

#TL100069



2.0T EA888 GEN 3 FUELING SYSTEM/
INSTALLATION INSTRUCTIONS

APR

Notes:

These instructions were written for a North American specification MkVII GTI. Other models, like the Golf R, are similar.

When disassembling the car, be sure to keep all fasteners so they can be reused. It is recommend that you get some kind of compartmented tray to organize the fastners, such as a fishing tackle box or several large ice cube trays. Fasteners that are not reused for reinstallation are noted in the instructions. All directions used in this manual (right, left, front, etc.) are based on if you were sitting in the drivers seat of the car.

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

1) Before beginning this installation, the vehicle should have less than 1/4 a tank of fuel. Some fuel may need to be pumped out if over 1/2 a tank. Disconnect the 10mm negative battery terminal and set aside. Open the gas cap of the car to depressurize the gas tank.





2) Remove the four covers over the child seat locking points by pulling the plastic covers away from the seat bottom.

3) Lift up on the front of the bottom of the rear seat. With the front of the seat lifted up, push the back of the seat bottom down and back to release it from the car. Remove the seat bottom from the car.





4) Lift up slightly on the fuel pump access cover. Run your fingers all around the cover to separate it from the surrounding metal.

5) Disconnect the electrical connector from the top of the fuel pump. Slide the access cover and electrical harness aside.





6) Place several rags around the fuel pump area before taking the fuel fitting off. The fuel system may still have pressure in it, so be prepared for spraying fuel. While pressing the tab on the side of the fuel fitting, lift the fitting off the top of the fuel pump. Slide the fitting and hose aside.

7) Put a small screwdriver or chisel on the raised tabs of the fuel pump retaining ring. Gently tap the chisel with a hammer so the retaining ring rotates counterclockwise. Remove the retaining ring.





8) Lift up on the fuel pump top, being careful not to damage the rubber seal ring. Remove the seal ring from the car. Be careful not to spill the fuel that is inside the fuel pump basket.

9) Lift the fuel pump basket out of the tank enough to separate the fuel line from the side of the fuel pump basket. Again, be careful not to spill the fuel that is inside the fuel pump basket in the car.



