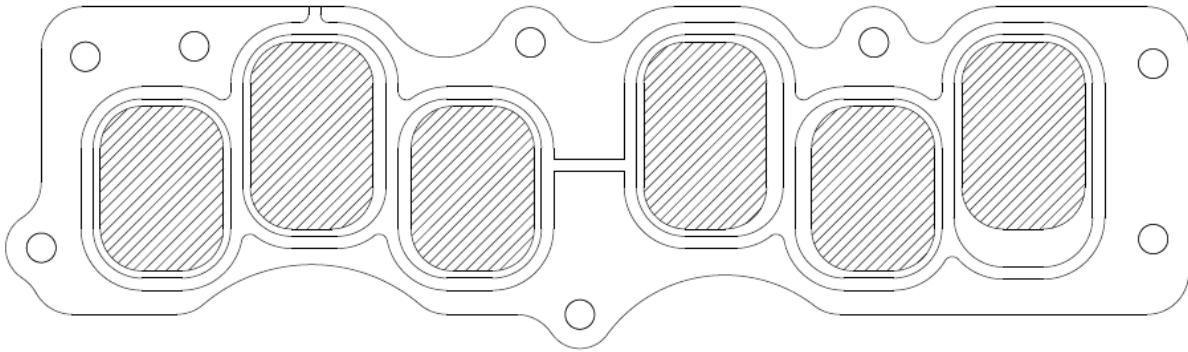


Anderson Engineering Solutions LLC

Installation Instructions

Please read instructions thoroughly before starting installation!

2GR-FE (V6) Intake Manifold Runner
(2016 to 2023 Toyota Tacoma)



Thank you for buying an AES Product!

Initial Note: Installation is required after engine has been turned off and cooled. Allow for the engine to cool to a safe temperature that can be touched by hand before beginning.

Patent Pending

Warning: Caution must be taken while working with hand tools. Install cautiously and handle all tools with care.

Required Tools for Installation

- Flat head screwdriver
- Philips’s head screwdriver
- Ratcheting Wrench (3/8 in. drive)
- 4 inches to 10 inches - 3/8” drive extensions
- Metric Socket (compatible 3/8” drive
 - 10mm
 - 12mm
 - 13mm

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Intake Manifold Runner kits contains the following:

- Item 1: One (1) Intake Manifold Runner
- Item 2: One (1) Intake Manifold Gasket
- Item 3: Seven (7) 8m x 1.25 Bolts (65mm long)
- Item 4: Seven (7) Locking Washers/Round flat washer
- Item 5: Four (4) 8m Jam nuts
- Item 6: Three (3) Plenum Support brackets

Hardware (Gasket) Installation:

Begin by remove contents from the package and press the provided gasket into the groove indicated on the Manifold runner. Verify the gasket is fully depressed into the manifold groove along the entire length. Example photos referenced in Figure 1 below:

The gasket is only able to be inserted into the gasket groove in one direction.



