

## JL4113

### JL 392 MUFFLER SKID



#### ESTIMATED INSTALLATION TIME

**1 to 2 hours**

#### REQUIRED SKILLS

- General Mechanics Skills

#### REQUIRED TOOLS & SUPPLIES

- 18mm Socket
- 17mm Socket
- 16MM Socket
- 7mm Socket
- 9/16 Socket
- 3" & 6" Extension
- Ratchet
- 7/32" & 5/32" Hex tool
- 9/16 wrench
- 1/2 wrench
- 
- Loctite
- Safety Glasses

#### NOTES:

- Component appearance in instructions may vary from those received



## WARNING MESSAGES

This product demands a basic understanding of mechanical procedures and should only be installed by individuals proficient with mechanic's tools. Any tasks involving welding or cutting parts should be performed by trained professionals. Artec Industries disclaims responsibility for mishaps arising from improper installation, or any damage or accidents resulting from cutting or welding tasks. Exercise caution and seek professional help as required.

## SAFETY

1. We've furnished a written installation guide, along with relevant details, to aid you in making safety-conscious decisions.
2. While these guidelines will highlight potential risks, it's crucial to exercise your personal judgment when performing any required steps.
3. Before initiating any tasks, it's essential to conduct a job safety analysis to identify specific hazards in your situation and take measures to eliminate or protect against them.
4. Before commencing the installation of this product, make sure you familiarize yourself with and fully understand all safety warnings and guidelines.

## DISCLAIMERS

All Artec Industries products should be installed by a competent, certified individual following the intended installation instructions for each product. Incorrect installations not only nullify any warranties but could also lead to product damage or even damage to the vehicle it's installed on. Prior to installation, carefully read all provided instructions or manuals, and watch any associated videos. For any doubts or queries, reach out to Artec Industries before beginning the installation process.

Many products necessitate lifting and supporting the vehicle off the ground. It is the installer's responsibility to ensure this can be done safely and that the right equipment is at hand to carry out the installation. Artec Industries installation instructions presume the installer is competent to lift the vehicle safely and correctly.

Modified vehicles won't perform identically to their stock counterparts. It's incumbent upon the vehicle owner to understand the alterations such modifications will bring to the vehicle's driving dynamics. These might encompass (but aren't limited to): changes in handling, braking, rollover angle, and potential incompatibilities with the factory-installed anti-lock braking systems, stability control systems, or traction control systems.

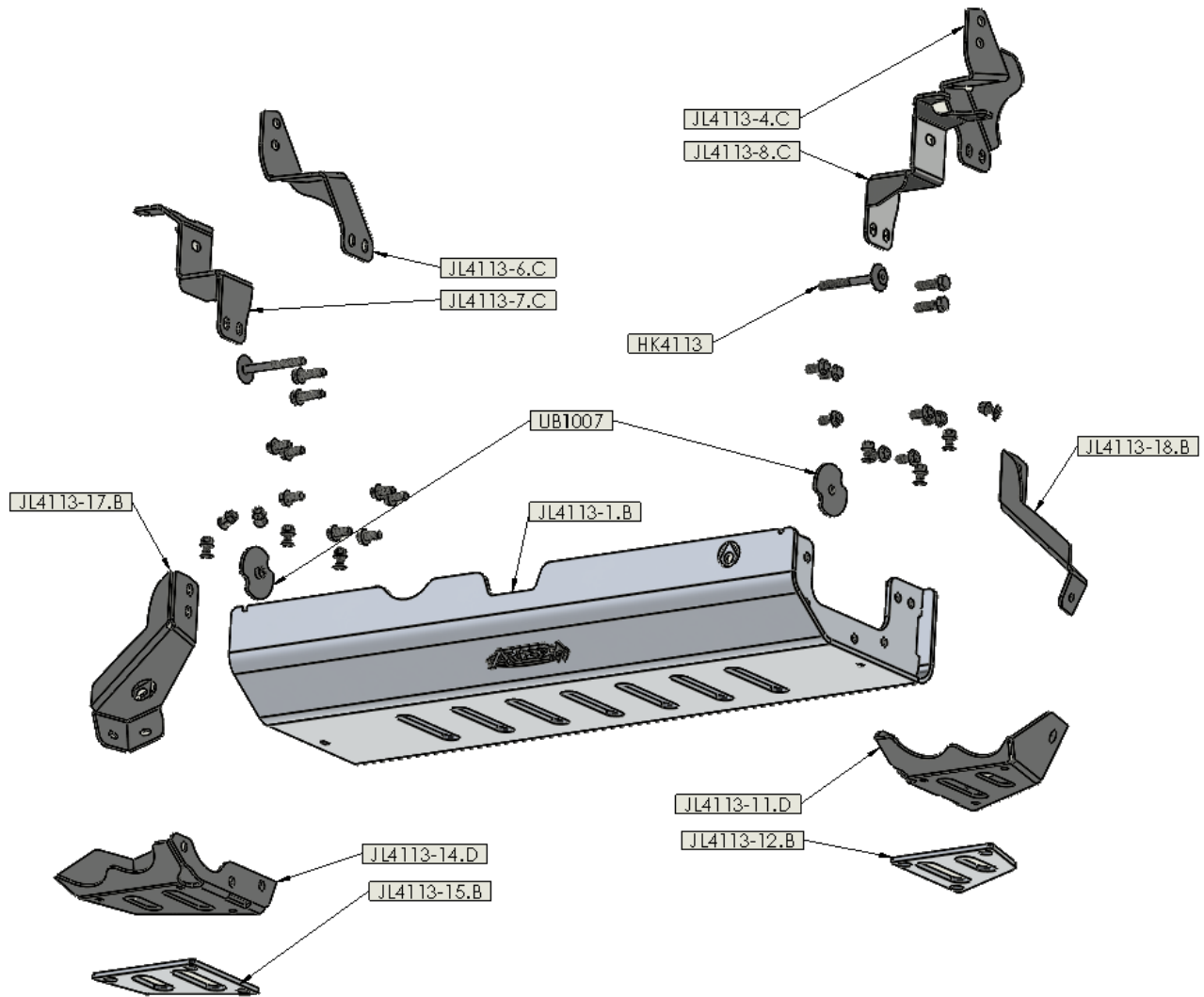
## SPECIAL NOTES

- Unless otherwise noted, all hardware should be **LOOSELY** tightened by hand until the very end of installation when all components are attached.



