



2.0T - EA113 - FLAPPER DELETE - INSTALL

APR

APR, LLC

4800 US HWY 280 West, Opelika, Alabama 36801

www.goapr.com

+1.334.502.5181

NOTES:

Before attempting to install the runner flap delete upgrade yourself, ask yourself if you think you are up to the task. While fairly straightforward, this is an extensive install and will take a novice mechanic more than a day to install.

These instructions were written for a MkVI VW Golf R, but other FSI engines are similar.

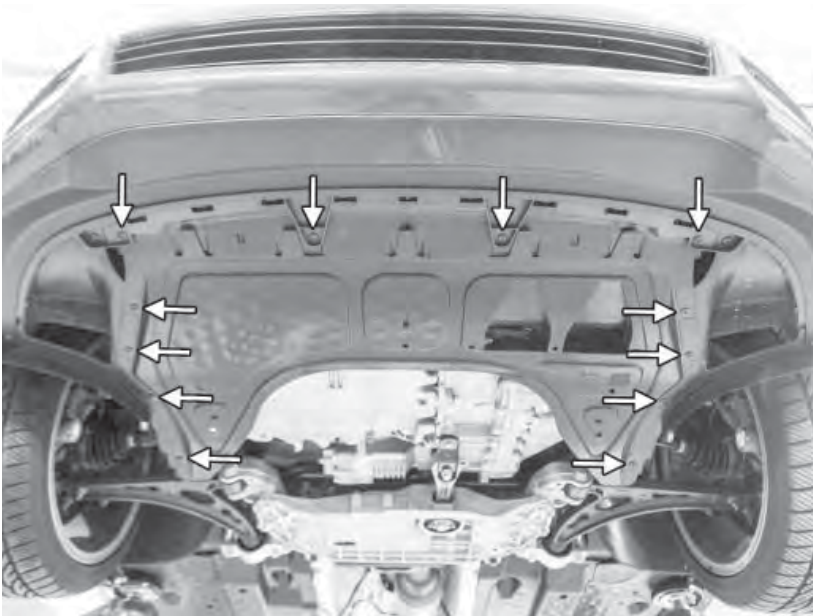
These instructions assume that you have basic mechanical skills and several varieties of the tools listed in order to install the kit. If you have any questions about the install, feel free to contact your APR representative.

While your friend's dad may have an "awesome set of tools", there are several specialty items that may not be in your average mechanics toolbox. In addition to basic mechanics tools (metric and standard socket sets, screwdrivers, hand tools, etc.), the following items listed below are needed:

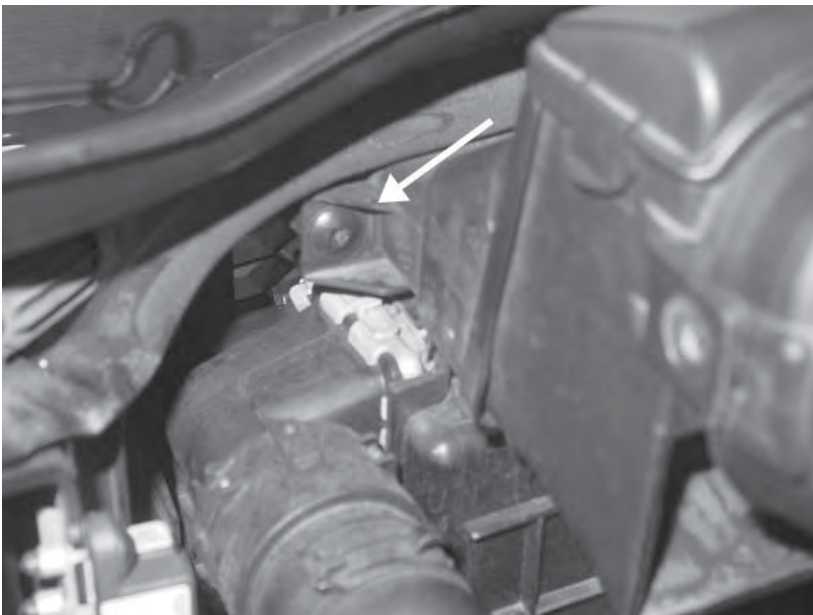
Combination Wrenches: 17mm Flare, 24mm, 1"

Sockets: T25 Torx, T30 Torx, 10mm Triple Square, 12mm Triple Square

When disassembling the car, be sure to keep and mark all fasteners so they can be reused if needed. It is recommended that you get some kind of compartmented tray to organize the fasteners, such as a fishing tackle box or several large ice cube trays. Fasteners are referred to by the type of tool used to remove them.

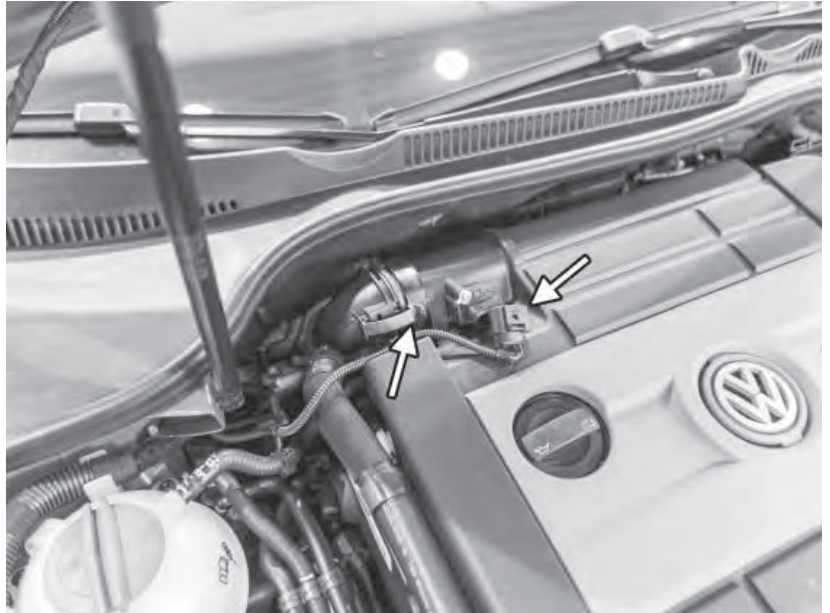


1) Support the car on jack stands or a lift. Remove the belly pan on the car with a T25 Torx.

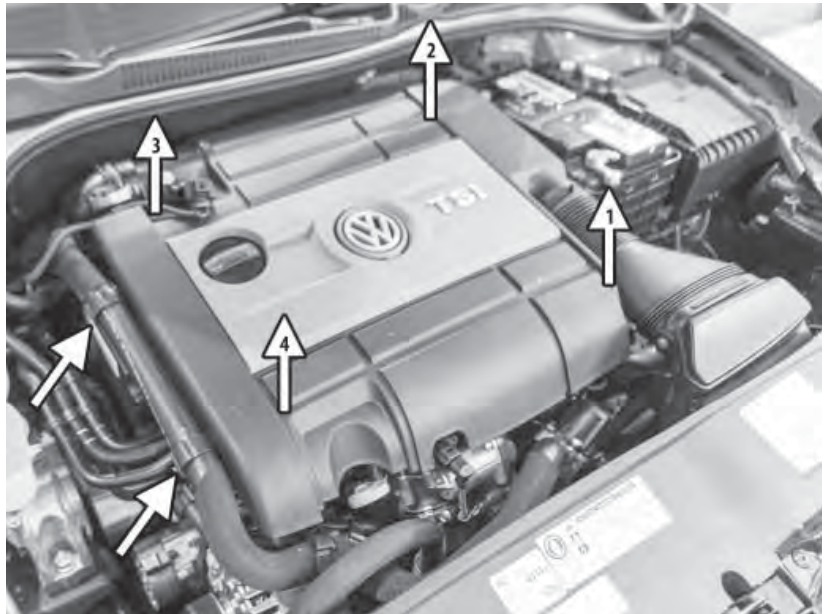


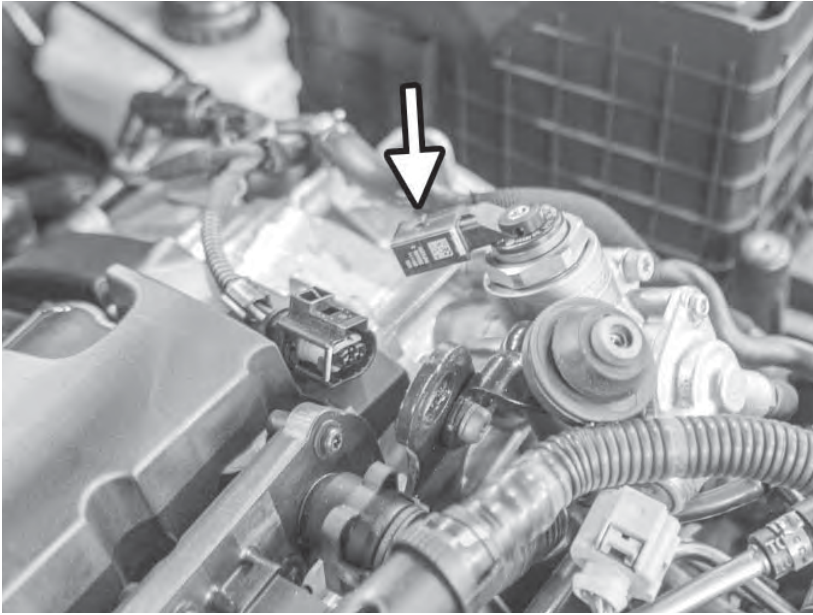
2) Open the hood and remove the two T25 screws that connect the intake ducting to the radiator support. Then remove the hose clamp next to the round accordion tube, and remove the intake from the car.

3) Disconnect MAF sensor and remove plastic compressor inlet hose.

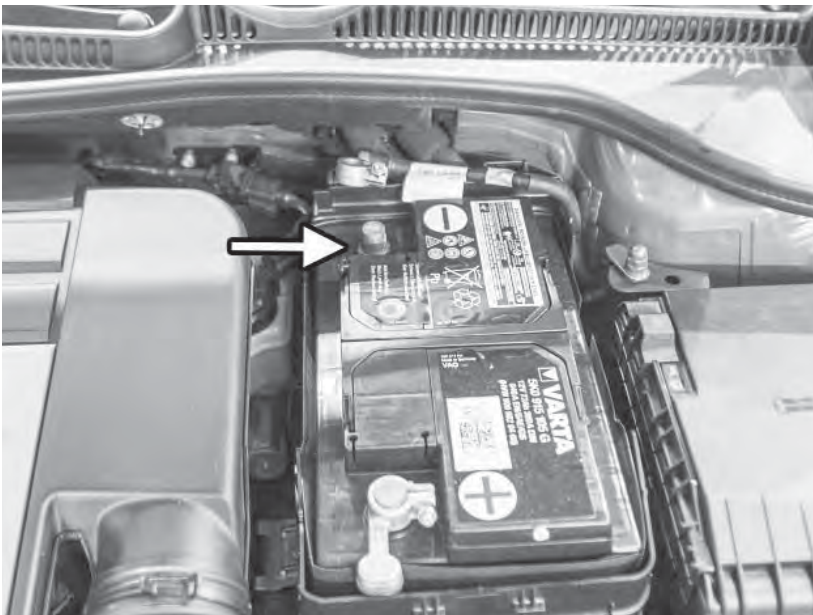


4) Remove the two clips for the diverter valve hose from the right side of the airbox/engine cover. Remove the factory airbox assembly from the engine by lifting on the cover in the following order: Left Front, Left Rear, Right Rear, Right Front. The airbox will come out easily if done in this sequence. There are four rubber grommets that connect the airbox to the engine. Make sure they are still attached to the airbox.



