



Installation Instructions:

(Part # SB76654)
87-06 Jeep TJ/YJ XRC Tire Carrier

NOTE: Carefully read entire instructions thoroughly before attempting to install this part.

Parts Included	Qty	Parts Included	Qty
93-5642 TIRE CARRIER	1	1/2" STOVER NUT	7
93-2997 TIRE CARRIER PIVOT SHAFT	1	1/2" HARDENED FLAT WASHER	14
93-5650 TIRE CARRIER LATCH BRACKET	1	90-4214 HANDLE ASSEMBLY	1
93-5652 WHEEL MOUNT: Adjustable Bracket	1	90-6689 HARDWARE PACK: Handle	1
93-5655 WHEEL MOUNT: Stationary Bracket	1	90-2940 NYLON WASHER	2
90-5658 LATCH SHIM PLATE	2	90-4218 CIRCLE CLIP	1
90-5659 NUT PLATE: Latch	1	90-4219 LUG NUTS	3
93-5661 LOCK OUT BRACKET ASSEMBLY	1	90-4217 ZERK FITTING	1
90-8000 SPACER TUBE	1	93-5663 3rd BRAKE LIGHT BRACKET	1
90-6712 HARDWARE PACK: Tire Carrier	1	90-6713 HARDWARE PACK: 3rd Brake Light	1
3/8" X 1" GR. 8 HEX BOLT	5	3/8" X 1" HEX BOLT GR. 8	2
3/8" X 1 1/4" GR. 8 HEX BOLT	6	3/8" STOVER NUT	2
3/8" X 2 1/2" GR. 8 HEX BOLT	2	3/8" SAE FLAT WASHER	4
3/8" HARDENED FLAT WASHER	20	5/16" X 1" HEX BOLT GR. 8	3
3/8" STOVER NUT	7	5/16" USS FLAT WASHER	6
3/8" X 2 1/4" GR. 8 HEX BOLT: Jam Bolt	1	5/16" NYLOCK NUT	3
3/8" HEX NUT: Jam Nut	1	93-5731 TJ SUPPORT PLATE	1
1/2" X 1 1/2" HEX BOLT GR. 8	4	93-5845 YJ SUPPORT PLATE	1
1/2" X 3 1/4" HEX BOLT GR. 8: Support Plates	3	90-5847 NUT PLATE: YJ Support Plate	1
		7/16" X 1 1/2" GR. 8 HEX BOLT: YJ Support Plate	1

Tire Carrier Installation:

Step 1: Remove the stock spare tire from the vehicle.

Step 2: Unclip the 3rd brake light wiring harness. Unbolt and remove the 3rd brake light housing from the vehicle.

Step 3: Unclip the passenger side taillight housing wiring harness. Unbolt and remove the taillight from the vehicle.

Step 4: Unbolt and remove the tire carrier pivot shaft block off plate.

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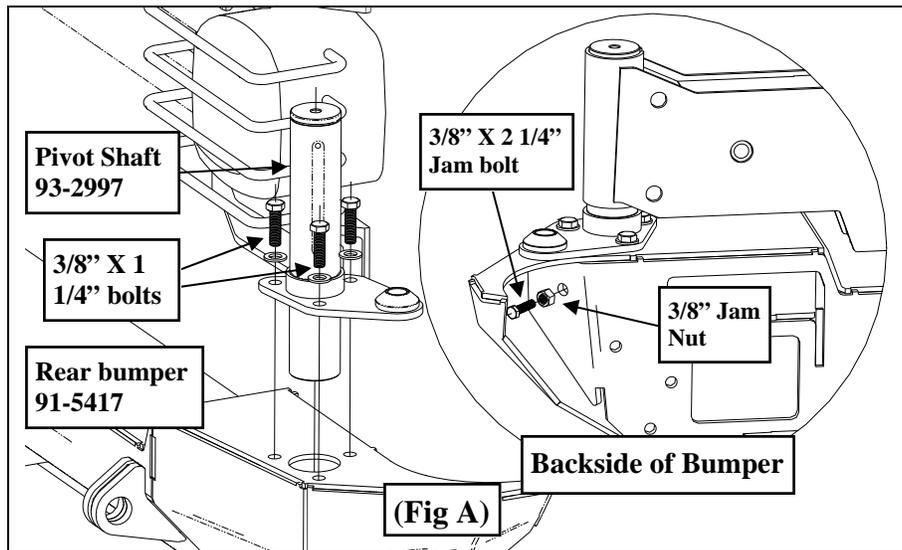


