

700 Pine Ridge Road, Unit 2, Golden CO 80403
Tel (303) 278 8287 Fax (303) 278 7182
1(888) 4X4 SLEE



Land Cruiser FJ80 and FZJ80 Double Swingout Rear Bumper Installation Instructions

Fits 1991-1997 80 Series Land Cruiser / Lexus LX450

PRELIMINARY

Thank you for purchasing a Slee Off-Road Rear Bumper for your Land Cruiser. All attempts have been made to supply the bumper in perfect condition with complete installation hardware. However should you have any problems with the condition of the bumper or find any parts missing, please do not hesitate to contact us at **1888 4X4 SLEE** or sales@sleeoffroad.com

Your bumper is guaranteed free of defect in material and workmanship for a period of one year from date of purchase. Should you experience any problems with your bumper, please contact us directly to resolve any issues.

We have attempted to provide complete installation instructions provided below. However from time to time changes might be made to the bumper and you might notice small inconsistencies with the instructions. Please notify us of such occurrences so we can correct them.

Bumper Parts List

| Qty | Part Description | Qty | Part Description |
|-----|---------------------------------|-----|----------------------------------|
| 1 | Bumper Channel | 6 | ½" Washers – Small – Grade 8 |
| 1 | Passenger Side Frame Bracket | 14 | ½" Lock Washers – Grade 8 |
| 1 | Driver side Frame Bracket | 4 | M8 x 35mm Flange Bolts |
| 2 | 7/6" x 3.5" Bolts | 4 | M8 Thick Washers |
| 4 | 7/16" Washers – Large – Grade 8 | 4 | M8 Flat Washers |
| 2 | 7/16" Lock Washers – Grade 8 | 2 | 1/8" Thick Shims |
| 2 | 7/16" Nuts – Grade 8 | 2 | ¼" Thick Shims |
| 2 | 2" Long Frame Tubes | 1 | Receiver Cover |
| 6 | ½" x 2" Bolts – Grade 8 | 8 | M12 x 45mm Bolts 8,8 – 1.5 pitch |
| 14 | ½" Washers – Large – Grade 8 | | |

Tire Carrier Parts List

| Qty | Part Description | Qty | Part Description |
|-----|---|-----|---|
| 1 | Tire Carrier Frame | 2 | Heat Shrink – 1" long |
| 1 | U Latch | 1 | Hi-Lift Clamp |
| 1 | Latch Hook | 1 | Tire Mount |
| 1 | Stainless Steel Locking Pin (Pre-installed) | 1 | Slide Plate |
| 2 | Spindle Bearings (1 x Large – 1 x Small) | 2 | Rivets (Hammer In Type) |
| 1 | Aluminum Hubcap | 6 | 5/16" x 1/2" Bolts – Grade 5 |
| 1 | O-Ring for hub cap | 6 | 5/16" Split Washer - Grade 5 |
| 1 | Hub Seal | 2 | ¼" x 1/2" Machine Screw (License Plate) |
| 1 | Spindle Castle Nut | 1 | 5/16" Lock Washer – Grade 8 |
| 1 | Spindle Flat Washer | 1 | 5/16" Nut – Grade 8 |
| 1 | Cotter Pin | 1 | 5/16" Flat Washer - Small – Grade 8 |
| 3 | Lug Nuts | 3 | 3/8" x 1 1/2" Bolts – Grade 5 |
| 2 | Wire Clips | 6 | 3/8" Flat Washers - Thick – Grade 5 |
| 2 | Self Tapping Screws | 3 | 3/8" Lock Nuts – Grade 5 |
| 1 | Nylon Pad | 1 | 3/8" Barrel Nut |
| 1 | Rubber Bump Stop | 1 | 3/8" Split Washer – Grade 5 |
| 6 | 8" Zip Ties | 1 | 3/8" Washer – Grade 5 |
| 1 | LED License Plate Light with Screws | 2 | 3/8" Countersunk Stainless 3/8" Allen Bolts |
| 1 | 3/8" Hole Ring Terminal | 2 | 3/8" Stainless Flat washers |
| 1 | Male Spade Connector | 2 | 3/8" Stainless Lock Nut |