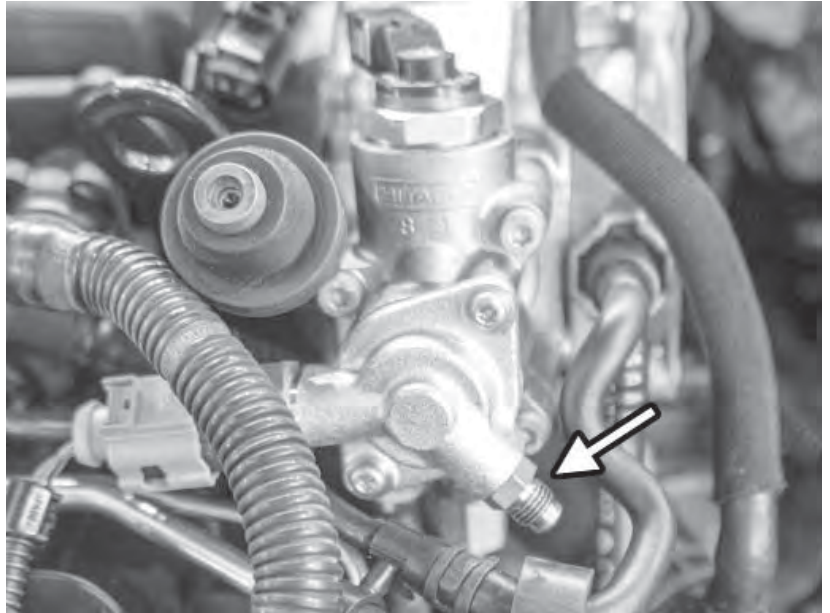


5) Disconnect the fuel pressure regulator electrical connector, start the engine and let it idle for approximately ten seconds before turning it off.

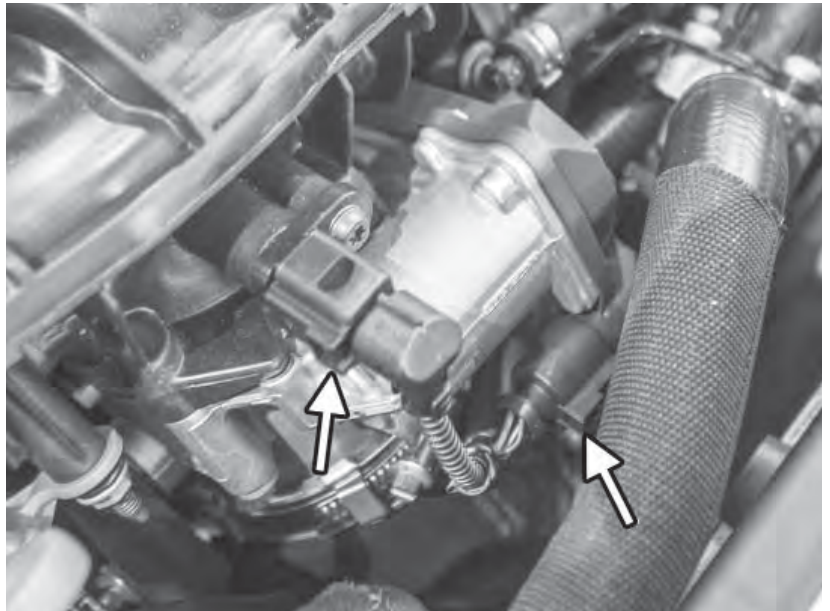


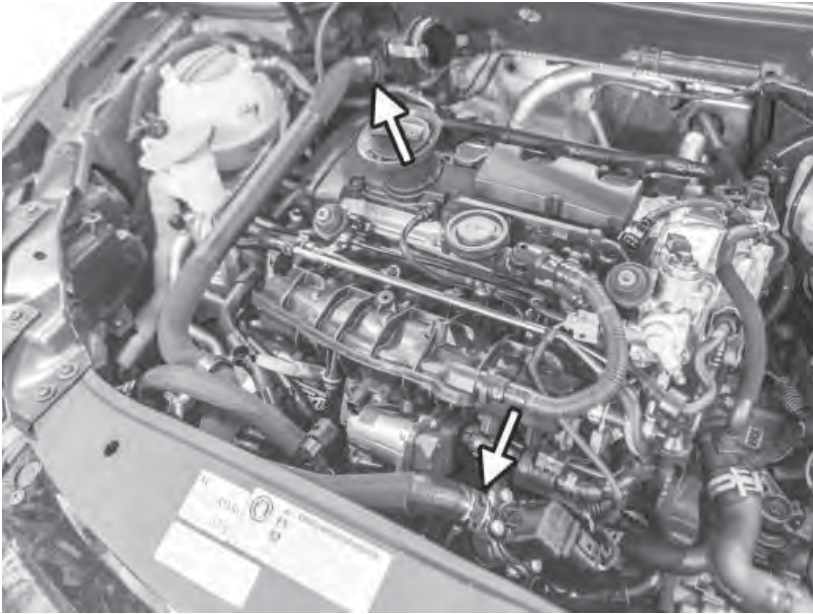
6) Disconnect the 10mm negative battery terminal.

7) Remove the plastic cap from the pressure release valve on the side of the fuel pump. Place a rag under the fuel pump and depress the Schrader valve to release any additional fuel pressure. Once the pressure is gone, remove the pressure release valve from the fuel pump with a 13mm wrench.

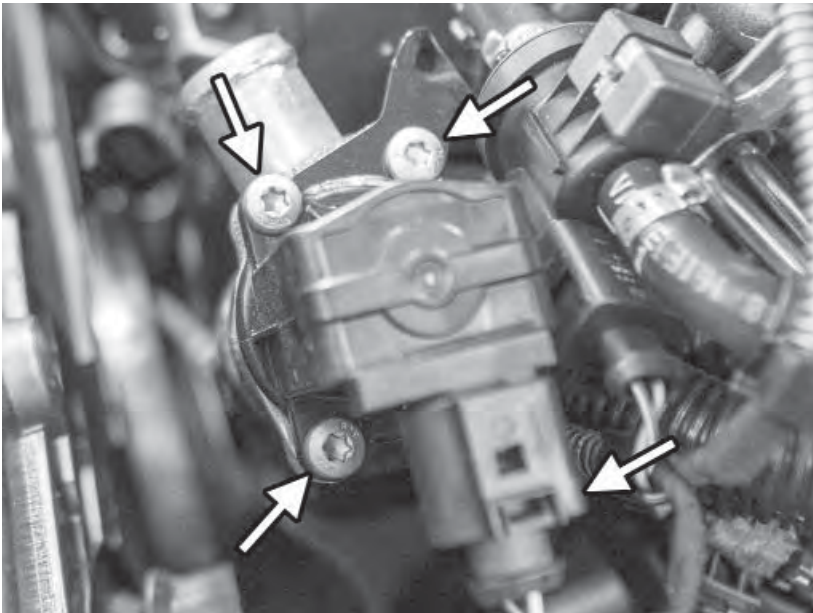


8) Disconnect the electrical connectors to the throttle body and the intake air temperature sensor.



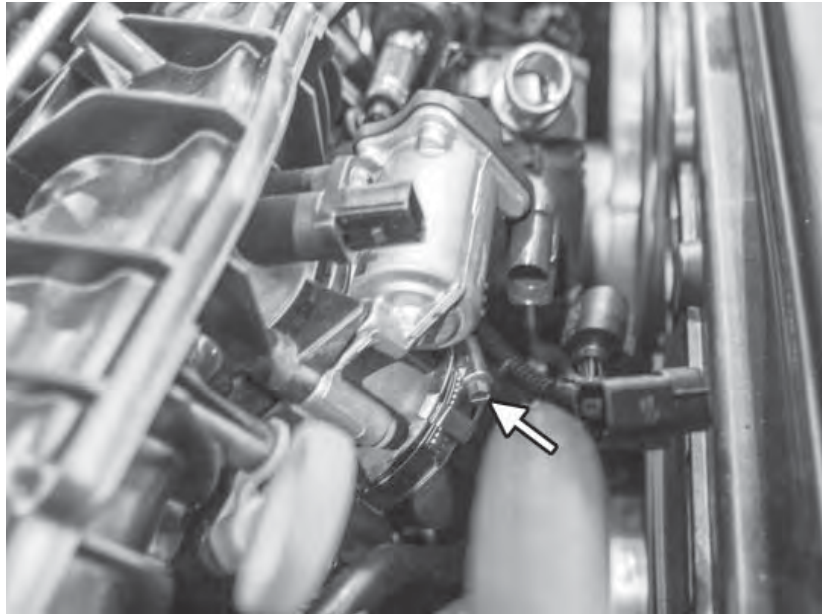


9) Remove the two spring clips from the diverter valve hose. Remove the hose from the car by removing from the inlet hose and from the diverter valve.



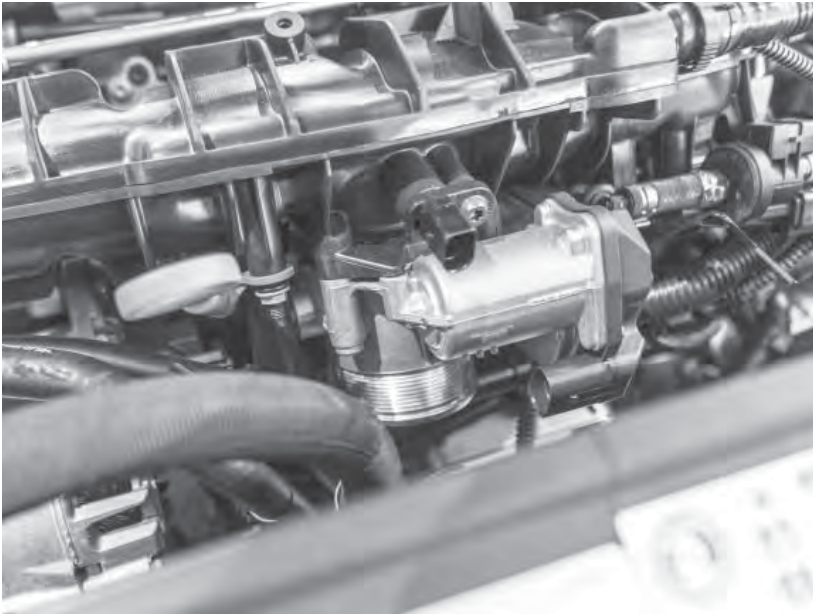
10) Remove the three T30 screws and disconnect the electrical connector to the diverter valve. Remove the diverter valve from the car. Also disconnect the electrical connector to the MAP sensor, located a few inches under the diverter valve housing on the inlet pipe.

