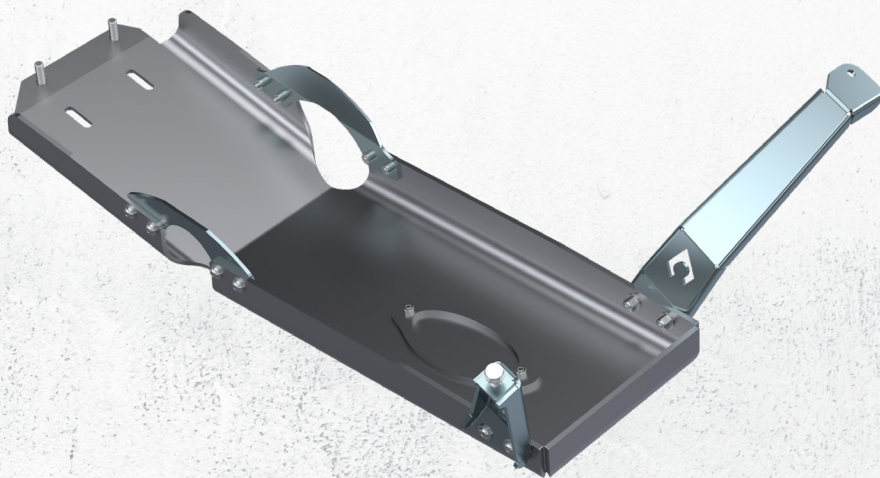




PART #'S JL4184

2021+ JL 2DR ENGINE SKID WITH OIL DOOR - 3.6L GAS ENGINE INSTALLATION INSTRUCTIONS



ESTIMATED INSTALLATION TIME

.5 to 1 hours

REQUIRED SKILLS

- General Mechanics Skills

REQUIRED TOOLS & SUPPLIES

- 18mm socket
- 17mm socket
- 15mm socket
- 13mm socket
- Ratchet strap
- 9/16 inch wrench
- 9/16 inch socket
- Ratchet
- 7/32 inch allen wrench
- Ratchet extension 2 inch

NOTES:

- This product arrives in 4 separate boxes labeled BP1675, BP1641
- 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.

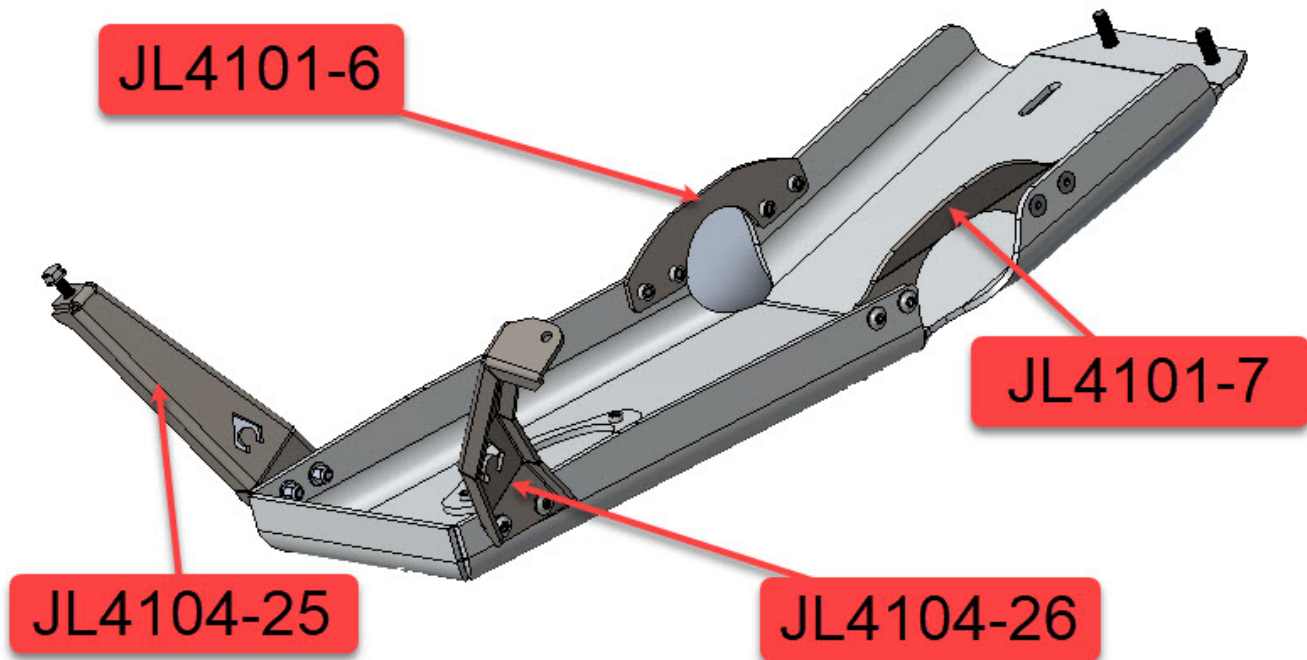
Modified vehicles won't perform identically to their stock counterparts. It's incumbent upon the vehicle owner to understand the alterations such modifications will bring to the vehicle's driving dynamics. These might encompass (but aren't limited to): changes in handling, braking, rollover angle, and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

