



EVO Manufacturing

Jeep Wrangler JL

JL KSPEC Tube Rear Bumper

EVO-3192/B





Before starting installation procedure please read <http://evomfg.com>Returns-Warranties-Shipping>

CAREFULLY READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL AND KEEP FOR FUTURE REFERENCE. IF YOU HAVE ANY QUESTIONS ABOUT THE PRODUCT CALL EVO MANUFACTURING. FAILURE TO FOLLOW GUIDELINES COULD RESULT IN MALFUNCTION OF PARTS OR INJURY. PLEASE HAVE A TRAINED PROFESSIONAL ASSIST WITH OR INSTALL ALL PRODUCTS. INSTALLING EVO MFG PRODUCTS OR KITS DEMANDS SPECIFIC KNOWLEDGE, TOOLS AND EXPERIENCE. GENERAL KNOWLEDGE OF HOW TO USE LATER SPECIFIED TOOLS AND/OR LIMITED EXPERIENCE WITH EVO MFG PRODUCTS MAY NOT BE ENOUGH TO PROPERLY COMPLETE THESE TASKS. SOME OF EVO MFG PRODUCTS MAY REQUIRE TWO OR MORE PEOPLE TO INSTALL SAFELY AND CORRECTLY. DO NOT ATTEMPT ALONE, ALWAYS ENLIST THE HELP OF TRAINED PROFESSIONAL WHEN NEEDED.

Notes: Set Up Before installation

Cutting and grinding will be necessary for this installation.

May need to use a second person to ease install.

Keep all mounting bolts loose (installed but not torqued) we will torque later at the end of complete installation

READ BEFORE INSTALL:

It is generally a good idea to apply Loctite to all threaded bolts.

ALWAYS wear safety glasses and other approved safety gear when working on a vehicle.

All supplied bolts torqued according to chart at end of instruction.

It is recommended all installation be performed by a trained professional. Some modification may have to be done.

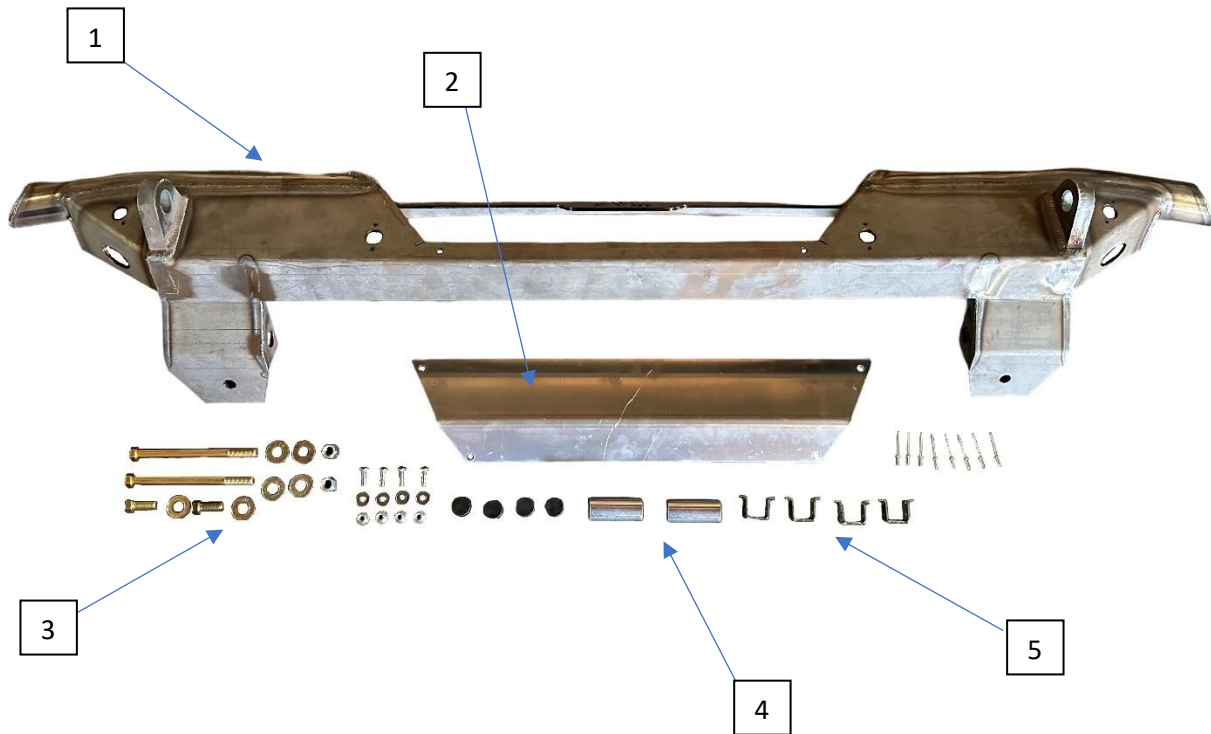
Paint all unfinished surfaces after install is complete.