## JL4113 PARTS BILL OF MATERIALS

Please confirm you have all the listed parts below **BEFORE** beginning your installation. If any parts are damaged or missing, **KEEP ALL ORIGINAL BOXES and PACKAGING** and contact us.



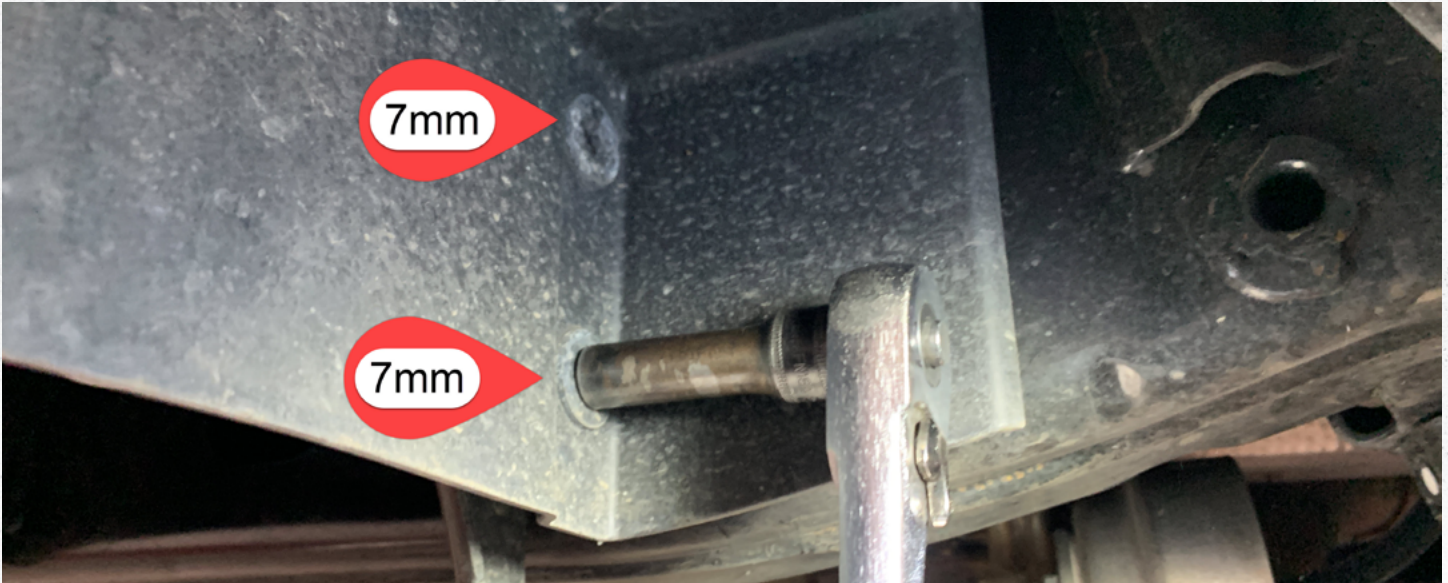
## JL4113 BILL OF MATERIALS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	HW0058	3/8" 16 x 1.0" Long Grade 8 Hex Head Cap Screw Yellow Zinc	14
2	HW0059	3/8" Flat Washer Type 1 Yellow Zinc	14
3	HW0116	5/16 Flat Head Washer	10
4	HW0118	3/8 in-16 x 4.0 in Counter Sink Allen Head Bolt - 7INC. PI ATFD	2
5	HW0131	5/16"-18 x 1" Long Steel Flat Socket Head Screw Clear Zinc	10
6	HW0136	M10 - 1.5 x 40mm long Hex Head Bolt	4
7	HW0137	M10 washer	4
8	HW0147	.375" Countersunk Aluminum Washer	2
9	HW0153	5/16-18 NYLON INSERT HEX LOCK NUT ZINC	10

**NOTE:** The part numbers indicated above end in a "." and "letter" which indicate the revision number for the part. The etched part number on your physical parts do not need to match the above drawing revision exactly.



## ASSEMBLY INSTRUCTIONAL GUIDE



Step 1:

Starting on the Driver side fender well detach rear inner fender liner from bumper side support bracket by removing 3 small screws using 7mm socket, repeat to other side.



