Installation Instructions



Gen 2 Bolt-On Tire Carrier 2007-2018 Jeep Wrangler JK/JKU S/B76857

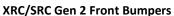


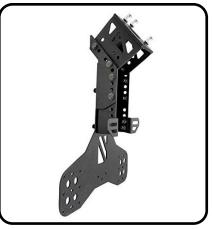


Introduction

Thank you for choosing Smittybilt accessories for your Jeep Wrangler®. If you would like to view our full range of available accessories, please visit us at www.smittybilt.com







Slant Back Tire Mount



Basecamp™ 75L Fridge

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Important Notes Before Starting



IMPORTANT NOTE

Carefully read through this entire instruction manual thoroughly before attempting to install this part.

Photos may vary from your vehicle. Installation will remain the same.



IMPORTANT NOTE

This kit is intended to be installed on vehicles equipped with XRC/SRC Gen 2 rear bumper kits or with the 10th Anniversary metal rear bumper. 10A kits require the purchase of S/B76857-01 to install.



WARNING

Serious injury can occur when working on vehicles alone.

When possible, work with another person to reduce risk of injury from strain or other dangers that can occur when working alone.

TOOLS REQUIRED							
Hex Key Set	Wire Stripper/Cutter	13mm Wrench					
Socket Set	Electrical Tape	3/8 Drive Rachet					
Torque Wrench	Drill	1/2" Drill Bit					



Box Contents & Technical Information

76857 Box Components

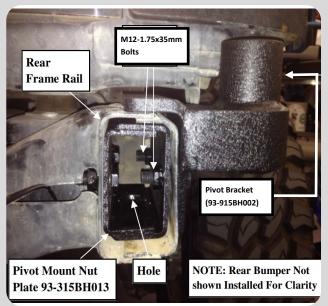


ID	Part Description	QTY	
1	93-315BH001 - Tire Carrier	1	
2	93-315BH002 - Pivot Pin Bracket	1	
3	93-315BH004 - Swing Gate Bracket	1	
4	93-315BH005 - Stationary Wheel Mount Bracket		
5	93-9187 - Adjustable Wheel Mount Bracket	1	
6	93-315BH014 - Rotopax Mount	1	
7	90-315BH008A - Pin Capture Washer	1	
8	90-315BH011C - Tire Carrier Bump Stop	1	
9	90-315BH009A - Tire Pivot Cap	1	
10	93-5567 - Upper Third Brake Light Bracket	1	
11	93-315BH006A - Lower Third Brake Light Bracket	1	
12	90-315BH001V - Stainless Top Plate (Passenger Side)	1	
13	90-315BH001U - 1/8" Spacer	4	
14	76857-03 - Heim Joint (Turn Buckle)	1	
15	90-315BH001W - Tire Gate Pin Spacer	4	
16	S/BZERK - ZERK Fitting	1	
	-		

ID	Part Description	QTY
17	90-4560 - Wheel Mount Stud - 1/2"-20	3
18	90-4219 - Lug Nut - 1/2"-20	3
	M12-1.75x40mm Hex Head Bolt	6
	M12-1.75x70mm Hex Head Bolt	
	M12-1.75 Nylock Nut	8
	M12 Flat Washer	18
	M10-1.5x30mm Hex Head Bolt	7
	M10-1.5 Nylock Nut	7
	M10 Flat Washer	16
	M6-1.0x45mm Hex Head Bolt	2
	M6-1.0x20mm Allen Head Bolt	2
	M6-1.0 Nylock Nut	4
	M6 Flat Washer	8
	2740-03 - Jack Mount Hardware	1
	20mm Castle Nut	1
	4mm Cotter Pin	1



^{*}Hardware not actual size.



Step 1:

On the passenger side of the vehicle, remove the passenger stainless top plate from the SRC/XRC bumper. Save the hardware for reinstallation. Support the passenger side of the SRC/XRC rear bumper in place and remove the (2) M12-1.75x35mm Bolts holding the SRC/XRC bumper to the frame rails. Then, install the Pivot Bracket (93-315BH002) into place on the outside of the SRC/XRC rear bumper mount and secure using the previously removed (2) M12-1.75x35mm Bolts. Do not tighten the bolts yet.



Step 2:

Be sure the **Pivot Pin Bracket (93-315BH002)** is centered with the hole in the bumper. Adjust until happy with the placement.



