



## **Performance Air Intake Kit**

**Part Number: 827-740**

**2006-2012 Toyota RAV4 3.5L V6**

## **Installation Instructions**

For technical inquiries please email us at [tech@hpsperformance.com](mailto:tech@hpsperformance.com)

In the email, please include the following information for faster response:

- Year / Make / Model / Engine of your vehicle.
- If it is a fitment issue, please include pictures showing the fitment problem.
- If there are missing parts, please list the part number(s) from the bill of materials on the 2nd page.
- Optional but recommended – Your contact phone number and preferred call back time.

You can also give us a call via 626-747-9200 for tech support Monday-Friday, 9:00am-5:00pm Pacific Time.

# Bill of Materials

Kit Number: 827-740

Line #	Description	Part Number	Qty
1	Air Intake Pipe	529-949	1
2	Heat Shield	531-946	1
3	HPS Performance Air Filter	HPS-4276	1
4	3" - 3.12" Reducer Coupler x 2.00" Long	P3SR-300-312-L2	1
5	Embossed Clamp, 70-90mm	EMSC-70-90	2
6	Vacuum Cap, 1/8"	HW-VC-012	3
7	Bolt, M6 x 1.0, 12mm Long	HW-B6-12	2
8	M6 Flat Washer 16mm OD	HW-FW6L	2
9	M6 Flange Nut	HW-N6	1
10	Rubber Vibration Mount M6 1/2" Tall	HW-RM6-50	1
11	Bolt, M4 x 0.7, 10mm Long	HW-B4-10	2
12	MAF Sleeve, No Straightener 3" Reduce to 2.75"	HW-VEN-300-275	1
13	Bubble Edge Trim	BUBBLE EDGE TRIM	38 inches
14	Bubble Edge Trim	BUBBLE EDGE TRIM	16 inches
15	Bubble Edge Trim	BUBBLE EDGE TRIM	5 inches

- Before installing any parts of this intake kit, please read the instructions thoroughly.
- Verify the contents of this intake kit before disassembling your vehicle.
- DO NOT INSTALL IF ANY PARTS ARE MISSING OR DAMAGED.  
CONTACT [tech@hpsperformance.com](mailto:tech@hpsperformance.com) IMMEDIATELY.  
WE ARE NOT RESPONSIBLE FOR ANY DAMAGE CAUSED DUE TO IMPROPER INSTALLATION.
- Installation requires moderate mechanical skills. A qualified mechanic is highly recommended.
- Do not attempt to install the intake kit while the engine is hot.
- This installation may require removal of coolant lines that may be hot.
- For technical inquiries, please email us at [tech@hpsperformance.com](mailto:tech@hpsperformance.com)

## **PLEASE READ CAREFULLY BEFORE INSTALLATION!**

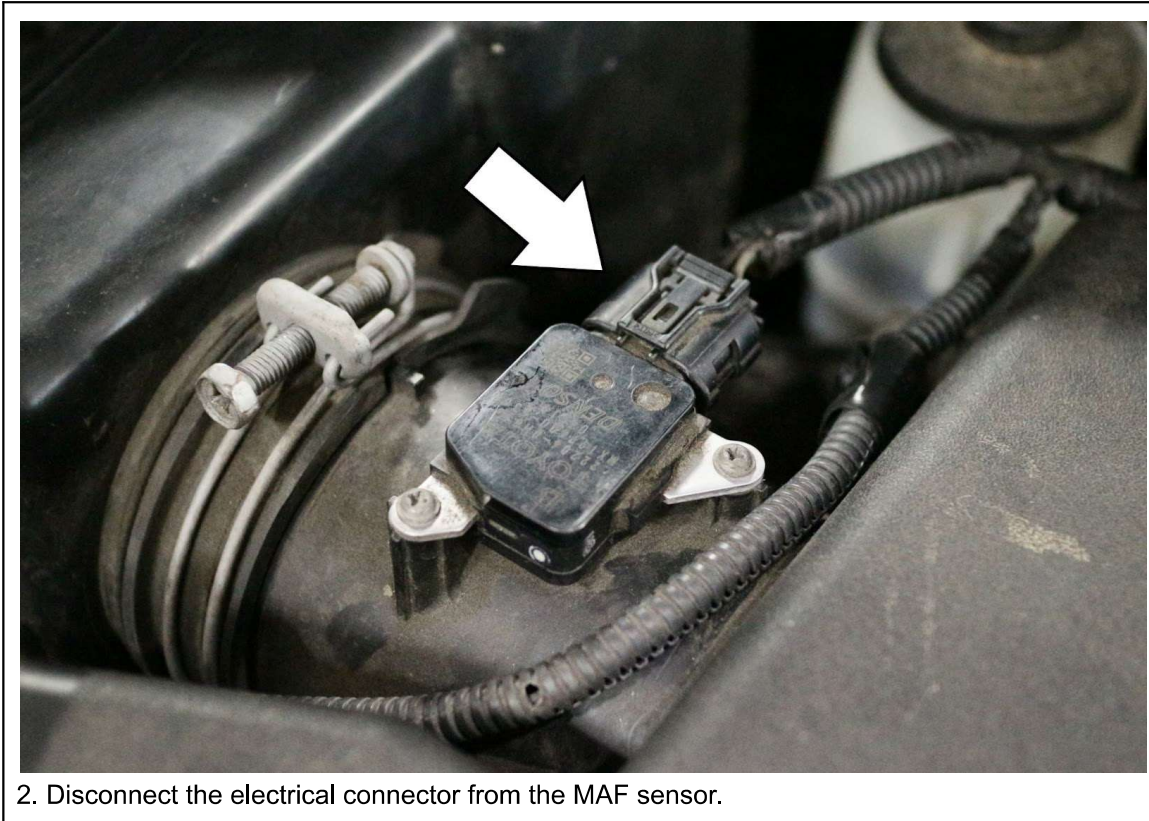
This installation is not for the novice customer. Install this product with EXTREME caution! Misuse of this product can destroy your engine! If you are not mechanically inclined, please have a professional automotive mechanic install this kit.

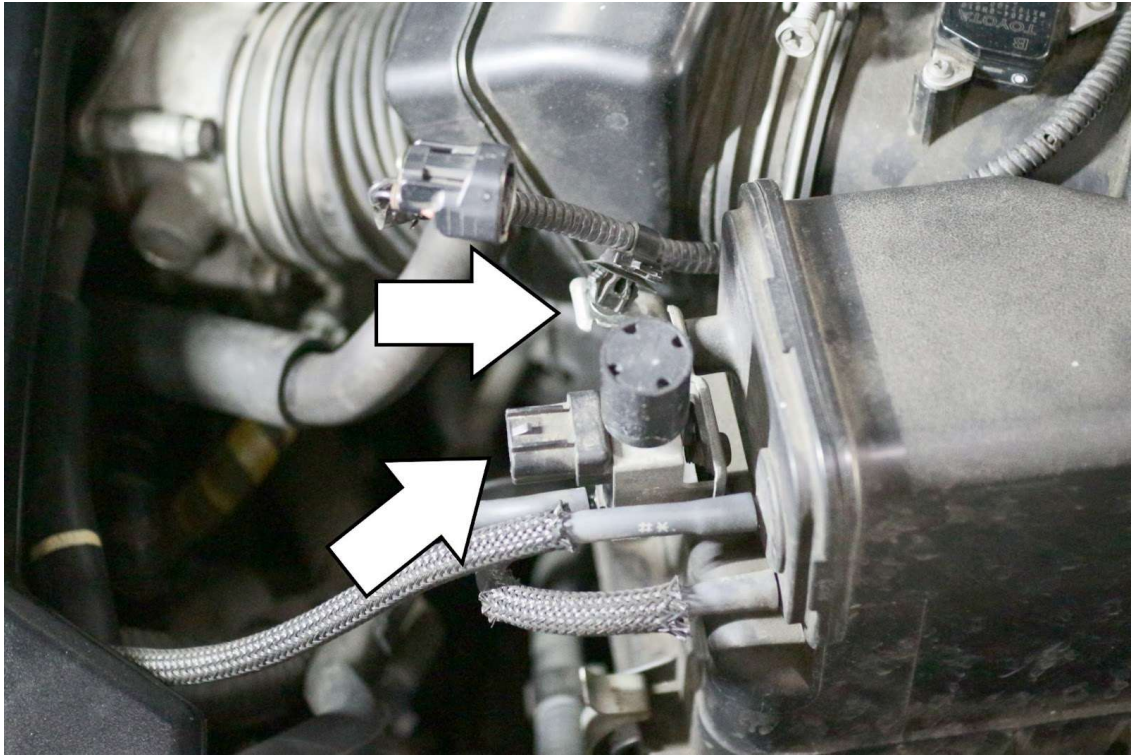
***NOTE: HPS holds no responsibility for any engine damage that results from misuse of this product.***