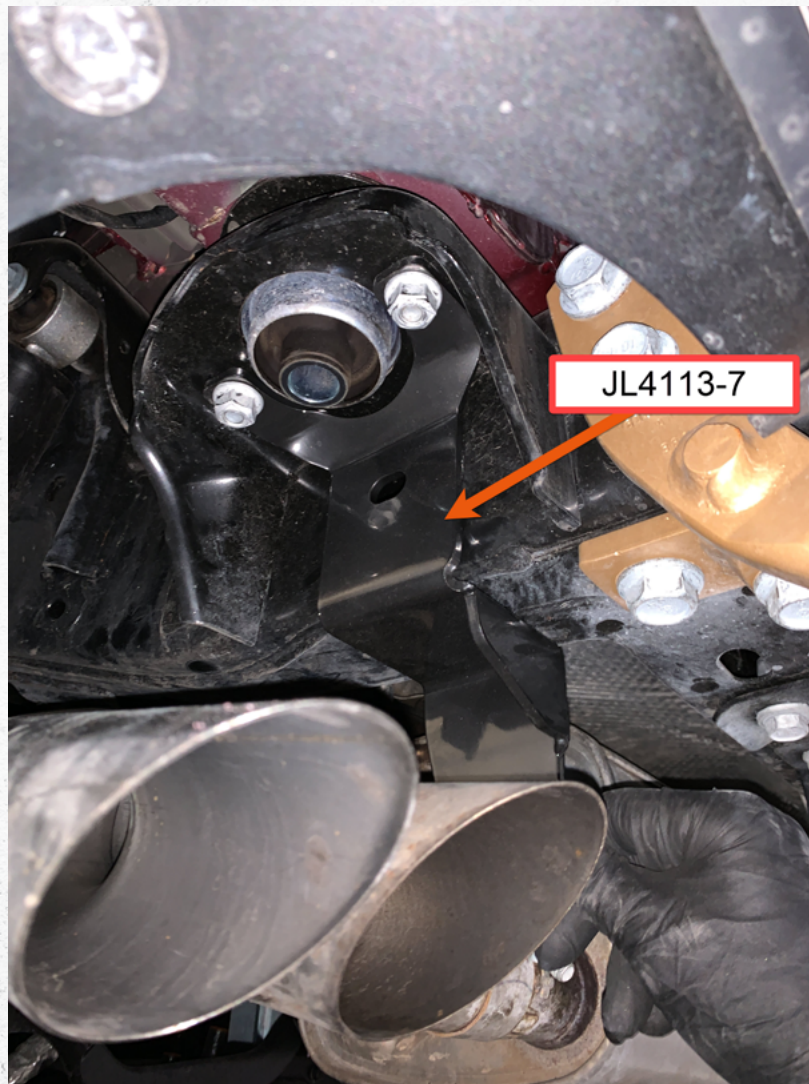
Step 2:

Remove rear bumper side support bracket from each side of frame and bumper using a 16mm socket to remove 2 – 8mm bolts from frame side and 2 – 8mm bolts from bumper tagged with a BLUE marker.



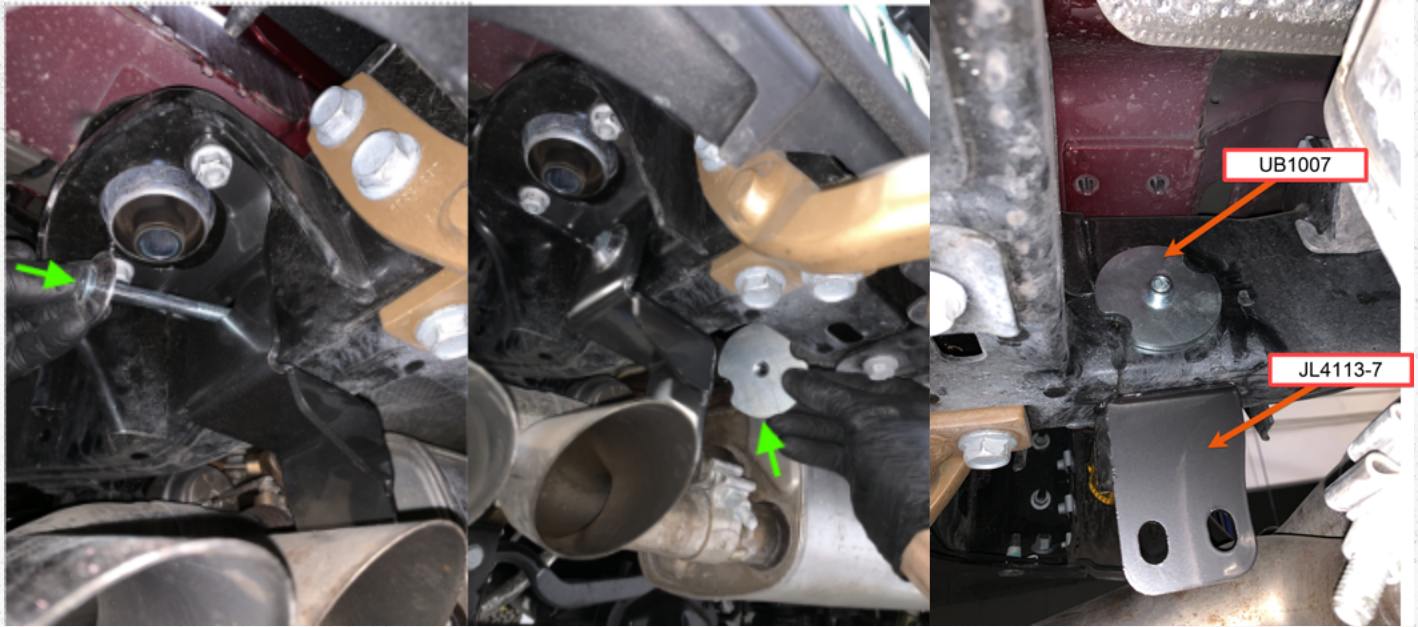


Step 3.  
Remove both rear body mount bolts and nuts using a 18mm socket.