Step 3:

On the underside of the frame rail, use the bottom hole of the **Pivot Pin Bracket (93-315BH002)** as a guide center punch and drill a **1/2**" hole through the bottom of the frame rail.





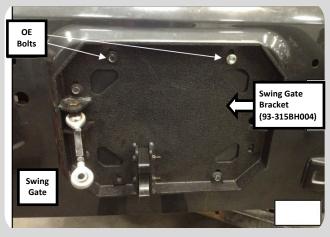
Step 4:

Insert the (1) supplied M12-1.75x40mm Bolt and (1) M12 Flat Washer through the newly drilled bottom hole and secure inside the frame rail using the Pivot Mount Nut Plate (93-315BH013) included with your SRC/XRC rear bumper. Torque the (3) M12 Bolts to 90 ft-lb.



Step 5:

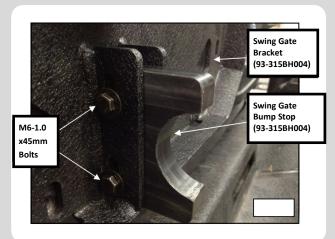
Remove the **OE** spare tire and carrier from the vehicle. Then, unplug the 3rd brake light wiring harness, then remove 3rd brake light housing from the vehicle. Then, remove the **OE** plastic vent from the swing gate. Retain the **(8) OE Bolts** from the tire carrier.



Step 6:

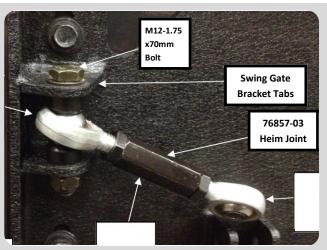
Install the **Swing Gate Bracket (93-315BH004)** to the Swing Gate using the previously removed **(8) OE Bolts**.





Step 7:

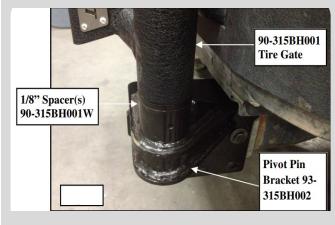
Install the Tire Carrier Bump Stop (90-315BH011C) to the Swing Gate Bracket (93-315BH004) using the (2) supplied M6-1.0x45mm Bolts, (2) M6 Washers, and (2) M6-1.0 Nylock Nuts.



Step 8:

Install the Heim Joint (76857-03) to the Swing Gate Bracket (93-315BH004) using (1) supplied M12-1.75x70mm Bolt, (2) M12 Flat Washers, and (1) M12-1.75 Nylock Nut.

Install the new supplied Stainless Top Plate (90-315BH001V) to the passenger side of the bumper using the previously removed hardware.

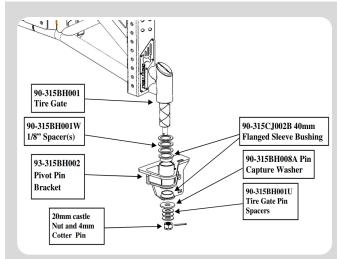


Step 9:

Install the Tire Carrier (93-315BH001) into the Pivot Pin Bracket (93-315BH002). Shim the Tire Carrier if necessary, using the supplied 1/8" Spacer(s) (90-315BH001W) to align the Tire Carrier to the Heim Joint (76857-03) and Tire Carrier Bump Stop (90-315BH011C).

Note: The number of 1/8" spacers will directly coincide with the number of Tire Carrier Pin Spacers used to on the bottom of the Tire Carrier.

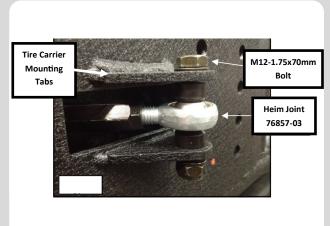




Step 10:

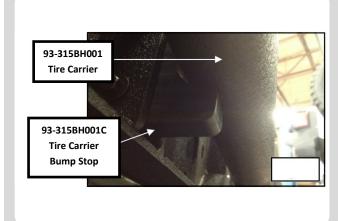
Secure the Tire Carrier (90-315BH001) to the Pivot Pin Bracket (93-315BH002) using the supplied 1/8" Spacer(s), Pin Capture Washer (90-315BH008A), Tire Carrier Pin Spacer(s) (90-315BH001U), 20mm Castle Nut, and 4mm Cotter Pin as shown.