## **GETTING STARTED**

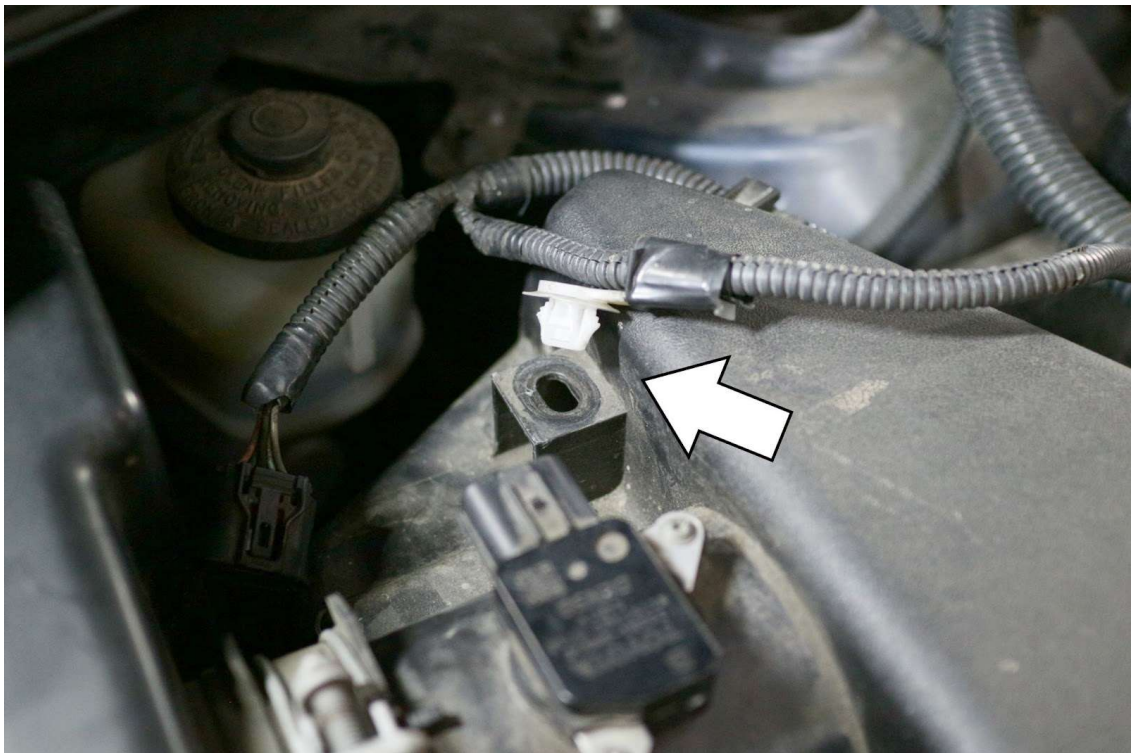
1. Turn the ignition OFF and disconnect the vehicle's negative battery cable. If the engine has run within the past two hours let it cool down.

NOTE: Disconnecting the negative battery cable erases pre-programmed electronic memories. Write down all memory settings before disconnecting the negative battery cable. Some radios will require an anti-theft code to be entered after the battery is reconnected. The anti-theft code is typically supplied with your owner's manual. In the event your vehicle's anti-theft code cannot be recovered, contact an authorized dealership to obtain your vehicle's anti-theft code. We also highly recommend NOT discarding any stock parts after the installation.





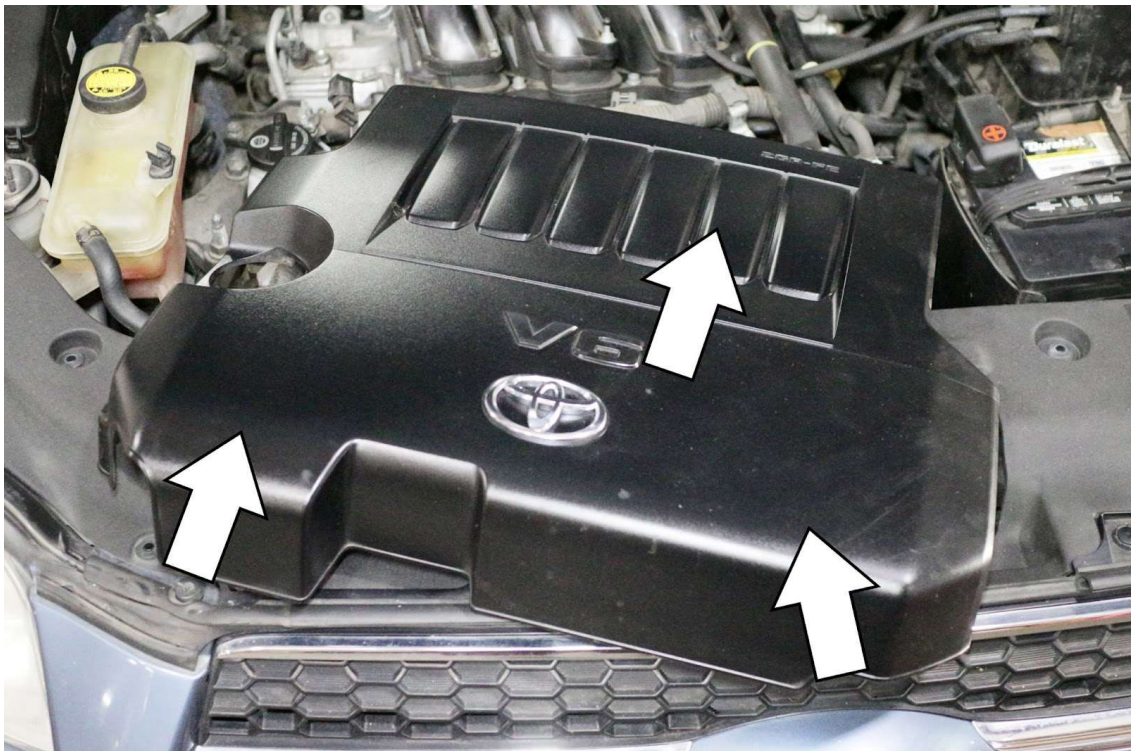
3. Disconnect the electrical connector from the vacuum switch solenoid. Next, unclip the electrical harness from the vacuum switch solenoid bracket.



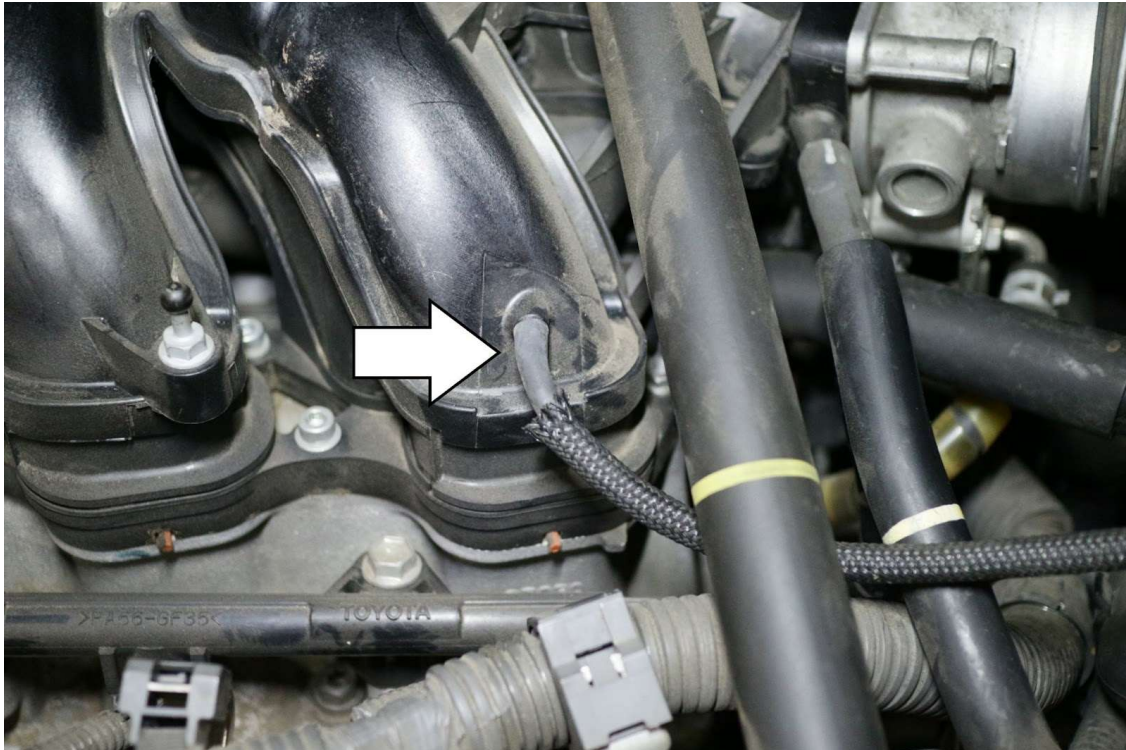
4. Unclip the electrical harness from the upper air box.