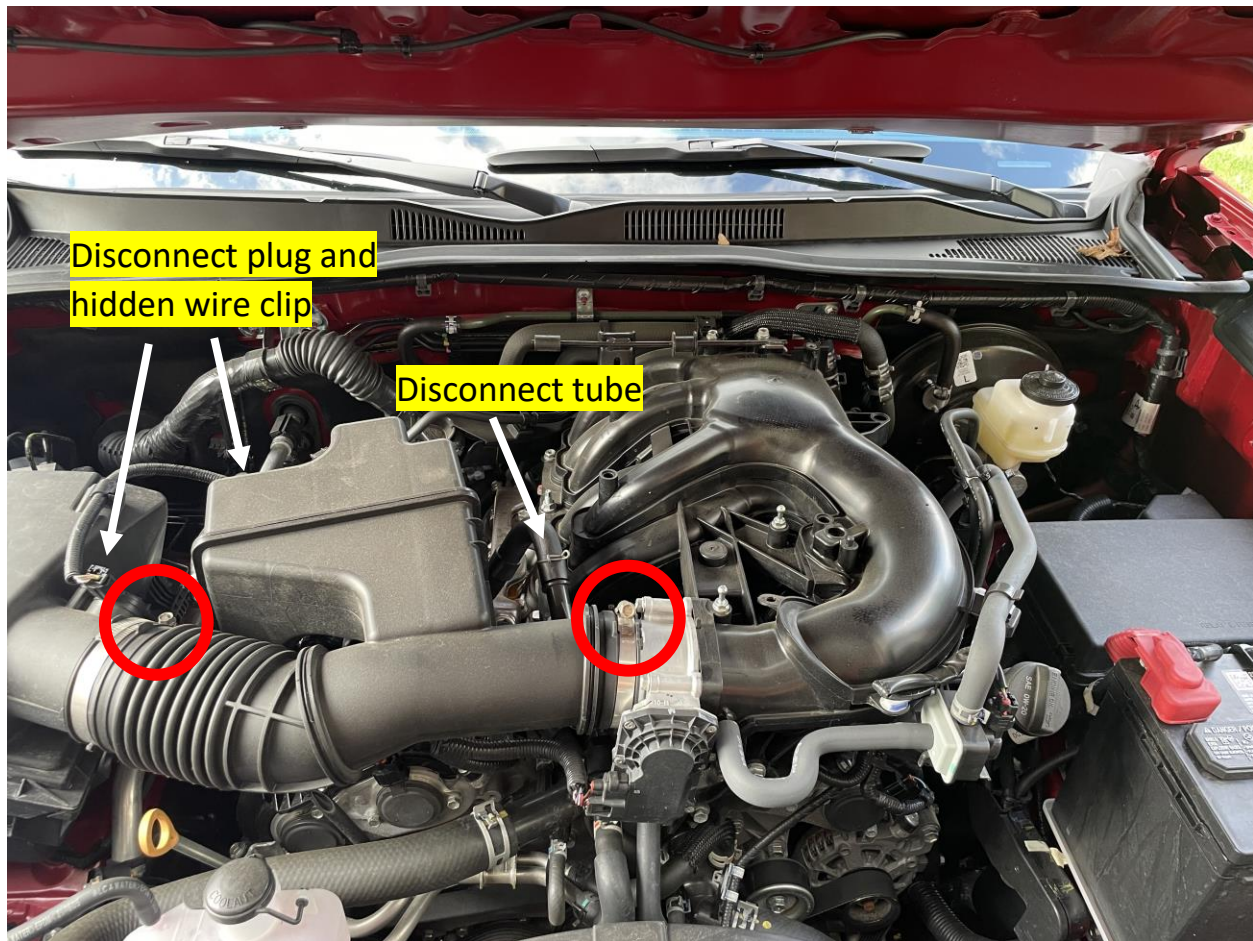
Figure 1

Disconnecting Intake Plenum

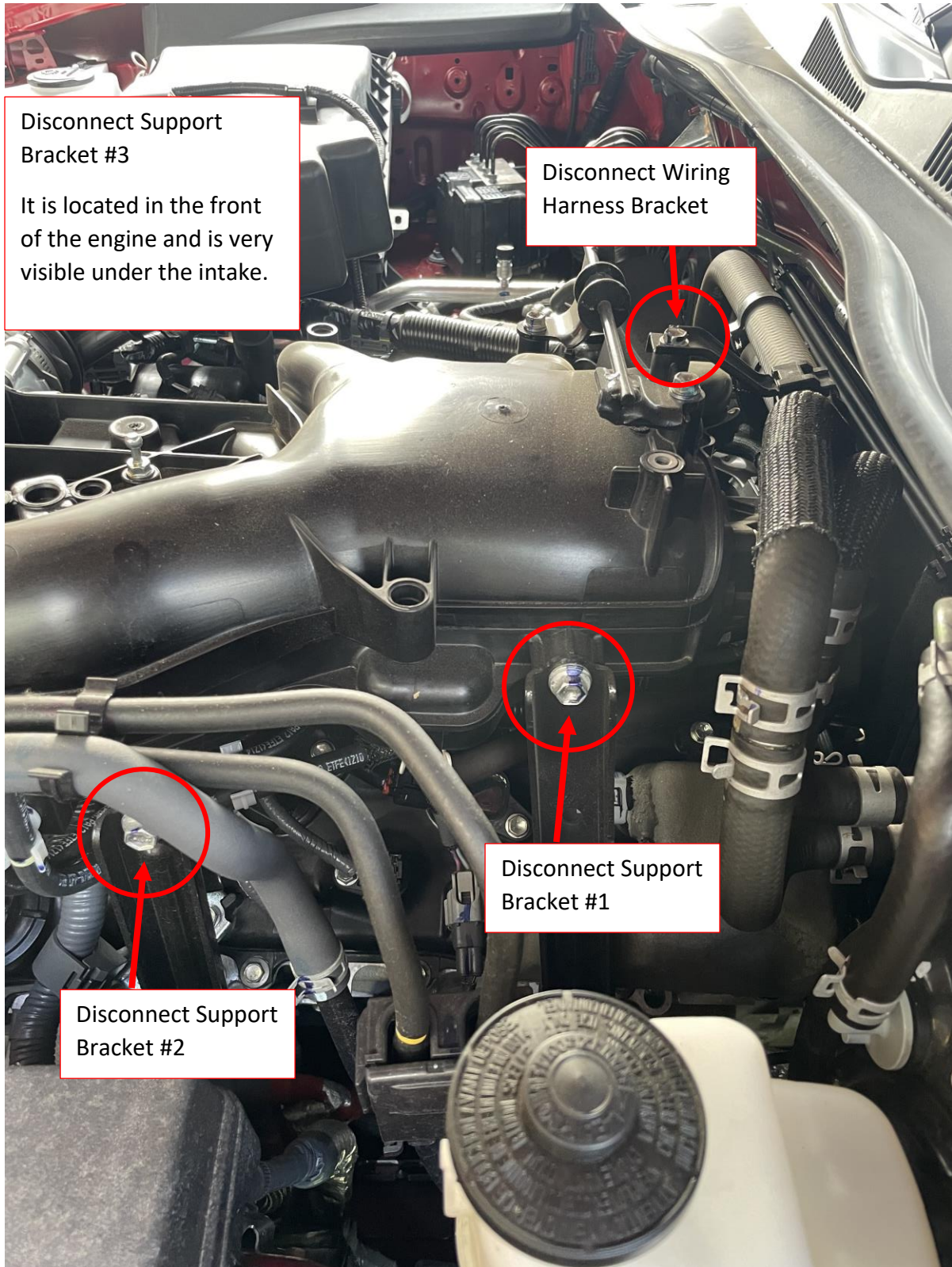
1. Please start by removing the positive terminal on the battery and safely positioning to ensure arcing does not occur.