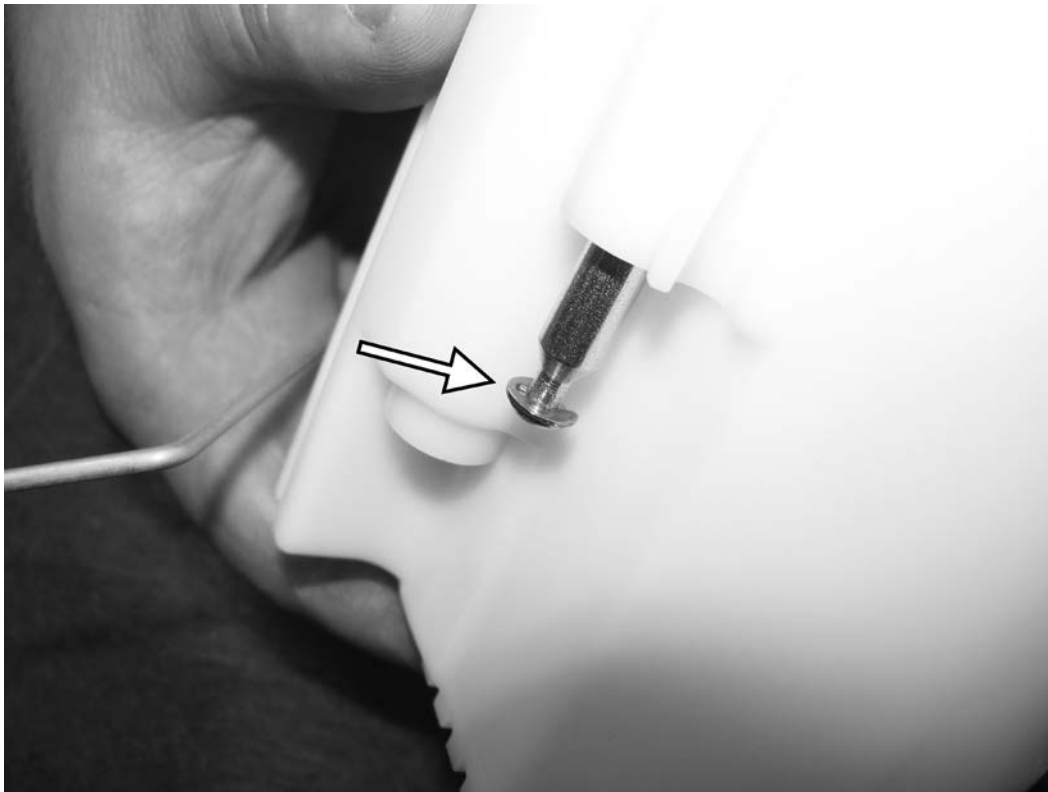


10) Lifting the pump further, locate and disconnect the fuel fitting that is attached to the fuel line that was on the side of the fuel pump basket. Push the tab on the fitting in and pull to disconnect. Also, be careful not to bend the metal arm that goes to the float on the fuel level sensor.

11) Remove the fuel pump assembly from the car, being careful with the fuel level float arm. Any excess fuel in the basket can be drained back into the tank.

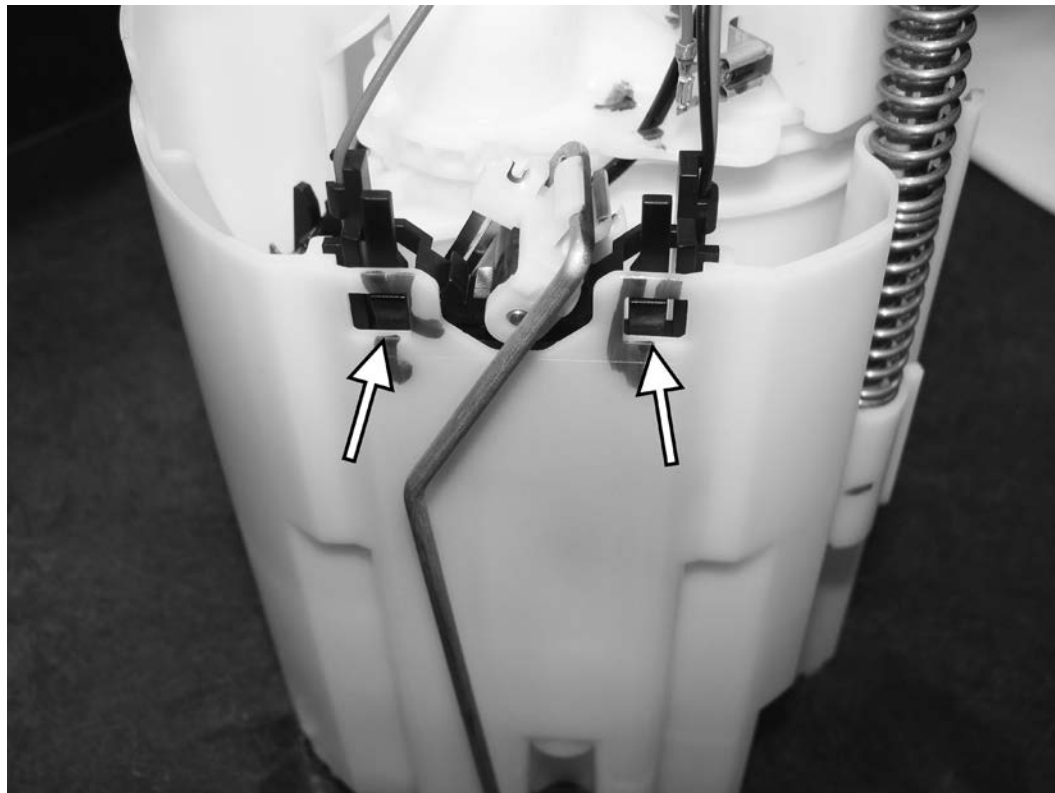
If you are replacing your existing pump assembly with a prebuilt assembly from APR instead of rebuilding your pump, skip to step 48 of this manual.





