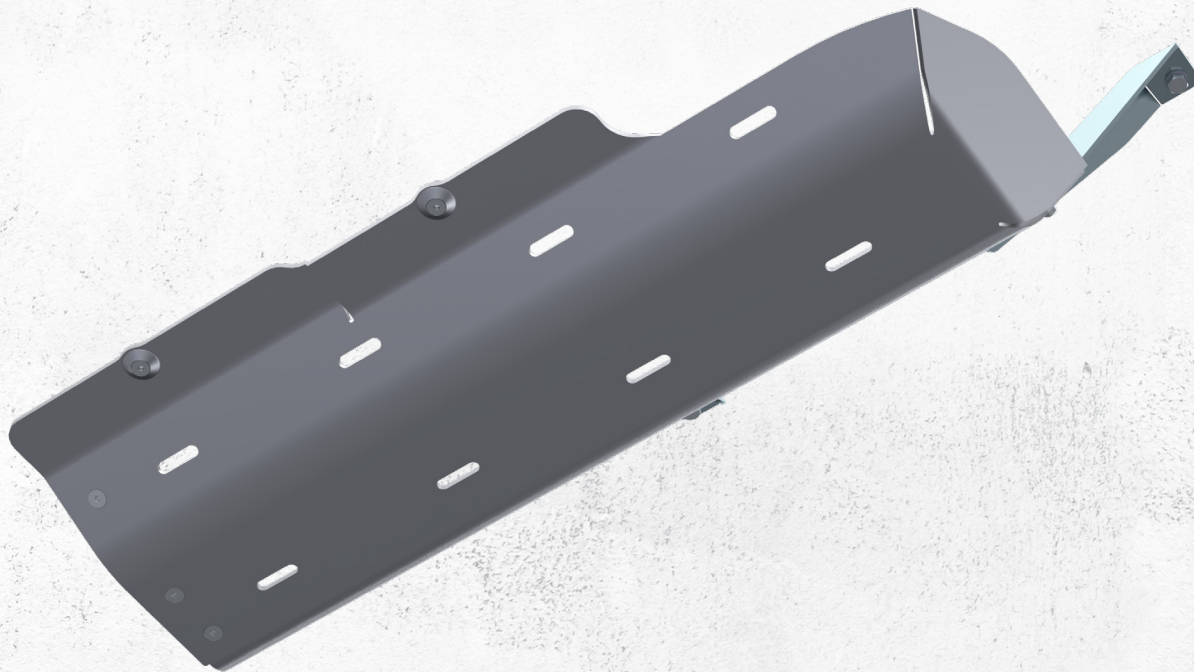




## PART #'S JL4118

### JL 392, 2.0L & 3.6L GAS ENGINE EXHAUST SKID - INSTALLATION INSTRUCTIONS



#### ESTIMATED INSTALLATION TIME

.5 to 1 hours

#### REQUIRED SKILLS

- General Mechanics Skills

#### REQUIRED TOOLS & SUPPLIES

- 18mm socket
- 9/16 inch wrench
- 9/16 inch socket
- Ratchet
- 7/32 inch allen wrench
- Ratchet extension 2 inch