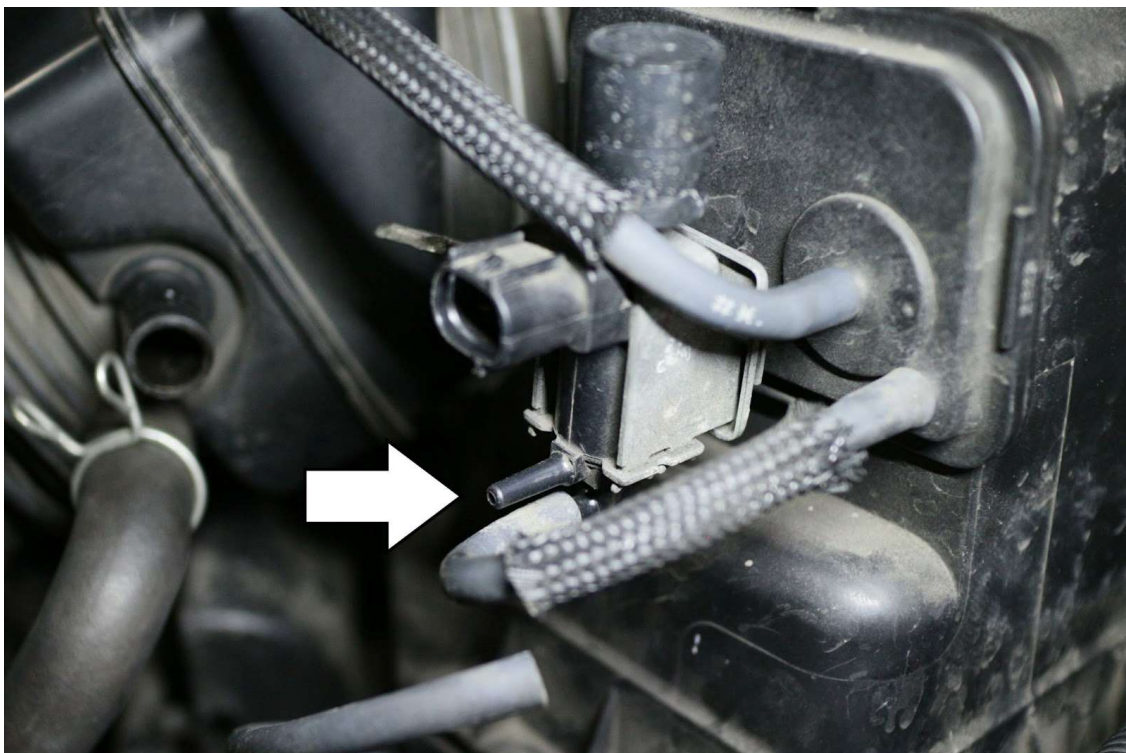
5. Unclip the rest of the wire harness from the upper air box, then carefully place the harness away from any obstructions.



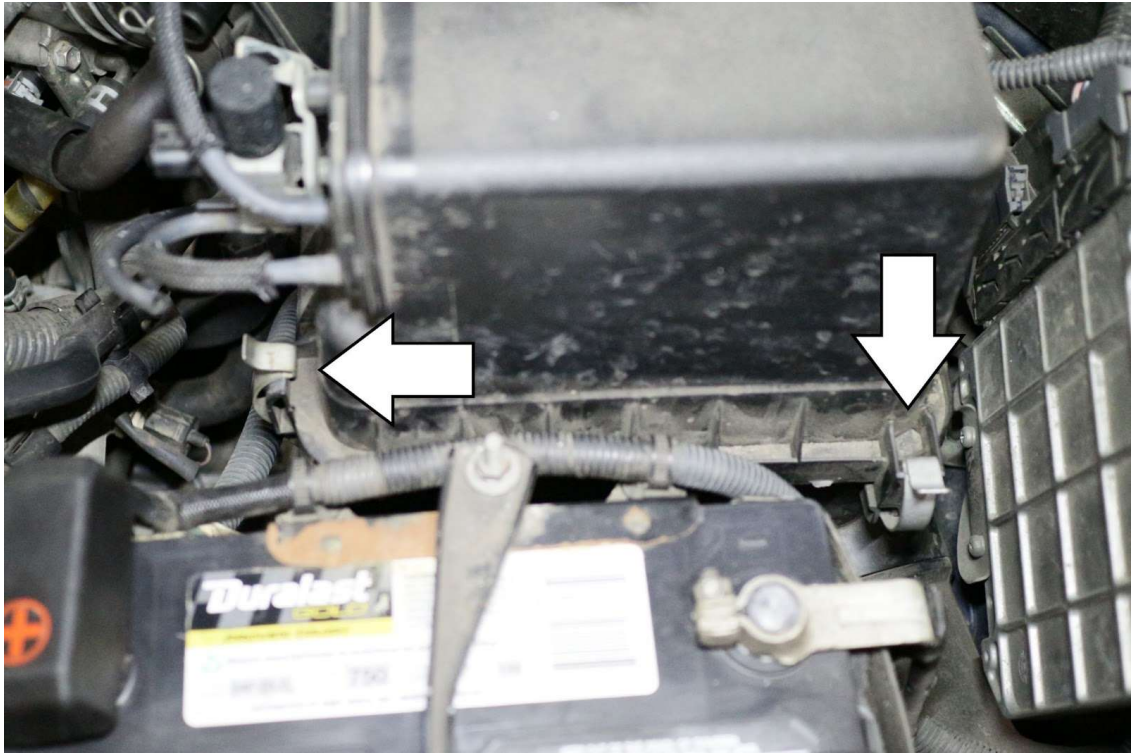
6. Pull up the plastic engine cover at the three indicated points and remove it from the engine bay.



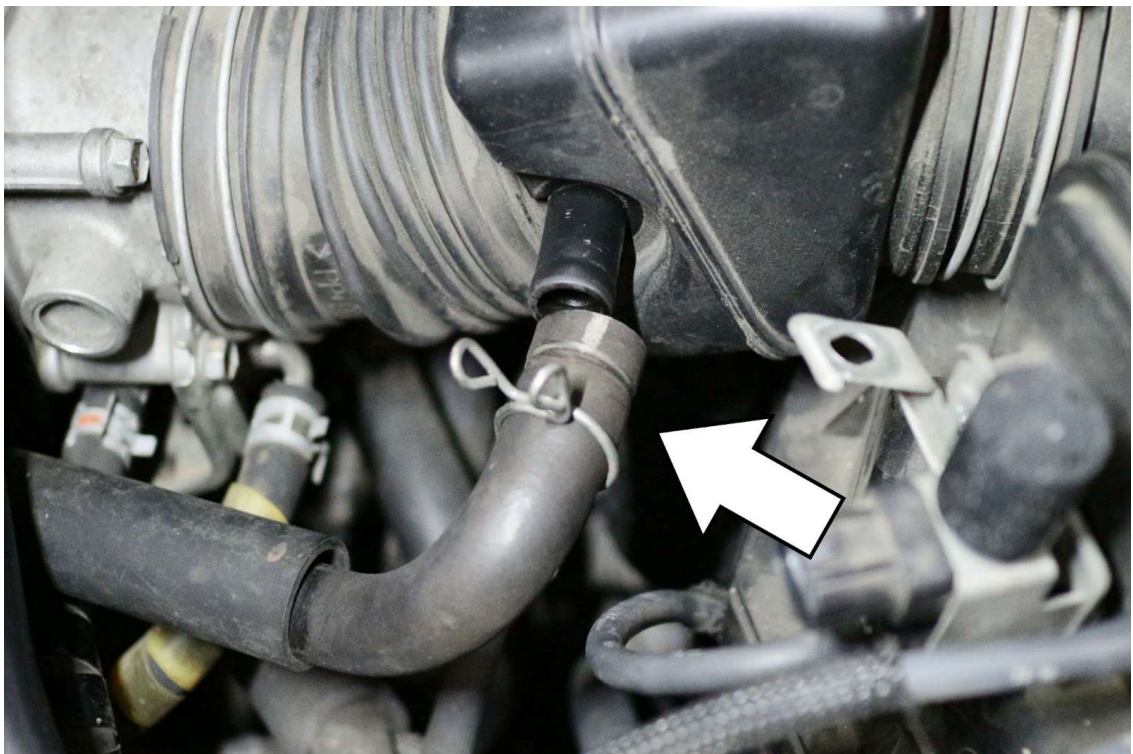
7. Carefully disconnect the vacuum hose located on the intake manifold. Avoid any sideways force to prevent damaging the intake manifold.