On aluminum bumpers, heat should not be applied due to aluminum properties



Parts included: Table below shows EVO MFG KSPEC Rear Bumper.

Description	#	Part #	Part # Black	Quantity
KSPEC Rear Bumper	1	EVO-12590	EVO-12590B	1
KSPEC Rear Bumper Insert	2	EVO-12595	EVO-12595	1
Hardware Pack	3	EVO-770113	EVO-770113	1
Crush Tubes	4	EVO-20056CZ	EVO-20056CZ	2
Backup Sensor Mount	5	EVO-12503	EVO-12503	4
Nut Plate	6	EVO-12596CZ	EVO-12596CZ	2





Recommended Tools:

- Allen set / Driver Sockets
 - Impact with sockets
 - Sawzall / Cut off wheel or similar
 - Drill with ½" and ¾" bit / Step bit
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Safety Steps for installation

- For installing EVO MFG products always use wheel chokes to block rear tires from rolling.
 - Always make sure you have everything necessary ready before install.
 - If you have to, carefully lift front of vehicle by front frame rails extending suspension until tires leave the ground, place frame on approved jack stands for vehicle. Verify all lines/wires are not over extended.
 - Remove tires if needed for easier install.
 - Make sure to wear safety equipment (eye protection, hand protection, foot protection etc.) at all times during installation.
 - Make sure all safety precautions have been taken.
 - Always check and replace any part of vehicle that is worn or broken before starting install.
 - Do not mix anything EVO with weaker alternatives.
 - It is generally a good idea to apply liquid threadlock to all bolts.
 - Tighten included hardware to torque specifications in bottom table unless it is otherwise specified, factory bolts should be torqued to factory Jeep specifications.
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Various factory bumper options are available. Factory bumper removal steps therefore will vary. This is just a guide, follow factory manual if further instruction is required.

INSTALL:

Safely park car on flat ground, put in park and chock wheels.

1. Follow factory procedures to remove rear bumper from Jeep.
 2. Install center insert onto main bumper using 4 supplied button head bolts, washers and nuts.
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3. If installing backup sensors, using the 8 rivets, install backup sensors in the same orientation as they were removed from vehicle with the plugs facing towards the center of the vehicle.
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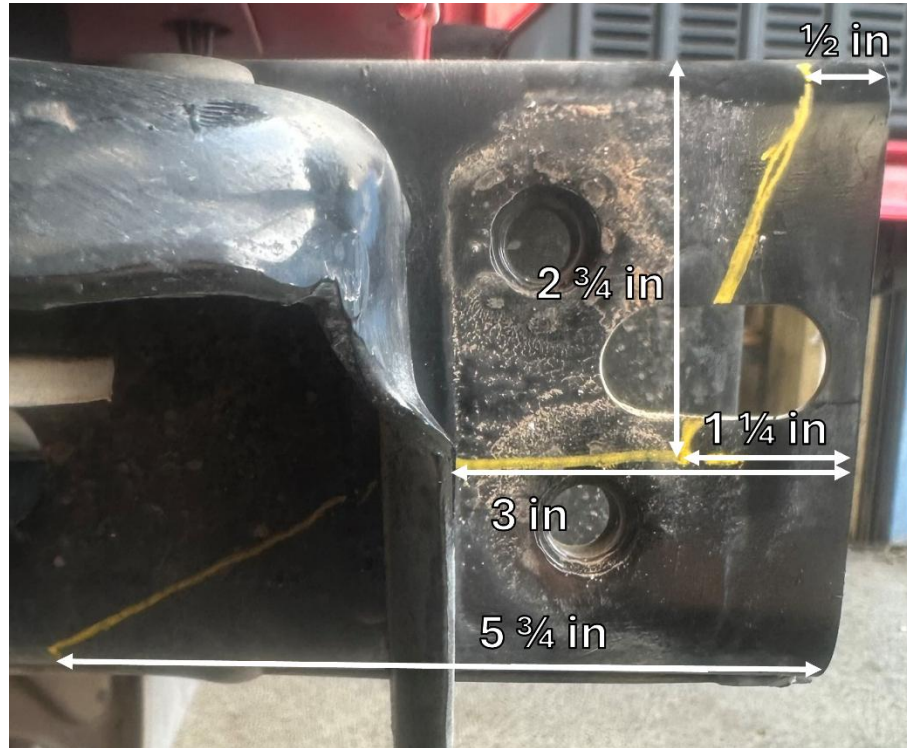
If not installing sensors, install plastic plugs into 4 sensor holes.