#### 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.

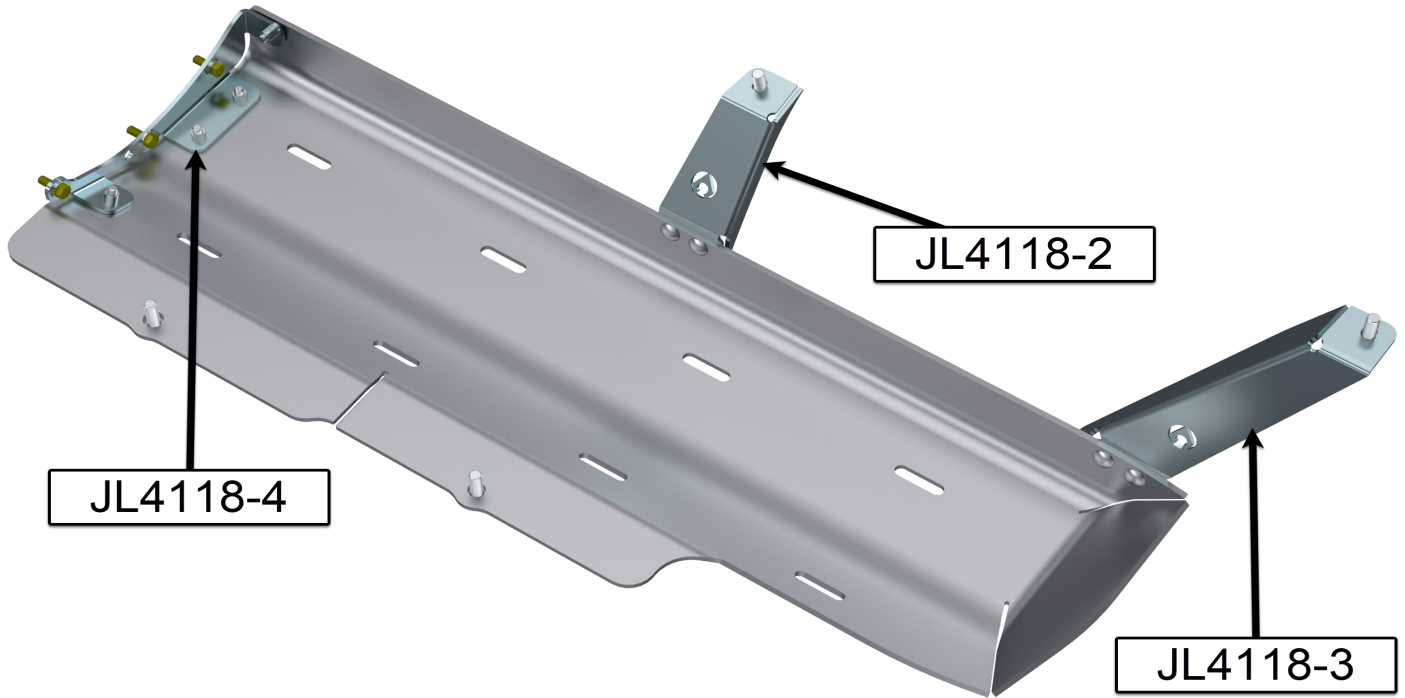
Modified vehicles won't perform identically to their stock counterparts. It's incumbent upon the vehicle owner to understand the alterations such modifications will bring to the vehicle's driving dynamics. These might encompass (but aren't limited to): changes in handling, braking, rollover angle, and 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.