11) Loosen the hose clamp from top of the inlet pipe hose to the throttle body. Also remove the 10mm nut from the top of the inlet pipe.

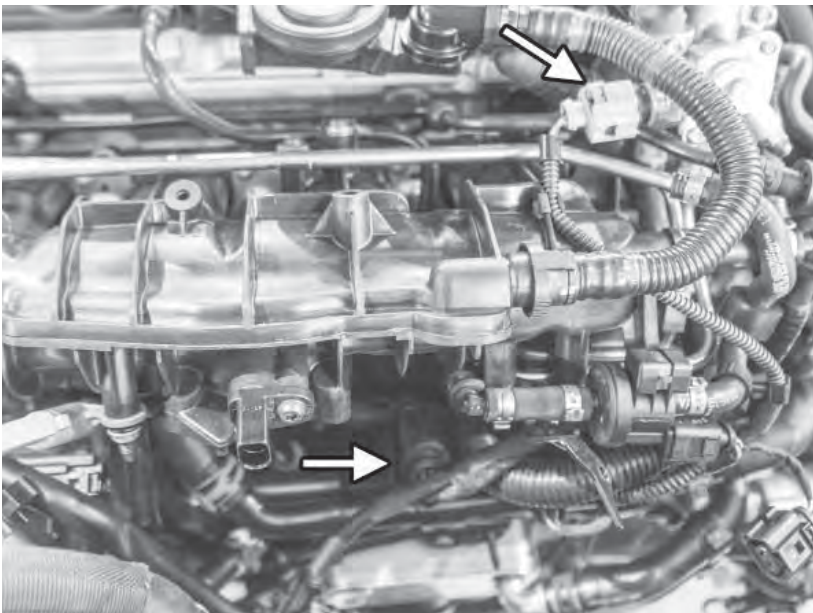


12) Remove the T30 bolt from the bottom of the intake charge pipe and disconnect the lower intercooler hose. Pull the front charge pipe out from underneath the car.



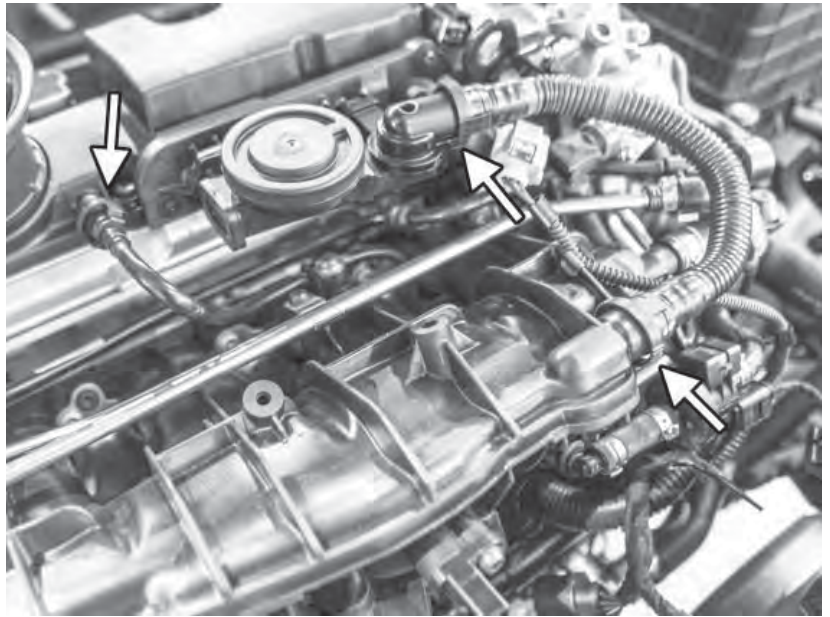


13) Remove the four T30 bolts connecting the throttle body to the intake manifold. Remove the throttle body from the car.

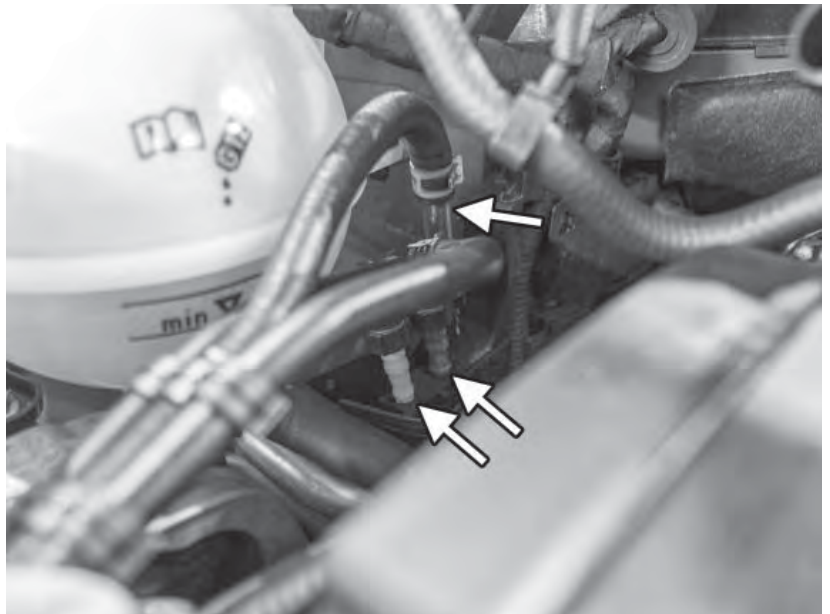


14) Disconnect the electrical connectors from both the fuel injector wiring harness and the fuel pressure sensor on the HPFP.

15) Disconnect the large breather tube from both the intake manifold and from the valve cover and remove from the car. Also disconnect the smaller breather line to the valve cover.

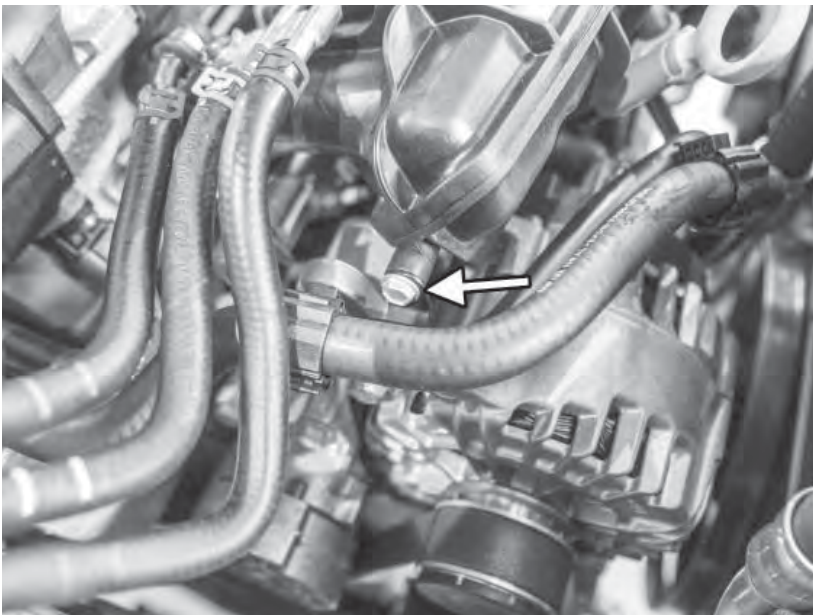


16) Locate the three rubber lines that run across the top of the intake manifold, and where the connections for them are under the coolant bottle.



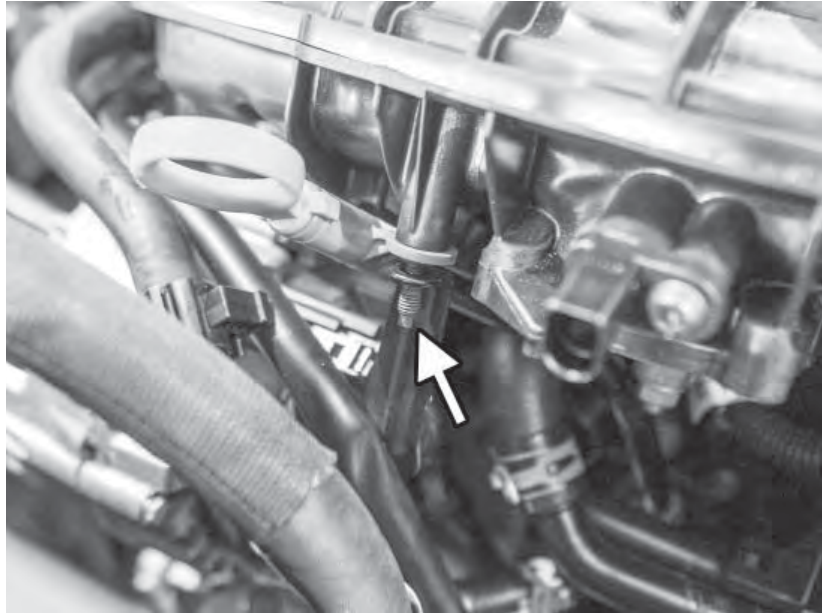


17) The two plastic fittings are disconnected by pushing in on the side of the fitting and lifting the connector off from its mounting location. The metal fitting is removed by lifting the plastic up into the metal housing, and then lifting the line off. The metal fitting is a fuel line, so be sure to use a rag to keep from splashing fuel everywhere.