4. Mark cut lines as shown.
5. Using a Sawzall, cut off wheel or similar, remove / cut the frame using cut lines along with the body mounts.

Use proper safety precautions and safety equipment. Make sure no wires or hoses are in the cutting path. Only cut specified area.

6. Mark cut line for only the rearmost body mount flanges 1 inch down from the top.



7. Following the upper notch, cut both inside and outside of the frame.

Note:
muffler can be removed for easier access but is not required.
392 will need stock exhaust tips removed for bumper install.



8. The Final cut should look as pictured.



9. Fit bumper and loosely install with 2 factory bolts into the upper holes. Make sure the bumper fully clears the frame and clearance as necessary.

10. Mark the side holes on the inside and outside of the frame as well as the holes on the bottom of the frame that need to be drilled. 6 in total.

11. Remove the bumper and drill the 6 holes that were marked in the previous step with a $\frac{1}{2}$ " drill on the outside and bottom of the frame and a $\frac{3}{8}$ " drill bit on the inside of the frame.



12. Paint all exposed metal to prevent corrosion.

13. Install nut plates through outside holes in the frame and install the bumper. Install the two factory upper bolts. Insert the crush tubes from the inside of the frame and install the two 7/16" x 5" bolts and 7/16" Nylock nuts with washers through the side of the frame with a 5/8" socket and wrench. Install the two 7/16" x 1.5" fasteners with washers into the bottom of the frame and thread into the nut plates previously inserted. Torque to the recommended torque specs on the last page.





After Install:

- Tighten all bolts securing purchased parts to specified locations.
- After completing installation using provided instructions, go through all steps again to make sure nothing was missed, not tightened or improperly assembled.
- Some components may need to be purchased separately.
- Check turn signals, headlights, fog lights (if applicable), taillights, blinkers and windshield wipers.
- Adjust mirrors, speedometer and headlights if needed.
- Make sure all gauges are fully operational.
- Drive the vehicle slowly for a couple minutes, looking and listening for abnormal noises while driving. After modification of a vehicle there will be differences in driving experiences and capabilities, be mindful of that.
- Inspect and Retorque all Bolts after 500 miles of completed installation and regularly thereafter.
- Some modification may be required.

Recommended Torque:

Size	Grade 2		Grade 5		Grade 8		18-8 S/S	
	Coarse	Fine	Coarse	Fine	Coarse	Fine	Coarse	Fine
#4*	-	-	-	-	-	-	5.2	-
#6*	-	-	-	-	-	-	9.6	-
#8*	-	-	-	-	-	-	19.8	-
#10*	-	-	-	-	-	-	22.8	31.7
1/4	4	4.7	6.3	7.3	9	10	6.3	7.8
5/16	8	9	13	14	18	20	11	11.8
3/8	15	17	23	26	33	37	20	22
7/16	24	27	37	41	52	58	31	33
1/2	37	41	57	64	80	90	43	45
9/16	53	59	82	91	115	129	57	63
5/8	73	83	112	128	159	180	93	104
3/4	125	138	200	223	282	315	128	124
7/8	129	144	322	355	454	501	194	193
1†	188	210	483	541	682	764	287	289