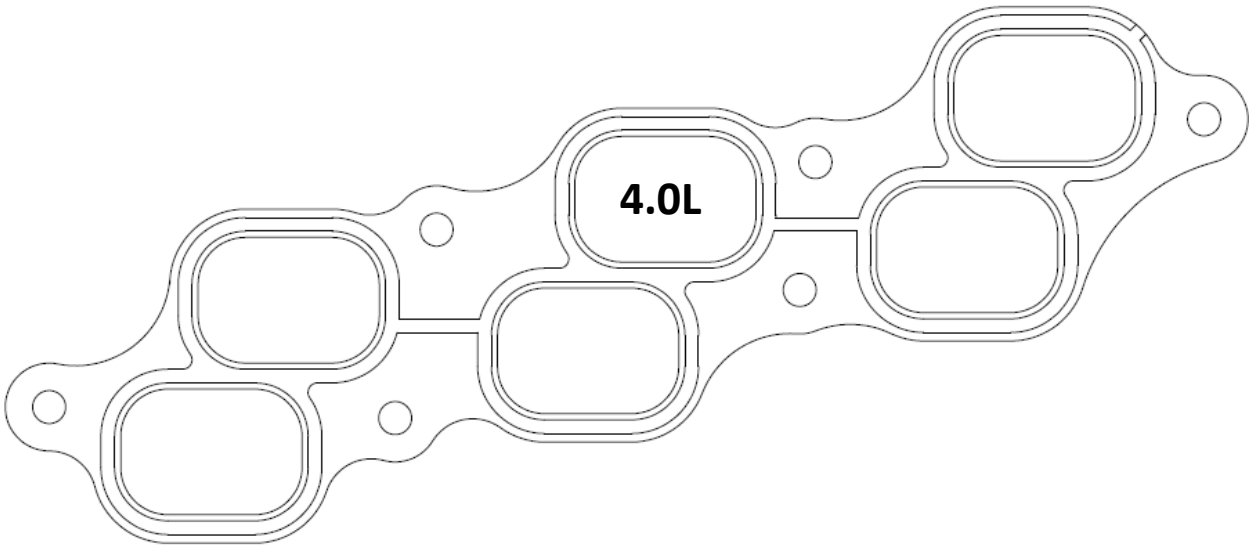
Anderson Engineering Solutions LLC

Installation Instructions

Please read instructions thoroughly before starting installation!

1GR-FE (V6) Intake Manifold Runner



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.



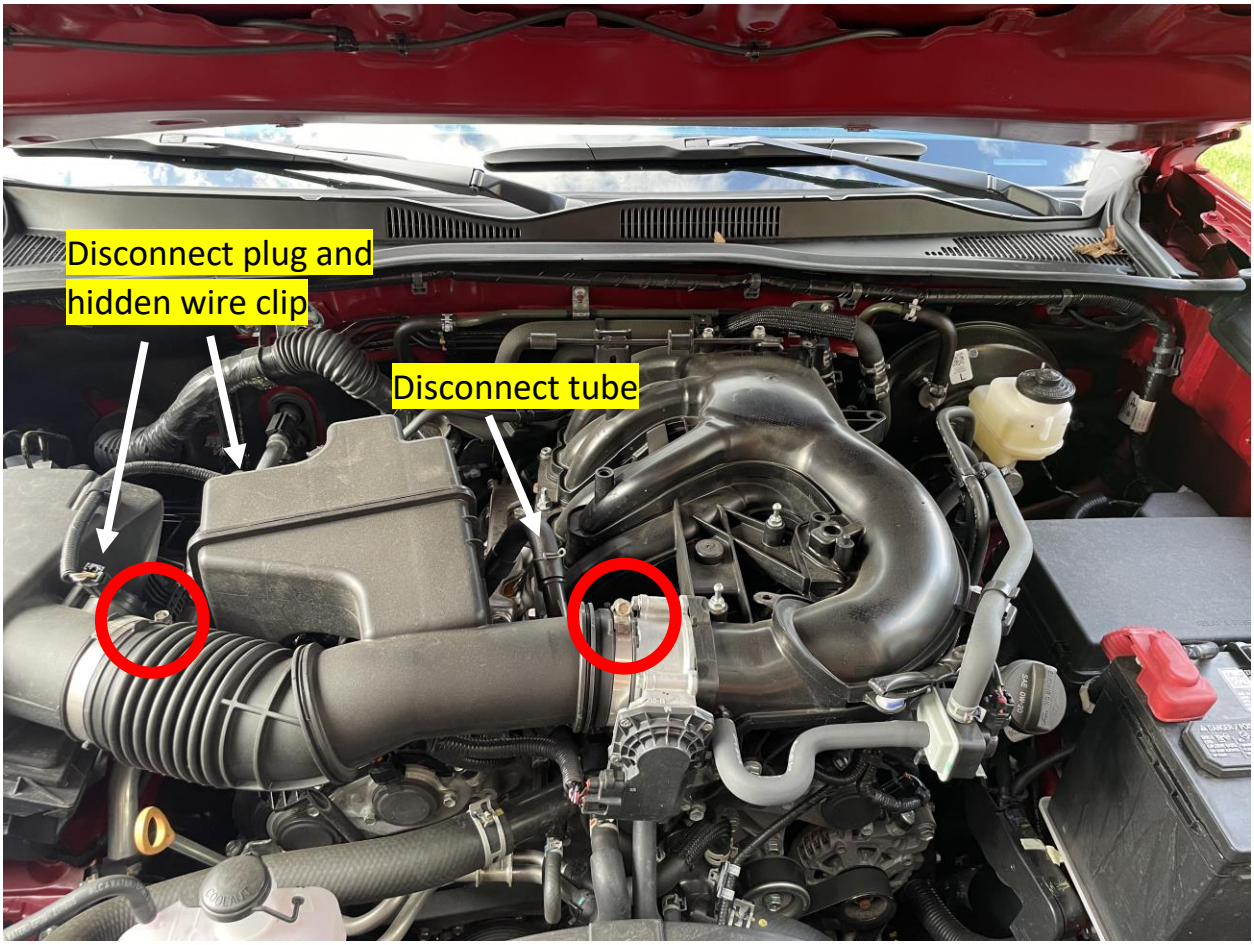
Press the provide gasket into the spacer, it will only fit one direction.