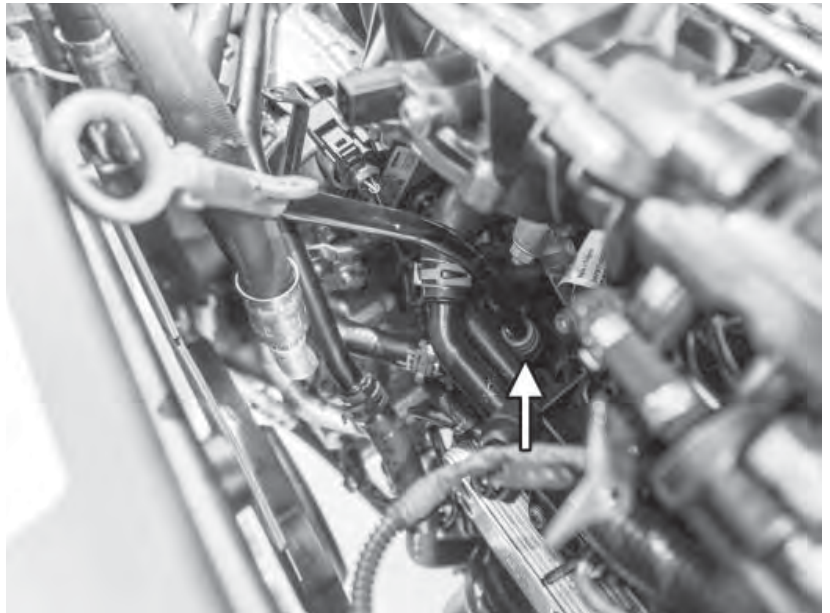


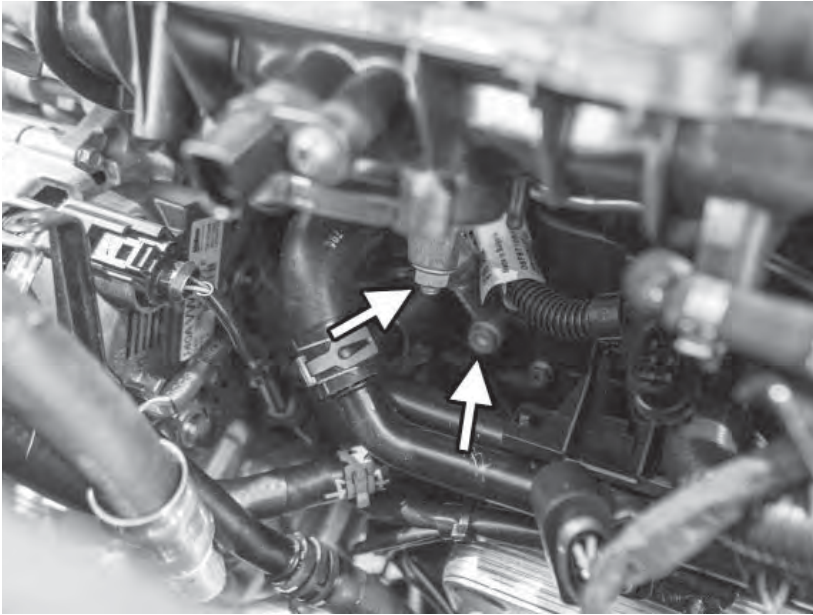
18) Remove the 10mm bolt from the passenger side of the intake manifold coolant pipe.

19) Disconnect the 10mm nut from the engine oil dipstick bracket. Then remove the stud the nut was on using a 4mm socket.

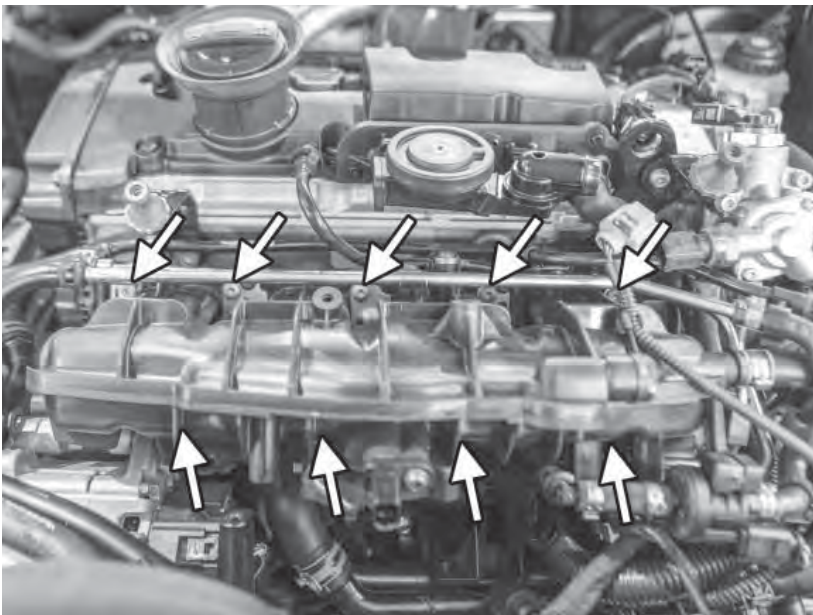


20) Remove the dipstick tube by pulling the assembly out and away from the block. Note the routing of the dipstick for later reinstallation.



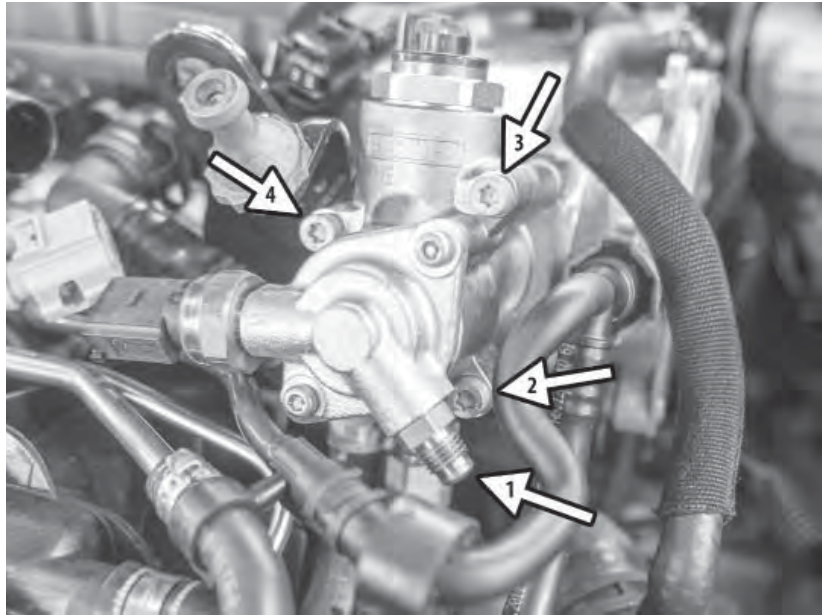


21) Remove the intake manifold support bracket by removing the 13mm nut from the top of the bracket and the 10mm triple square bolt from the bottom of the bracket.

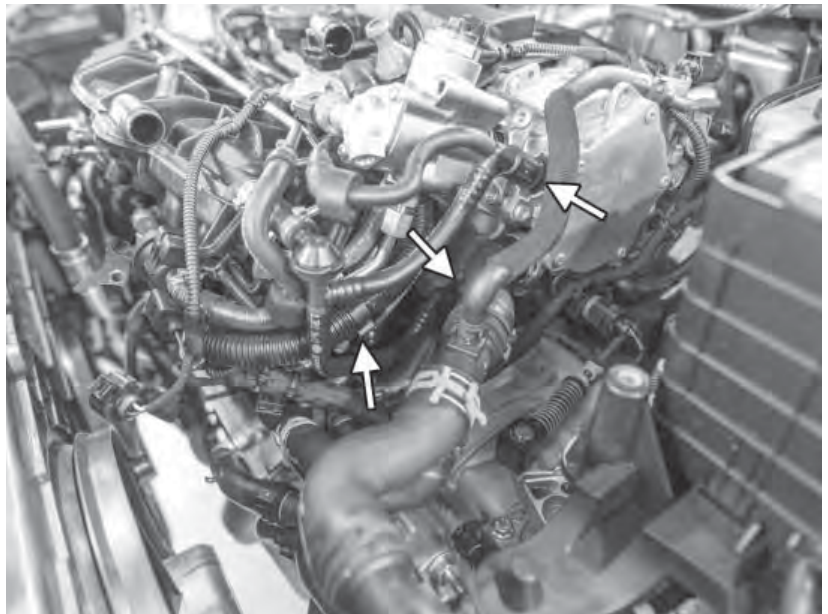


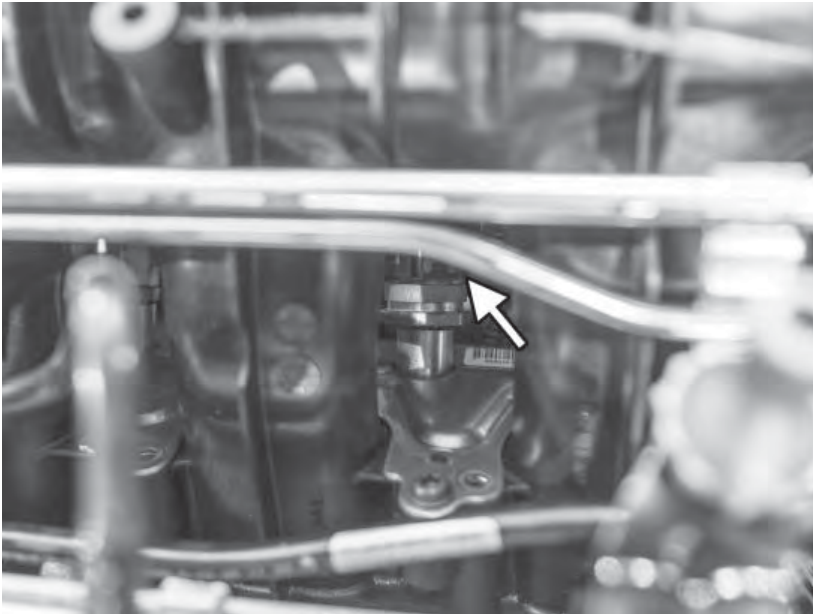
22) Remove the seven T30 bolts and two 10mm nuts from the intake manifold. Note that there are also two shorter T30 bolts between the upper side of runners one and two and three and four that do not need to be removed.

23) Then remove the three T30 bolts from the fuel pump, but leave the two lower fuel lines connected.

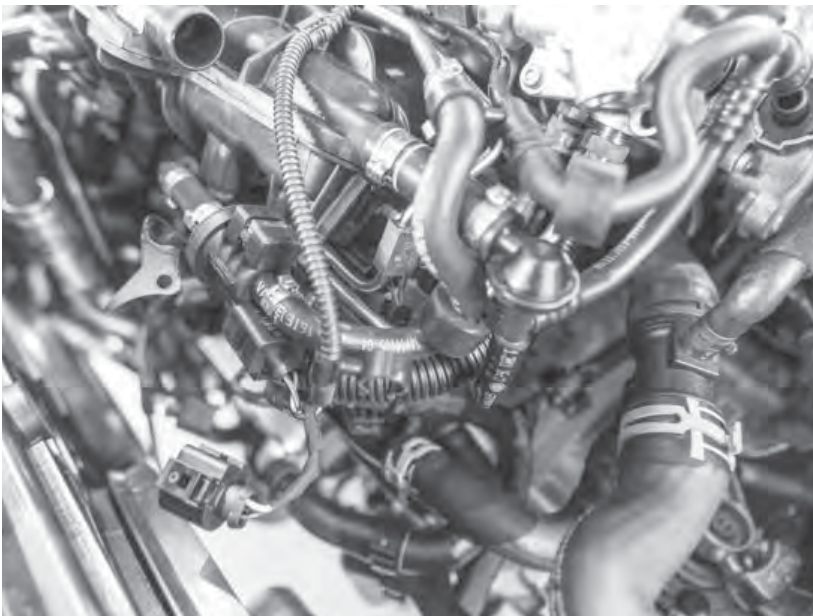


24) On the right side of the intake manifold, disconnect the wiring harness clip from the fuel line. Also disconnect the electrical connectors to the variable intake runner control and the EVAP Purge Valve (N80). Finally, remove both of the upper and lower plastic lines from the vacuum pump.