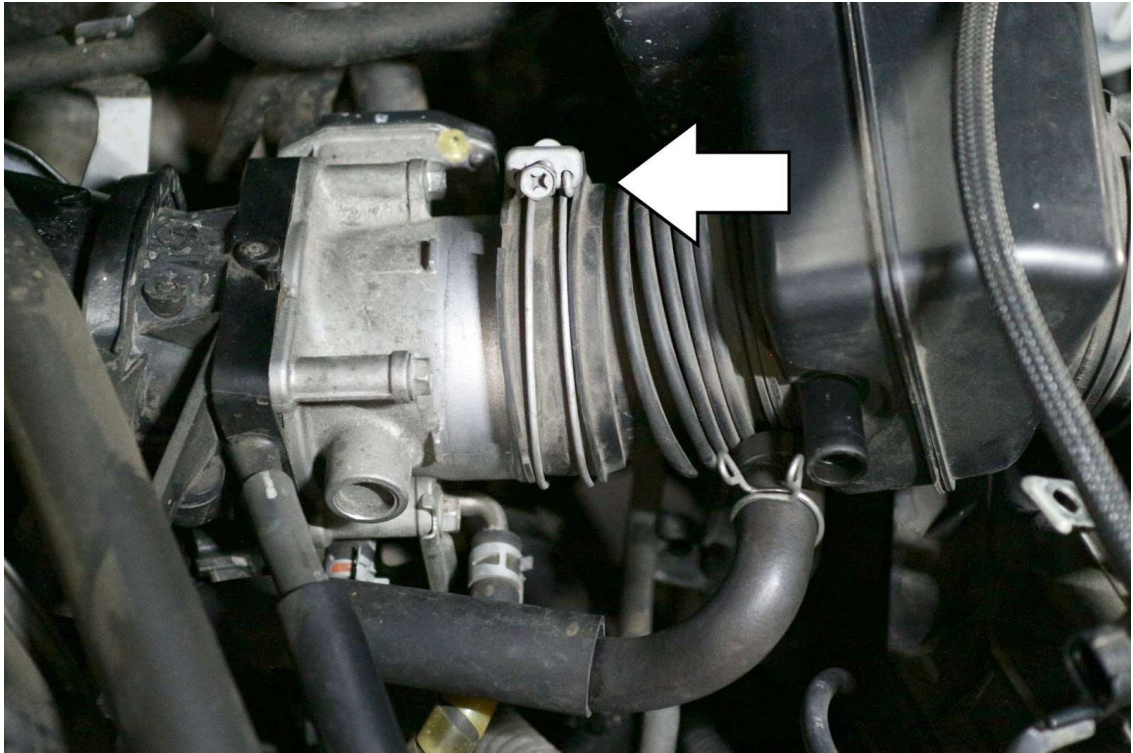
8. Carefully disconnect the vacuum hose from the top port of the vacuum switching solenoid. Avoid any sideways force to prevent damaging the solenoid.



9. Unclip the two buckles located at the front of the air box.



10. Disconnect the breather hose from the factory intake tube.

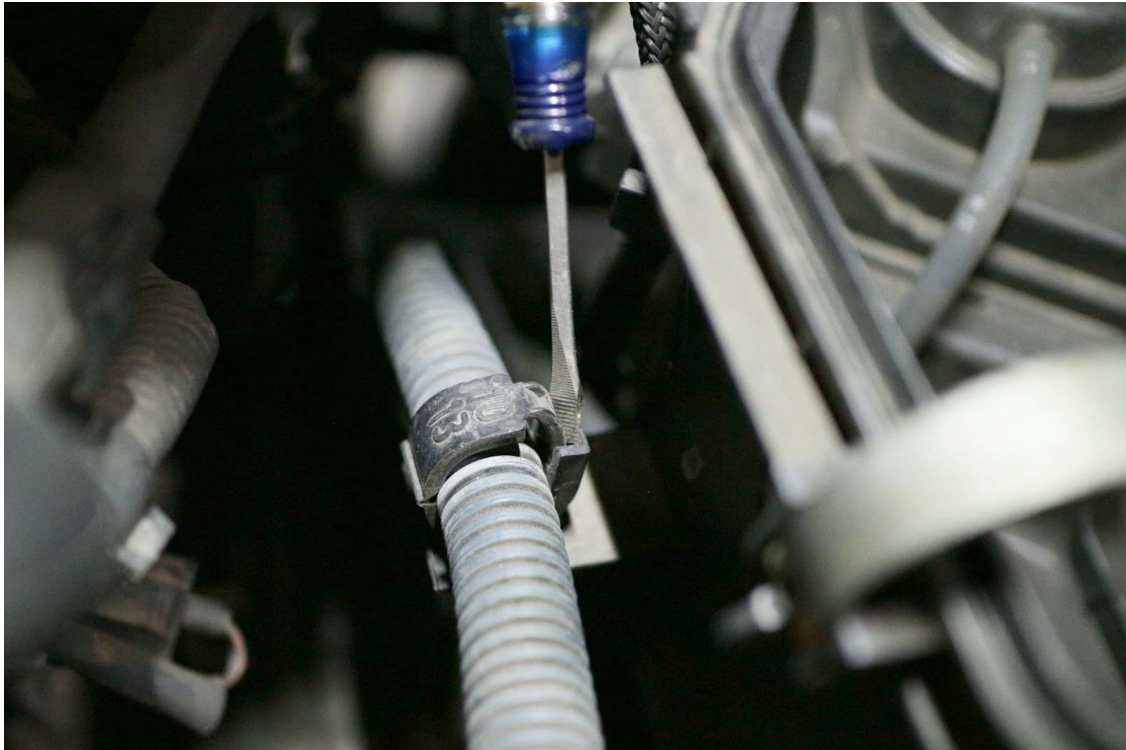


11. Loosen the hose clamp on the throttle body with a 10mm socket (or Phillips-head screwdriver) and slide the factory intake tube off of the throttle body.



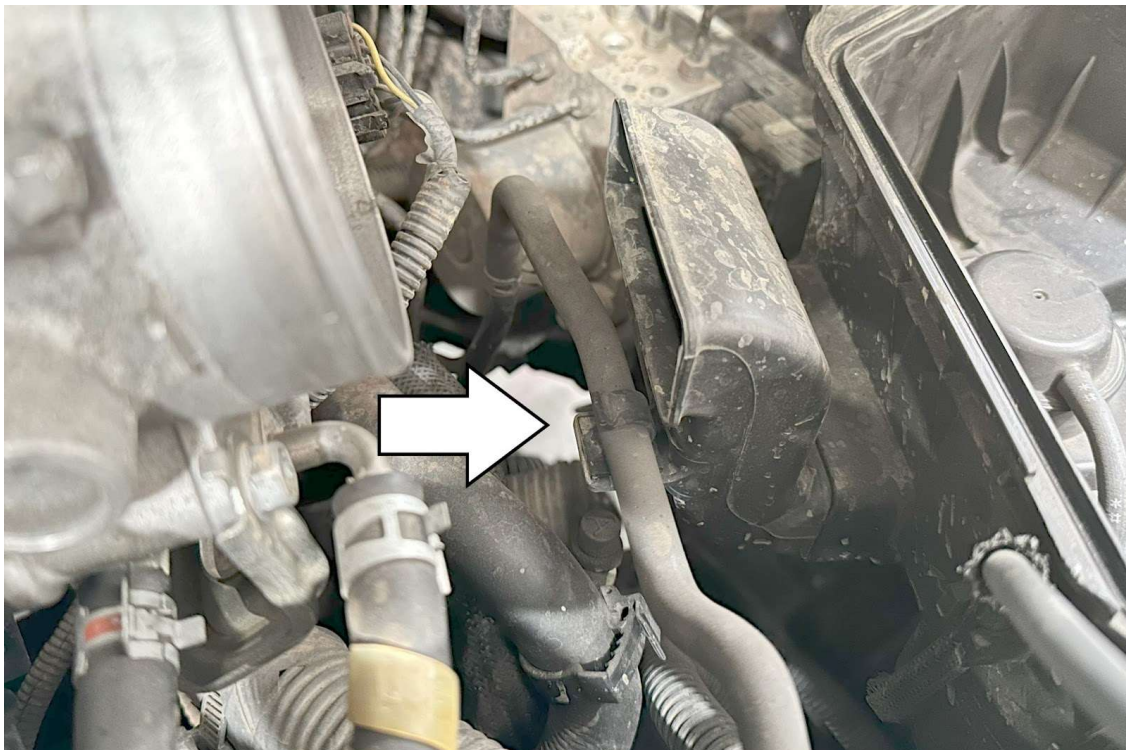
12. Remove the upper air box and intake tube from the vehicle.





13. **WARNING:** This harness is a positive power cable. Be sure that you have disconnected the negative battery cable before completing this step to prevent electrocution.