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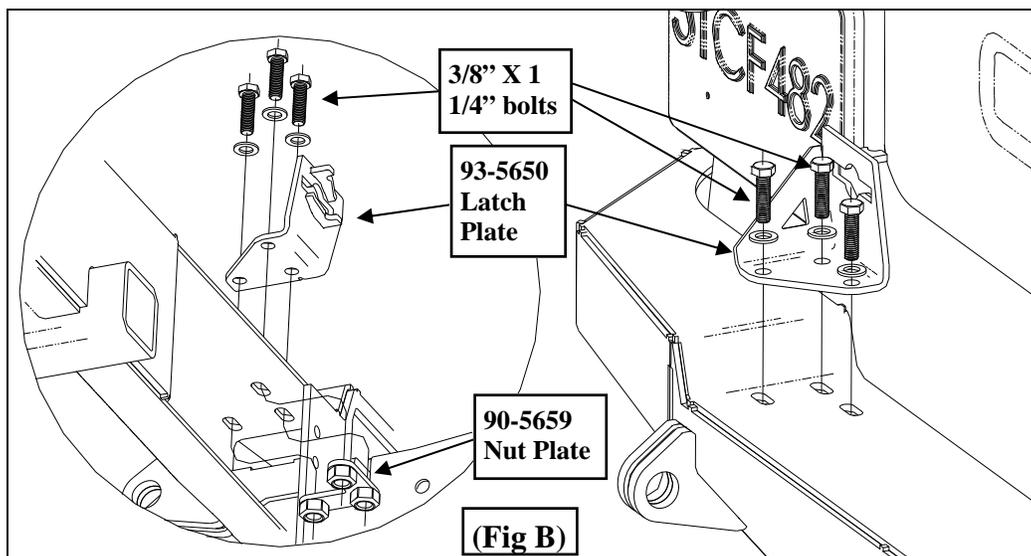
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Step 5: Install the pivot shaft (93-2997) to the bumper using the supplied 3/8" X 1 1/4" bolts and hardware. (Fig. A) Install the jam nut onto the 3/8" X 2 1/4" jam bolt. Insert the jam bolt assembly into the bumper. (Fig. A) Tighten the jam bolt against the pivot shaft. Tighten the jam nut against the bumper. Torque the bolts according to the chart on page 9.



Step 6: Install the latch plate (93-5650) to the bumper using the supplied 3/8" X 1 1/4" bolts and nut plate (90-5659). (Fig. B) Leave the bolts loose at this time. *NOTE: The wire on the nut plate may need to be bent in order to properly fish it into place.*



Step 7: Place nylon washer onto the pivot shaft, then place tire carrier on top. Be sure to install the tire carrier in the open position. (Fig. C1 & C2)

Step 8: Install the tire carrier lockout mechanism (93-5661) and support plate (93-5731 TJ model only or 93-5845 YJ model only) to the tire carrier (91-5642). Secure using the supplied 1/2" X 3 1/4" pinch bolts, hardware in the (2) pinch bolt holes. **For TJ models only:** in the remaining support plate hole, insert the 1/2" X 3 1/4" bolt, sleeve (90-8000) and hard-