Note: The 40mm Flanged Sleeve Bushings are pre-pressed into the Pivot Pin Bracket. The same number of 1/8" Spacers and Tire Carrier Pin Spacers must be used.



Step 11:

Feed the Heim Joint (76857-03) through the access hole in the Tire Carrier (93-315BH001) and attach to the mounting tabs using the (1) supplied M12-1.75x70mm Bolt, Washer, and Nylock Nut.



Step 12:

Adjust the **Heim Joint** (76857-03) as necessary to ensure the **Tire Carrier** (93-315BH001) closes tight against the **Tire Carrier Bump Stop** (90-315BH011C).

<u>Note</u>: It is easier to adjust the Heim Joint with the swing gate slightly open.





Step 13:

Install the Tire Carrier Pivot Cap (90-315BH009A) by pressing it onto the Tire Carrier (90-315BH001). Install the M6-1.0x15mm Set Screw into the side of the Tire Carrier pivot post.



Step 14:

Install the 1/4"-28 90 Degree Zerk Fitting into the Pivot Pin Bracket (90-315BH002) underneath the bumper as shown.



Step 15:

Using the vehicle's spare tire as a guide, set the **Adjustable Wheel Mount Bracket (93-9187)** bolt pattern, by pressing the bracket up to the back of the mounting surface of the wheel and marking the holes on the **Adjustable Wheel Mount Bracket**.

Note: This Adjustable Wheel Mount Bracket is fully adjustable to accommodate multiple bolt patterns for possible future axle upgrades.

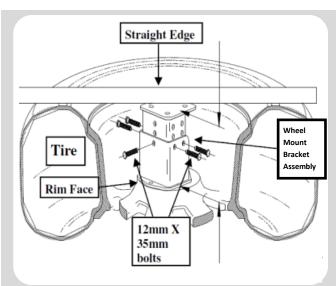




Step 16:

Install all (3) Wheel Mount Studs (90-4560) into the Adjustable Wheel Mount Bracket (93-9187) by pressing them in with a press or a vice. A mallet can also be used to hit them into place. If using a mallet, be careful not to damage the powder-coat on the bracket.

Note: Do NOT install these Wheel Mount Studs by tightening them down. This will strip the studs and/or bracket.

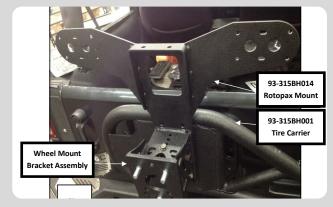


Step 17:

For proper alignment, use a straight edge on the backside of the tire. Line the **Stationary Bracket** up with the straight edge as shown. Assemble the wheel mount bracket (**Adjustable Bracket** (93-9187) and **Stationary Bracket** (93-315BH005)) inside the wheel using the supplied (5) M12-1.75x30mm Bolts, (10) M12 Flat Washers, and (5) M12-1.75 Nylock Nuts.

Torque bolts to spec found on Page 14.

Note: If possible, it is better to have the tire fit tighter against the straight edge/ tire gate to avoid excess vibration.



Step 18:

Install the Rotopax Mount (93-315BH014) and wheel mount bracket assembly onto the Tire Carrier (93-315BH001) using the (4) supplied M12-1.75x30mm Bolts, (8) M12 Flat Washers, and (4) M12-1.75 Nylock Nuts. Torque M12 hardware to 80 ft-lb.

Note: The size of the spare will determine the mounting height of the bracket.

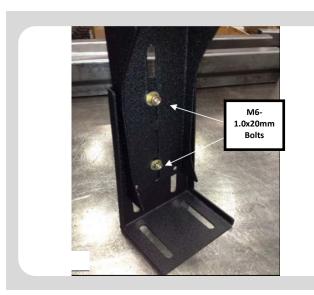




Step 19:

Very carefully open and close the **Tire Carrier** while checking for proper clearance. Make sure there is proper clearance over the top of the bumper. Then install your spare tire onto the carrier using the (3) supplied 1/2"-20 Lug Nuts (90-4219). Torque to 65 ft-lb.

Note: Be careful not to scratch the top of the bumper.



Step 20:

If using a third brake light, install the **Third Brake Light Upper Bracket (93-5567)** into the **Third Brake Light Lower Bracket (93-315BH006A)** as shown. Secure using the supplied
(2) M6-1.0x20mm Bolts, (4) M6 Flat Washers,
and (2) M6-1.0 Nylock Nuts through the slots.