Disconnecting Intake Plenum

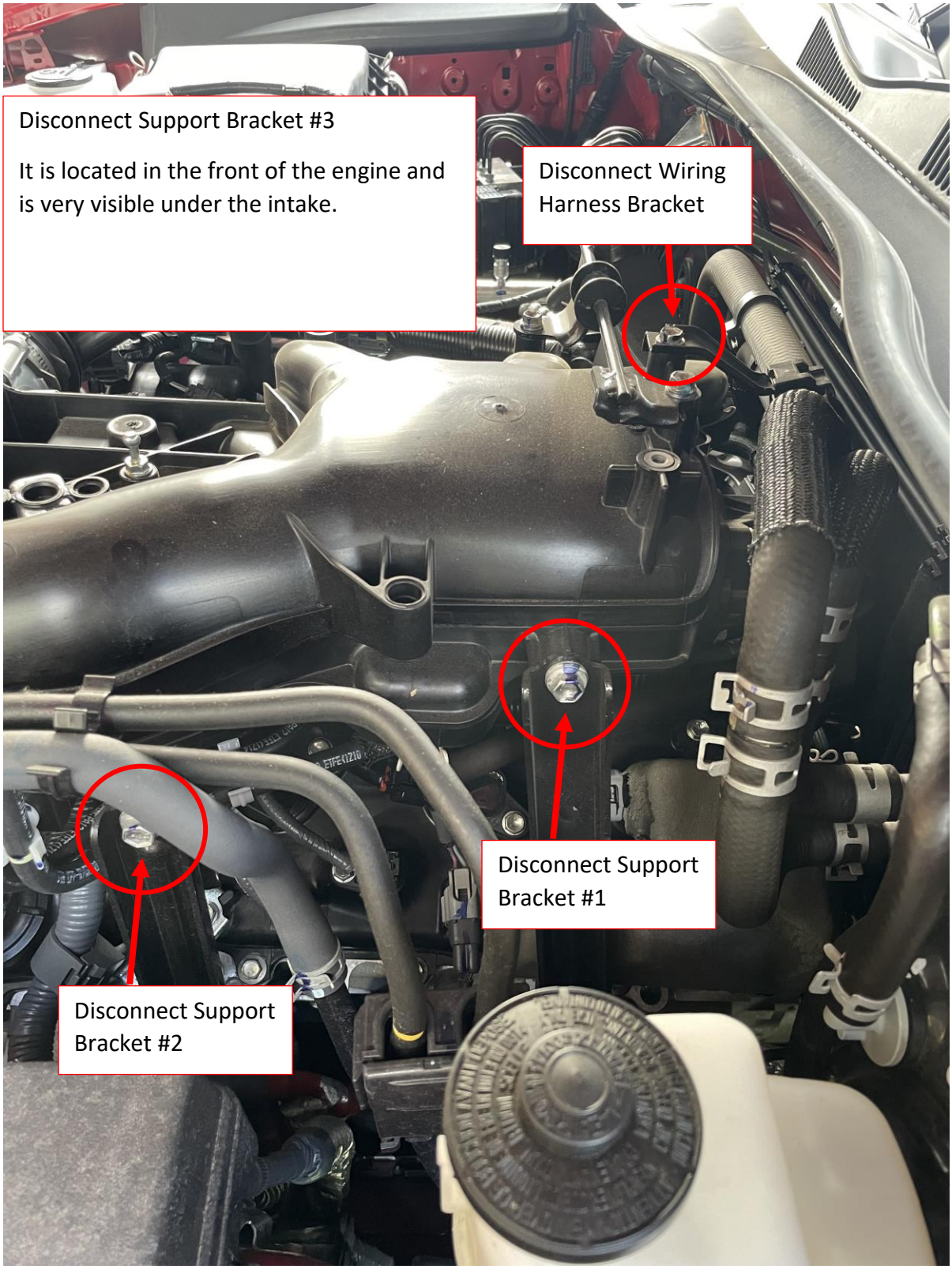
1. Please start by removing the positive terminal on the battery and safely positioning to ensure arcing does not occur.