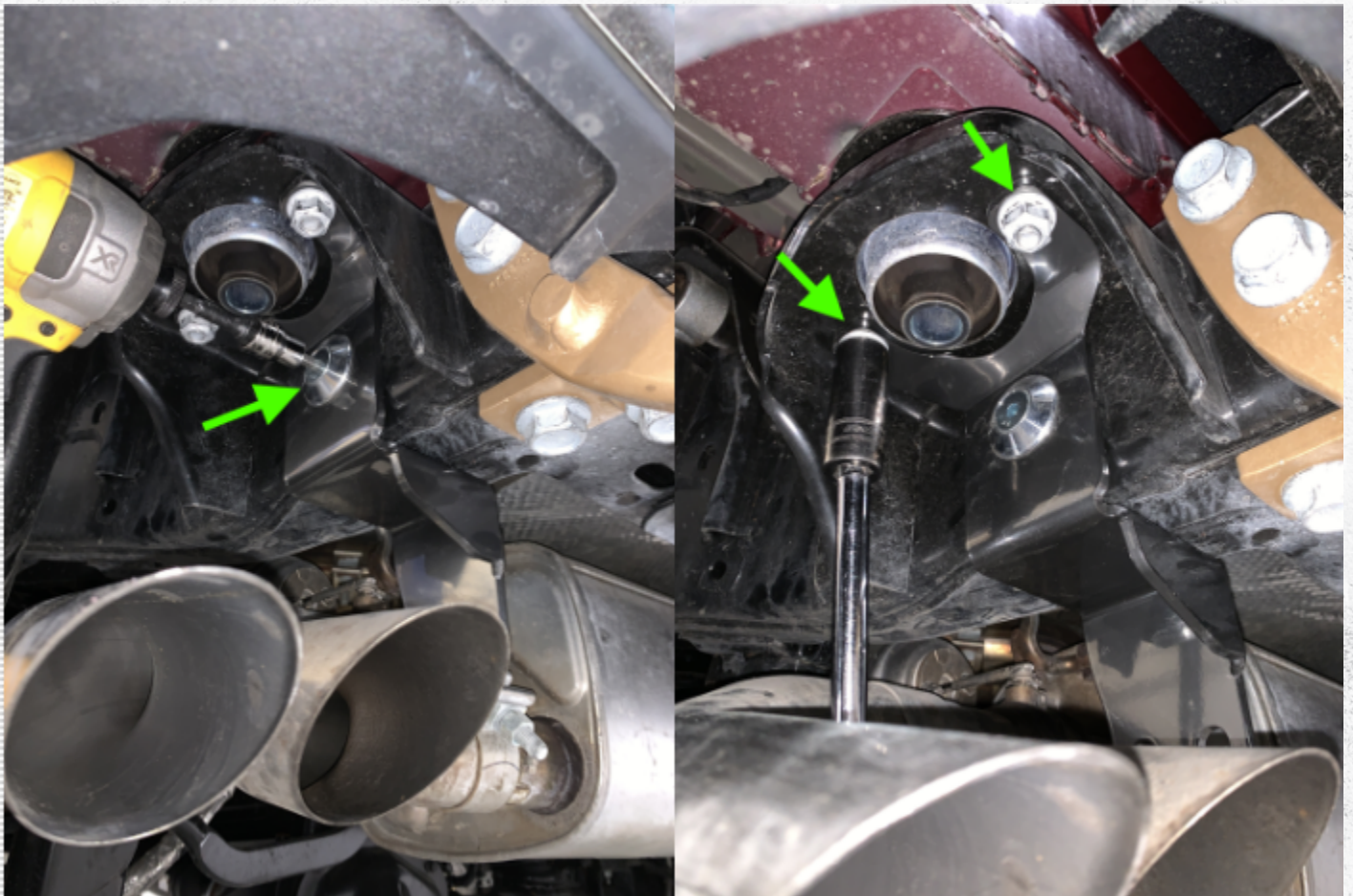
Step 4.  
Install the frame mounting brackets (6 & 7 in the above picture breakdown) onto the rear cab mount-