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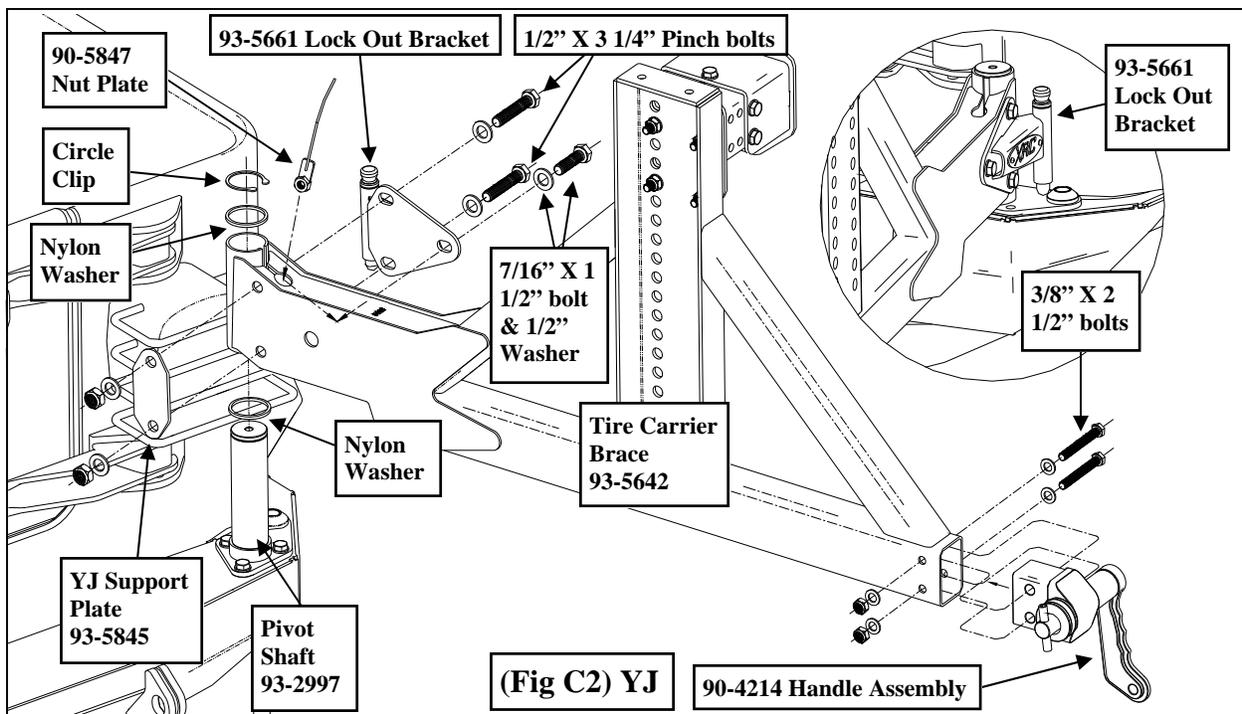
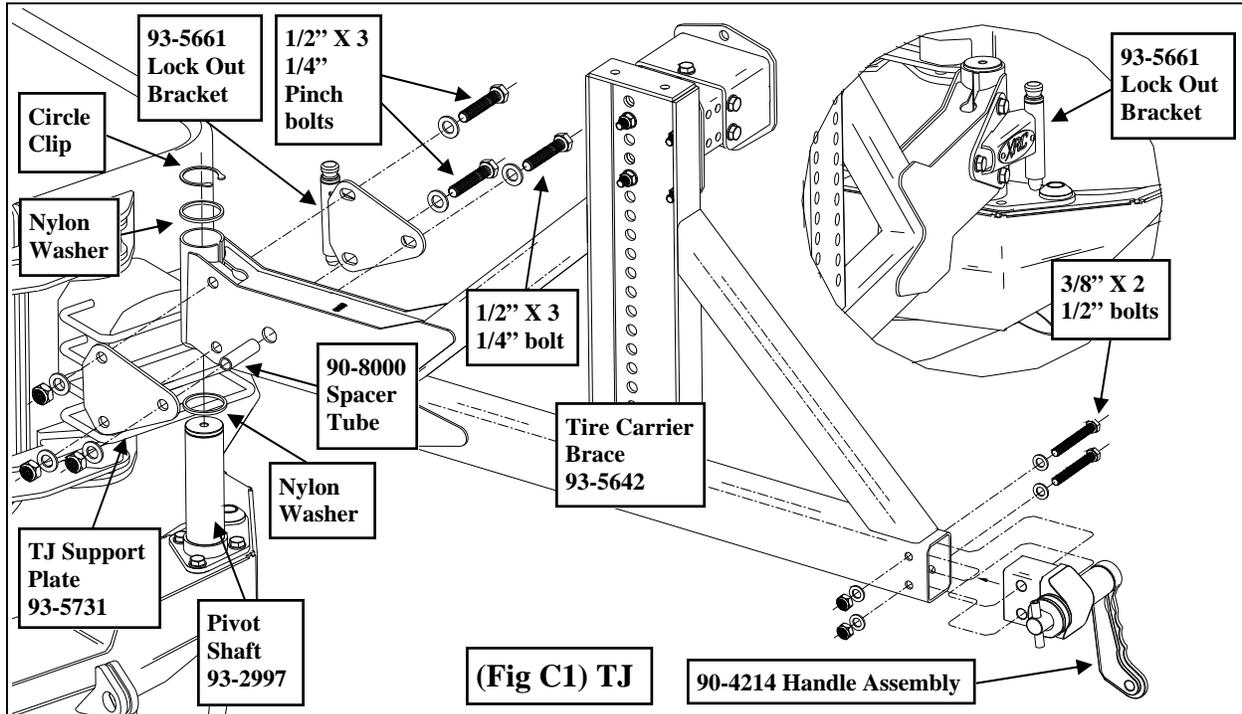