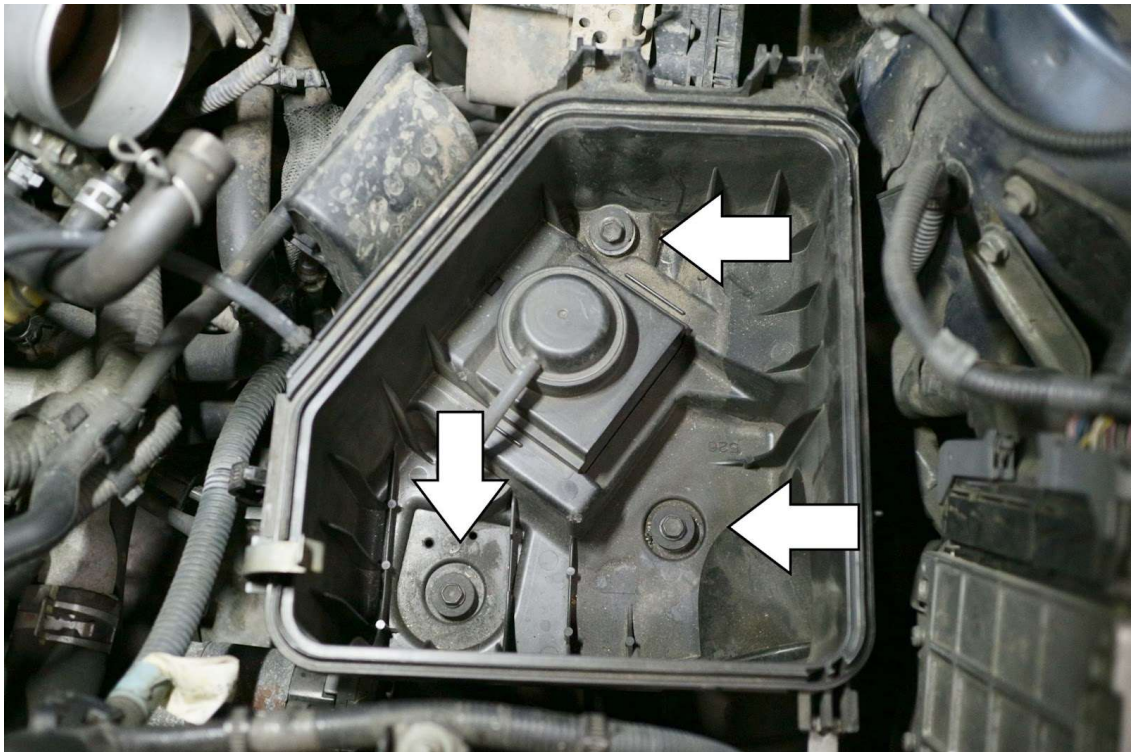
Locate the wire harness clip to the left of the lower air box. Insert a small flat head screwdriver into the slot and twist 45 degrees to release the clip. Next, remove the harness from the clip.



14. Unclip the hose near the back of the lower air box.



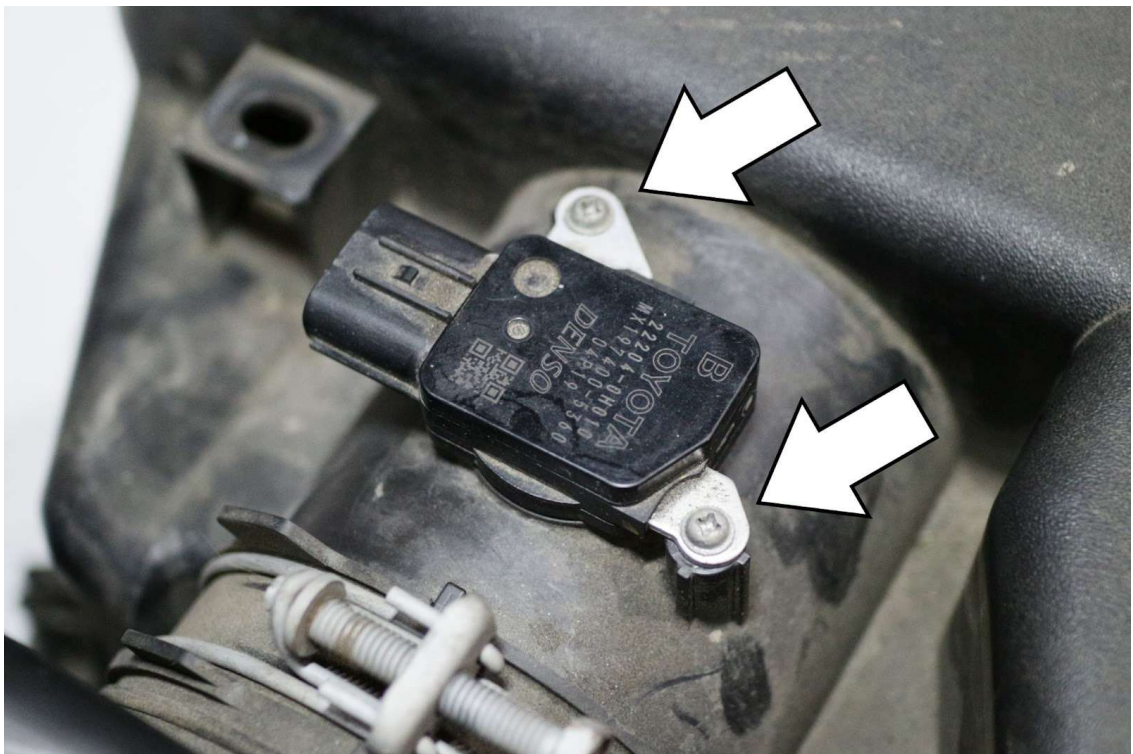
15. Remove the air filter from the lower air box.



16. Use a 10mm socket to remove the three bolts located inside the lower air box.



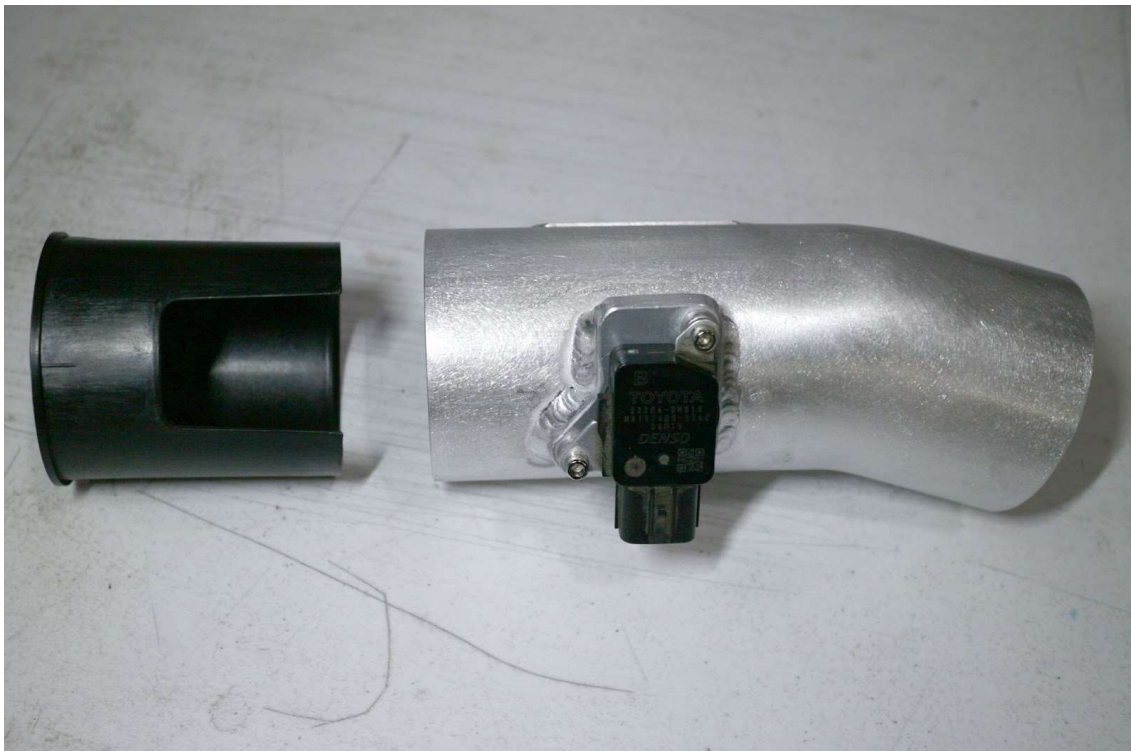
17. Remove the lower air box from the vehicle.



18. Remove the two screws holding the MAF sensor onto the stock upper air box. Remove the MAF sensor from the stock upper air box.