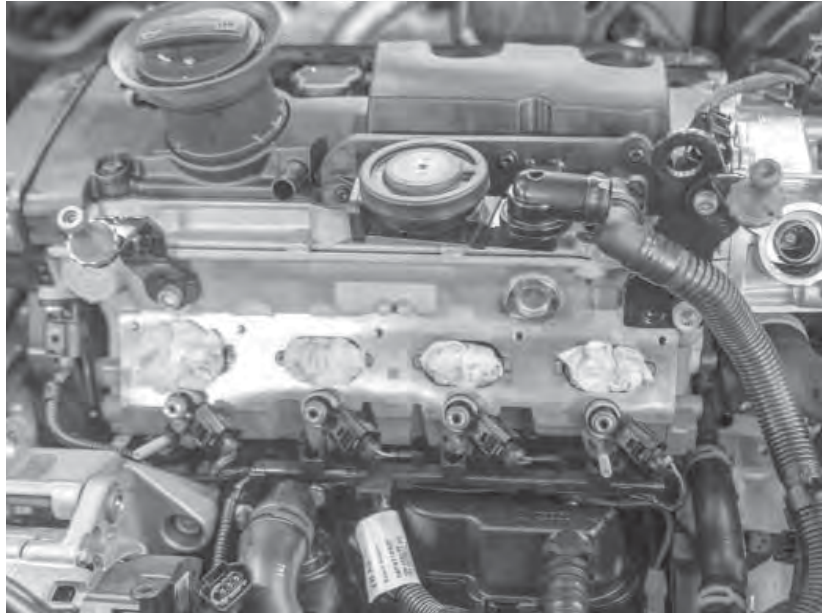


25) Gently pull the intake manifold slightly away from the block. Be careful that there is an electrical connector that must be disconnected that is underneath runner number two.

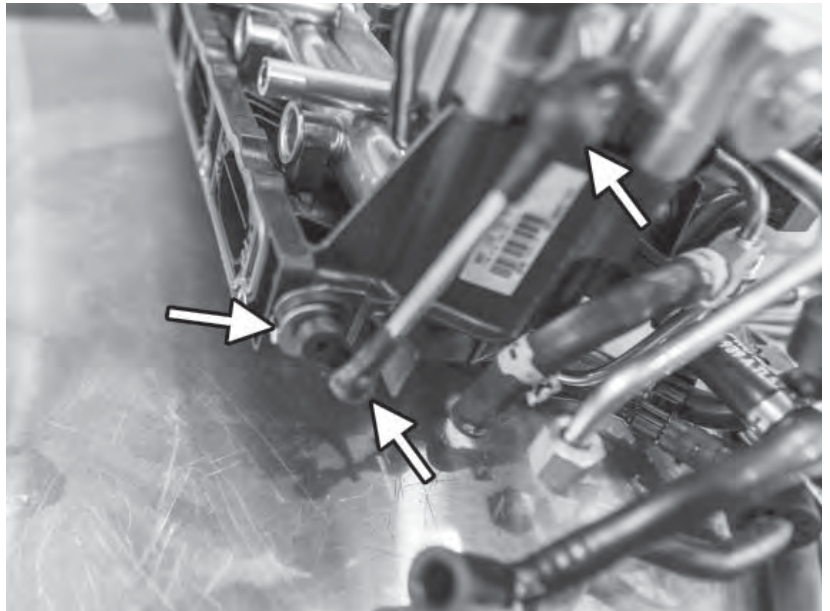


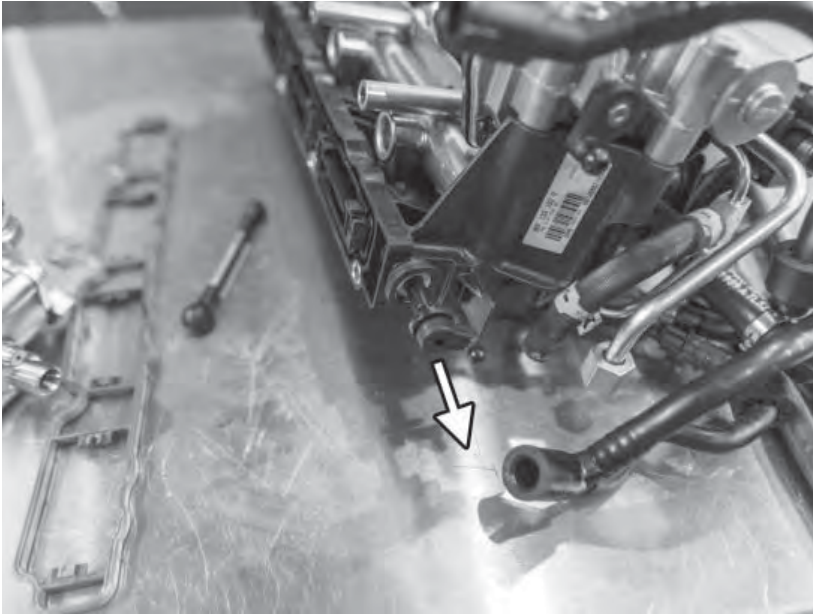
26) Carefully remove the intake manifold assembly, making sure there are no other lines or wires that are connected. The fuel pump and fuel lines will come off with the manifold. Make sure that the o-rings from the stock fuel injectors are not in the intake manifold.

27) Put clean paper or towels in the intake ports in the cylinder head to prevent any debris from getting into the engine.

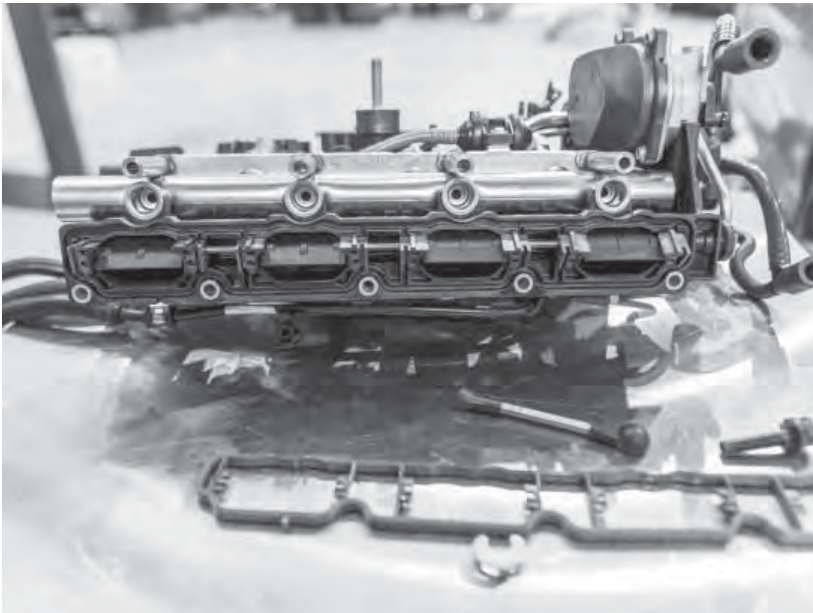


28) On the left side of the intake manifold, disconnect the metal clip from the runner flap lever. Also gently pop off both socket ends from the connecting rod linking the runner flap motor to the runner flaps.



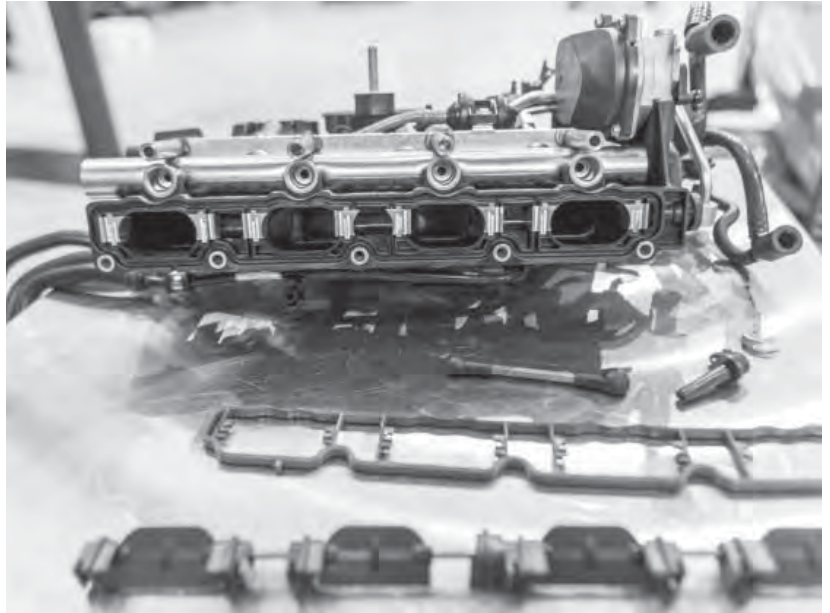


29) Carefully remove the gasket connecting the intake manifold to the cylinder head. This gasket will be reused. Pull the end portion of the runner flap linkage out and away from the intake manifold.

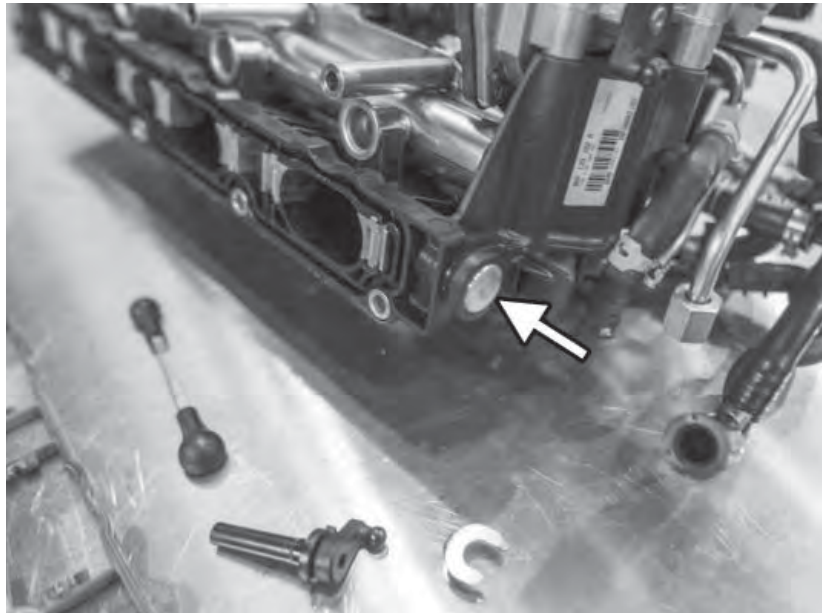


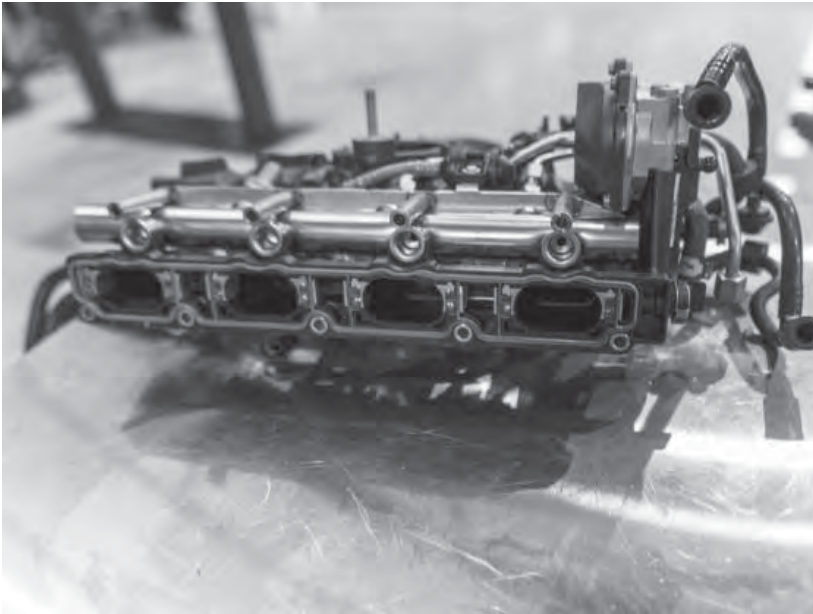
30) Carefully slide the runner flap assembly out of the intake manifold.