(Warning: Pre-caution must be taken while working with the battery as a shock hazard is present. Hand tools rated for electrical resists is highly recommended during Step 1)

2. Removing the flexible intake hose on the passenger side for the engine bay by loosening the 2 hose clamps with a Philip's head screwdriver. Also remove the hose clamp hold the plenum and the MAF sensor plus/clips.



3. There are a total of 3 support brackets and one bracket holding the wiring harness directly on top the intake plenum. Unbolt at these 4 total positions



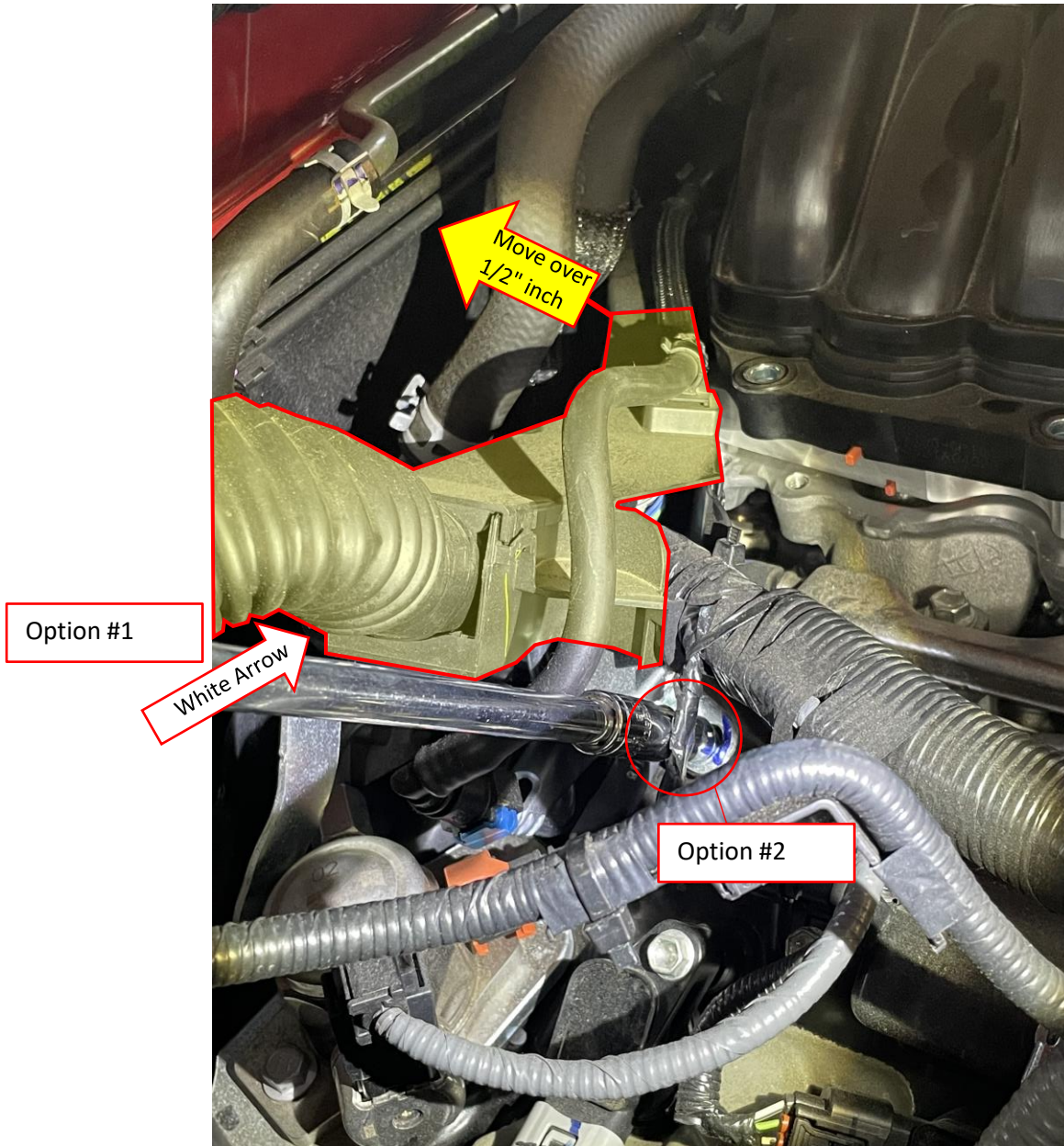
4. Remove the wiring harness clip from the throttle body. The entire throttle body can remain and does not need to be unbolted.

Pro Tip! The plug is much easier to remove if you press in on the plug THEN press down the clip.



5. The Wiring harness bracket will need to be unclip from the “hanger” at the White Arrow (option 1) or you can loosen 2 (10mm) bolts holding the bracket in-place (option 2).

You will only need ½ inch of clearance for installing. Then you can re-attach the bracket.



6. Unbolt the 8 total positions on tops the intake holding the plenum on. Depending on model, year, and trim level. There may be one unused bolt positions therefore you'll only need to unbolt 7 bolts.