(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)

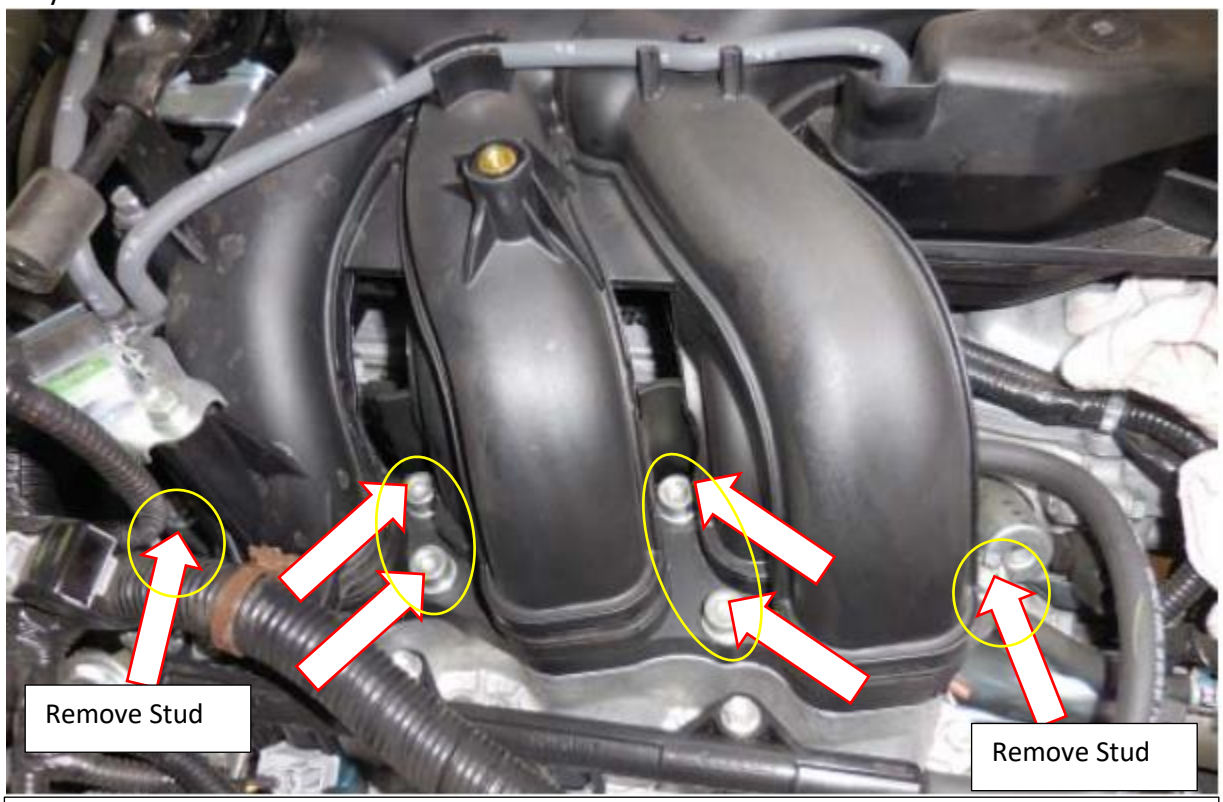
2. Removing the flexible intake hose on the passenger side for the engine bay by loosening the 2 hose clamps with a Philip's head screwdriver. Also remove the hose clamp hold the plenum and the MAF sensor plus/clips.