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ware in the remaining hole. (Fig. C1). Leave bolts snug only. **For YJ models only:** in the remaining tire carrier hole, insert the 7/16" X 1 1/2" bolt, nut plate (90-5847 inserted through the upper or lower drain hole in the tire carrier) and 7/16" nut and 1/2" washer. (Fig. C2). Leave bolts snug only.



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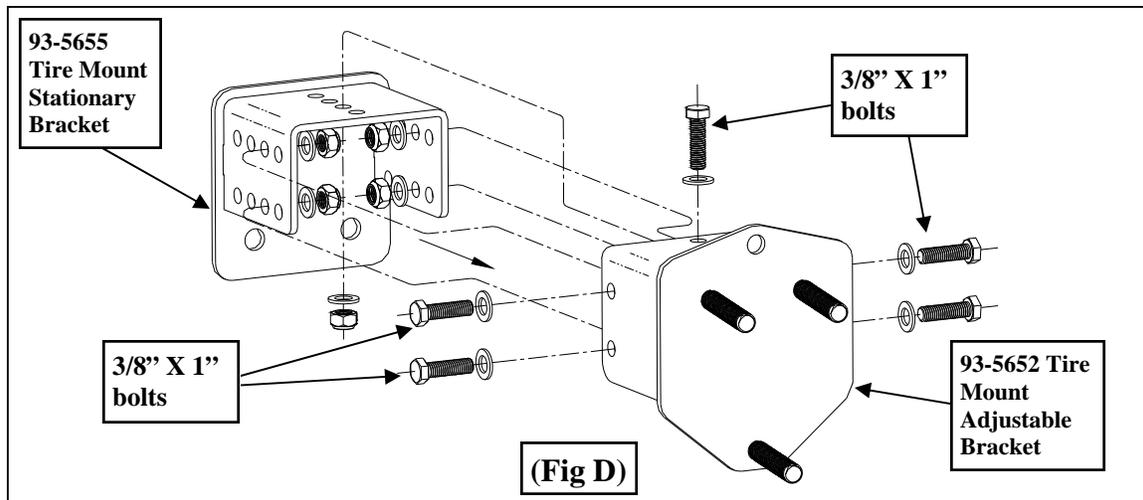
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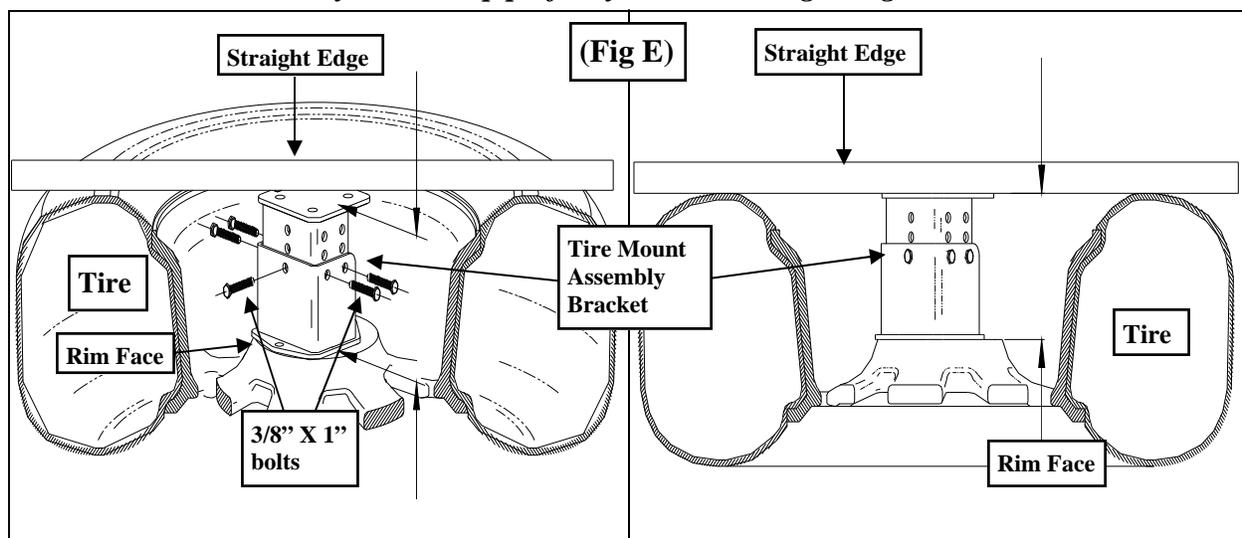
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Step 9: Install the handle assembly (90-4214) to the tire carrier using the supplied 3/8" X 2 1/2" bolts. (Fig. C1 & C2) Torque the bolts according to the chart on page 9.