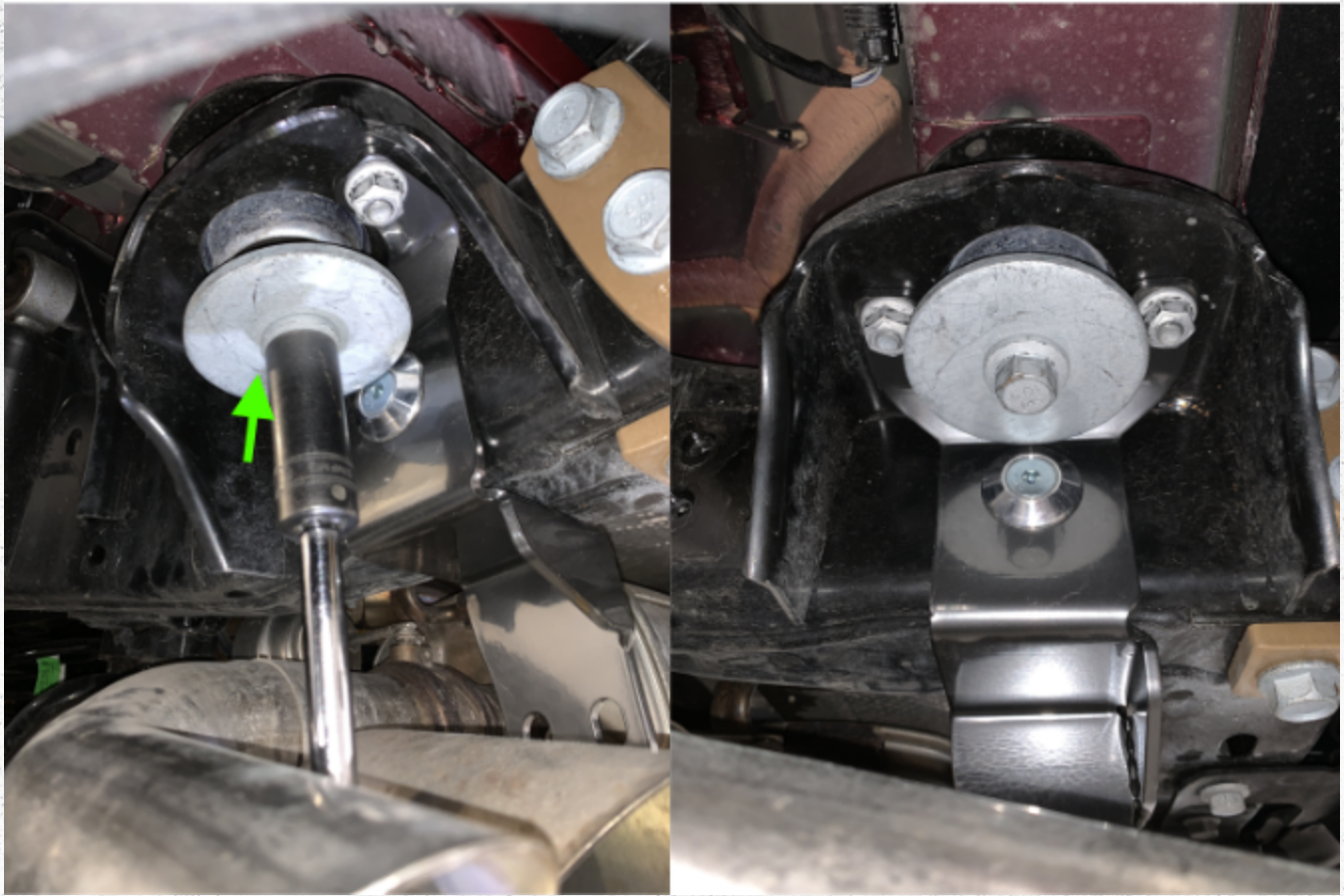


Step 5.

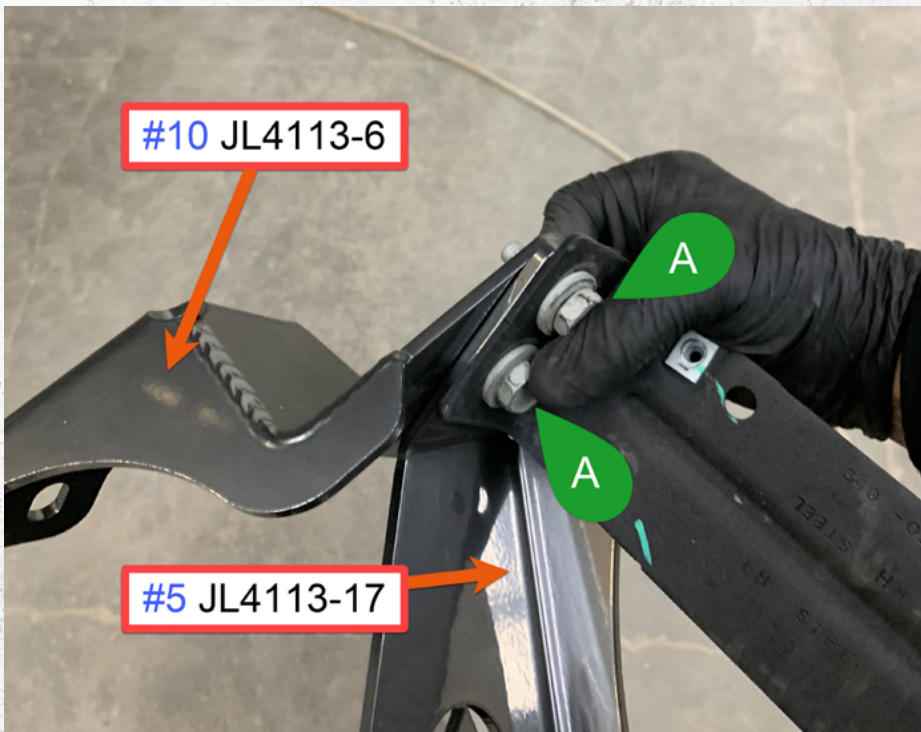
Using a 7/32" hex bit socket, secure bracket by installing 1 - 3/8" x 4" countersunk bolt and washer through center of the bracket and through the frame as pictured and secure it with the large 3/8" PEM nut washer on inside of frame rail as shown below. (Repeat on opposite side.)