31) Install the APR runner flap delete inserts into the intake manifold. The inserts can only be installed one way and be fully seated.



32) Install the supplied plug in the end of the runner flap assemble and reinstall the original clip to hold it in place.



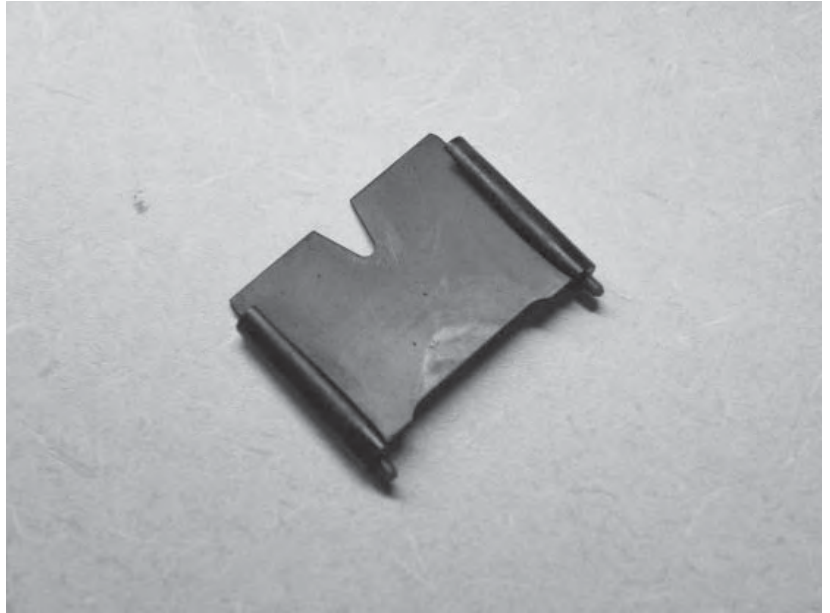


33) Reinstall the gasket on the intake manifold.

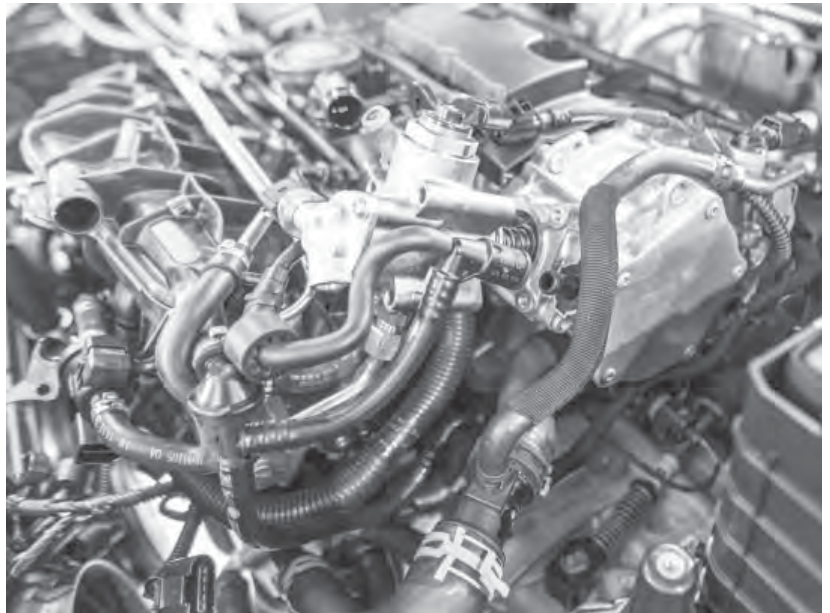


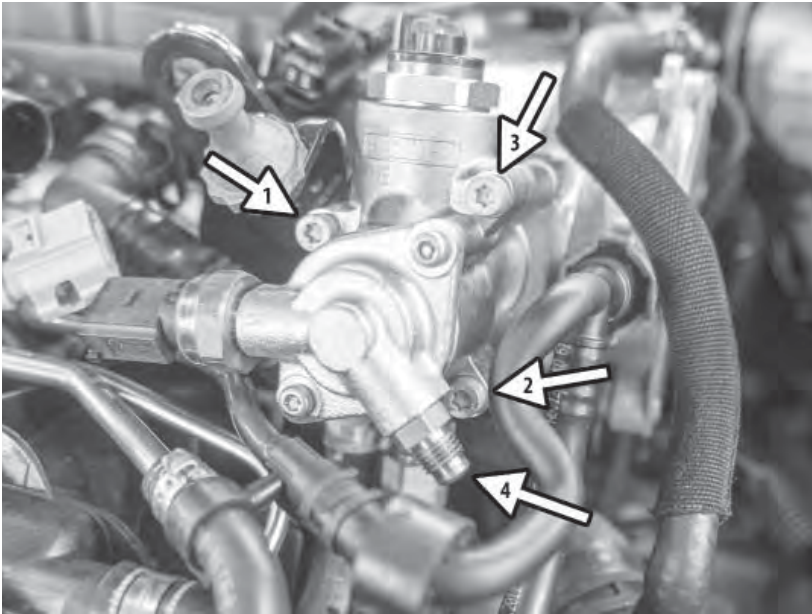
34) Remove the paper or cloth from the intake ports on the block.

35) Carefully remove the flow separators from the cylinder head by pulling them out. If needed, perform a carbon cleaning on the cylinder head ports at this time.

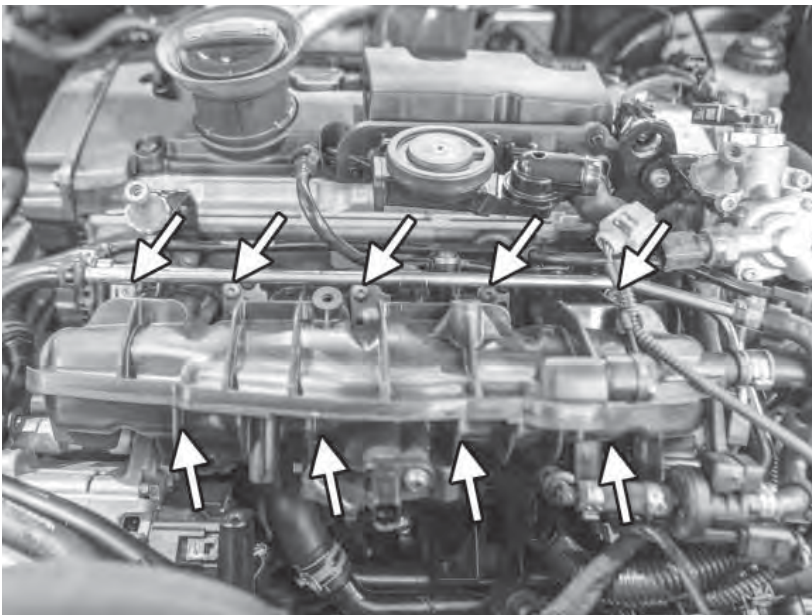


36) Before reinstalling the intake manifold and fuel pump assembly, inspect the fuel pump cam follower and cam lobe for wear. Reinstall the intake manifold and fuel pump assembly. Make sure to align the fuel pump in its correct position on the cam housing. Also verify that all lines and wires are clear from the manifold before sliding the manifold all the way onto the block.



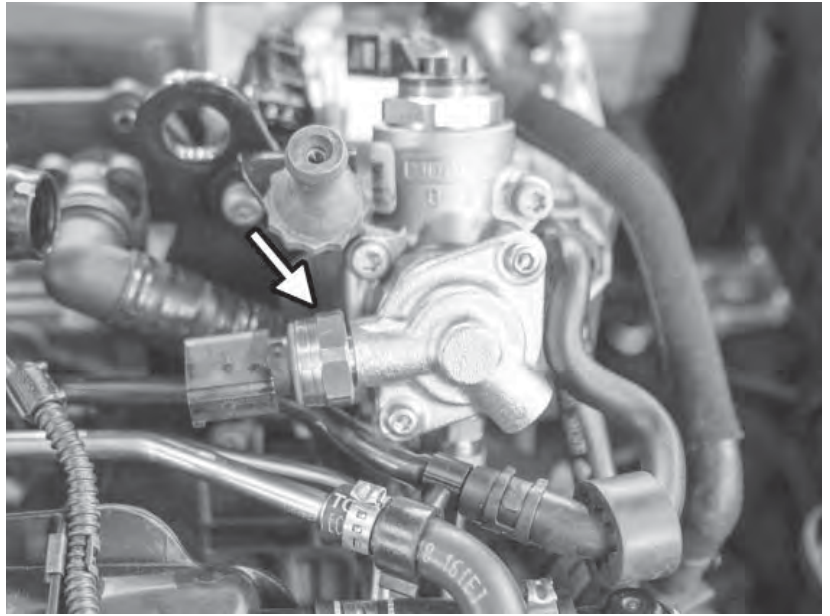


37) Reinstall the three T30 bolts that connect the fuel pump to the cam housing. Tighten these bolts to 89in-lbs in the following sequence: bottom right, top left, top right. Then reinstall the fuel pressure bleed fitting. Reconnect the electrical connector on the top of the fuel pump.