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. 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.



The Spacer will installed under the intake manifold with a gasket in the spacer and the stock manifold (both facing down)

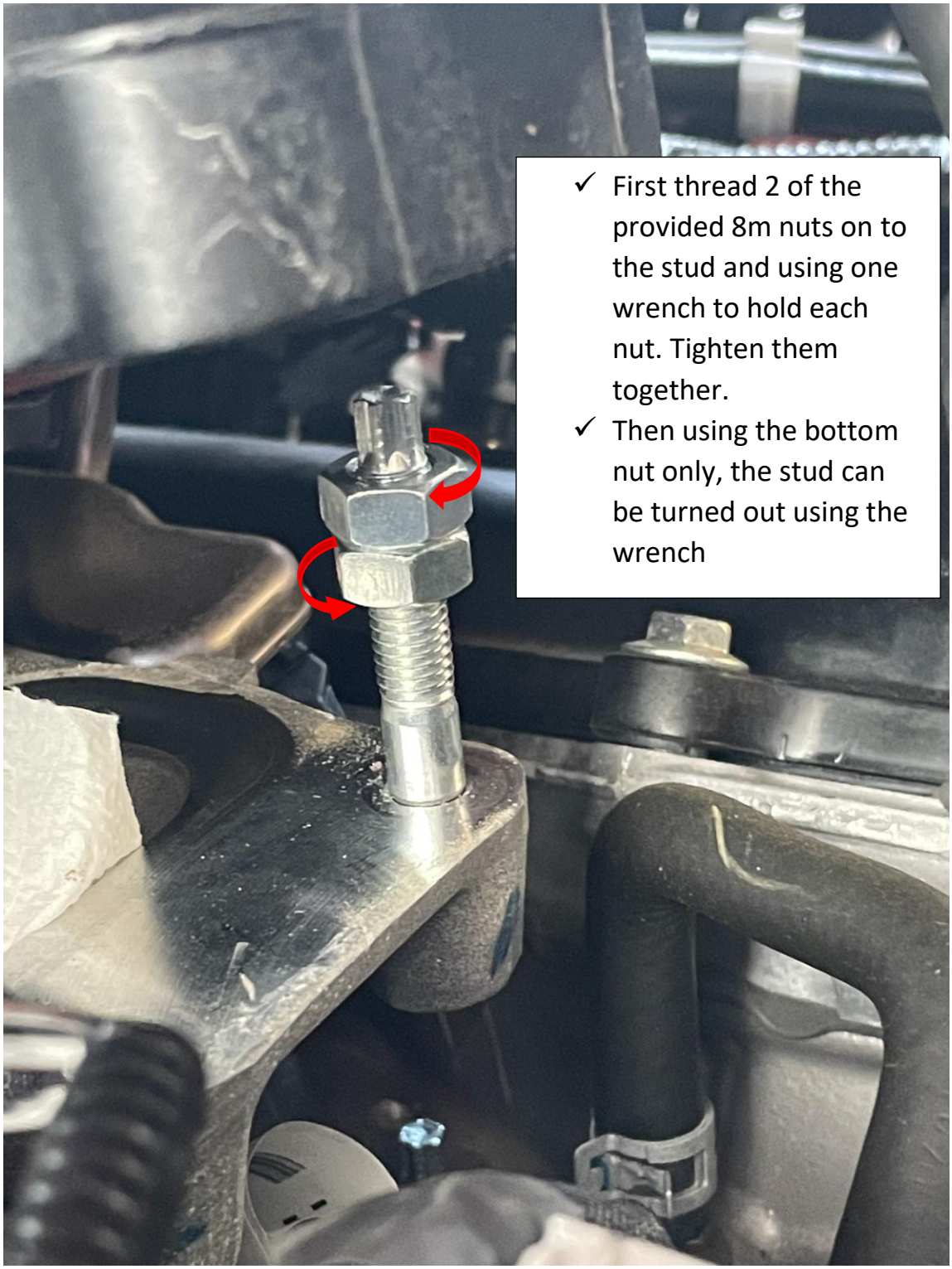


5. Lift the Intake Plenum off the lower intake and set off to the side. If doing this alone, use bungee ties to hold the intake up as your working under the hood. The 2 Studs will need to be removed.