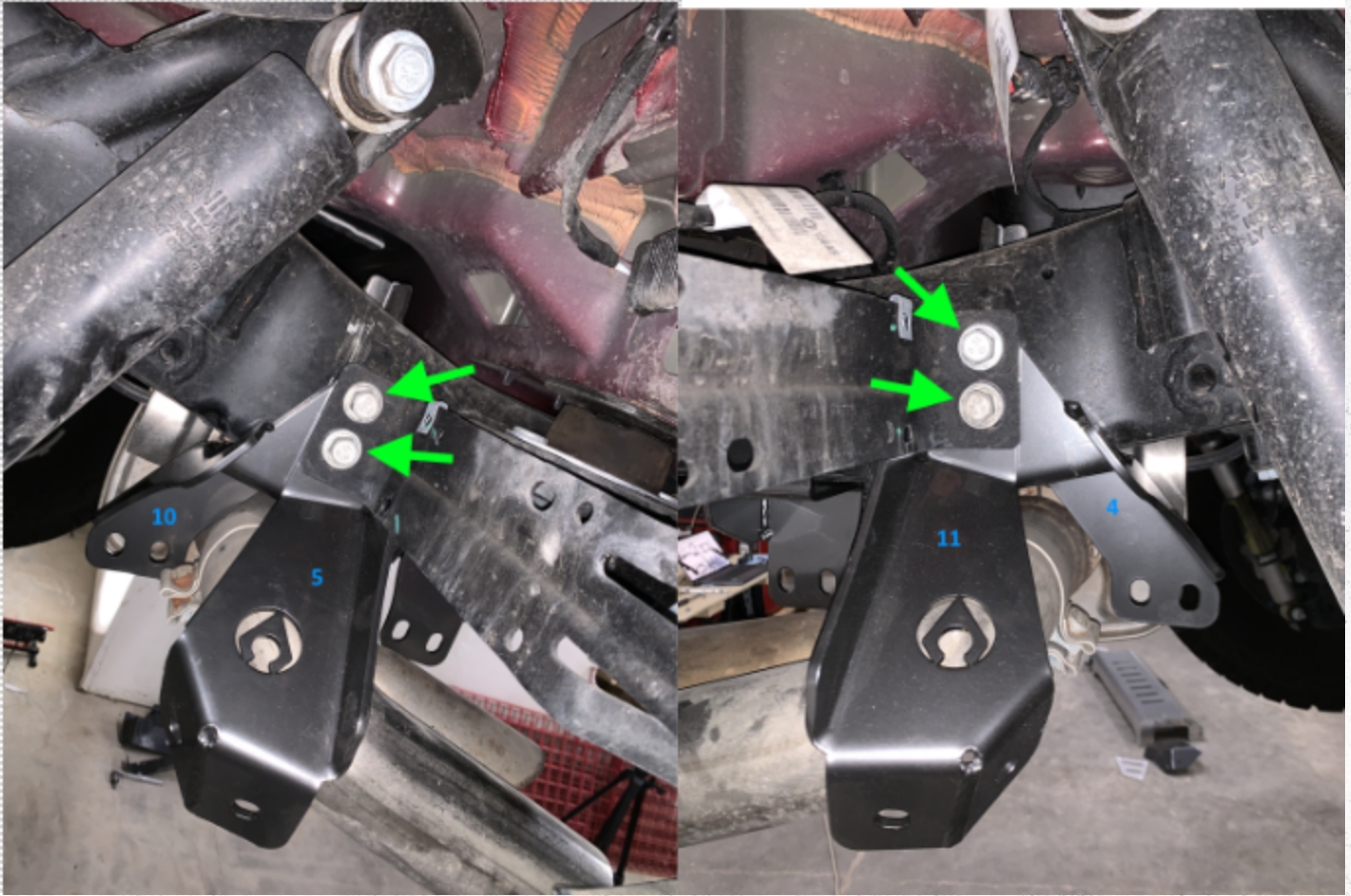


Step 6.  
Reinstall the OE body mount bolts to OE specification using an 18mm socket. (Use small amount of Loctie on bolt.)



Step 7.  
Assemble DVR side bumper support brackets with the supplied bracket **#10** first (against the frame, followed by bracket **#5** in the middle, and OE bumper support bracket on the outside as shown below with supplied 2 – M10x40mm bolts & washers. Repeat to PSG side.



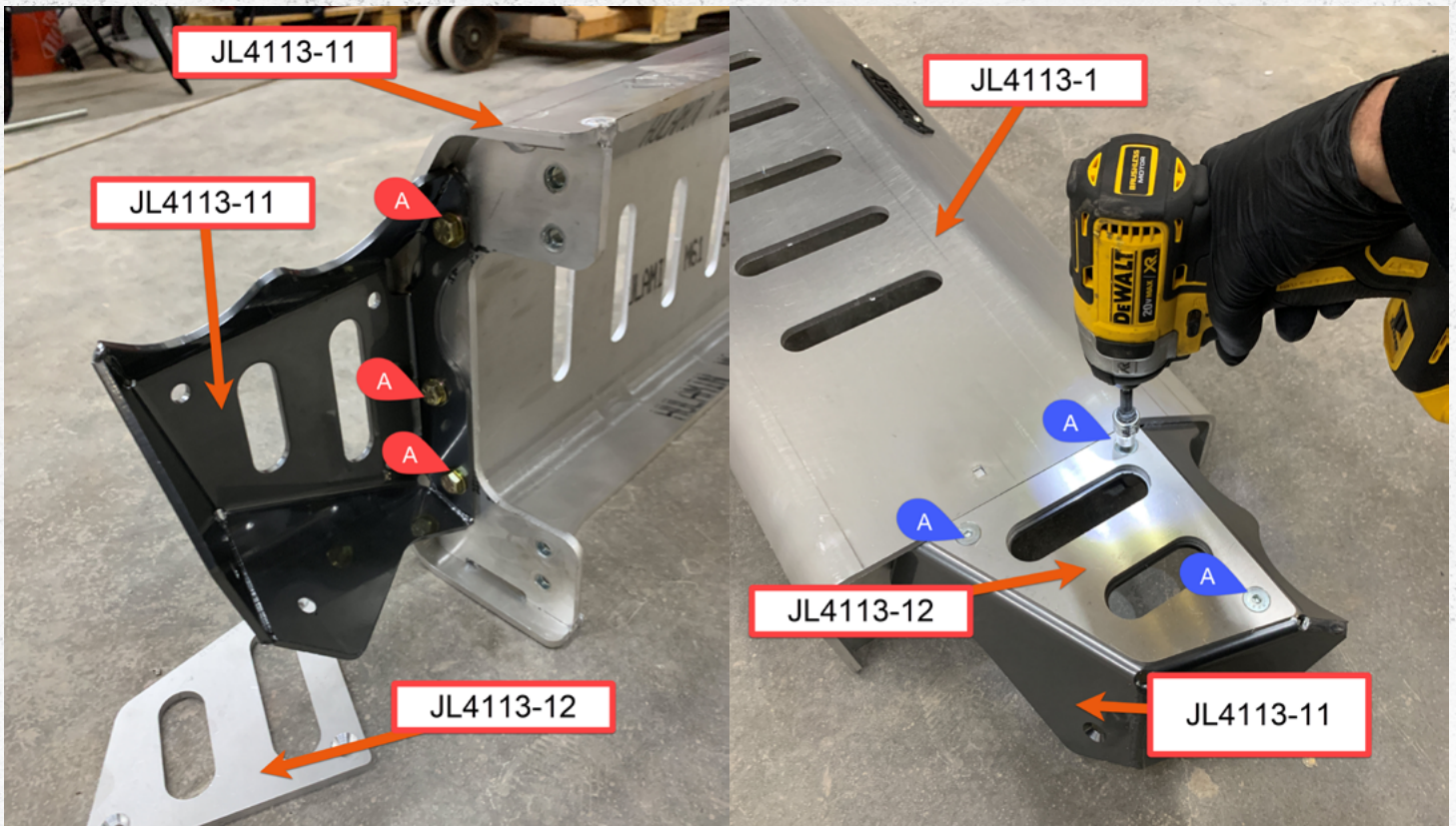


Step 7 continued image.