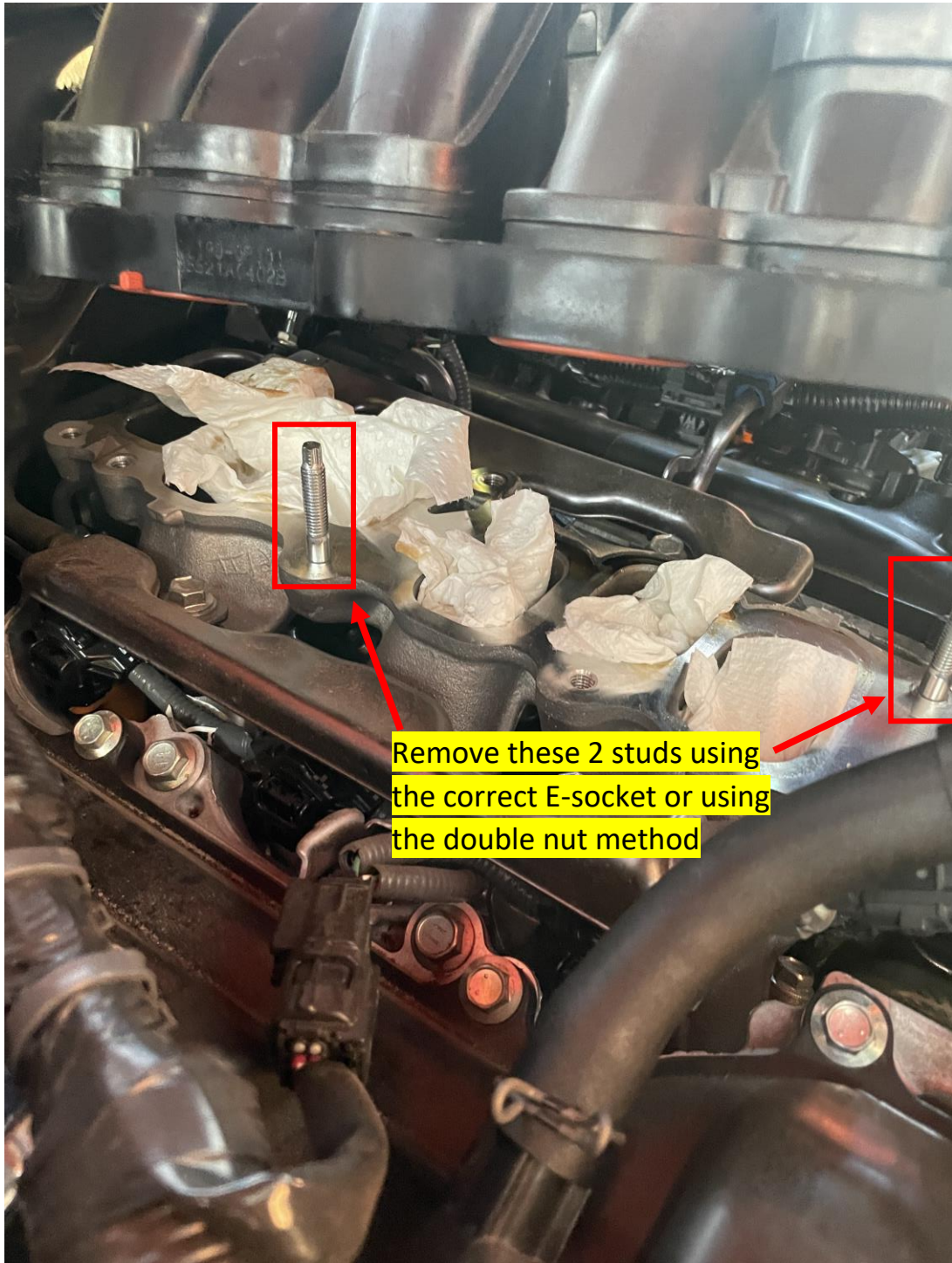
This is a better photo of the bolt near the back of the engine. Use and extension for this.