## JL4118 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.

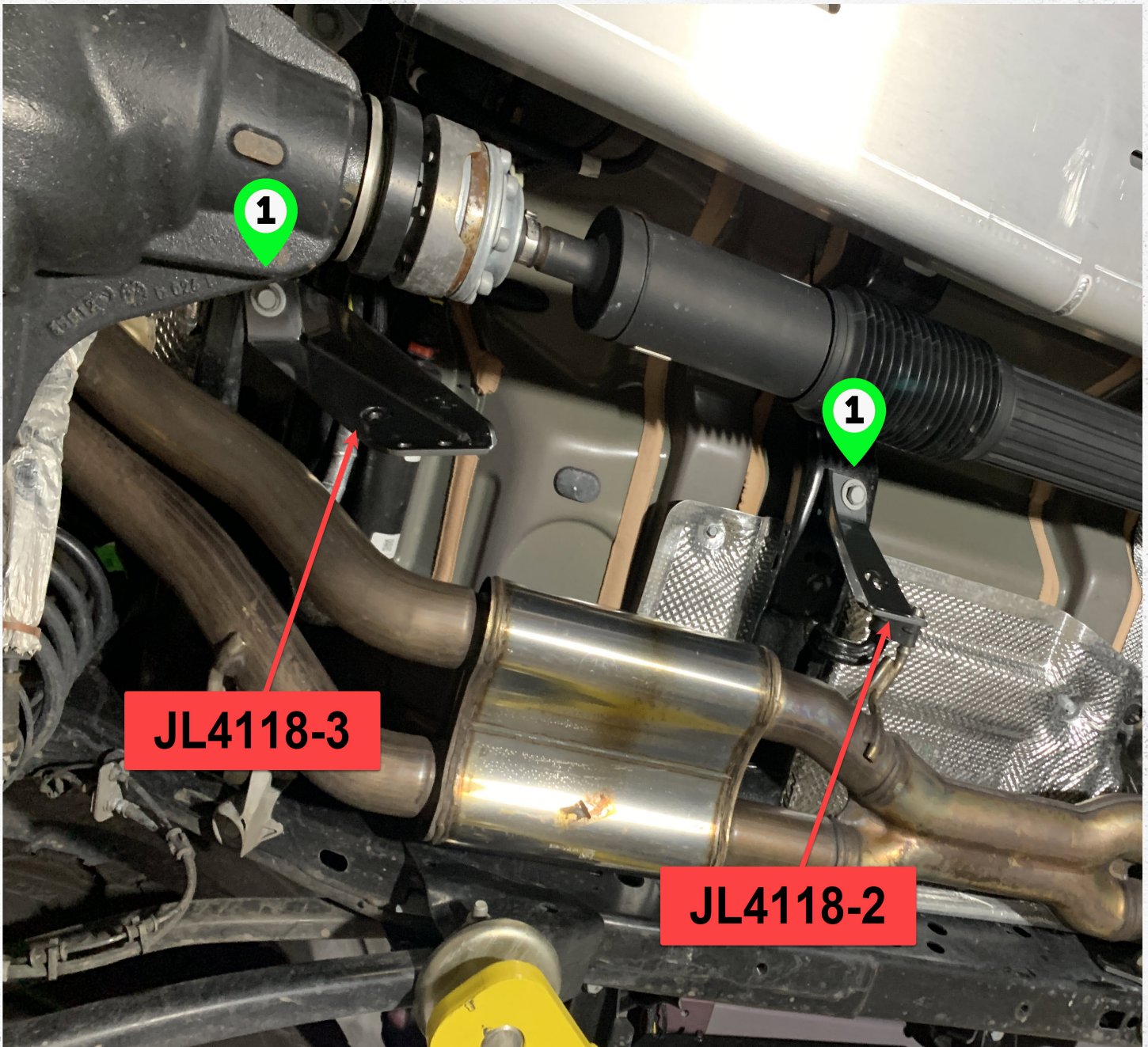


NOTE: The part numbers indicated above end in a "." and "letter" which indicate the revision number for the part. The etched part number on your physical parts do not need to match the above drawing revision exactly.