SPECIAL NOTES

- This product requires removal of the factory fuel tank skid which supports the plastic fuel tank. Prior to beginning installation, ensure that you have 1/4 tank of fuel or less in the vehicle.
- Unless otherwise noted, all hardware should be **LOOSELY** tightened by hand until the very end of installation when all components are attached.

JL4167 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.

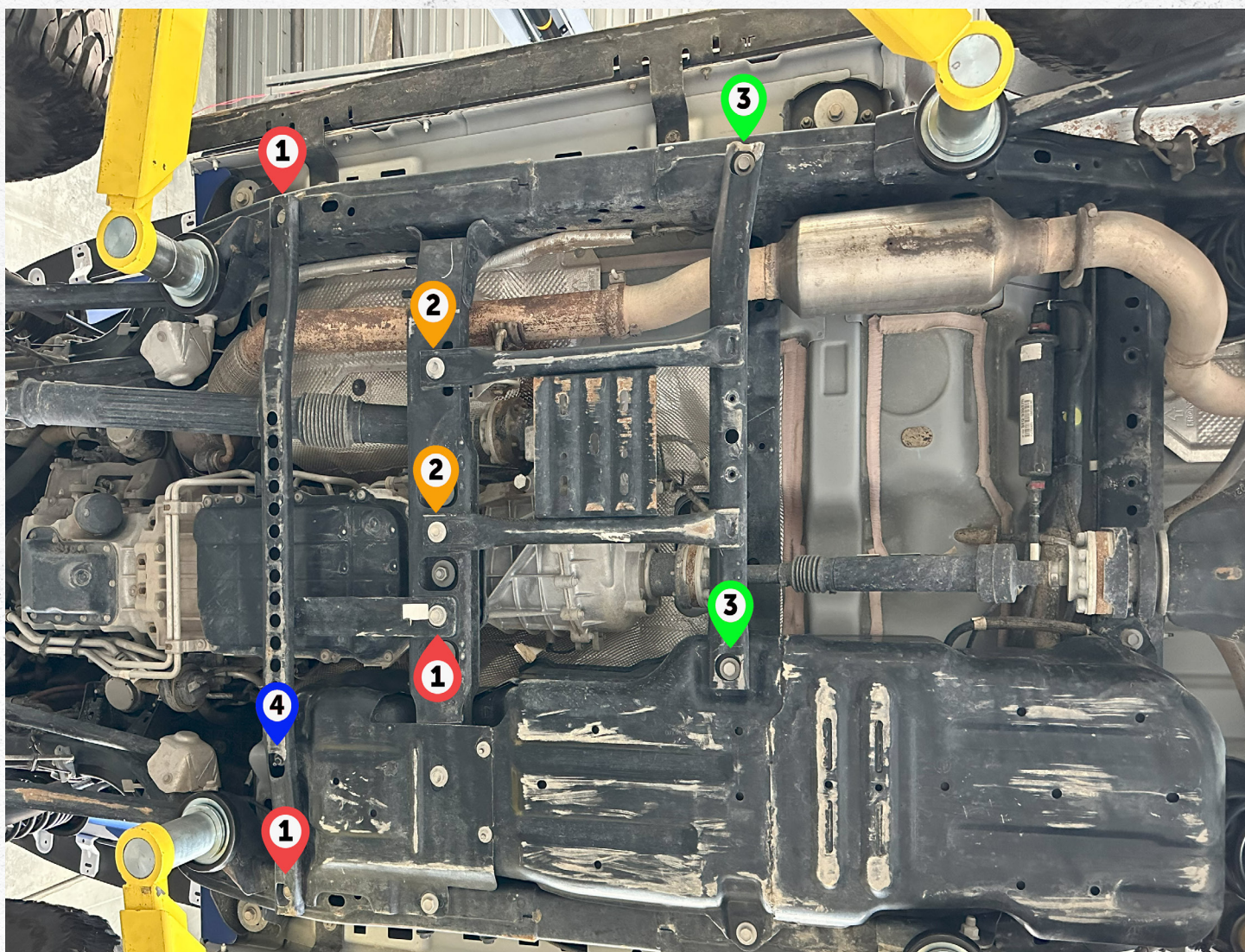


NOTE: The part numbers indicated above end in a "." and "letter" which indicate the revision number for the part. The etched part number on your physical parts do not need to match the above drawing revision exactly.