Step 10: Assemble the tire mount bracket (adjustable bracket 93-5652 & stationary bracket 93-5655) using the supplied (5) 3/8" X 1" bolts and hardware. Leave the bolts loose at this time. Lay the spare tire face down on the ground and install the tire mount bracket temporarily onto the spare tire. (Fig. D & E)



Step 11: With the spare tire face down, lay a ruler or a flat bar across the tire and adjust the tire mount bracket assembly until the base makes contact with the ruler or flat bar. (Fig. E) Torque the tire mount bracket assembly bolts according to the chart on page 9. *NOTE: The assembled bracket may not line up perfectly with the straight edge.*



Step 12: Install the tire mount bracket assembly onto the tire carrier using the supplied 1/2" X 1 1/2" hardware. Install the spare tire to the mounting bracket. (Fig. F)

NOTE: The size of the spare tire will determine the mounting height of the bracket. If possible, it is better to have the tire fit tighter against the straight edge/tire carrier to avoid excess vibration.

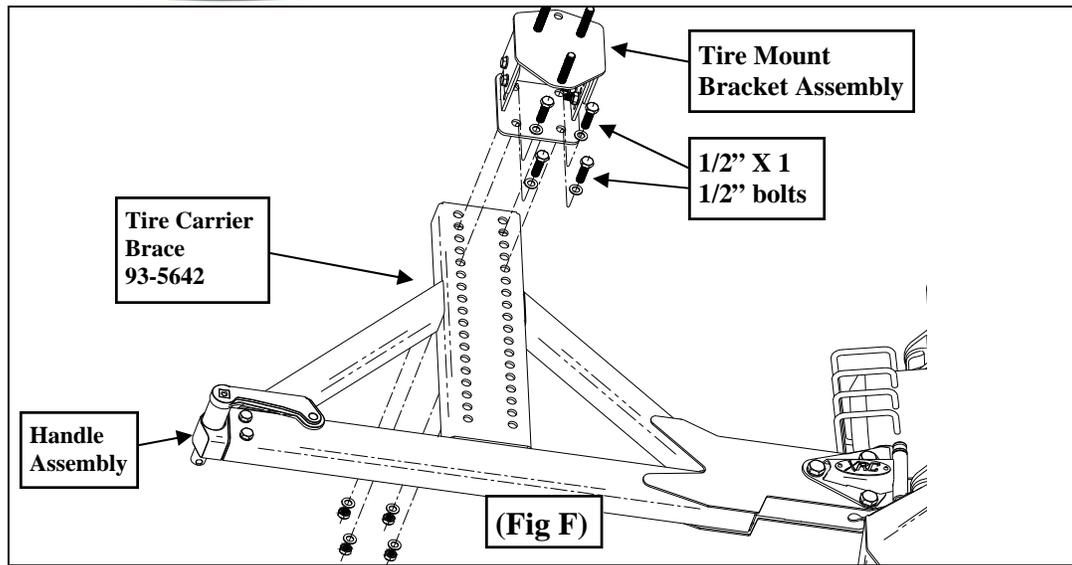
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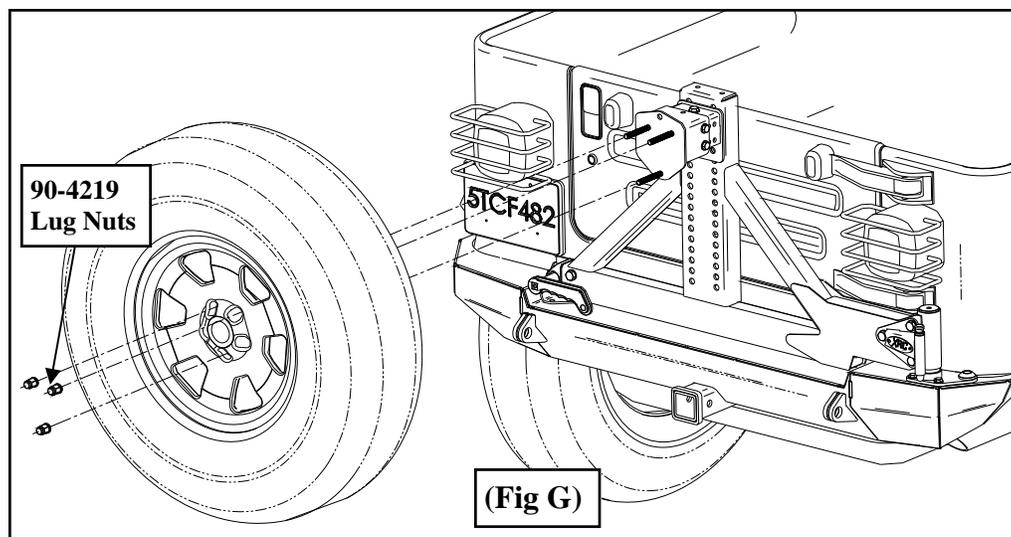