## HK4118.B HARDWARE BILL OF MATERIALS

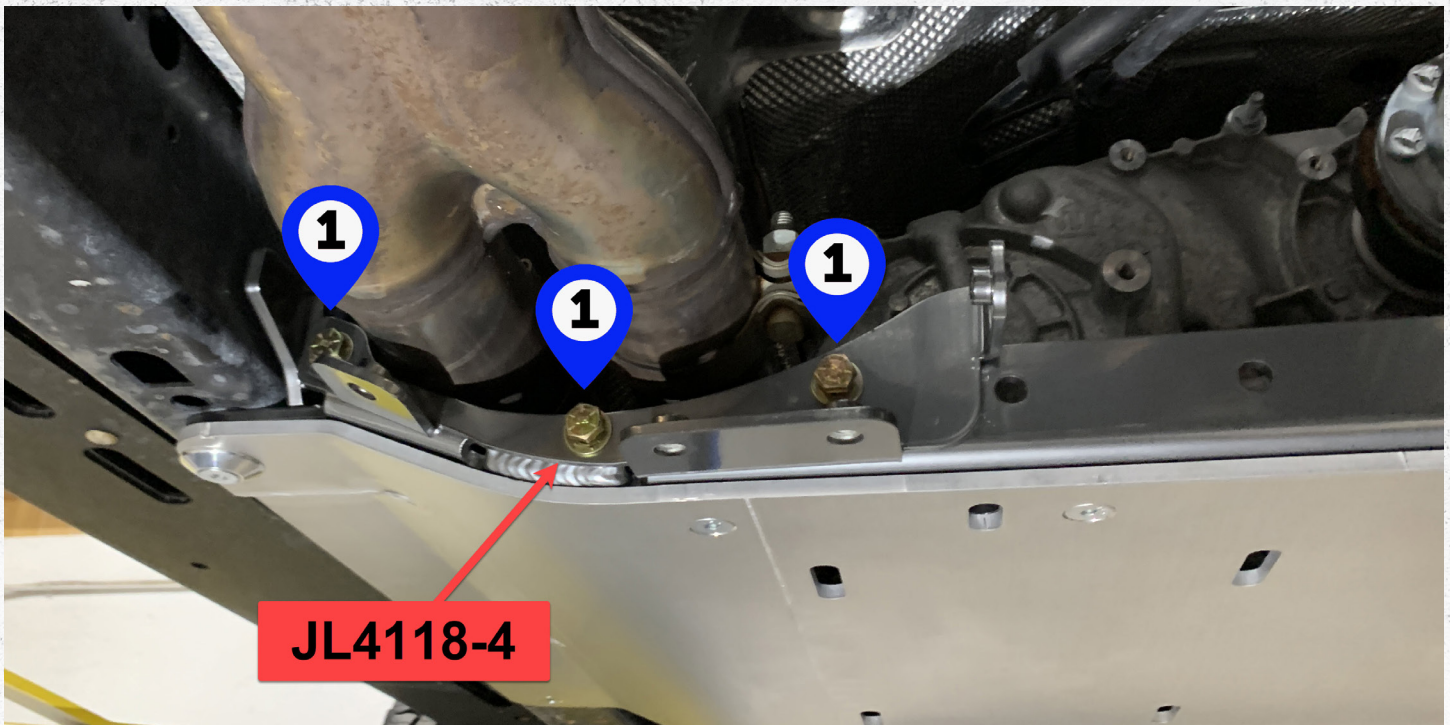
1	HW0141	.375 Countersunk Aluminum washer	2
2	HW0147	Custom M12-1.5mm x 40mm Flat head bolt	2
3	HW0061	3/8-16 x 1" Flat head bolt	4
4	HW0019	3/8-16 Nylock hex nut clear zinc	4
5	HW0059	3/8 Flat washer yellow zinc	7
6	HW0105	3/8-16 x 1" Carriage bolt clear zinc	4
7	HW0058	3/8-16 x 1" Grade 8 Hex head cap screw yellow zinc	3
8	HW0156	M12-1.5mm x 30mm Hex head cap screw clear zinc	2
9	HW0158	M12 Flat washer clear zinc	2

## ASSEMBLY INSTRUCTIONAL GUIDE



### Step 1:

Loosely install brackets JL4118-2 and JL4118-3 as shown above using 2 - M12 OEM bolts ① with the 18mm socket.



**Step 2A.**

**Loosely** install the bracket JL4118-4 using 3 - 3/8 x 1" Grade 8 bolts with 3 - 3/8" flat washers ❶ using a 9/16" wrench. Align the bracket with the bottom edge of the cross member and **tighten** all 3 bolts.

**NOTE:** You will have a hard time tightening this hardware once the exhaust skid is in place.

**Step 2B. If you have an older version of the cross member you will need to do the following:**

**A:** Align the the bracket as shown above. Using an old credit card, or 2, align the bottom edge of the bracket with the bottom edge of the cross member. Two credit cards wedged between the transfer case skid plate and the cross member can help keep the bracket in line until you clamp it in place.