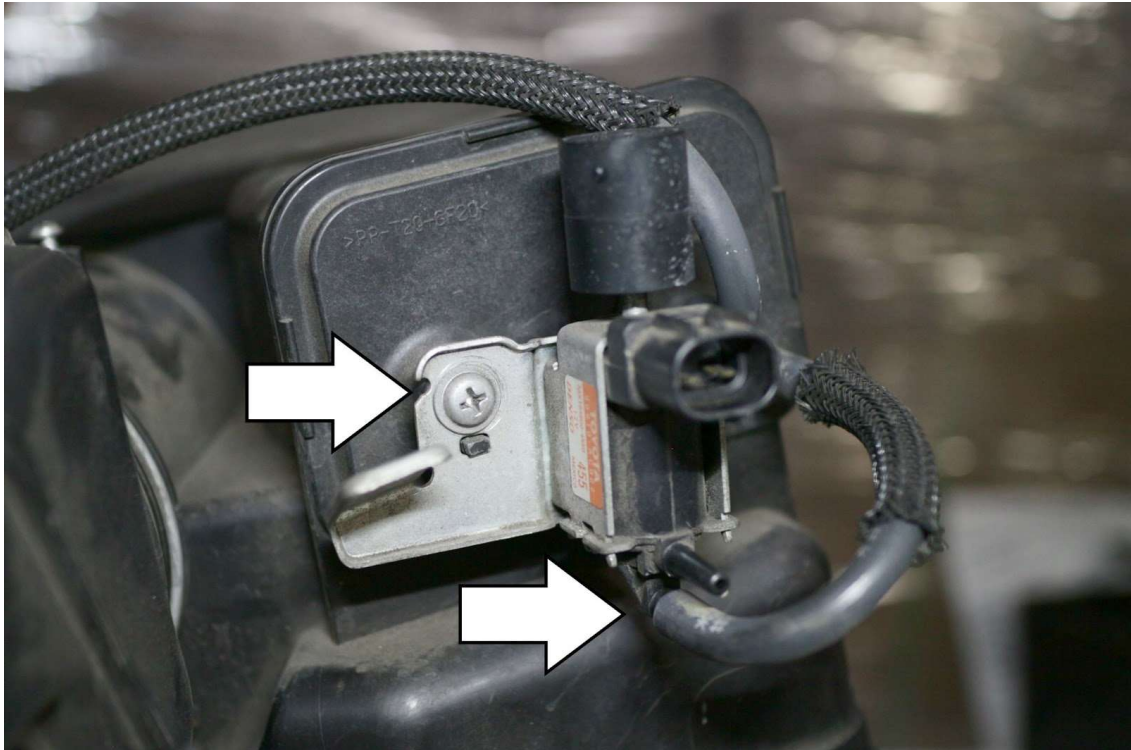


19. Install the MAF sensor onto the HPS intake pipe and secure it using the two provided M4 Allen bolts.

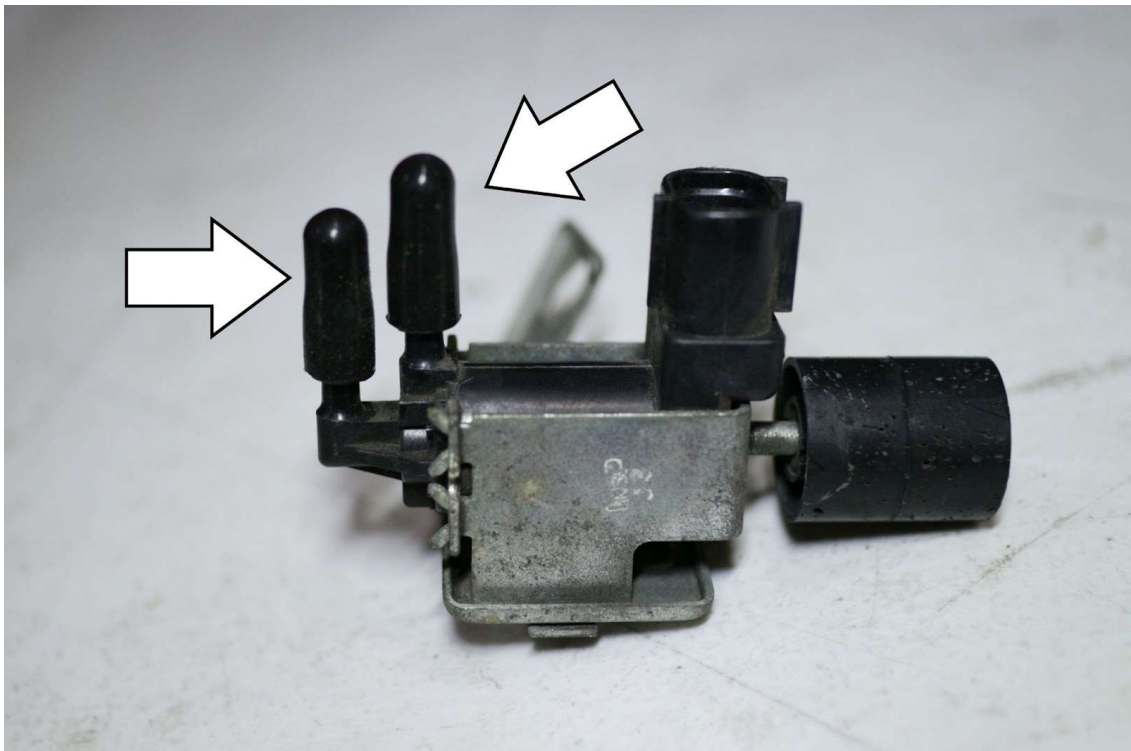


20. Align the slot on the venturi sleeve to the MAF sensor and install the sleeve into the HPS intake pipe.

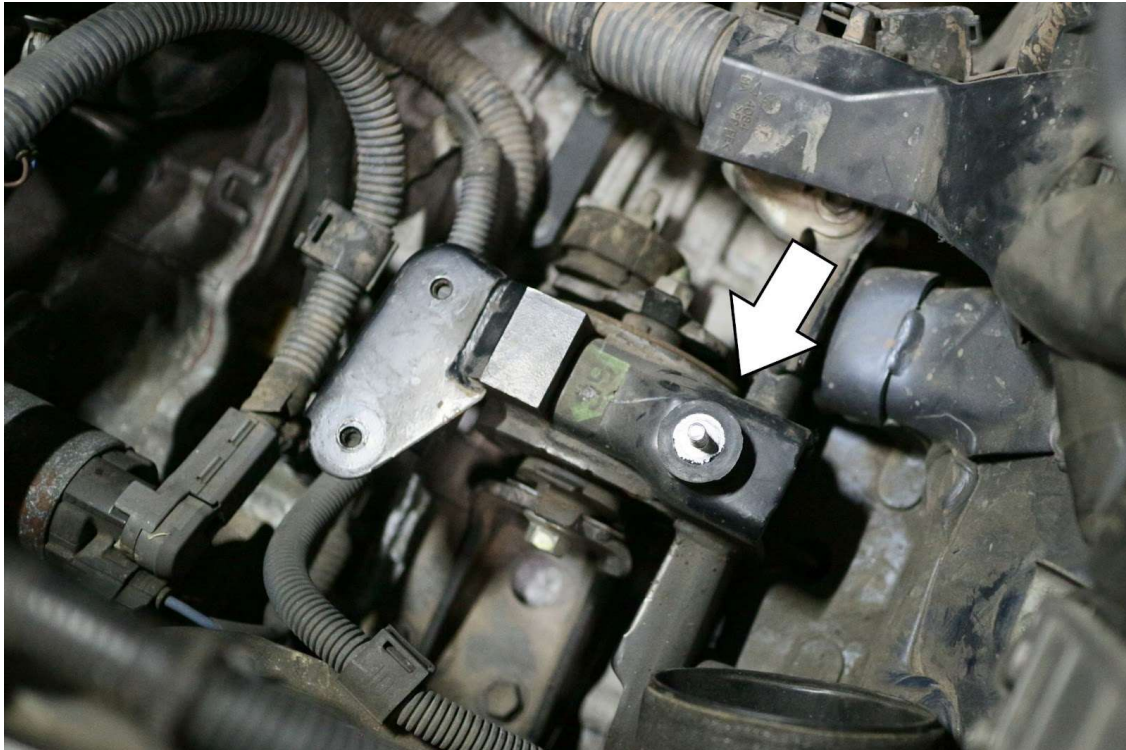
**NOTE:** Failure to install the venturi sleeve will result in check engine light.



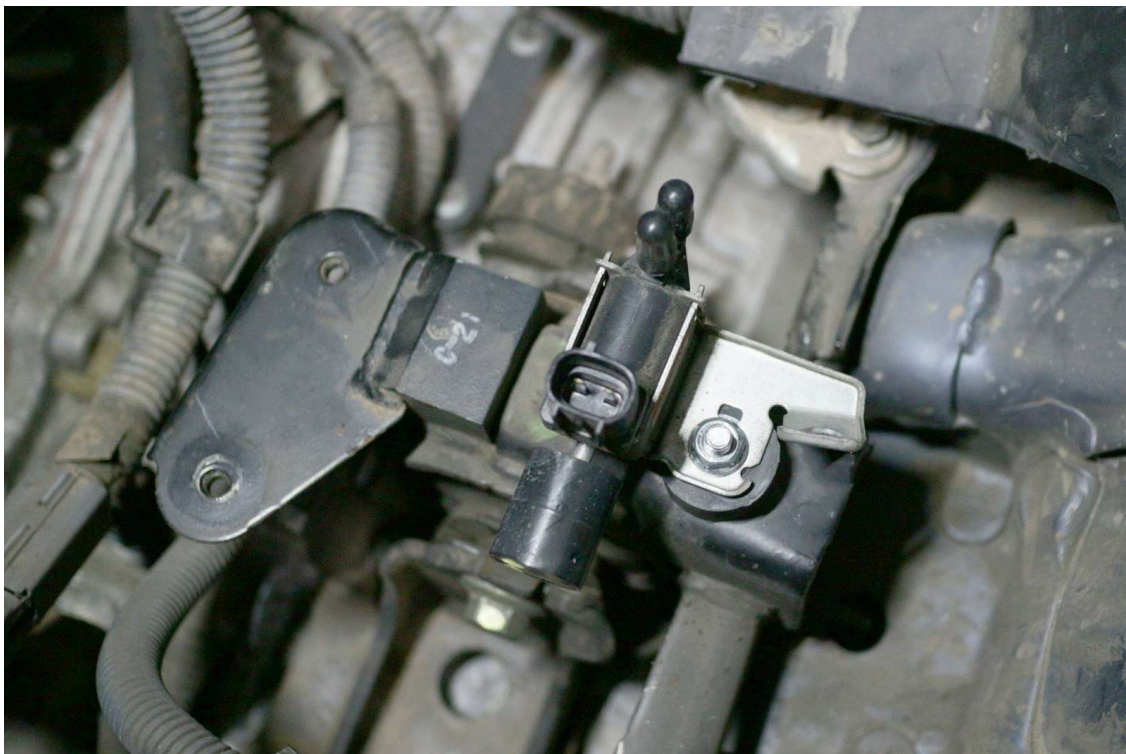
21. Disconnect the remaining vacuum hose from the vacuum switch solenoid then remove the solenoid from the stock upper air box.



