

# JEEPERMAN SKIDZ & BUMPERS

## JS Swingaway System for Jeep LJ/TJ/YJ/CJ

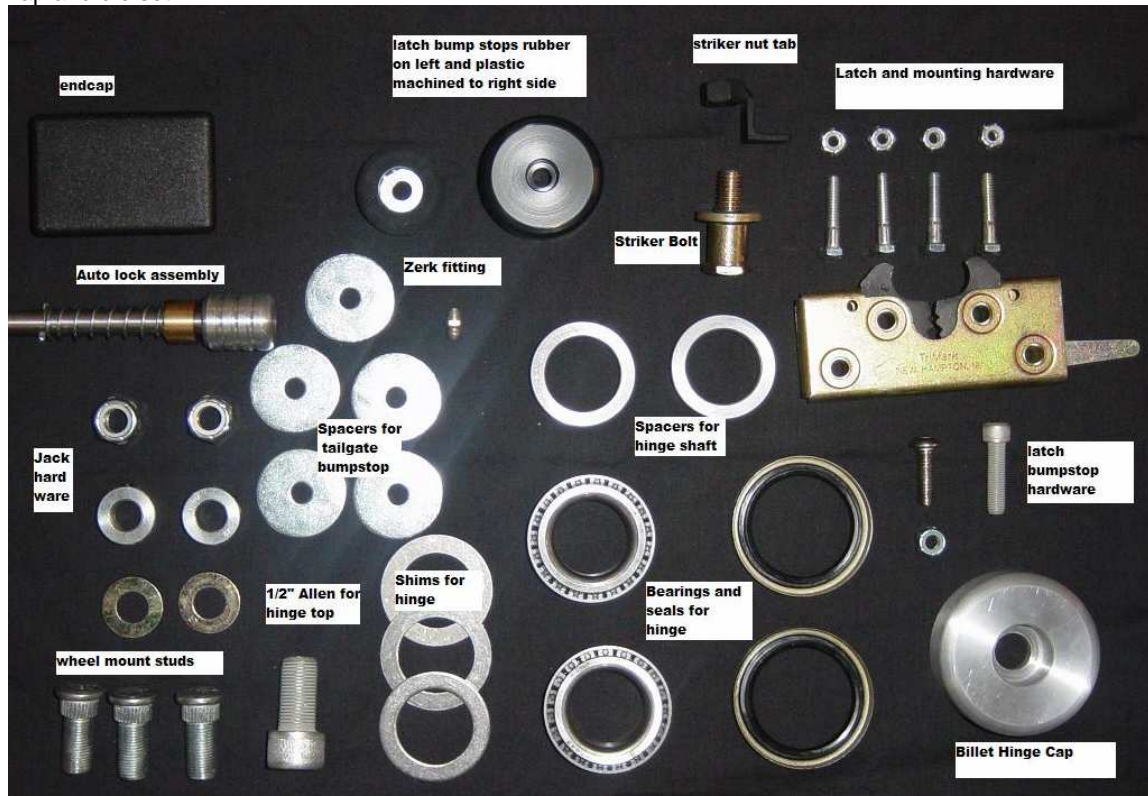
### Pre Install:

- Inspect the packaging and bumper for signs of damage and report immediately to carrier. Keep all packaging for filing a damage claim if needed. Raingler Enterprises is not responsible for shipping damages once the item leaves our facility.
- One person can do this installation. However, it is recommended to have helper to lift and assist. This is a fairly straightforward installation for most owners taking about 2 hours and does require mostly common hand tools. If after reading the installation you do not feel confident in the procedure, we strongly recommend taking this to a competent shop to ensure proper installation for years of rattle free service.

**It would be advisable to read these instructions, in their entirety, BEFORE starting the installation. There are a couple steps that need to be followed exactly or you will have problems. If you are uncomfortable with this, please e-mail or contact us or seek a qualified professional installer.**

### **You will need the following tools and supplies**

Electric or air drill	1/2" Drill Bit
SAE wrench/socket set	Ratchet Wrench
Grease gun	3/16" Allen Wrench
Marking pencil	Waterproof Grease
1/2" Allen Wrench or included installation tool	Lock-Tite
Small Snap-Ring Pliers	Phillips number 2 Screwdriver
Tap and die set	



- Familiarize yourself with the parts. Verify all parts and hardware are accounted for and contact us if needed for any replacements. It is possible that some holes may need to be re-tapped as they can become filled during the powder coating process. A typical installation takes about 2 hours time to do properly.

To ease in assembly lightly coat hardware in assembly oil or waterproof grease. This will also protect the Zinc finished hardware from road corrosives.