Step 8.  
Using 16mm socket, install rear bumper side support bracket onto bumper using 2 – OE 8mm bolts from frame side. Repeat to PSG side.





**Step 9:**

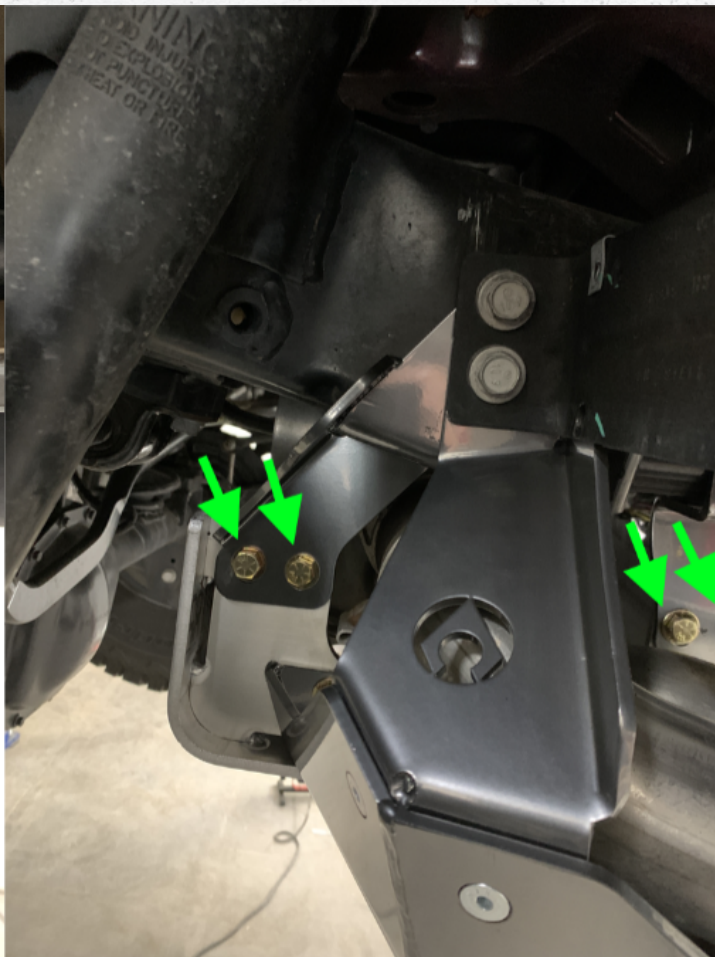
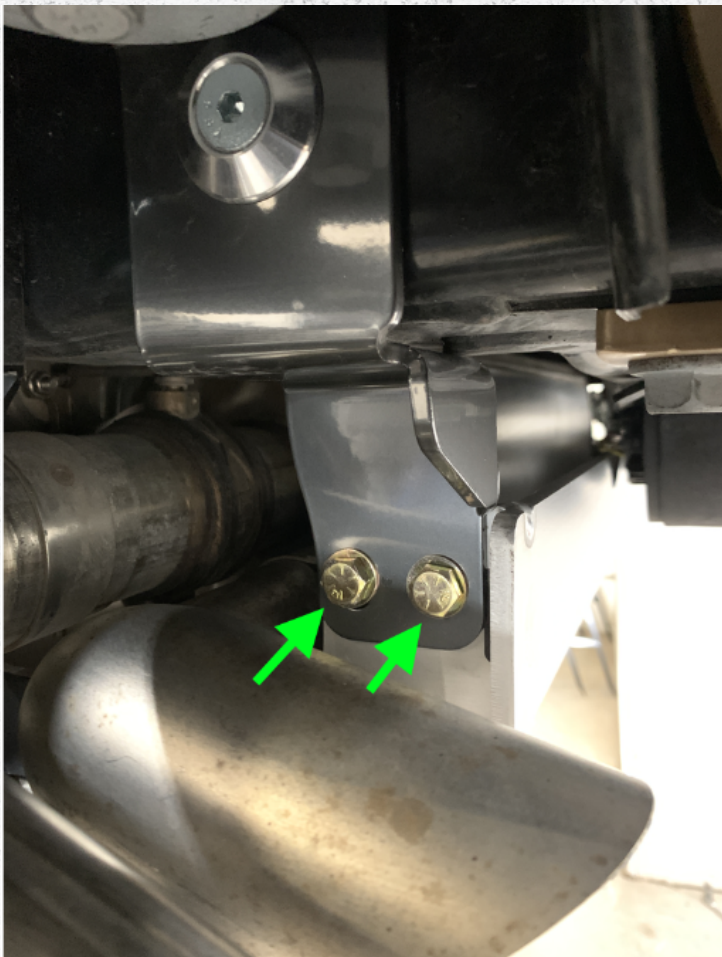
Using 9/16" wrench, install exhaust tip guard brackets onto main muffler skid (8 & 9 in the assembly drawing) using 3 - 3/8" x 1" **RED** bolts and washers. Repeat to opposite side.

**Step 10:**

Using 5/32" hex bit socket, install exhaust tip skids onto each exhaust tip guard bracket (12 & 13 in the assembly drawing) using 3 - 5/16" x 1" **BLUE** countersink bolts, nuts and washers.