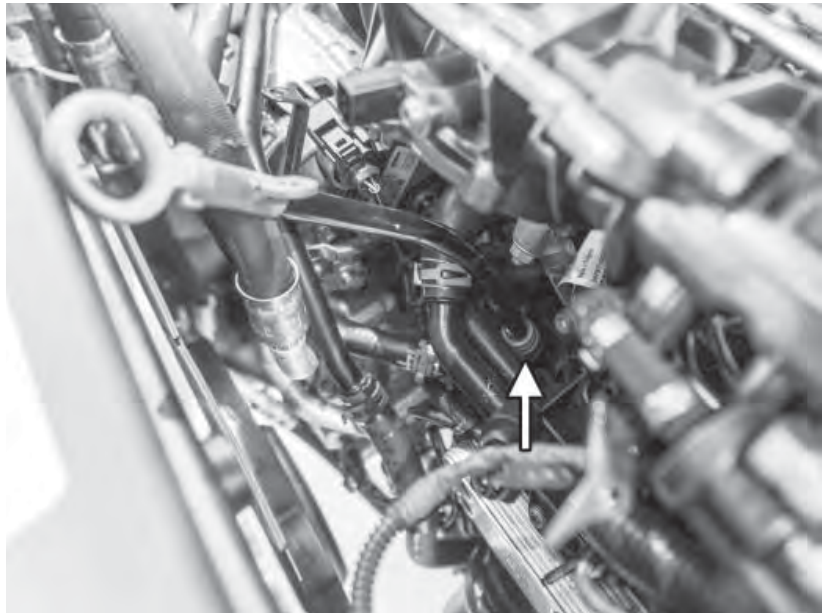


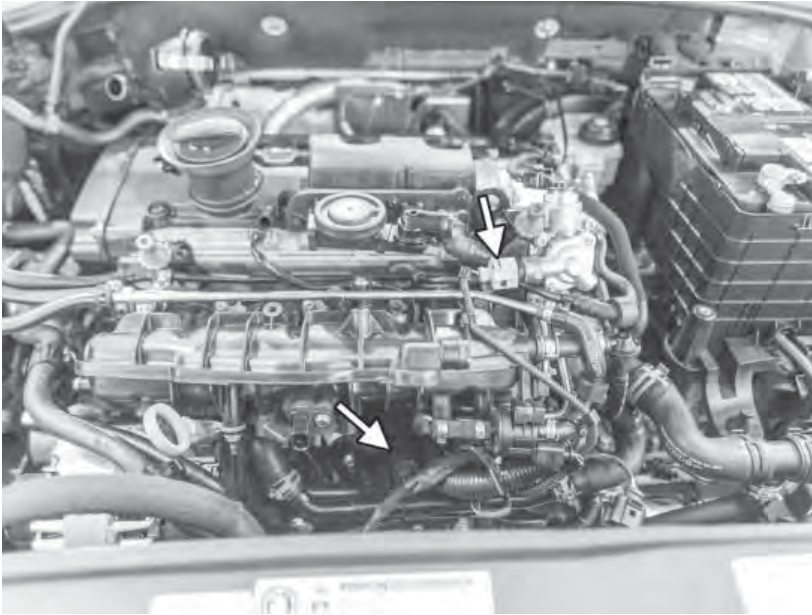
38) Reinstall the seven T30 bolts and two 10mm nuts that connect the intake manifold to the cylinder head. Tighten the nuts and bolts to 89in-lbs, working from the center fasteners to the outside ones in a crossing pattern.

39) If you are installing the APR HPFP during this install, remove the fuel pressure sensor from the stock fuel pump, and install it on the APR pump with a 24mm closed end wrench. Reinstall the pressure release valve that was previously removed from the stock fuel pump with a 13mm closed end wrench.

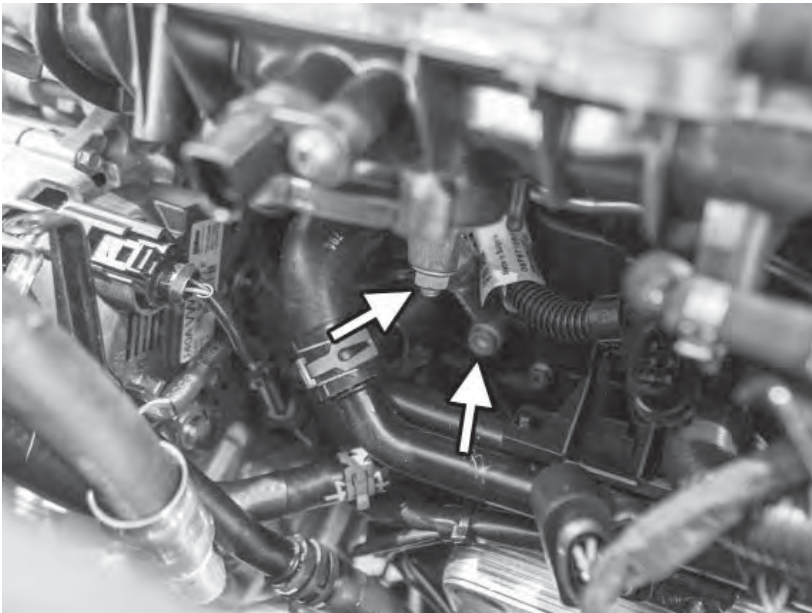


40) Reinstall the dipstick tube into the engine block, and orient the bracket the way it was before.



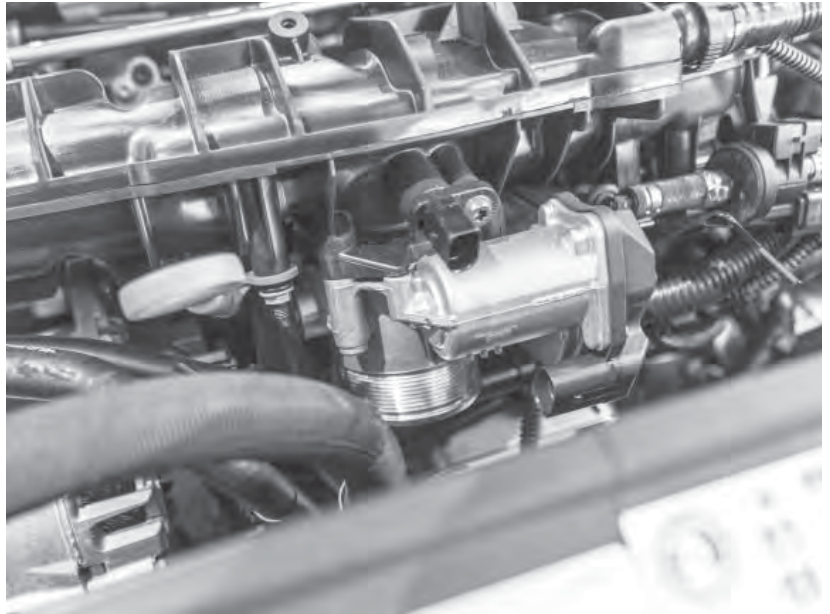


41) Connect the following electrical connectors on the intake manifold: plug under the intake manifold by the alternator, connector to the variable intake runner control, the wiring harness clip on the fuel line, EVAP purge valve, fuel pressure sensor, fuel pressure regulator, and fuel injector wiring harness.

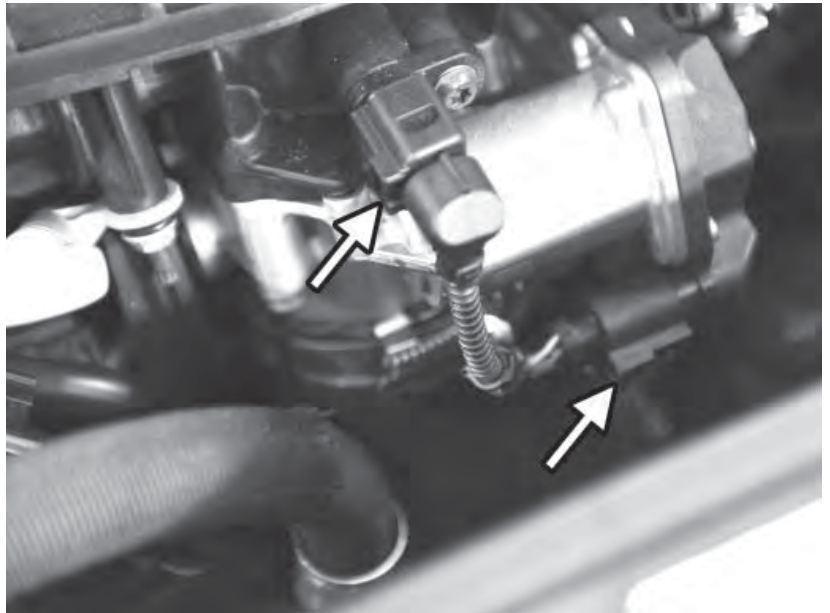


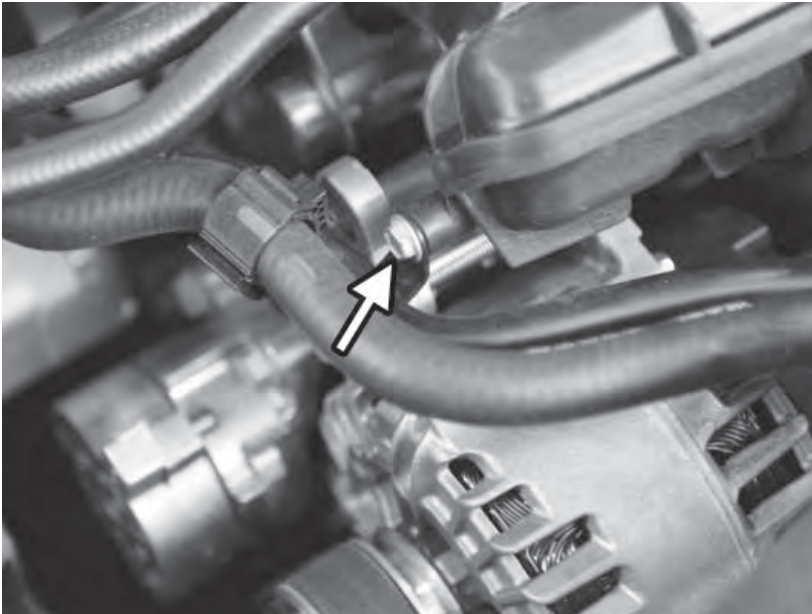
42) Reinstall the intake manifold support bracket with the 13mm nut and the 10mm triple square bolt.

43) Set the throttle body back in place on the intake manifold and torque the T30 bolts to 89in-lbs in a crossing pattern.

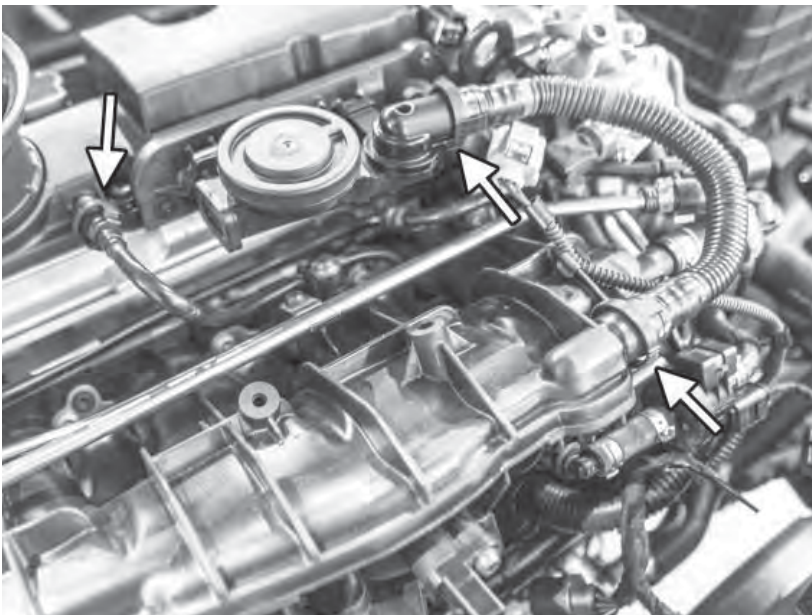


44) Reinstall the rubber boot to the throttle body, but do not tighten the clamp. Reconnect the Throttle Body and Intake Air Temperature Sensor electrical connectors.