*****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.



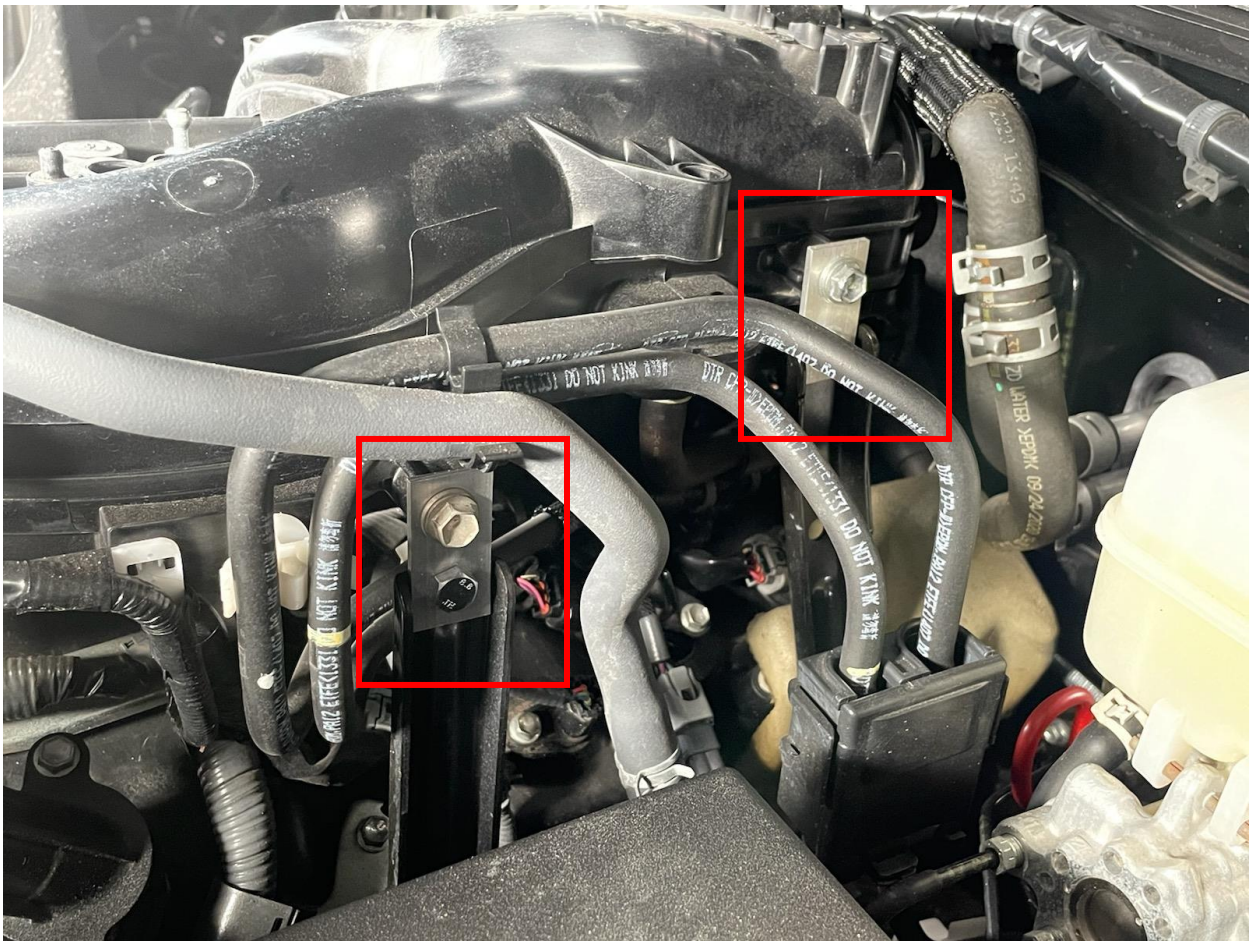
6. Place the intake manifold Spacer between the upper and lower intake ensuring the gaskets is facing down. The spacer will only go in one way.

7. Using the provided Bolts 6 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

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!

Fitment verification

After all is complete, connect the battery and start the truck. If installed incorrectly and issue come up, Please call or text direct cell 937-823-5541 for support.

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