HK4174.A HARDWARE BILL OF MATERIALS

4	3/8-16 NYLON INSERT HEX LOCK NUT ZINC
6	3/8" 16 x .75" long button head screws ZINC plated
14	3/8 in F436 Flat Washer Type 1 Yellow Zinc
2	3/8 in x 1 in Counter Sink Allen Head Bolt - ZINC PLATED
4	3/8 - 16 x 1 in Button Head Socket Cap Screw Zinc
1	M10 - 1.5 Coarse Thread Non-Serrated Hex Flange Lock Nut Zinc Class 8
1	M10 - 1.5 mm x 40mm Grade 10.9 (Full Thread) Hex Bolt ZINC PLATED
1	M10 Standard Flat Washer Clear Zinc (20mm OD)
2	M12 x 1.5 x 40 RH GR 10.9 Alloy Steel Flat Head Hex Cap Zinc

DISASSEMBLY INSTRUCTIONAL GUIDE

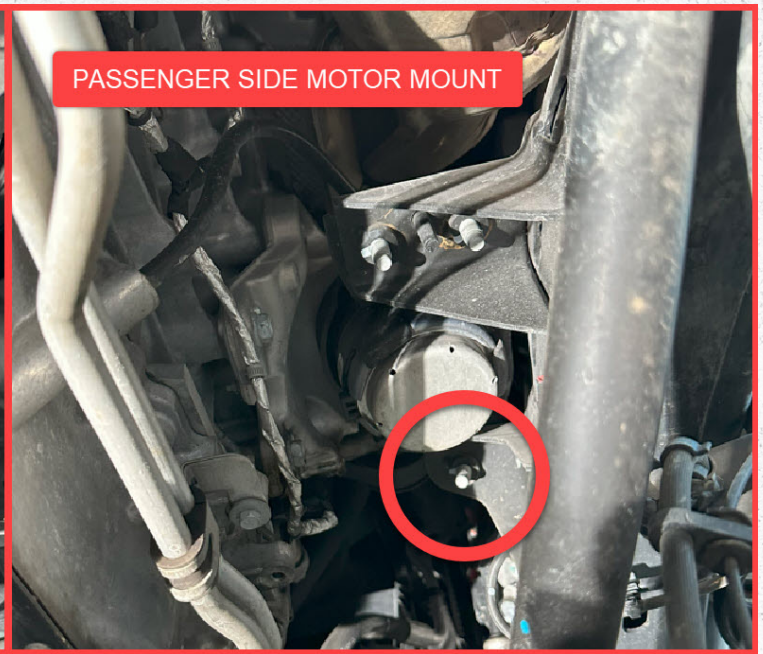


Step 1:

A: To remove the factory transmission skid, remove the 3 - M12 OEM bolts ❶ using the 18mm socket. And 1 - M8 OEM nut ❷ using a 13mm socket.

You will keep the transfer case skid, however you will need to remove 2 - M12 OEM bolts ❸ and then loosen the 2 - M12 OEM bolts ❹ using the 18mm socket. This will allow the transfer case skid to hang in preparation for the engine skid install.

NOTE: DO NOT discard the OEM hardware at this point. You will need them for the reinstall.



Step 16. To install the motor mount skid brackets, first remove the factory 10mm bolts from these two locations (RED). Keep the the Driver side OEM hardware.