Step 21:

Remove the (2) OE screws from the OE plastic third brake light assembly. Install the OE front plastic panel and lens into the new third brake light assembly (93-5567 and 93-9241) using the (2) previously removed OE screws.





Step 22:

Install the third brake light assembly to the Rotopax Bracket (93-315BH014) using the (2) supplied M10-1.5x30mm Bolts, (4) M10 Flat Washers, and (2) M10-1.5 Nylock Nuts.

Extend the **OE** third brake light wiring harness to the passenger side hinge, then up **Tire Carrier** (93-315BH001). This can be done simply by cutting and splicing 18 gauge wire to extend the cable to the appropriate length. It is recommended to have this done by an experienced automotive electrician.



Step 23:

Tighten up all hardware. Then grease the **Pivot Pin Bracket (93-315BH002)** through the 1/4"-28 **Zerk Fitting (S/BZERK)**.

Installation is now complete.

Be sure to view all maintenance instructions below.

Regular Maintenance:

- Grease the **Tire Carrier** pivot point every 4-6 months.
- 2. Be sure to adjust the **Tire Carrier** when adding or removing weight to be sure not to damage the finish of the **Bumper**.
- 3. Wash the **Tire Carrier** regularly using mild car wash soap. To protect the finish, wax regularly with carnauba automotive wax.
- 4. Do not use any abrasive brushes or chemicals on the finish.
- 5. Retorque all installed hardware 500 miles after installation and regularly thereafter.



Installation Instructions: Tire Carrier Adjustments



Loose Tire Swing:

If your **Tire Carrier** is noticeably loose or is rattling follow these steps:

- 1. Open swing gate 1.5-3"
- 2. Adjust **Heim Joint** to make swing arm sit complete inside **Tire Carrier Bump Stop**.
- 3. Close swing gate and check to make sure the Tire Carrier is fully seated against the Tire Carrier Bump Stop. A slight resistance when closing the Carrier the last few inches is normal and desired.
- 4. Tighten the jam nuts on the **Heim Joint**.
- 5. Periodically check torque on all **Carrier** and bumper hardware.



Note: It is recommended that you position your tire against the Tire Carrier frame so that when you tighten the lug nuts it pushes the tire against the Carrier. This prevents the sidewall from flexing and creating a vibration.



Installation Instructions: Jack Mount



Step 1:

On the hinge side of the carrier there are a set of 8 holes that can be used to install the included Jack Mount Hardware (2740-03). Install the M12-1.75 Jam Nut onto the stud with the solid threads. This nut will control the overall height of the stud. Generally you want to position this about 3 threads away from the unthreaded part of the stud. Then install M12 Flat Washer. Then install on the rear side a M12 Flat Washer and secure with M12-1.75 Nylock Nut. Hold on to the stud with a wrench while tightening the M12-1.75 Nylock Nut. Make sure the threads pass thru the M12-1.75 Nylock Nut by at least 2 threads. Then hold onto stud and M12-1.75 Jam Nut to allow for adjustment of stud position.



Step 2:

Install the Metal Spacer so the recess fits over the M12-1.75 Jam Nut and the Spacer seats level with the M12 Flat Washer under the M12-1.75 Jam Nut. Then install a Plastic Spacer followed by the Lanyard and complete with another Plastic Spacer. Then install your jack onto the stud, then install a Plastic Spacer. Make sure the unthreaded part of the stud is not visible after the Plastic Spacer is installed. If it is you can use the M12-1.75 Jam Nut to shorten the stud length from its mounting surface. Then install M12 Wing Nut to secure the jack and insert pin into hole at the end of the stud to prevent the M12 Wing Nut from falling off.



Step 3:

With the jack secured, hold onto the pin and snug down the M12 Nylock Nut. Then remove pin, M12 Wing Nut, Plastic Spacers and jack. Hold onto stud with wrench and torque down the M12-1.75 Jam Nut. You may now reinstall Plastic Spacers, Lanyard, jack, M12 Wing Nut and pin.

Periodically check torque of all hardware.

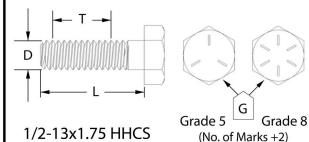
Designed for use with Smittybilt Trail Jack (S/B2722) Installation is now complete.

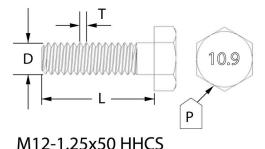


Bolt Torque Specifications

Use this only as a guide for hardware without a called out torque specification in the instruction manual.