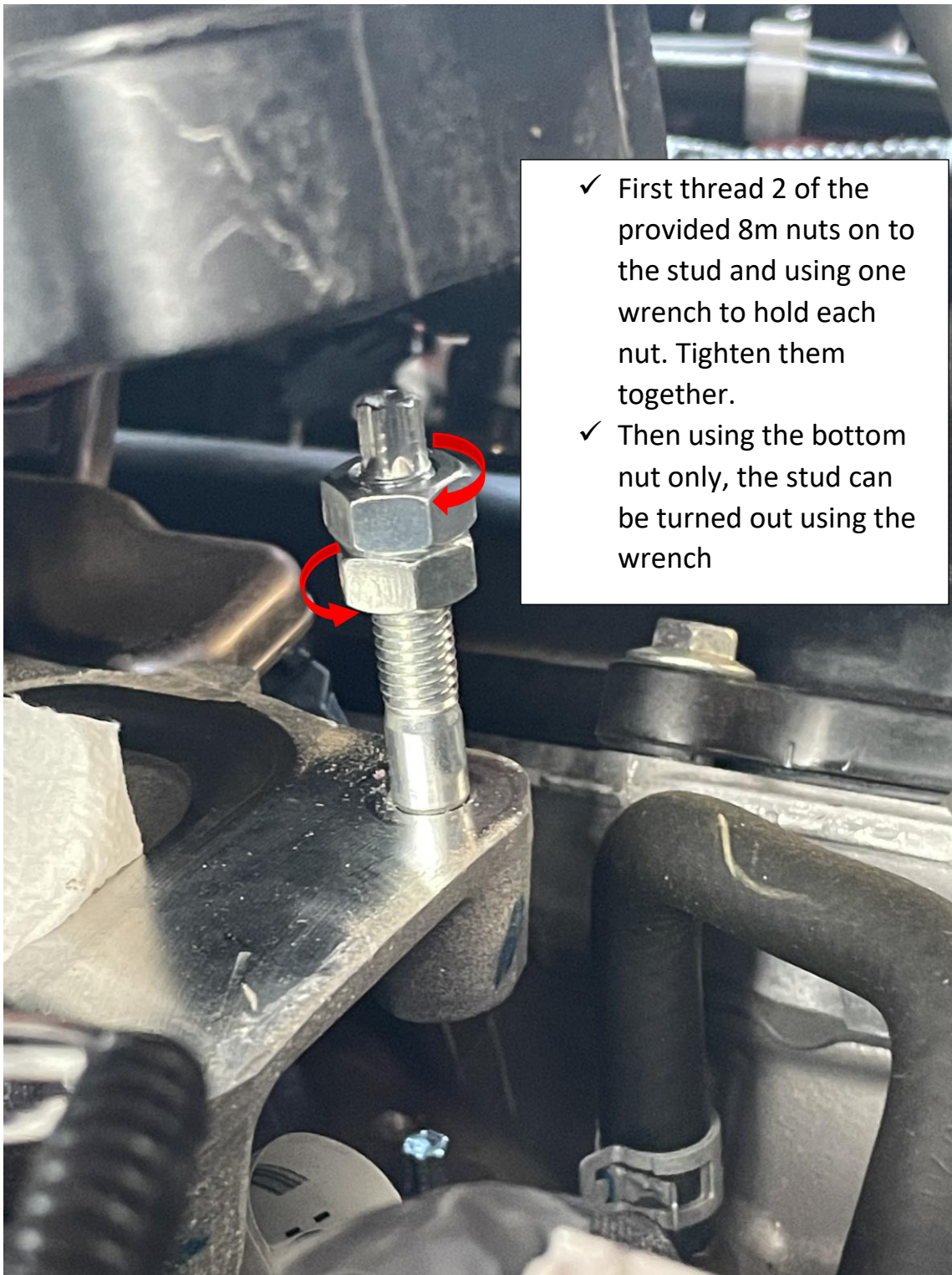
7. Lift the Intake Plenum off the lower intake and set off to the side. If doing this alone, use bungee ties to hold the intake up as your working under the hood. The 2 Studs will need to be removed.

*****STOP*****

We highly recommend using a paper towel or a cloth to plug the intake port at this step to prevent any objects from falling into the engine. Take pre-caution



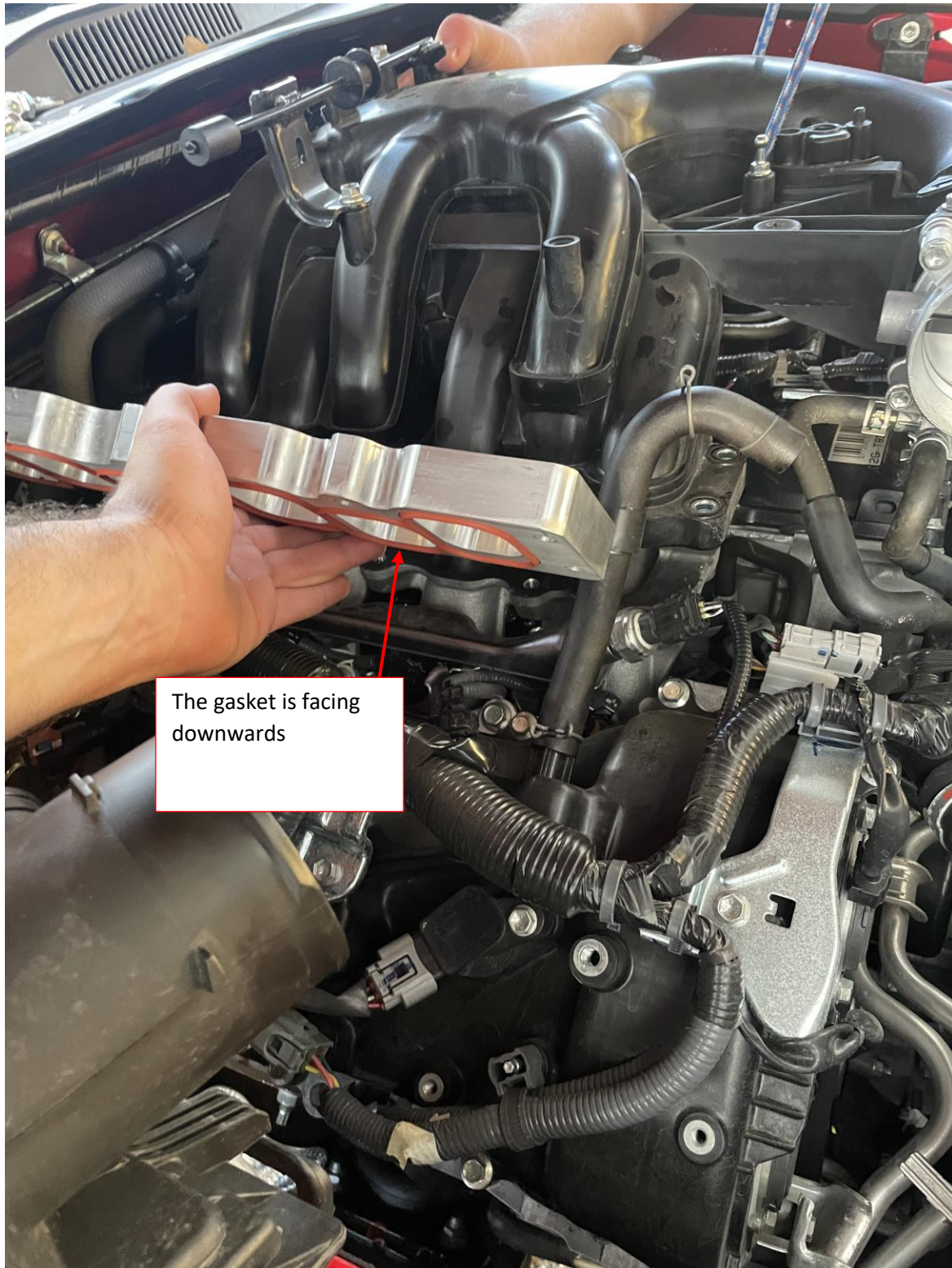
Below is the example of the Double Nut method to remove a stud.