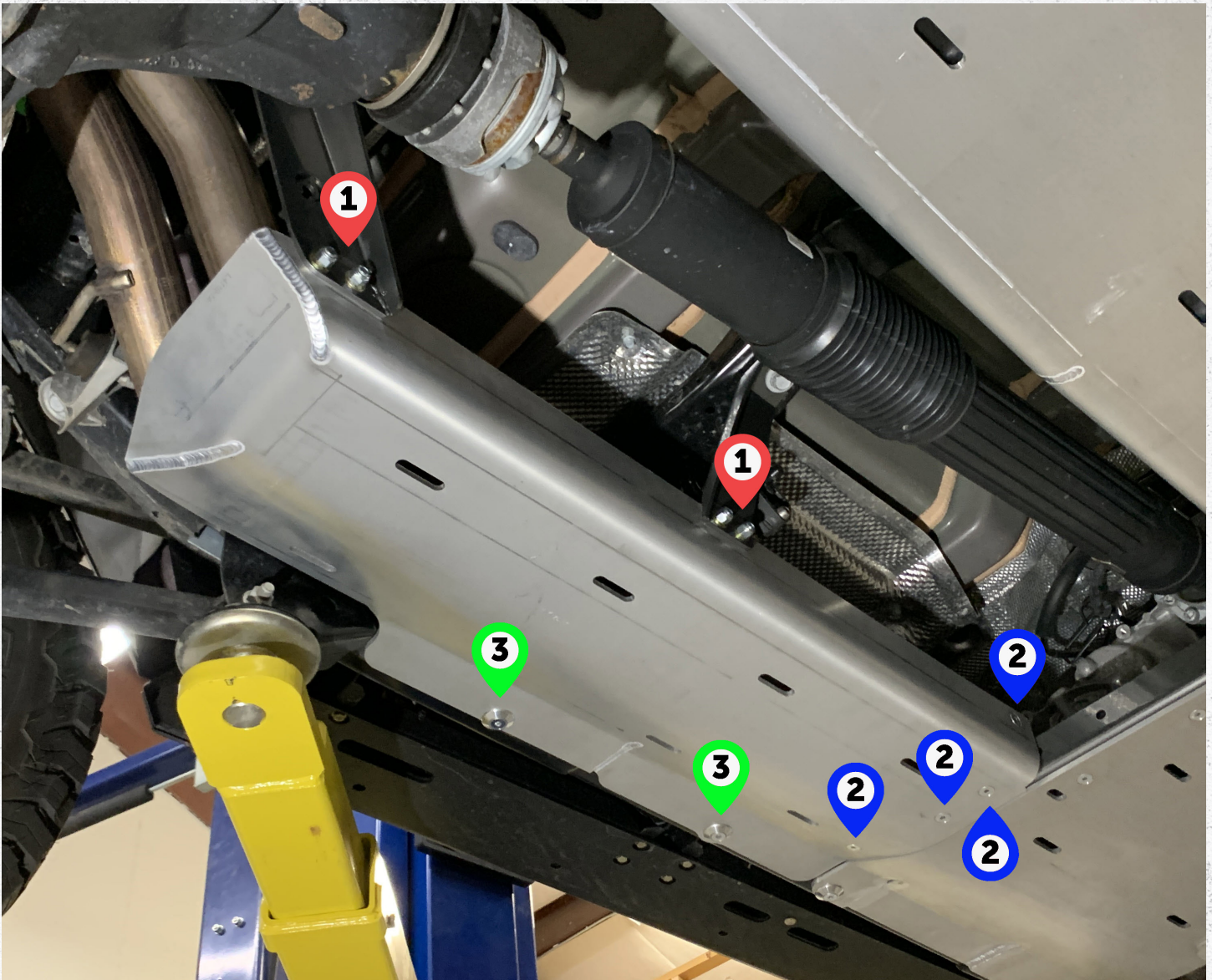
**B:** With the bracket clamped in place mark the holes using either paint, marker or a transfer punch. Once marked, remove the bracket and using a center punch dimple the centers of each marked location.

**C: ALWAYS WEAR SAFETY GLASSES WHILE DRILLING.** Using a 3/8" drill bit, drill the 3 marked holes. Deburr them as best you can.