Ladder Carrier Parts List

| Qty | Part Description | Qty | Part Description |
|-----|---|-----|---|
| 1 | Ladder Carrier | 6 | 5/16" x 1/2" Bolts – Grade 5 |
| 1 | U Latch | 6 | 5/16" Split Washer – Grade 5 |
| 1 | Latch Hook | 1 | 5/16" Nut – Grade 8 |
| 1 | Stainless Steel Locking Pin (Pre-Installed) | 1 | 5/16" Flat Washer - Grade 8 |
| 1 | Large Bearing LM29743 | 1 | 5/16" Lock Washer – Grade 8 |
| 1 | Small Bearing LM67048 | 2 | 3/8" Countersunk Stainless 3/8" Allen Bolts |
| 1 | Aluminum Hub Cap | 2 | 3/8" Stainless Flat Washer |
| 1 | O-Ring for Hub Cap | 2 | 3/8" Stainless Lock Nut |
| 1 | Hub Seal | 1 | Rubber Bump Stop |
| 1 | Spindle Castle Nut | 1 | Slide Plate |
| 1 | Spindle Flat Washer | 2 | Rivets (Hammer In Type) |
| 1 | Cotter Pin | 1 | Nylon Pad |



Step 1.

Remove rear mud flaps. Remove plastic rear bumper corner pieces and aluminum tread plate as per the factory manual. Remove all brackets and bolts from rear cross member. Also remove tow hitch if so fitted.



Step 2.

Remove 4 8mm bolts that attaches rear muffler to passenger side frame rail. The yellow circle indicates one of the bolt positions.



Passenger Side Bracket



Step 3.

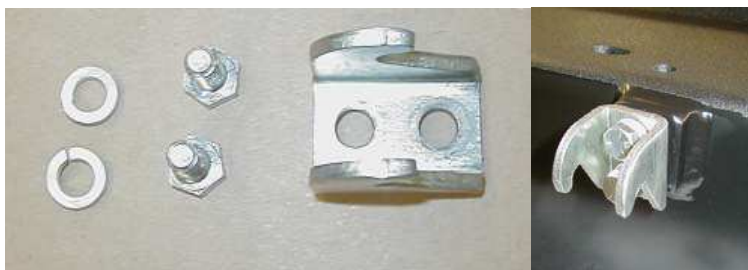
Attach passenger side bracket to passenger side rear frame rail using 8x35mm flange bolts, split washers and one 12mm x 45mm bolt with split and flat washer. The bracket slips between the frame and the exhaust bracket. Do not tighten bolts. Just leave finger tight.



Driver Side Bracket Installed. The 4 holes on the side are left open. The single bolt on the bottom is all that is supplied. For additional strength, the 4 holes can be drilled through the frame and suitable bolts installed.

Step 4.

Install driver side bracket using 12mm bolt, spring and flat washer. Again, leave the bolts finger tight.



Latch hook with bolts and split washers.

Step 5.

Next step is to install the latch hook. Install the latch hook using two 5/16" x 3/4" bolts and two 5/6" split washers. The latch hook is installed on the face of the bumper on the raised block with two tapped holes. Torque to 15 ft lbs.



Nylon latch plate installed on top of bumper.

Step 6.

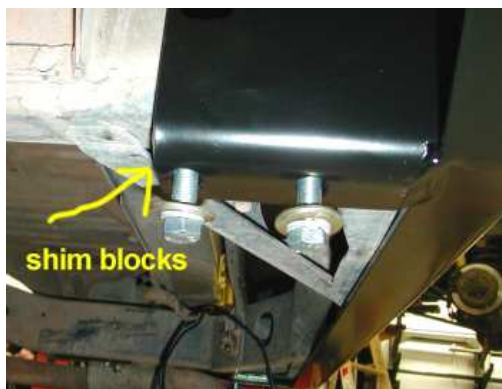
Install the nylon latch plate using two 3/8" counter sunk stainless steel screws with flat washers and lock nut.



12mm bolts, split and flat washers with shim blocks.

Step 7.

Install the rear shim between the bumper bracket and frame rail. Install three 1/8" and 1/4" shims on each side.



Bumper installed on rear cross member. Arrow shows the location of the shim blocks. The shim blocks are sandwiched between the frame brackets and the frame.

Step 8.

We are now ready to slide the bumper over the rear cross member. Locate 4 12x45mm bolts, 4 split washers and 4 flat washers from the install kits. Also locate the 4 shim blocks. Slide the bumper over the rear cross member. Be careful to avoid scratching the side of the body with the bumper wings. Install two 12mm bolts with split and flat washer on each bracket. Do not tighten the bolts at this time.



Driver side bracket bolts to bumper flange on the bumper.

Step 9.

