/16-14 X 1.00"
(11105772)
(x8)


HEX BOLT 5/16-18 X 1.00" (13055)


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Check out an excellent selection of off-road bumpers we offer on our website.