**NOTE:** Step drilling, using a smaller bit first will help.

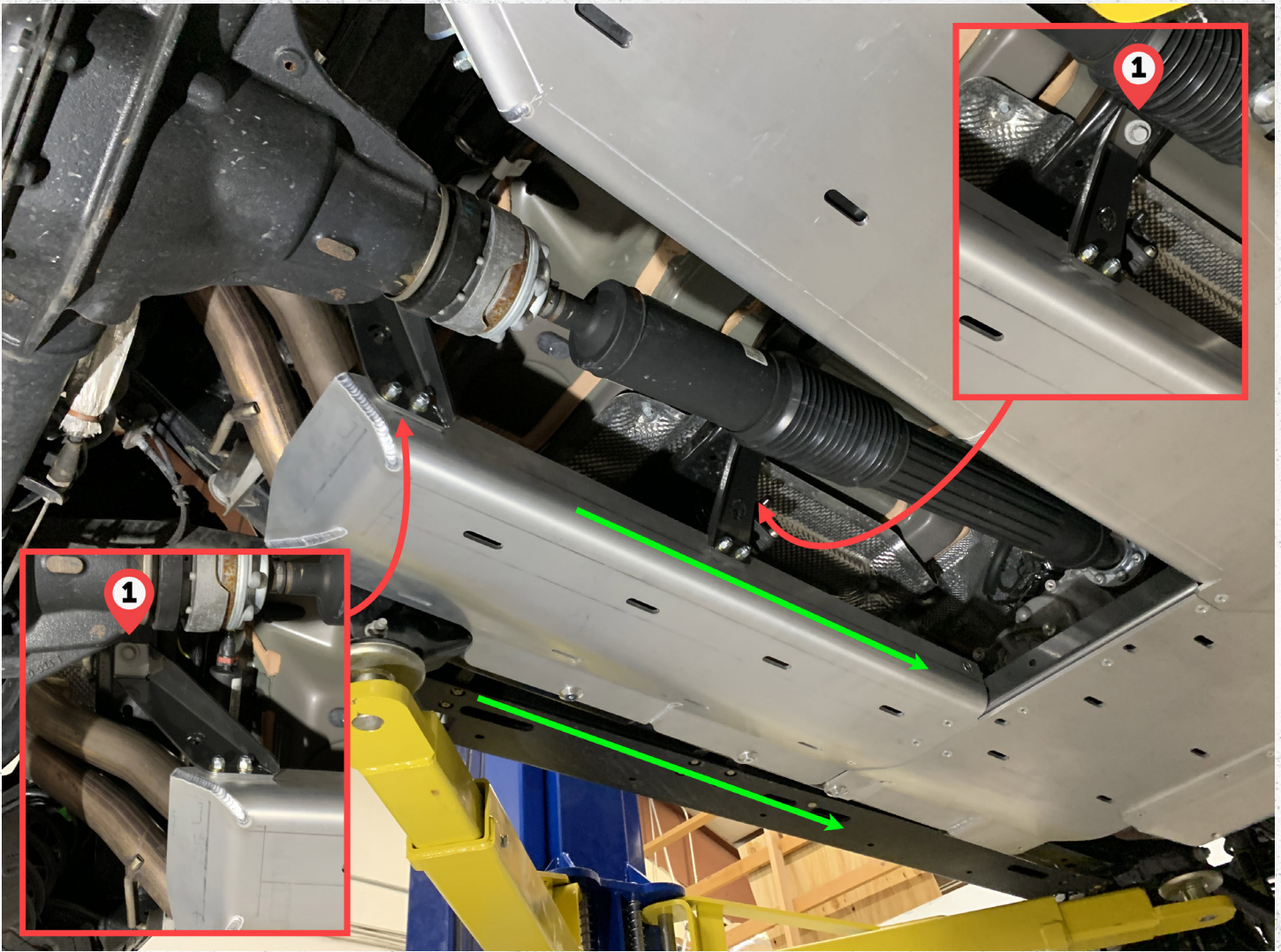
**D: Loosely** install the bracket JL4118-4 using 3 - 3/8 x 1" Grade 8 bolts with 3 - 3/8" flat washers ❶ using a 9/16" wrench. Align the bracket with the bottom edge of the cross member and **tighten** all 3 bolts.

**NOTE:** You will have a hard time tightening this hardware once the exhaust skid is in place.



**Step 3.**

- A. **Loosely** install the exhaust skid 2 - M12 x 40mm custom flathead bolts ③ using the 7/32 allen wrench.
- B. **Loosely** install 4 - 3/8 x 1" flat head bolts ② using a 7/32 allen wrench.
- C. **Loosely** install 4 - 3/8 x 1" carriage bolts with 4 - 3/8 nylock nuts and 4 - 3/8 flat washers ① with the 9/16" wrench.