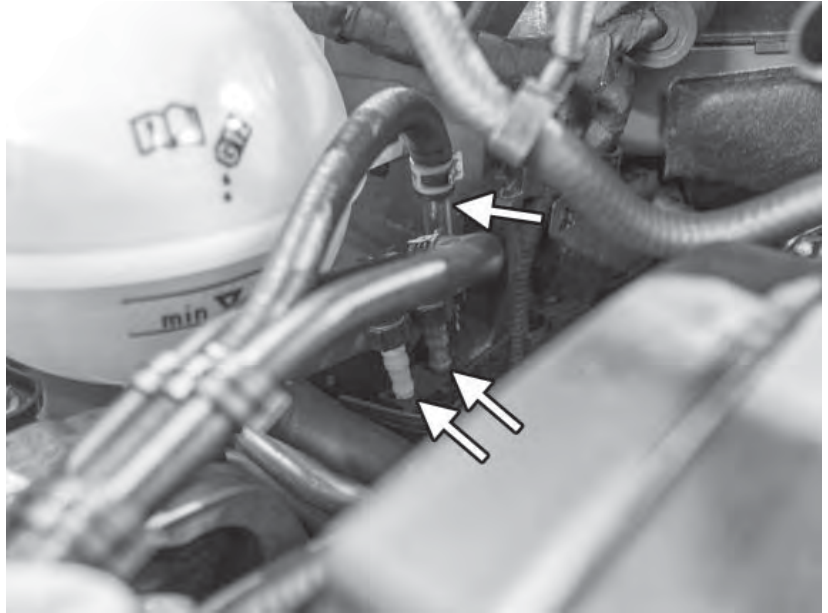


45) With the coolant line bracket and the dipstick tube properly aligned, reinstall the stud with a 4mm socket. Reinstall the 10mm nut holding the dipstick tube to the stud. Also reinstall the 10mm bolt that holds the coolant line to the side of the intake manifold.



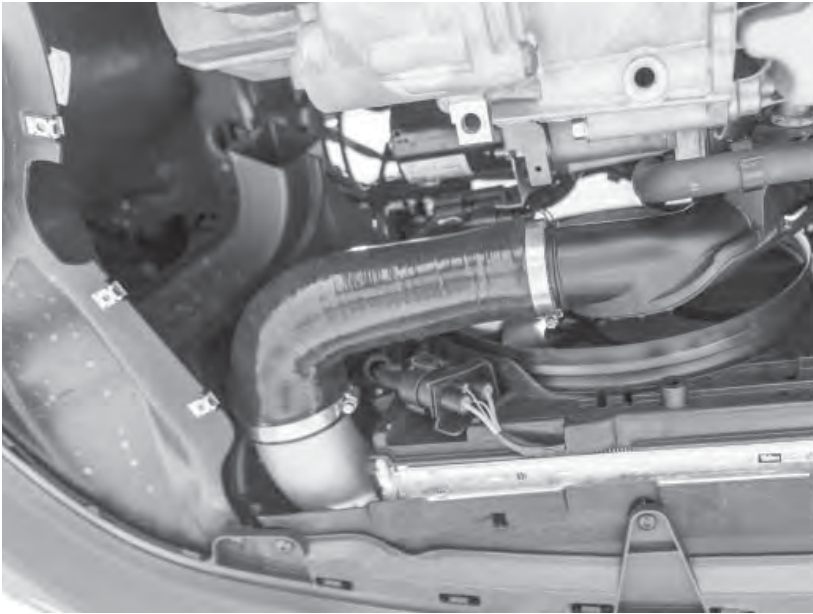
46) Reconnect the two breather tubes to the valve cover. Push to lock in place. Also reconnect the breather tube from the valve cover to the intake manifold.

47) Reconnect the three rubber lines on the right side of the intake manifold. Make sure the lines are oriented correctly and connect them back in their appropriate positions.

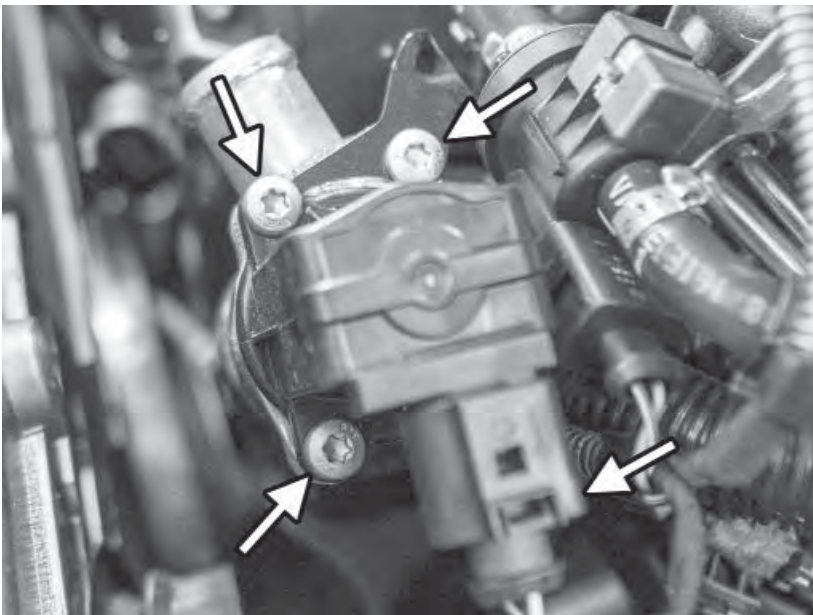


48) From underneath the car, reinstall the front plastic intake charge pipe. Connect all hoses and make sure the orientation is correct. Install the T30 bolt on the bottom bracket of the charge pipe. From above, reinstall the 10mm nut.





49) Reconnect the lower intercooler hose to the intake charge pipe and tighten the hose clamp. Also tighten both hose clamps to the rubber boot off of the throttle body. Reinstall the belly pan on the vehicle.

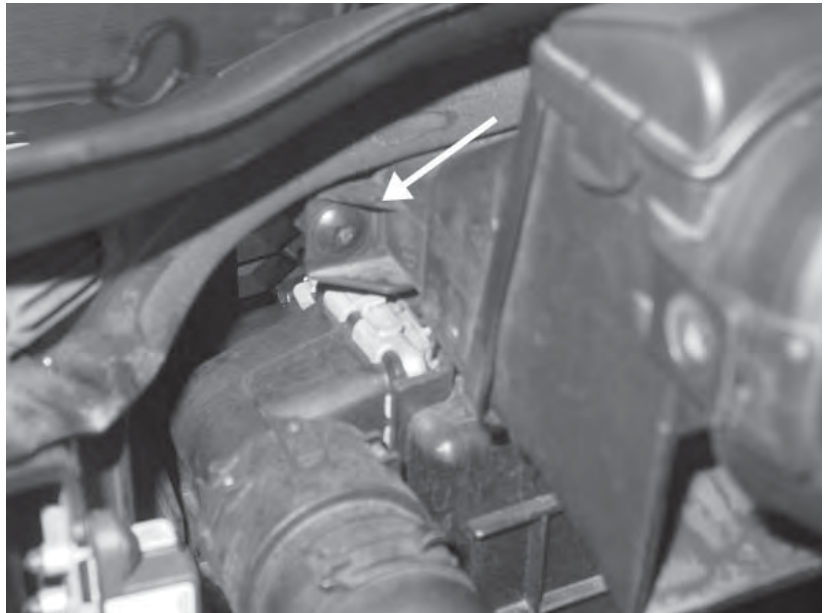


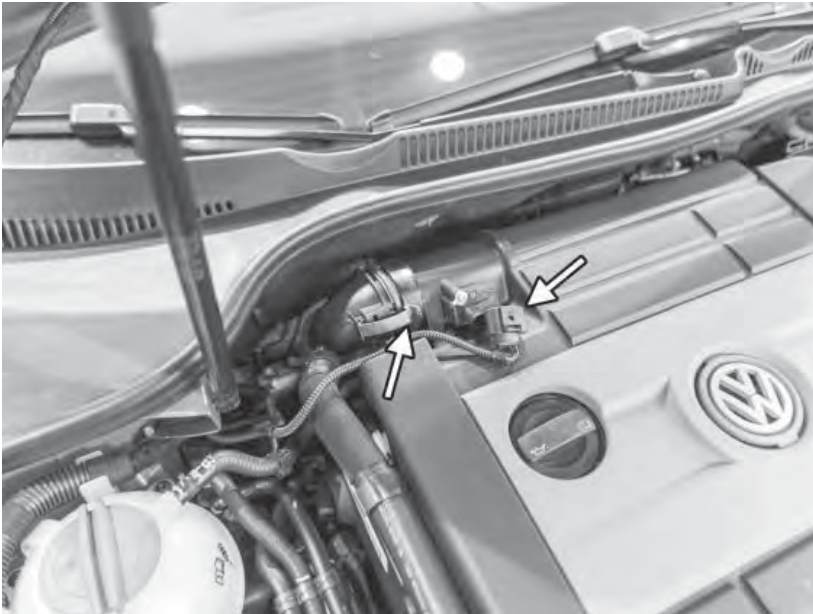
50) Reconnect the electrical connector to the MAP sensor, and reinstall the diverter valve to the factory bracket, as shown. Also reconnect the rubber hose from the diverter valve to the stock inlet pipe on the back side of the engine.

51) Reinstall the factory airbox to the engine by carefully aligning the airbox and then pushing it down on the four mounting points. Connect the diverter valve hose to the two mounting clips on the side of the airbox.



52) Reinstall the two T25 screws that connect the intake ducting to the radiator support. Reinstall the hose clamp next to the round accordion tube.





53) Reconnect the MAF sensor electrical connector and install the plastic compressor inlet hose to the airbox.



54) Reconnect the negative battery terminal. Let the car sit for at least three minutes with the ignition on and the engine off. This is also a good time to connect to the car with a diagnostic tool to clear any error codes on the car.

www.goapr.com

+ 1 . 3 3 4 . 5 0 2 . 5 1 8 1

4 8 0 0 U S H W Y 2 8 0 W e s t , O p e l i k a , A l a b a m a 3 6 8 0 1

APR, LLC

2017
FINANCIALS
RESULTS

APR