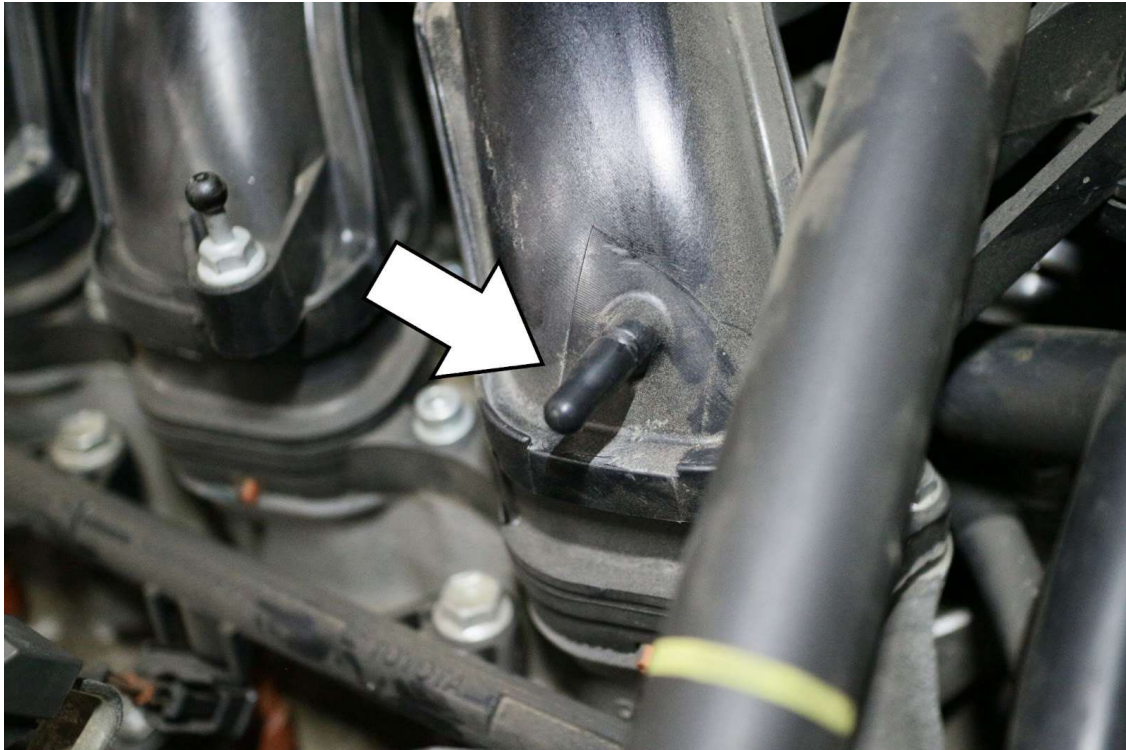
22. Install two of the provided vacuum caps onto the vacuum switch solenoid. Avoid any sideways force to prevent damaging the ports.



23. Install the provided M6 rubber vibration mount onto the transmission mount as shown.



24. Place the solenoid onto the rubber vibration mount as shown and secure it with the provided M6 nut.



25. Install the remaining vacuum cap onto the port on the intake manifold. Avoid any sideways force to prevent damaging the port.



26. Install the provided silicone reducing coupler onto the throttle body with the provided clamps. Tighten the clamp on the throttle body side. Leave the second clamp loose to secure the intake in step 32.