### **The Installation**

Remove the existing bumper, generally held on with 4-rear facing bolts and two under frame bolts that mount factory tow hook if so equipped.

Install the plastic bumper pad onto the topside of the bumper in the pre-threaded hole using the 5/16" socket-head bolt supplied. Install the round rubber bump stop to the stop plate (connected to the cross member bracket) using the 5/16" button-head bolt and matching Nylock nut and tighten.



(Shown on vehicle but recommended to do these steps off the vehicle for ease of assembly.)

Install the 3/4" head striker using the supplied nut with welded on tab under and into back bumper slot. Tighten to 35 ft. lbs. And then lightly coat with thin layer of waterproof grease. (Reapply as needed for smooth operation)



- The inner mounting bolt hole locations need to be located on the factory cross member. Temporarily mount the bumper using the supplied grade 8 hardware, properly center it, then using chalk or a small pencil mark the inner bolt locations as needed.
- This step is recommended highly for extra weight capacity or towing and recovery. (If not already done from the factory on your Jeep) Drill the four inner mounting bolts for the cross member. Treat the exposed metal for rust prevention and then install the supplied (5/8" head size) grade 8 bolts in this order: bolt facing in towards gas tank skid washer, bumper bracket, cross member, washer, lock washer, and finally the nut 11/16" head size) with an application of Lock-Tite.
- Jeeperman rear Rock Swingaway bumpers are adjustable in height to compensate for body lifts. Please choose which mounting method best suits your application and use either the upper two rows of mount holes or the lower 2 rows of mount holes for increased height (owners with body lift installed on Jeep only as shown). This can be easily changed in the future if desired. \*Please note that if installed in the body lift position without a body lift, clearance issues may occur, causing the swing away to not work properly. See below for more on this.
- \*NOTE: Owners with non-body lifted Jeeps may find it easier to lower the fuel tank skid by supporting the fuel tank with a floor jack, loosening the 7 factory rear bolts (there are 5 rear and 2 front bolts), and gently lowering the skid and tank at the rear side only enough to allow access to the rear inside of the cross member. This step typically takes about 10 minutes to do.

**USE EXTREME CARE AS TO NOT DAMAGE FUEL LINES BY OVERLY EXTENDING THEM.**

Picture below is shown in the body lifted position; if you do not have a body lift you must use the upper and middle rows of bolts holes (not shown)



- Tighten the bolts through the cross member to 45 ft. lbs. Paying attention that mounting locations remain lined up during this process and bumper remains centered on the vehicle.



- There should be no less than 8 bolts attaching the bumper to the vehicles cross member.
- (This step may not be needed for all installations) Remove passenger side tail light assembly for hinge clearance generally fastened with 4 Phillips number 2 screws and 3 3/8" bolts from the factory. There is generally enough extra wiring to allow the light to be tied up out of the way at this point. This may be reinstalled once the tire carrier is in place.
- Place the latch assembly under the open end of the carrier and install the four 7/16" bolts to fasten the latch to the underside of the carrier. Install the bolts head side under the latch mechanism and through it and into the pre-drilled holes on the underside of the upper swingaway and place nuts inside the access hole. We recommend using tape to hold the nuts in the end of a 7/16" wrench for accessibility. Tighten the bolts using a 7/16" wrench under the latch until the latch is secured. Dab a small amount of water resistant grease to the moving parts of the latch. It would be advisable to reapply the grease onto the latch's working parts periodically. This will provide reliable and smooth operation, especially in off-road conditions.



- Locate the 2 bearings and 2 seals. Hand grease the bearings and races inside the hinge fully. Place one bearing inside the hinge so that the bearing sits flush inside the tapered race. Then place one seal in the end of the hinge over the bearing, with the open side of the seal facing into the hinge. Place a block of wood or similar over the hinge and seal and lightly tap around the perimeter of the seal with a mallet/hammer, until the seal is sitting flush inside the hinge. Repeat for the opposite end of the hinge. **\*Be careful not to damage the seals.**
- Locate the supplied shims, 2 spacers, 1 large  $\frac{1}{2}$ " Allen head bolt, and the large billet top for the hinge assembly. On top of the bumper hinge shaft, install one spacer. (set aside the shims right now, they are for adjustment after everything is installed if needed) Liberally apply grease to the inside of the swing away hinge bearings and then lower the swing away into position onto the hinge shaft. Install the remaining spacer, the large billet hinge top and finally the  $\frac{1}{2}$ " Allen head bolt. Tighten the assembly just enough to flush the top of the Allen head to the surface of the billet hinge top. Again, the shims are for a slight vertical adjustment if needed once final weight is reached with tire and options installed.