Step 13: Very carefully close the bumper and watch for tire carrier clearance over top of the bumper. **NOTE:** *Be careful not to scratch the top of the bumper.*

Step 14: Adjust the height of the tire carrier by tightening or loosening the (2) 1/2" pinch bolts on the pivot shaft. (**Tightening = Higher / Loosening = Lower**) Adjust the tire carrier so it swings smoothly and latches correctly. The latch can also be adjusted by inserting the supplied shims (90-5658) as well. Check that the tire carrier lock out mechanism fits properly into the lockout stop on the bumper by carefully swinging it backward. Once the lockout mechanism is aligned properly, tighten the (3) previously installed 1/2" bolts. (Fig. C)

IMPORTANT!: *Over-tightening the pinch bolts will not allow the tire carrier to swing freely.*

Step 15: Once proper fitment is achieved install the nylon washer and snap ring onto the pivot shaft. Install the Zerk fitting (90-4217) into the top of the pivot shaft (93-2997). (Fig. C) **NOTE:** *Do not over tighten the Zerk fitting.*



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Step 16: Torque all the tire carrier hardware (except the tire carrier pinch bolts) according to the torque chart on page 9.

Step 17: Reinstall the passenger side taillight using the previously removed **OE** hardware.

Step 18: Installation of the tire carrier is now complete.



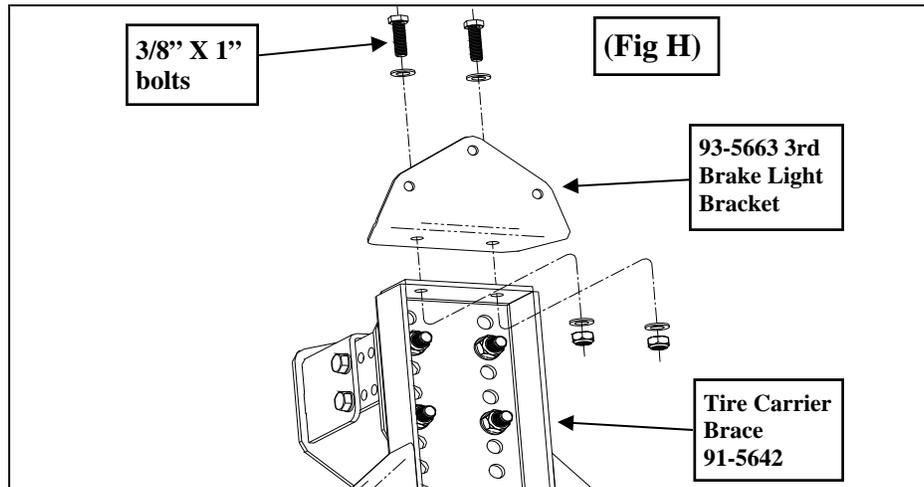
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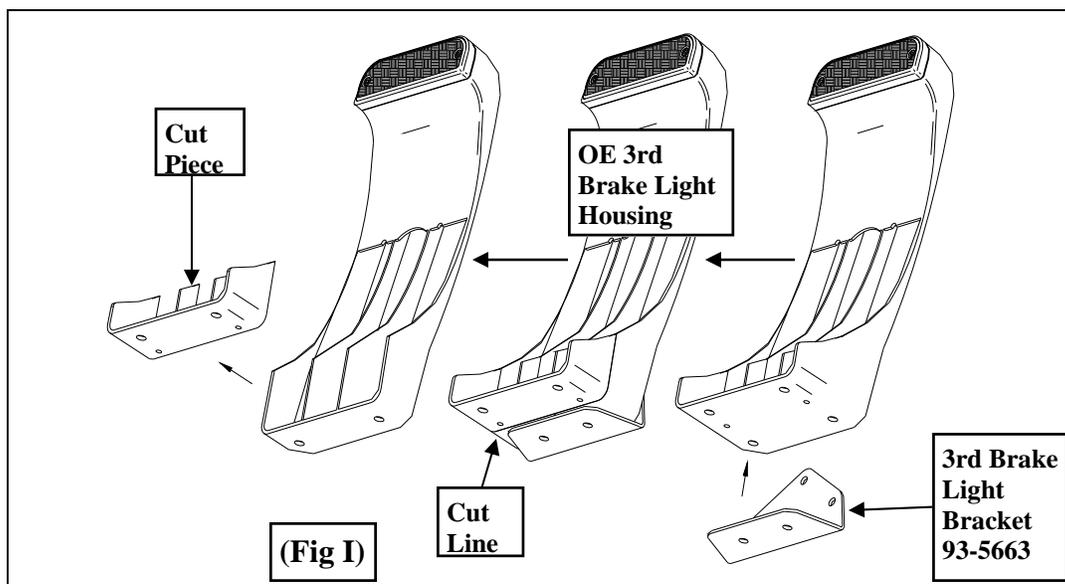
Third Brake Light Installation:

Step 1: Install the 3rd brake light bracket (93-5663) to the top of the tire carrier using the supplied 3/8" X 1" bolts. (Fig. H) Torque the bolts according to the chart on page 9.



Step 2: Place the OE 3rd brake light plastic housing flush against the back of the 3rd brake light bracket (93-5663). Using the bracket as a guide, scribe a line across the bottom of the plastic light housing. Trim the plastic housing along the scribed line. (Fig. I)

NOTE: Depending on the size of the spare tire, the OE 3rd brake light plastic housing may need additional trimming. Use the spare tire as a guide for any additional trimming.



Step 3: Once the OE 3rd brake light plastic housing has been properly trimmed, place it flush against the back 3rd brake light bracket (93-5663). Use the (3) holes in the bracket as a

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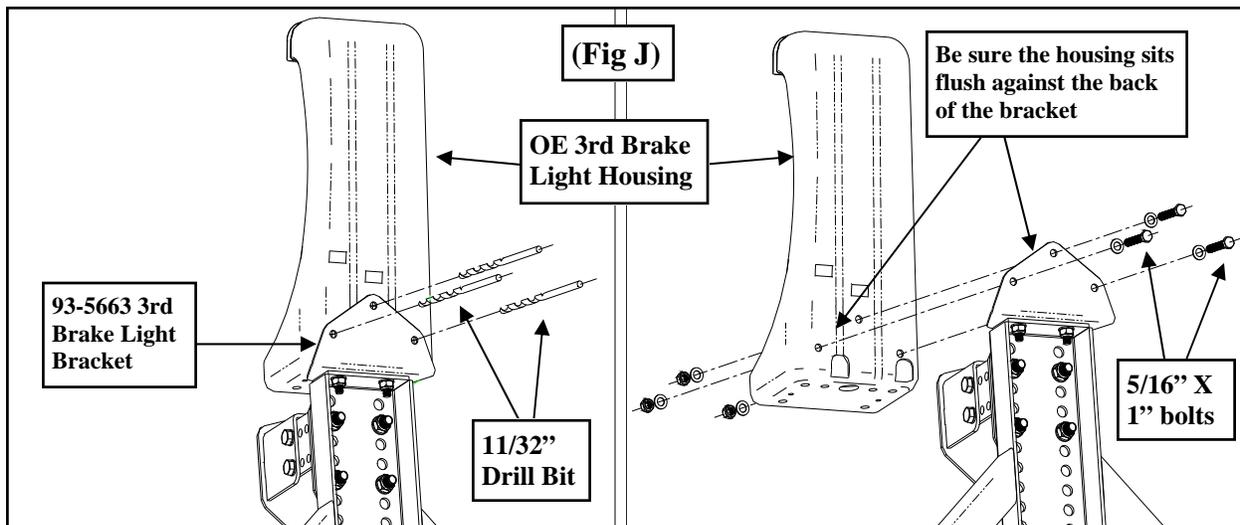
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guide to mark and drill the **OE** brake light plastic housing. Drill the plastic housing using an **11/32"** drill bit. **(Fig. J)** *NOTE: The 3rd brake light plastic housing will not sit flush against the bottom of the 3rd brake light bracket (93-5663).*