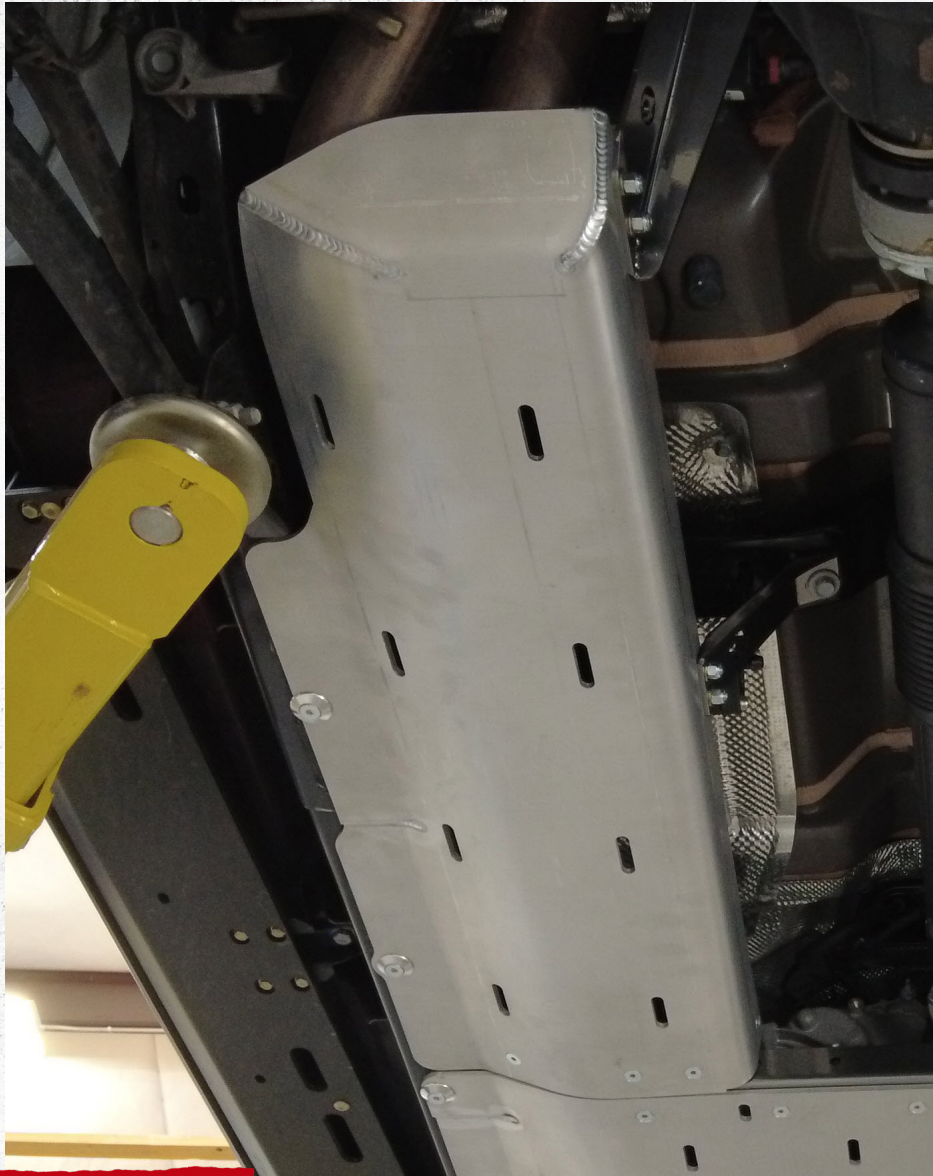


**Step 4.**

Beginning with the 2 - M12 OEM bolts ① *tighten* them using the 18mm socket. From there moving from the rear of the vehicle forward *tighten* ALL the previously installed hardware.

**NOTE:** if you are installing the exhaust skid as part of a complete belly pan kit, tighten this hardware along with the belly pan installation process.

**Verify ALL previously installed hardware is tight.**



## CONCLUSION

Congratulations on finishing the installation for your Artec Industries Alpha Series Aluminum Belly pan.

Before driving your vehicle, inspect all bolts again to ensure proper tightness.

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.