Attach the passenger and driver side brackets to the bumper flanges using the 4 1/2"x2" bolts, split washers, flat washers and nuts. Leave bolts finger tight.

Step 10.

Torque the 4 12mm bolts installed on the bottom of the rear brackets and the 2 holding the side brackets to the frame to 70 ft lbs.

Step 11.

Torque the 4 1/2" bolts (on the side brackets) to 50 ft lbs.



Inside view of rear bumper bracket and frame rail showing location of side mount hole and shim blocks installed.

Step 12.

Insert the two 7/16" x 3.5" bolts from the inside of the frame rail through the horizontal holes on the rear bumper brackets. Use the supplied sleeves to ensure that you don't crush the frame rail. Use a split and flat washer on each side. Torque to 40 ft lbs.

Step 13.

Tighten the PS Bracket bolts from Step 3.



View of the slide strip installed. NOTE: This should be installed before the tire carrier is installed.

Step 14.

Install the stainless steel slide plates next to the spindles. The plates are installed using the supplied rivets. The rivets are tapped in with a hammer and will seat themselves when pounded in.

Start by gently tapping it into the hole and once the rivet is aligned properly tap it in, until seated.

The large slider plate is on the left side, and the smaller one on the right side.

TIRE CARRIER INSTALLATION



Tire Carrier latch and bolts.

Step 1.

Install the latch on the tire carrier arm. Use 4 5/16" x 3/4" bolts and split washers installed into pre-tapped holes. Torque to 15 ft lbs.

Step 2.

Install the rubber stop on the mounting tab located on the swing arm. The tab is located just to the right of the latch. Use a 5/16" lock nut and washer.



Tire carrier latch installed on tire carrier.



If the bolts don't thread easily, use a 5/16"-18 tap to clean out any powder coating in the threads.



Step 3.

The pin will be pre-installed on the tire carrier.

These photos shows the pin assembly. From time to time, use a small amount of dry lubricant on the pin. Ensure that the pin slides freely in the sleeve.

To prevent the pin from corroding and getting stuck, it should be removed, cleaned and lubed on a regular basis.



Oil Seal on the bottom of the tire carrier hub.

Step 4.

Pack the two supplied taper bearings with waterproof grease. Install the bigger of the two taper bearings in the bottom of the hub on the tire carrier. Next install the seal as shown in photograph. Tap the seal into position with a hammer. Pack the cavity in the hub full of grease, but leave the center open for spindle to go through.

Once the carrier is installed the installed zirk fitting can be used to grease the hub and bearings.

NOTE: Before installing the seal, make sure the seal area is free of powder coat.

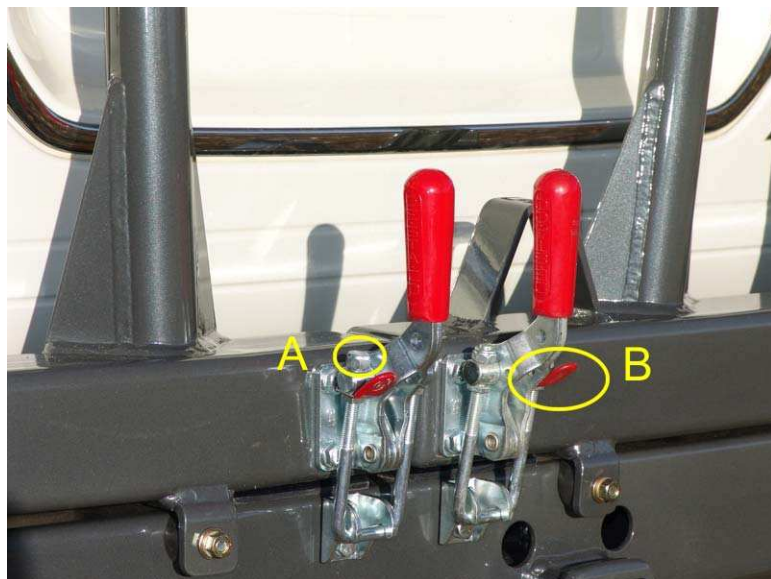


Tire Carrier installed on bumper.

Step 5.

Slide the tire carrier onto the spindle and insert the 2nd taper bearing from the top. Install the flat washer and castle nut. Tighten castle nut and test the swing of the tire carrier. The swing-out be fairly tight, but not bind. Install cotter pin to lock castle nut in place. Pack the top of the hub with grease.

Install the hub cap by screwing it into the hub.