8. Once the 2 studs are removed. Also remove the paper towels or cloth from the intake ports and ensure the original gasket is still in place.

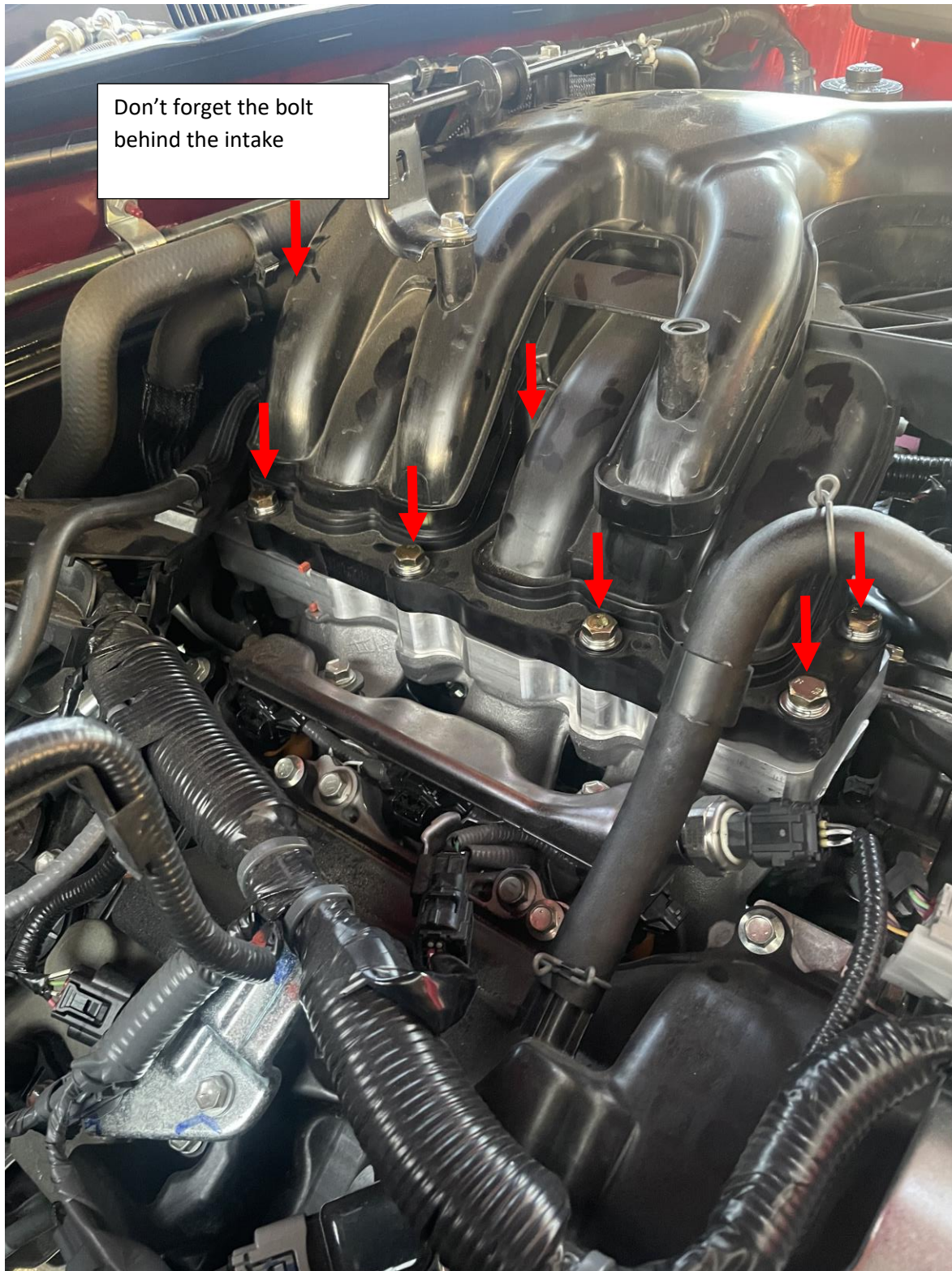


9. Place the intake manifold Spacer between the upper and lower intake ensuring the gaskets is facing down. The spacer will only go in one way.