Bolt Torque and ID									
Decimal System			Metric System						
All Torques in Ft. Lbs. Maximums									
Bolt Size	Grade 5	Grade 8	Bolt Size	Class 9.8	Class 10.9	Class 12.9			
5/16	15	20	M6	5	9	12			
3/8	30	45	M8	18	23	27			
7/16	45	60	M10	32	45	50			
1/2	65	90	M12	55	75	90			
9/16	95	130	M14	85	120	145			
5/8	135	175	M16	130	165	210			
3/4	185	280	M18	170	240	290			





Χ

G= Grade (Bolt Strength)

D= Nominal Diameter (Inches)

T= Thread Count (Threads per Inch)

L= Length (Inches)

X= Description (Hex Head Cap Screw)

P= Property Class (Bolt Strength)

D= Nominal Diameter (Millimeters)

T= Thread Pitch (Thread Width, mm)

L= Length (Millimeters)

X= Description (Hex Head Cap Screw)



Notes and Disclaimers

Product cleaning and maintenance instructions

Stainless Steel Finish – Aluminum polish may be used to polish small scratches and scuffs on the finish. Mild soap, window or glass cleaner may be used to clean the finish. Dual state powder coat finish – Mild soap, window or glass cleaner may be used to clean the finish. In order to protect the finish, you may wax your product on a regular basis with pure carnauba automotive wax. Do not use any types of soap, polish or was that contains abrasive that could damage the finish. Textured coated finishes should be cleaned with a mild soap on a damp sponge. Do not apply polish or wax that requires to be removed by means of buffing. This type of wax is commonly used at car wash facilities. Chrome Finish – Mild soap, window or glass cleaner may be used to clean the finish. In order to protect the finish, you should wax your product on a regular basis with pure carnauba automotive wax. Do not use any types of soap, polish or was that contains abrasive that could damage the finish.

SMITTYBILT ADVANTAGE WARRANTY

LIMITED-LIFETIME WARRANTY FOR STRUCTURAL COMPONENTS

5-YEAR FINISH WARRANTY

Smittybilt Automotive Products, LLC (SAP) warrants to the original purchaser that (a) the physical components (e.g., metal components, welds, etc.) of any SAP **Gen 2 Bolt-On Tire Carrier** will be free of defects in material and workmanship for the lifetime of the product from the date of purchase of the tire carrier, and (b) the finish will be free of defects in material and workmanship for a period of 5-years from the original date of purchase. This warranty applies only to the original purchaser of the tire carrier and is non-transferable. To obtain any warranty service, you must provide SAP with a proof of purchase and date of purchase that is acceptable to SAP, such as a copy of your purchase receipt.

This warranty does not cover labor of part replacement of the tire carrier. SAP will, at its sole discretion, provide replacement part(s) for a defective tire carrier or component, provided this is done within the warranty period. To request assistance under warranty, one must call or email using the phone number or email at the bottom of this page. This warranty does not apply (1) wearable components; or (2) if the tire carrier has/have been damaged, including, but not limited to: abuse, misuse, collision, modification, misapplication, improper installation, or improper service. This warranty is void if any SAP serial number has been removed or defaced; or if the tire carrier is used for any commercial, industrial, or rental applications. This warranty only applies to tire carriers bought, sold, and used within the Untied States or Canada unless otherwise specifically agreed in writing by SAP.

THE WARRANTY SET FOURTH ABOVE IS THE ONLY WARRANTY. THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ANY IMPLIED WARRANTY WHICH BY LAW MAY NOT BE EXCLUDED IS LIMITED TO A DURATION OF ONE (1) YEAR FROM THE DATE OF ORIGINAL RETAIL PURCHASE OF THE PRODUCT. No SAP dealer, agent, or employee is authorized to make any modification, extension or addition to this warranty. SAP SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, DOWN TIME OR LOSS OF USE) UNDER ANY LEGAL THEORY, EVEN IF SAP WAS ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Some states do not allow the exclusion of implied warranties or the exclusion or limitation of liability for incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights. You may also have other rights that vary from state to state. SAP reserves the right to change product design without notice. In situations in which SAP has changed a product design, SAP shall have no obligation to upgrade or otherwise modify previously manufactured products. For warranty inquires contact SAP at:

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Customer Service Department

Call 1-800-776-0767 or Email info@smittybilt.com