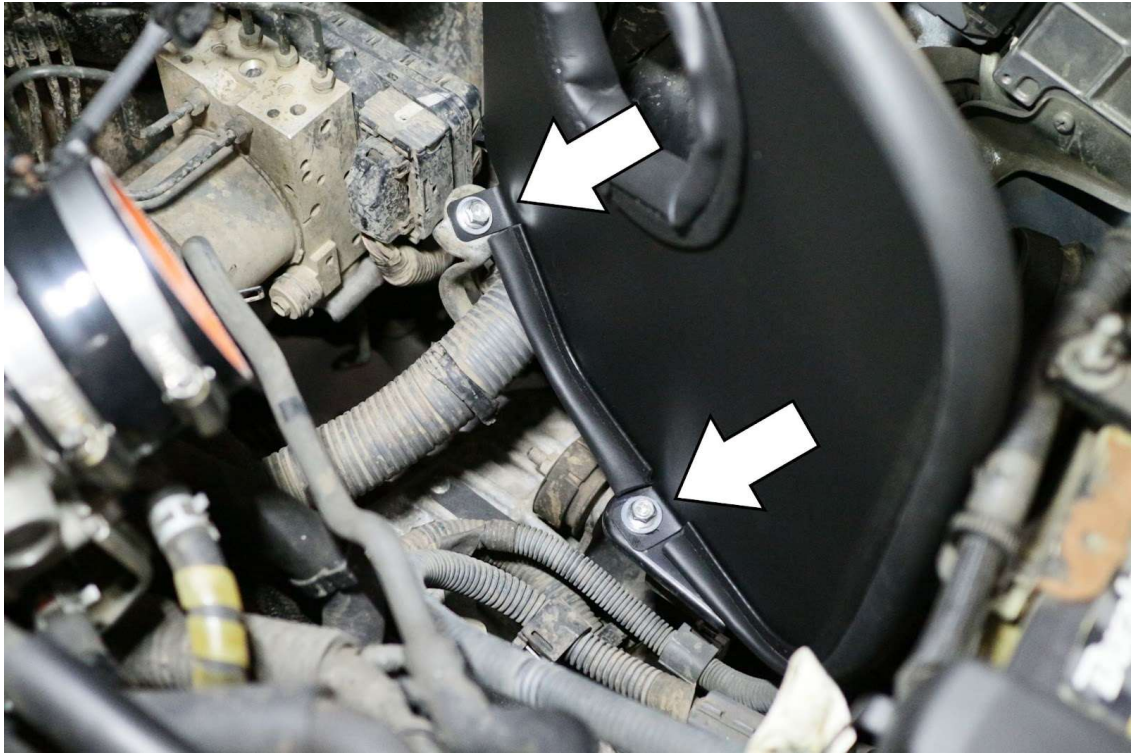


27. Install the bubble edge trim onto the heat shield as shown in the image.

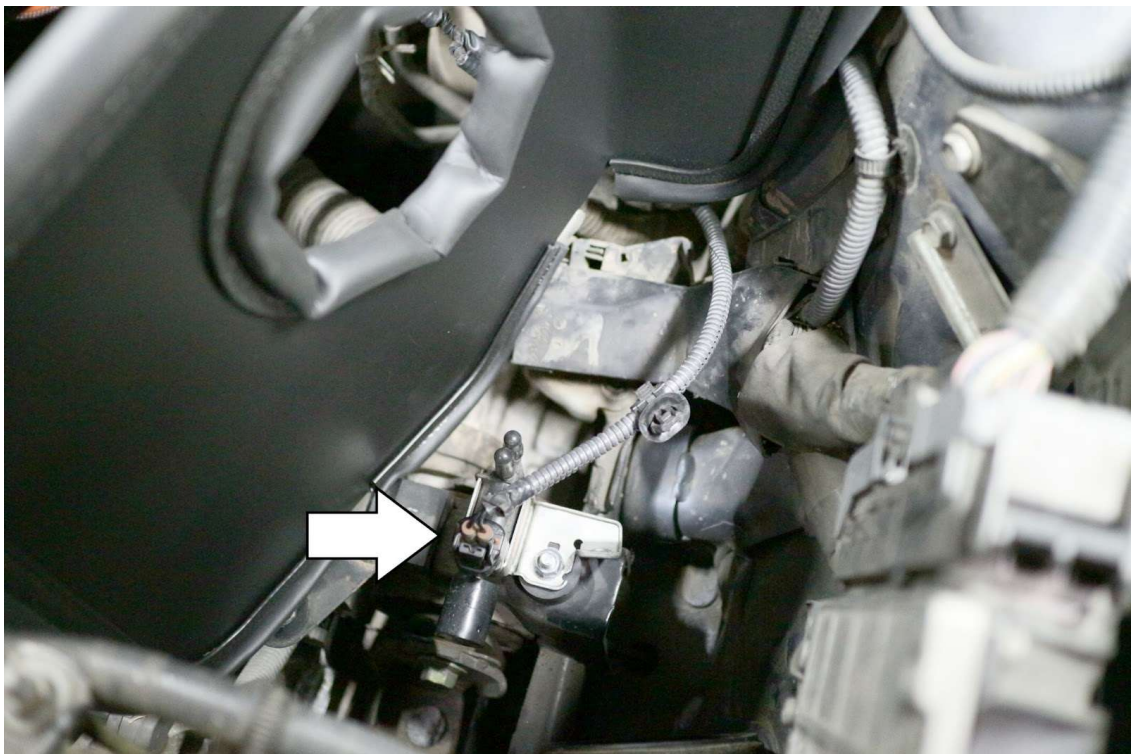


28. Place the heat shield into the engine bay as shown in the image.





29. Secure the heat shield onto the vehicle using the provided M6 bolts and washers.



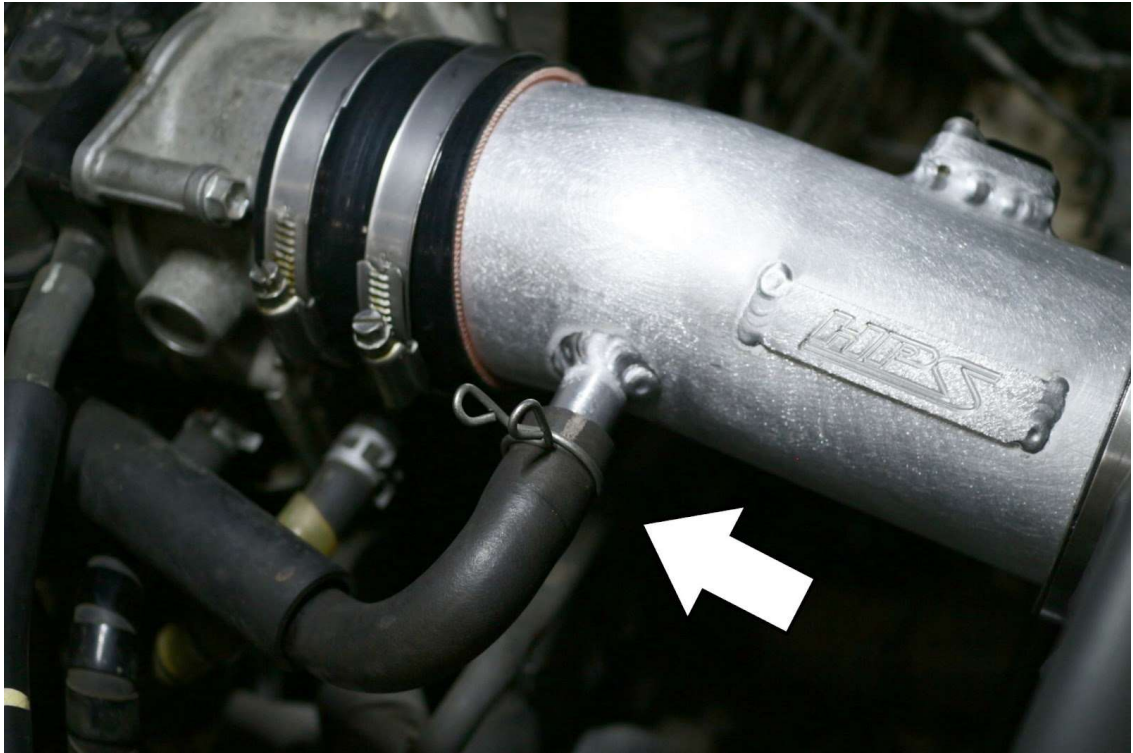
30. Carefully route the electrical harness along the back side of the heat shield. Then, reconnect the vacuum switch solenoid.



31. Slide the air filter into the opening of the heat shield.



32. Insert the HPS intake pipe into the air filter until it bottoms out. Then, fasten the clamp to secure the air filter to the HPS intake pipe. Next, insert the opposite end of the HPS intake pipe into the silicone reducing coupler exactly  $\frac{3}{4}$ " deep. Lastly, fasten the clamp to secure the HPS intake pipe into place.



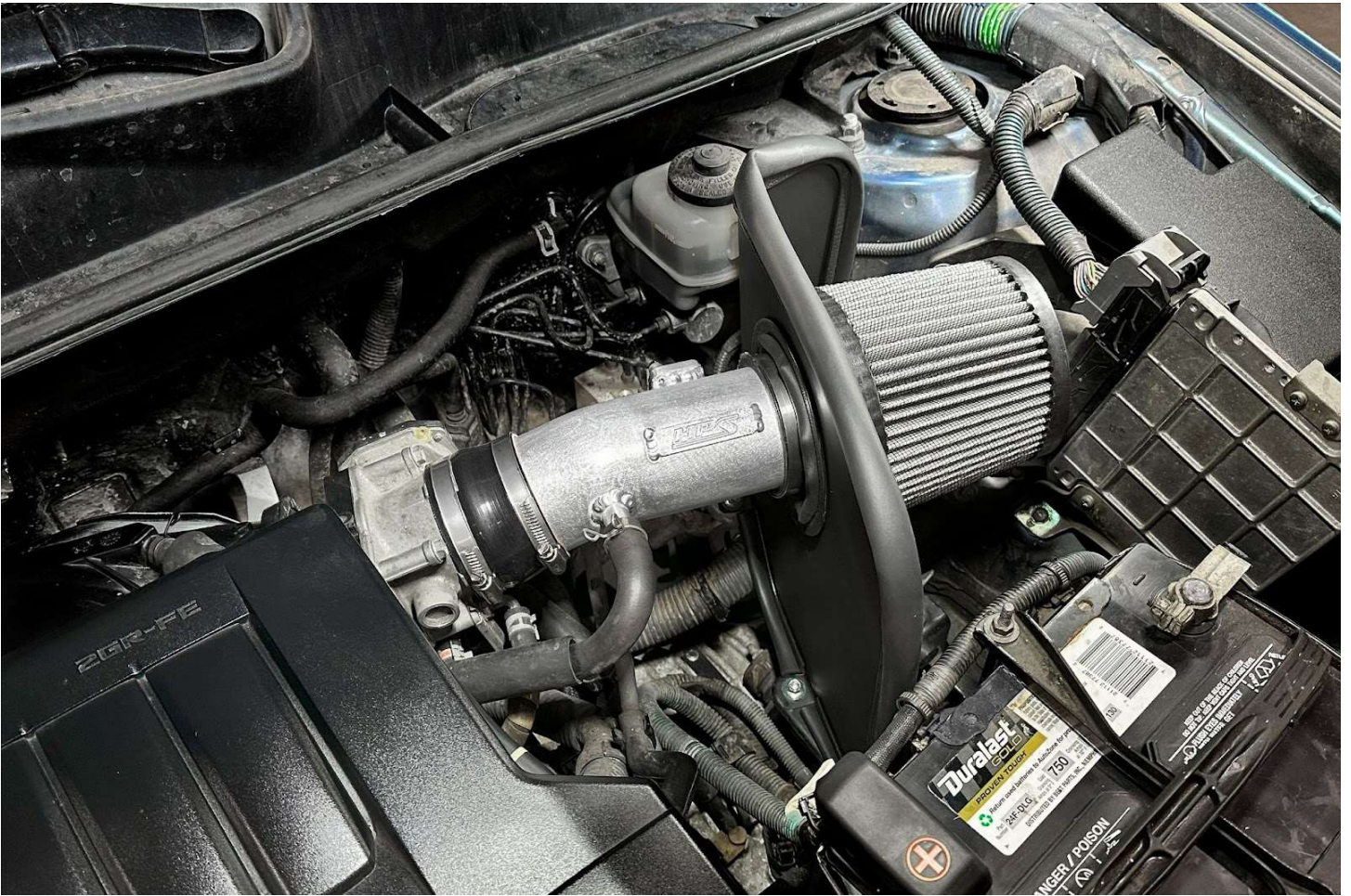
33. Connect the stock breather hose to the HPS intake pipe.



34. Reconnect the electrical connector to the MAF sensor.



35. Reinstall the plastic engine cover.



## **FINAL STEPS**

Once the intake has been positioned, tighten all of the clamps and secure all of the parts.

Upon completion of the installation, reconnect the negative battery terminal before you start the engine. Double check to make sure everything is tight and properly positioned before starting the vehicle.

Start the engine. Let the car idle for 3 minutes. Perform a final inspection before driving. Listen carefully for any odd noises, rattles and/or air leaks prior to taking it for a test drive. If any problems arise go back and check the vacuum lines, hoses and clamps that may be causing leaks or rattles and correct the problem.

Periodically, recheck the alignment of the intake kit and make sure there is proper clearance around and along the length of the intake. Failure to follow proper maintenance procedures may cause damage to the intake and will void the warranty.

## Also available for Toyota 2006-2012 RAV4 3.5L V6



**HPS Performance Replacement Air Filter**  
For  
**3rd Gen Toyota RAV4 V6 Air Intake Kit**  
Part Number [HPS-4276](#)



**HPS Performance Air Filter  
Cleaning and Recharge Kit**  
Part Number [HPS-AFRC](#)



**HPS Performance Stainless Steel Magnetic  
Oil Drain Plug**  
Part Number [MDP-M12x125](#)

Contact an authorized HPS Performance dealer or  
visit us at [hpsperformance.com](http://hpsperformance.com) for more details