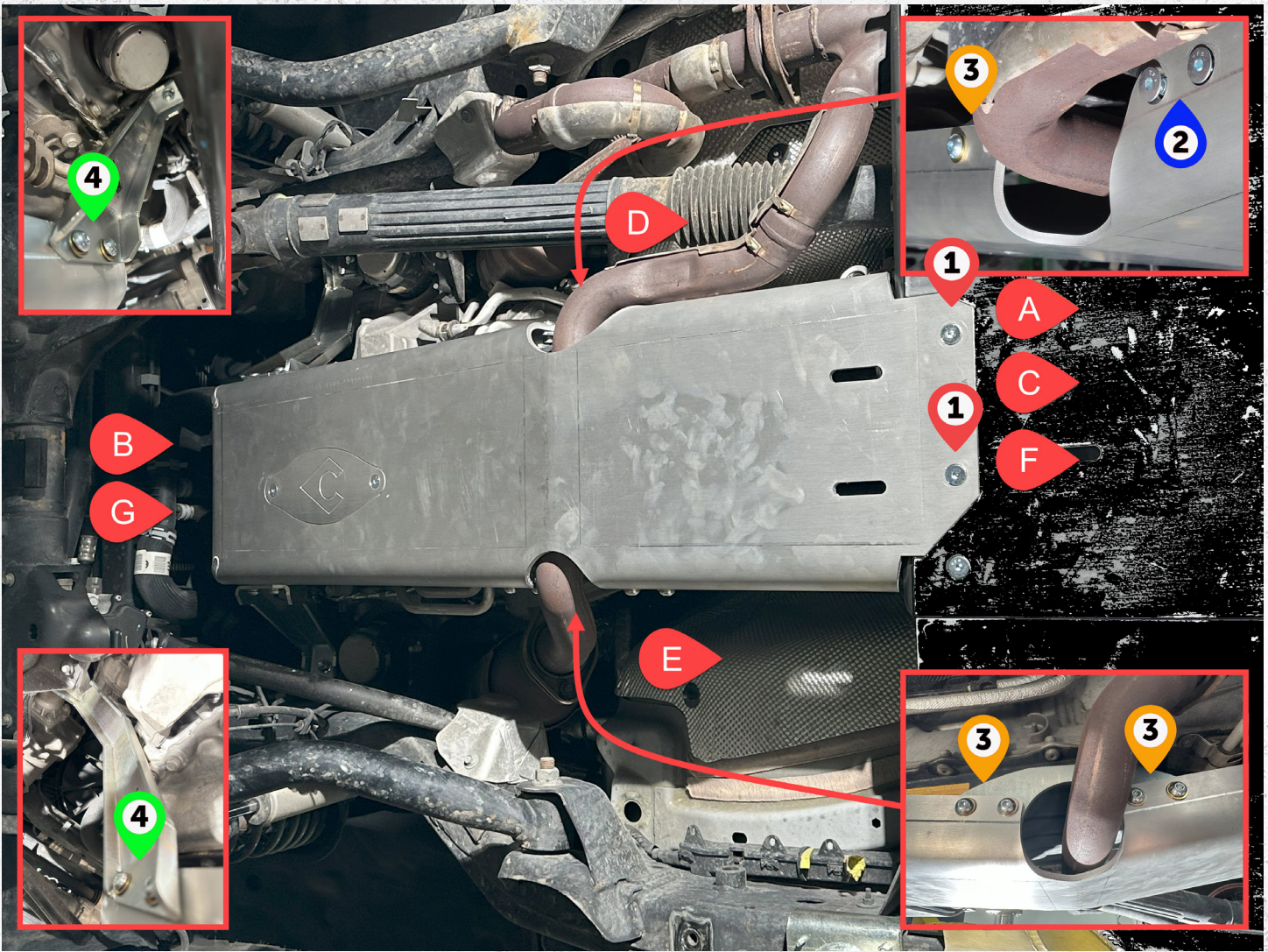


Step 17.

A: Loosely install the DRIVER SIDE motor mount bracket JL4104-26 on TOP of the motor mount using 1 - M10 OEM motor mount bolt ② with a 13mm wrench/socket.

B: Install 1 - M10 x 40mm bolt and zinc washer ① into the PASSENGER SIDE motor mount location using a 17mm socket. Tighten this hardware. Loosely install the PASSENGER SIDE bracket JL4104-25 on the BOTTOM of the motor mount using 1 - M10 flange nut ① with a 15mm socket.

NOTE: We recommend applying blue Loctite to the threads of the M10 bolts before installing them into the motor mounts



Step 18. FOR SMOOTHEST INSTALLATION FOLLOW THESE STEPS, IN THE ORDER INSTRUCTED.

A. Loosely install the engine skid starting at the crossmember using 2 - M12 x 40mm custom flathead bolts ❶ with the 7/32 allen wrench.

B. Loosely install 1 x the following: 3/8 x 1" button head bolts, 2 - yellow zinc washers and 1 - 3/8 nyloc nut ❷ into each motor mount bracket by hand.