10. Using the provided Bolts 8 total (8m x 1.25 (65mm long)), positions the intake space to align all the bolt holes. Use one Lock washer and round washer on each bolt and torque to 10 – 12 ft.lbs

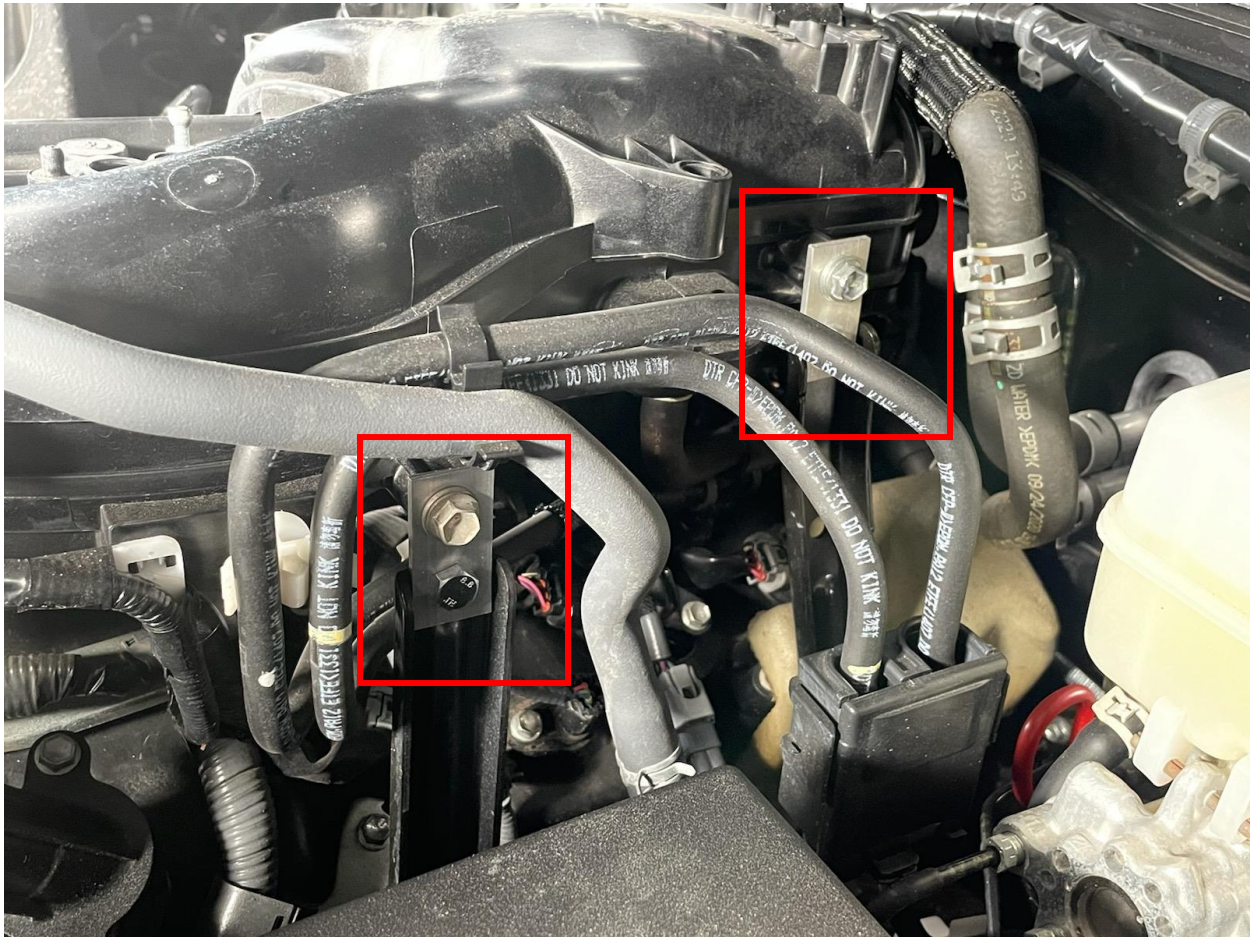
Depending on the model, year and trim level, you may only use 7 total bolts.



Three Total aluminum brackets existing and are to be installed at the Intake Plenum support locations.

Two positions on the Driver side as shown below.