Step 6.

Install the spare tire carrier plate to the tire carrier using the supplied 3/8" x 1-1/2" bolts. To set the depth of the carrier, use a straight edge and place it across the back of the spare tire. Measure the distance from the straight edge to the mounting surface of the wheel. Subtract 1/4" from this and use this measurement to set the face of the mounting plate.

Step 7.

Install spare tire using the supplied lug nuts.

Step 8.

With the spare tire installed, adjust the latch by tightening up the U bolt. Release the lock nut and then tighten the top nut (A in the bottom picture on the right)

Hint :- The little red tab as show in B on the picture below can be used to position the U portion of the latch under the latch bracket when closing the latch.

Use a thumb or forefinger to push down on the tab. This will move the U section of the latch forward and enable you to slide that under the latch bracket on the bumper. Then push the red handle forward to latch the bumper.

This keeps your fingers away from the latch mechanism and avoid potential injuries.



Step 9.

Install LED License plate on bracket on tire carrier. Use the supplied hardware to secure the light to the tire carrier bracket. Route the harness through the hole in the bracket.

Step 10.

Now run this harness along the back of the tire carrier and then along the arm of the tire carrier. Use the zip ties to secure the harness and/or the supplied screws and clips. The screws require drilling holes into the tire carrier arm.



Step 12.

Feed the harness through the slot between the bumper and the body. Route the harness over the frame (stay clear of the exhaust) to the factory connectors that are located about 12" from the passenger side frame rail, attached to the rear off the body.



Ground Wire Connected

Step 13.

Cut wires to length us the supplied terminals. Ring terminal (Ground) attaches to the blue wire and spade terminal connects to the brown wire (Positive).

Use the heatshrink to insulate the connections.

Locate the open 3 pin connector. Using a multi-meter confirm which space opening has +12V when the

| | |
|--|---|
| | <p>lights are turned on. Insert the male spade connector into this plug and wrap with electrical tape.</p> <p>Locate the grounding bolt in the center of the truck on the same rear panel.</p> <p>Attach the ground wire to this bolt. Secure the harness using zip ties.</p> <p>Test the license plate lights to make sure they are connected properly.</p> |
| <div data-bbox="94 667 393 1247" data-label="Image"> </div> <p data-bbox="509 674 971 703" style="text-align: center;">Mounting a hi-lift jack to the bumper</p> <p data-bbox="414 735 1024 825">Most Hi-lift jacks should fit, however if the base does not slide into the bracket on the bumper, it might be required to grind down the Hi-Lift.</p> <div data-bbox="414 854 703 1106" data-label="Image"> </div> <p data-bbox="724 856 1057 1129">The jack is installed with the round handle against the tire carrier tube and the bar with the holes towards the outside of the vehicle. The 3/8" stud DOES NOT line up with a hole in the bar. It goes between the handle and the bar. Use the supplied 3/8" barrel nut to secure the bracket over the handle and bar to keep it in position.</p> <p data-bbox="94 1253 950 1283">The base and bracket on the bumper can be drilled to accept a lock.</p> | <p>Step 14. Install the license plate on the tire carrier using the two 1/4" machine screws. The holes are tapped on the tire carrier face underneath the license plate light.</p> <p>Step 15. Close the tire carrier and close the latch. The tension on the latch is adjustable by tightening the 1/2" nuts to shorten the U bolt of the latch.</p> |
| <h2 style="text-align: center; background-color: black; color: white; padding: 5px;">INSTALLING THE LADDER CARRIER</h2> | |
| <p>The installation of the ladder carrier is the same as for the tire carrier, except that there is no license plate light or license plate on the carrier.</p> | |

You have now successfully installed your bumper.

1. Do not let go of the tire carrier when you open it. The pin and safety stop should stop the tire carrier from swinging open to far, but you could damage the pin and/or the safety stop.

2. When closing the tire carrier, lift up on the pin closest to the latch to prevent it from hitting against the bumper. The pin is not intended as a auto locking pin, but it is a 2nd safety pin to keep the tire carrier positioned and closed in case the latch should open accidentally.
3. Clean, inspect and re-lube the pins bi-annually to ensure smooth operation.
4. Do a yearly inspection of the bearings by removing the cap and checking the condition of the grease in the hub. If you see rust or moisture, remove the carrier from the bumper. Remove the seal (replacements can be purchases from Slee Off-Road), clean and repack the bearings and re-install the seal. Re-install the tire carrier on the bumper.