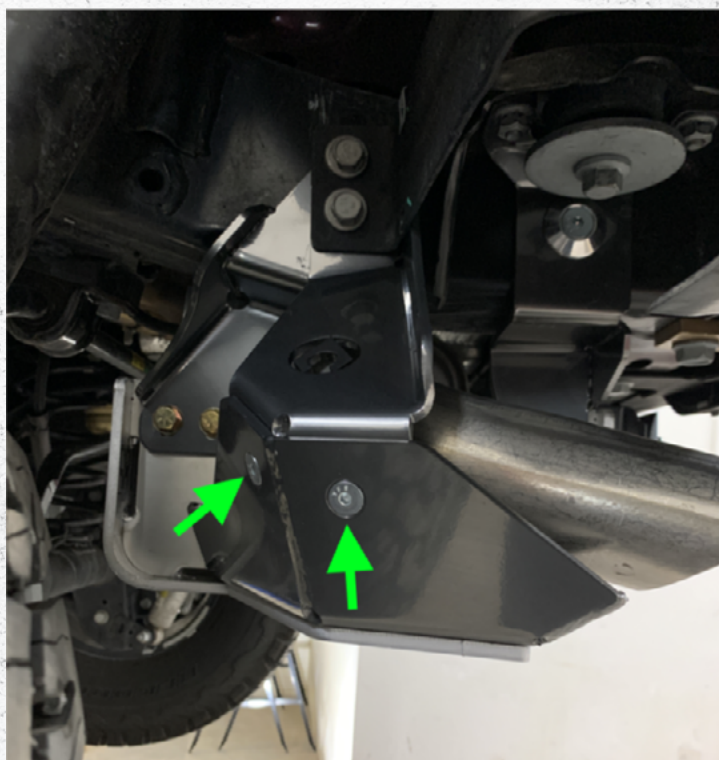






**Step 11:**

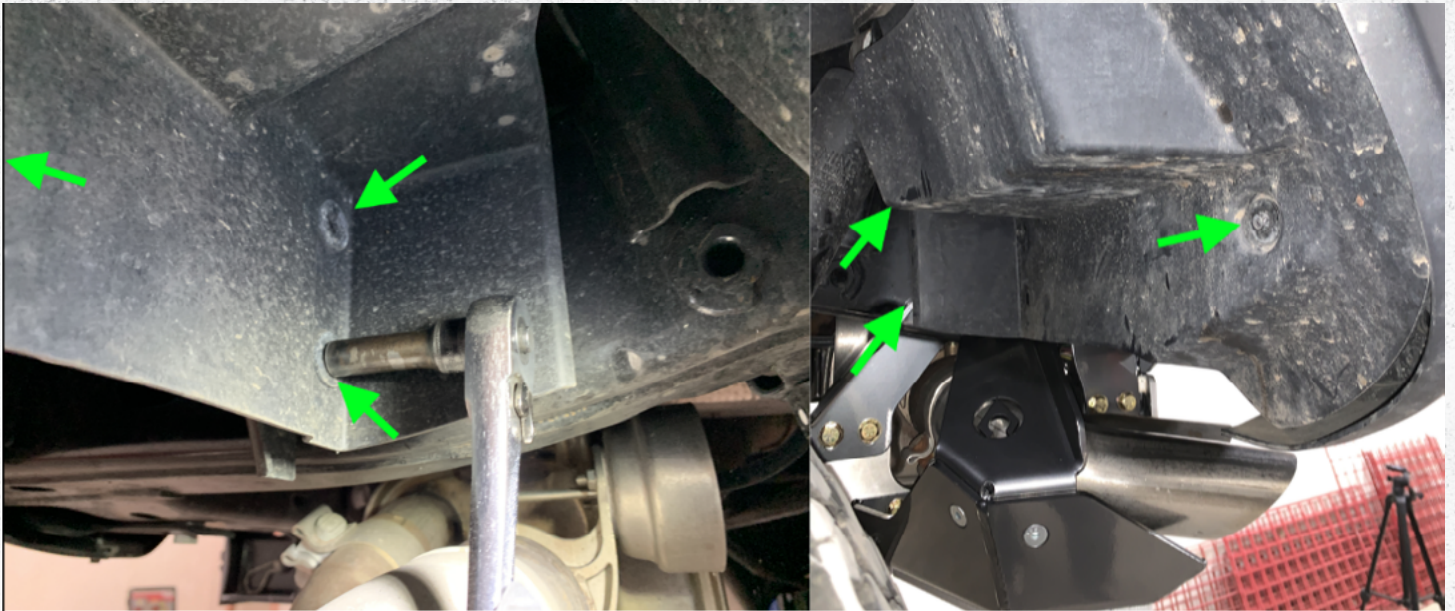
Using 9/16" socket, install muffer assembly on to inside of frame brackets using 4 - 3/8" x 1" bolts and washers on each side of skid assembly. (Two bolts per bracket.)



**Step 12.**

Using 5/32" hex bit socket, install exhaust tip guard bracket onto side frame brackets using 2 - 5/16" x 1" countersink bolts, nuts and washers onto each side of skid assembly. (Two bolts per bracket.)





Step 12:

Reinstall the DVR side rear inner fender liner onto bumper side support bracket with the 3 small OE screws using 7mm socket, repeat to other side.

**Verify ALL previously installed hardware is tight / torqued to specifications.**





## CONCLUSION

Congratulations on finishing the installation for your Artec Industries muffler Skid. Before driving your vehicle, inspect all bolts to ensure they are properly tightened.

If you used a vehicle lift, take proper care to ensure you lower your vehicle safely.

Now take your vehicle out and enjoy the outdoors in confidence.

## MAINTENANCE / CARE

- After 500 miles, inspect all components and hardware to ensure they are properly fastened.
- If driving during the winter where salt is used on the roads, thoroughly and frequently wash underside of vehicle to prevent salt based corrosion.
- If removal of skid panels is required for vehicle maintenance, and bolts will not loosen, tap the bolt heads with a small sledge hammer using moderate force. This will allow the threads to loosen.
- Spray wax or similar products can be used to create a protective barrier on raw metals to protect against long term corrosion.