Step 4: Secure the **OE** plastic housing to the 3rd brake light bracket (**93-5663**) using the supplied **(3) 5/16" X 1"** bolts and hardware. **(Fig. J)**

IMPORTANT!: Do not over tighten these bolts.



Step 5: Reconnect the 3rd brake light wiring harness.

NOTE: It is recommended to extend the 3rd brake light wiring harness. This can simply be done by splicing the wire and using some insulated butt splice connectors and 18 gauge wire, extend the wire to the appropriate length. It is recommended to have this done by an experienced electrical installer.

Step 6: Installation of the third brake light assembly is now complete.

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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

<p>1/2-13x1.75 HHCS</p> <p>D T L X</p> <p>Grade 5 Grade 8 (No. of Marks + 2)</p>	<p>M12-1.25x50 HHCS</p> <p>D T L X</p> <p>P = Property Class (Bolt Strength) D = Nominal Diameter (Millimeters) T = Thread Pitch (Thread Width, mm) L = Length (Millimeters) X = Description (Hex Head Cap Screw)</p>

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)

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 wax 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 wax that contains abrasive that could damage the finish.

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Limited Warranties

Smittybilt's products are covered under the following limited warranties only. Note that the duration of the limited warranty differs according to the material and finish of the product purchased. Subject to the duration and conditions of the limited warranty stated below, Smittybilt warrants to the original retail purchaser that its products are free from defects in material and workmanship. All other warranties and representations express or implied, are hereby disclaimed, including fitness for merchantability and buyer's intended use or purpose. All parts are sold "AS IS" except for the limited warranties granted herein. Buyer assumes all risks as to the selection, suitability and performance of all goods and products selected. This limited warranty does not cover damage or impairment in any part due to misuse, improper installation, accident or contact with on-road or off-road hazards, product modification, improper or inadequate cleaning and/or maintenance. Smittybilt is not responsible for items damaged during shipping. This warranty is not transferable from the original buyer. For the original Buyer to be eligible for the limited warranty coverage, the Buyer must provide proof of purchase. Smittybilt strongly recommends returning the warranty registration card.

Customer's remedy hereunder shall be limited only to repair or replacement (at Smittybilt's option) of any defective part(s) returned to Smittybilt at customer's expense. The determination of whether or not a returned part is defective or subject to coverage under the limited warranties stated herein shall be made at Smittybilt's sole discretion.

Duration of Limited Warranty

Limited Lifetime Warranty on Stainless Steel Products -

Smittybilt stainless steel products carry the foregoing limited repair or replacement warranty against workmanship and defects in the material so long as the original purchaser retains the original stainless steel parts.

Limited Five (5) Year / 50,000 Mile Pro-Rata Warranty (whichever occurs first) on Dual-Stage Powder Coating Products -

Smittybilt dual-stage powder coated products carry the foregoing limited repair or replacement warranty for a period of (5) years or 50,000 miles (whichever occurs first) from date of purchase against workmanship and defects in the material, provided that any claim submitted after (2.5) years from date of purchase shall, if accepted, be satisfied by Smittybilt offering customer a credit on the purchase of a replacement product equal to fifty percent (50%) of customer's initial purchase price.

Limited Three (3) Year / 36,000 Mile Pro-Rata Warranty (whichever occurs first) on Chrome Products-

Smittybilt chrome products finished carry the foregoing limited repair or replacement warranty for a period of three (3) years or 36,000 miles against workmanship and defects in the material (whichever occurs first) from the date of purchase.

To assure product quality, Smittybilt reserves the right to change product design, material, specification and finishes without prior notice to customers. This limited warranty gives you specific legal rights and you may also have other rights, which may vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply as to you. Also, some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Smittybilt reserves the right to discontinue product lines and substitute products, or provide other remedies than those listed in this limited warranty for those discontinued products.

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