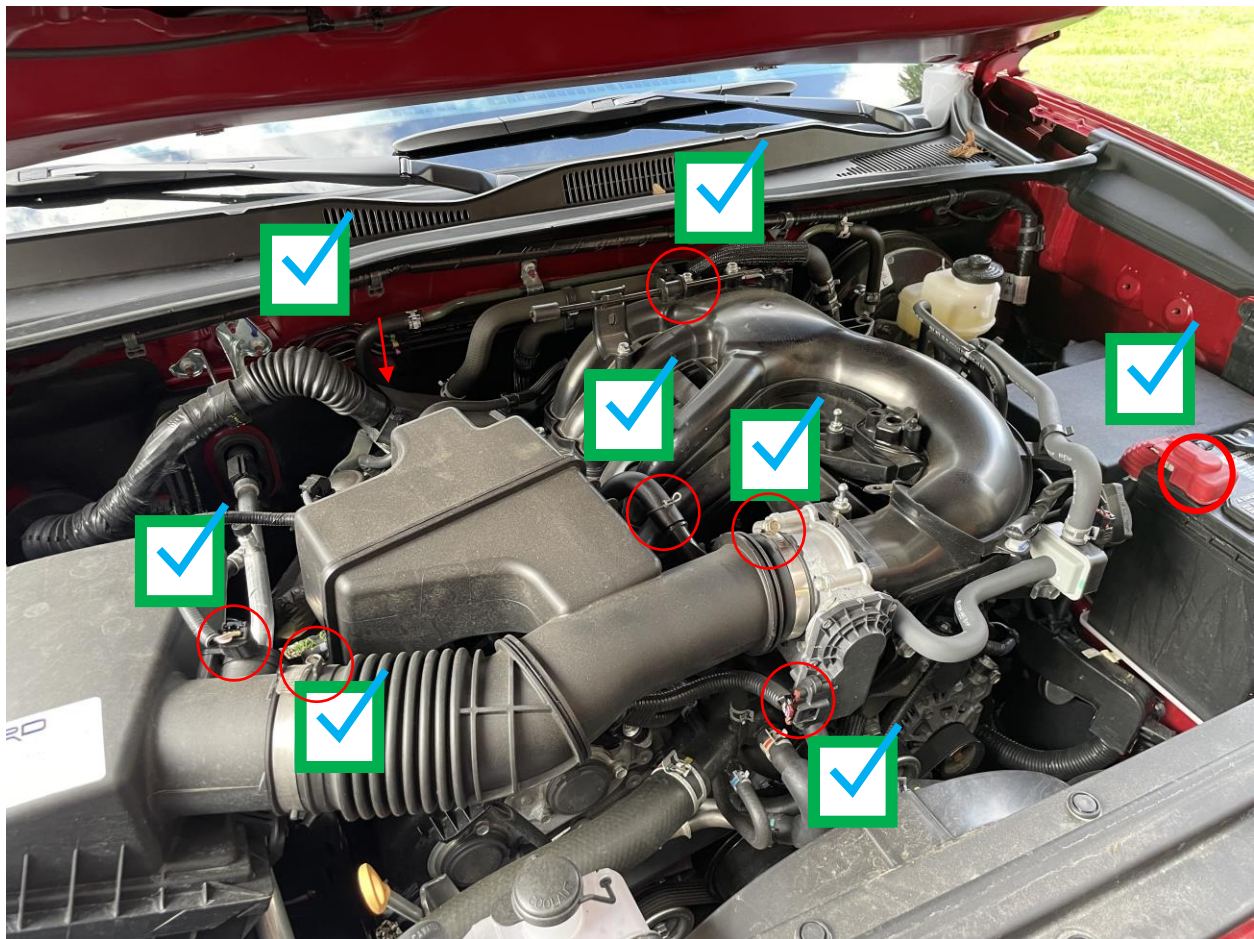
One position on the front side of the engine.



11. Once complete, Reattach the wiring harness brackets at the 2 positions and review the below list to ensure everything is assembled:

- ✓ One wiring harness bracket on top the Intake plenum.
- ✓ One wiring harness clip (passenger side holding the wiring harness)
- ✓ The Throttle body plug
- ✓ The MAF sensor plug
- ✓ The Intake Tube and the 2 large hose clamps.
- ✓ Position Crack Ventilation (PCV) tube

12. Reattach the battery and enjoy your spacer!



Ensure the 3 Small brackets are used at the manifold support locations, there are 2 on the driver-side of the manifold and 1 location on the front.

Fitment verification

After all is complete, connect the battery and start the truck. If installed incorrectly and issue come up, double check these couple items below to help trouble shoot any issues.

This list has been compiled from customer interaction regarding the most common issues:

Symptom:	Correction
Code P0410 or P0411 found	Ensure 7/32 hose from the air injection is connected to air plenum. <i>This correlating to air injection system on exhaust.</i>
Rough Idle	Verify all vacuum ports at attached to the corresponding hoses. Please read through document to ensure all is covered. Also verify that both OEM gaskets (original and new) are oriented in the correct direct to ensure proper seal.



Warranty Information

Service as It Should Be

In today's online shopping market, we believe that honesty is the best policy. That's why we designed the most generous, fair and transparent store policy for our customers. Read the following sections to find out more about our warranty information. Please don't hesitate to contact us if you have any questions!

- All manufactured products sold by Anderson Engineering Solutions LLC have a 120 day limited warranty from the date of sale.
 - This warranty does not cover minor defects as a result of naturally occurring elements and shipping damages including, but not limited to oxidation or corrosion, paint flakes, and burrs or high metal.
- This limited warranty applies to all products and requires an inspection by Anderson Engineering Solutions LLC at its Franklin, OH location to verify if a product defect exists in either the material or workmanship if claim arises.

For all remaining warranty information. Please visit our "Store Policies", webpage at AESinnovate.com.

Technical assistance phone number: 937-823-5541