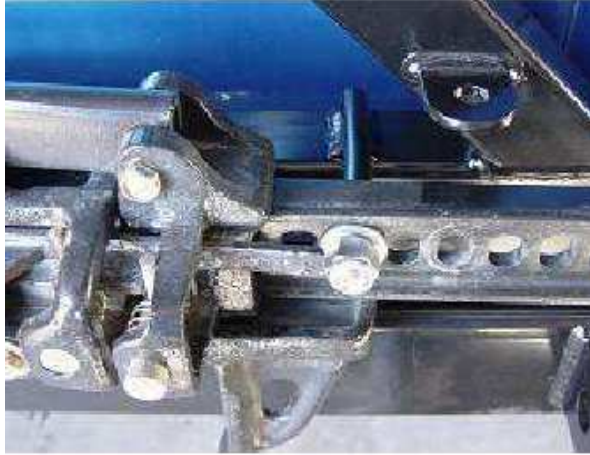
**CAREFUL, DO NOT OVER TIGHTEN AS TO RESTRICT SMOOTH MOVEMENT!**

- Install the Zerk grease fitting with a  $\frac{5}{16}$ " open-end wrench into the pre-threaded hole on the side of the hinge. If it does not install smoothly retap with a  $\frac{1}{4}$ " tap.
- Locate the Auto latch Pin mechanism. Lightly apply grease to pin and brass bushing. Drop the mechanism into the cylinder on the side of the hinge. Using a set of snap-ring pliers, compress the snap-ring down into the opening, and seat snap-ring into groove inside cylinder.

**IMPORTANT!** Close the carrier very carefully and check the tolerances with the latch fully engaged. If the latch is not contacting the smooth portion of the striker you may need to install shim (s) on the hinge shaft of the passenger side. There is a secondary catch built in and it generally takes a moderate slam to fully latch. Double check if the carrier is loose at this point. The face of the upper swingaway should be nearly flush with the face of the bumper and not excessively protruding past the bumper face.



- This section of the install will eliminate any possible forward swaying of the spare tire. Relocate and install one OEM rubber tailgate spacer to top center bolt hole of the vehicle's original stock spare tire carrier on the tailgate or as an alternative, the rubber oval may be installed onto the upper portion of the tire carrier by drilling and tapping a hole onto the tire carrier itself in an appropriate location..
- Close the swing away carrier fully. Some vehicles may require a second rubber oval (removed from tailgate) to be cut down to get the best fit or use our supplied body washers; it should slam firm and cause no distortion to the tailgate with about 15 lbs. of preload. The swingaway is designed to be shut as a tailgate or car door would. If not fully closed and left in the first safety position, the carrier will rattle letting you know it is not fully engaged. Install the 2"x3" plastic cover cap by pressing into position.
- Install your Hi-Lift jack onto the jack studs on the carrier to test spacing. If needed, tap the Jack mount bolts (with nut installed on end to prevent contact with bolt threads) with a rubber mallet and block of wood, towards the center to obtain proper fitment through the jack's holes. The aluminum collars with 1/8" Allen head setscrews are to get proper spacing on the jack with no rattles or undesired contact with the finish. Install the washers over the jack and tighten securely with the supplied 1/2" Nylock nuts. You will find the factory wheel wrench under the passenger seat on most Jeeps will be the exact size wrench for this. The triangular plate behind the jack is for a long hoop style lock (not provided) for security. The extra tab below on the top right is for owner supplied accessories, such as; CB antenna mount or a reverse back up light.



- Install the three tire studs for your particular wheel tapping into position and then pulling them into place by tightening the stud bolts with the spare tire wheel in place. Be sure to re-torque the stud bolts shortly after driving your Jeep to ensure that they are fully seated per wheel manufacturer's recommended specifications.



- Recheck all bolts for tightness and that the latch seats properly now and periodically.
- Fill the hinge mounted Zerk fitting with waterproof grease to ensure smooth and reliable operation and periodically grease latch and hinge and check all components each time vehicle is serviced or after possible water contamination.
- See website for optional accessories available such as; Jerry can mounts, 3<sup>rd</sup> brake light kits, over the tire racks and more.
- See [www.Jeeperman.com](http://www.Jeeperman.com) for any product updates and options in the near future and to see other products.
- If you experience any difficulties not explained in this document clearly, please feel free to email us (below) or call and leave a message for Jeeperman @ 303.523.1776 We welcome your feedback and input. [Jeeperman@raingler.com](mailto:Jeeperman@raingler.com)