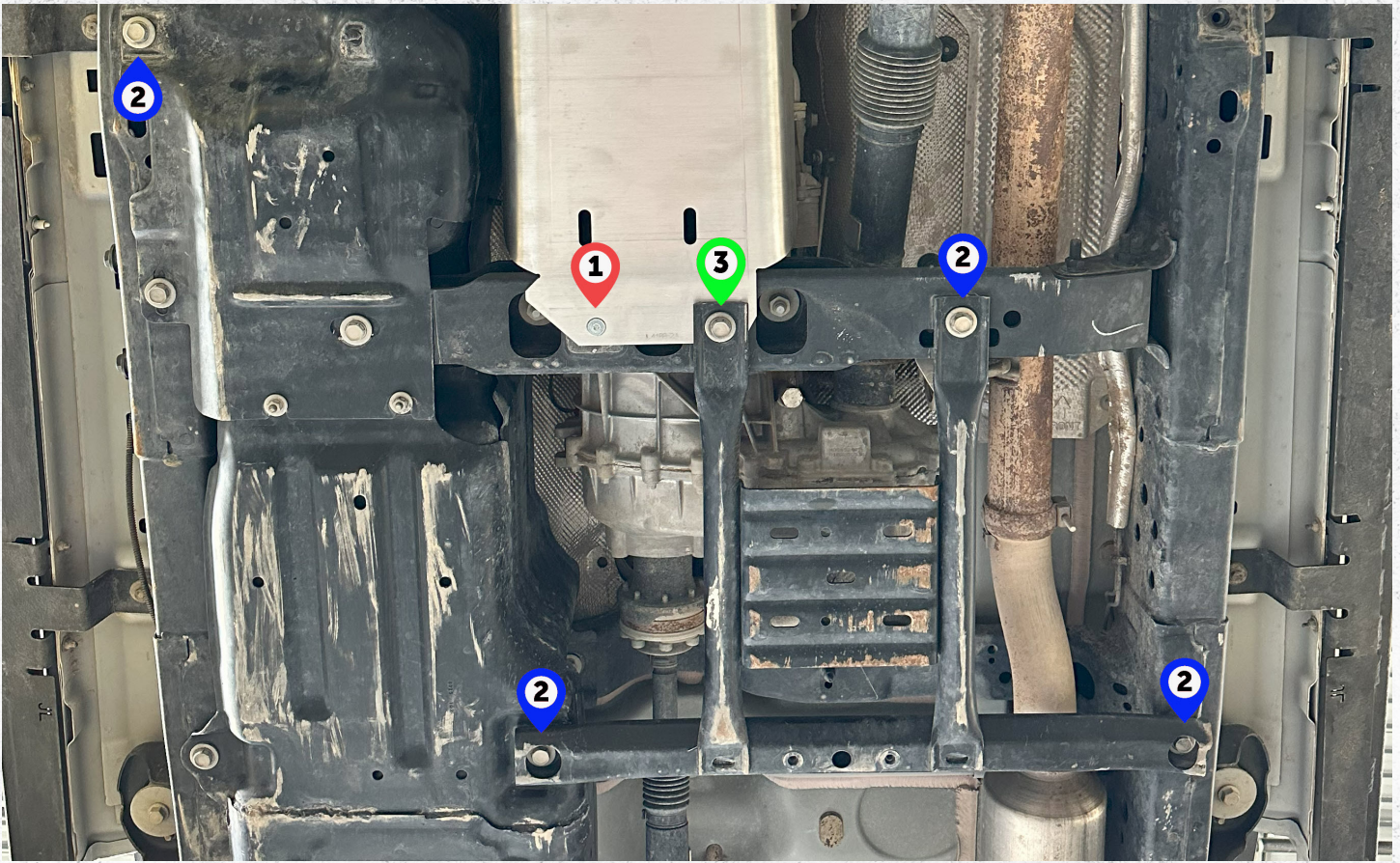
C. Remove the 2 - M12 x 40mm custom flat head bolts ❶ from the crossmember to allow the engine skid to hang loosely.

D. Install and tighten first the 2 - 3/8 x 1" flat head bolts ❷ and then the 2 - 3/8 x 3/4" button heads bolts ❸ using a 7/32 allen wrench. NOTE: use the ball end 7/32 allen wrench here

E. Install and tighten the 4 - 3/8 x 3/4" button heads bolts ❸ with a 7/32 allen wrench.

F. Loosely reinstall the 2 - M12 x 40mm custom flathead bolts ❶ using the 7/32 allen wrench.

G. Loosely install the remaining 2 x 3/8 x 1" button head bolts, 2 - yellow zinc washers and 1 - 3/8 nyloc nut ❷ into each motor bracket with the 7/32 allen wrench and 9/16 inch wrench.



Step 4.

1. Reinstall the transfer case skid by first removing the 1 - M12 custom flathead bolts ③ with the 7/32 allen wrench. You will replace the M12 custom flathead bolt with the OEM M12 bolt.
2. Install/tighten all 5 - M12 OEM bolts ② ③ using the 18mm socket.

Tighten all hardware previously installed.



***SHOWN WITH OPTIONAL HARDWARE KIT**

CONCLUSION

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

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.