12) On a clean work area, remove the circlip from the bottom of the spring loaded rod on the bottom of the fuel pump. Do not lose this circlip, as it will be reused. Lift the spring loaded top of the fuel pump off the fuel pump basket and set aside.

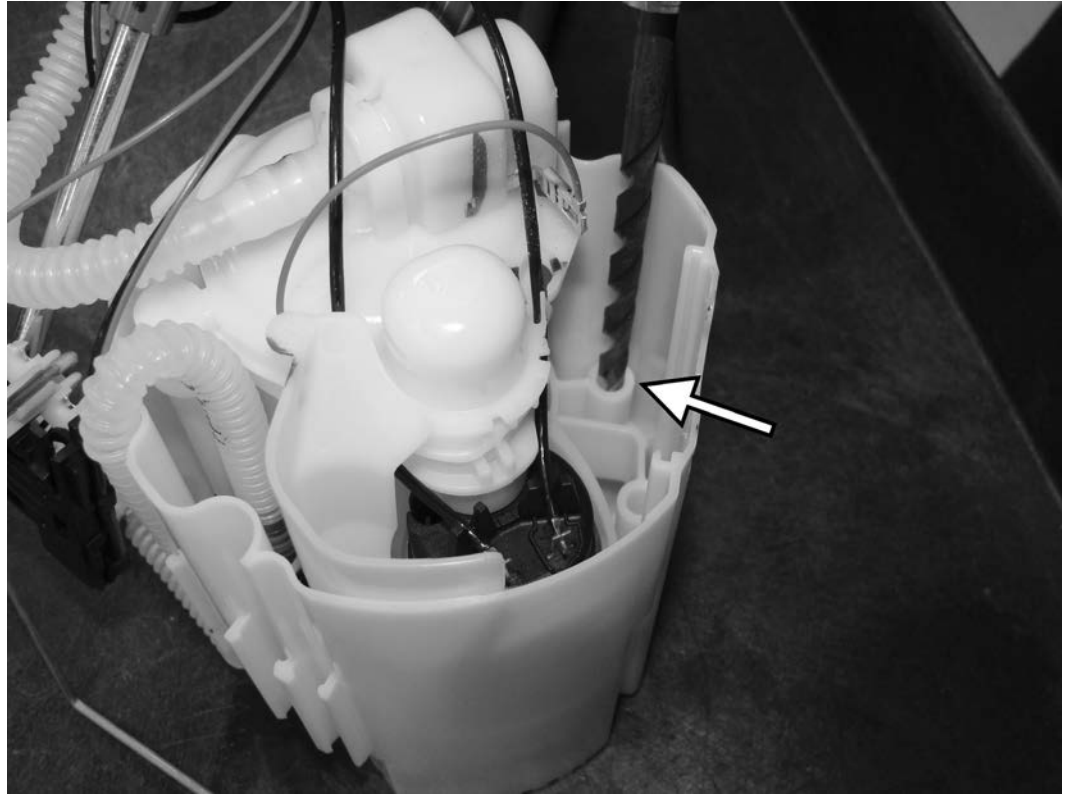
13) Push in the tabs on the fuel level sensor and lift the sensor and sensor arm out of the pump basket.





14) Inside the fuel pump basket under where the fuel level sensor mounted, drill out the hole in the mount shown with one of the 6.5mm drill bits. Drill this hole with a high drill speed, but go very slow to take care not to break the plastic of the pump basket. Drill all the way through this hole to the bottom side of the pump basket.

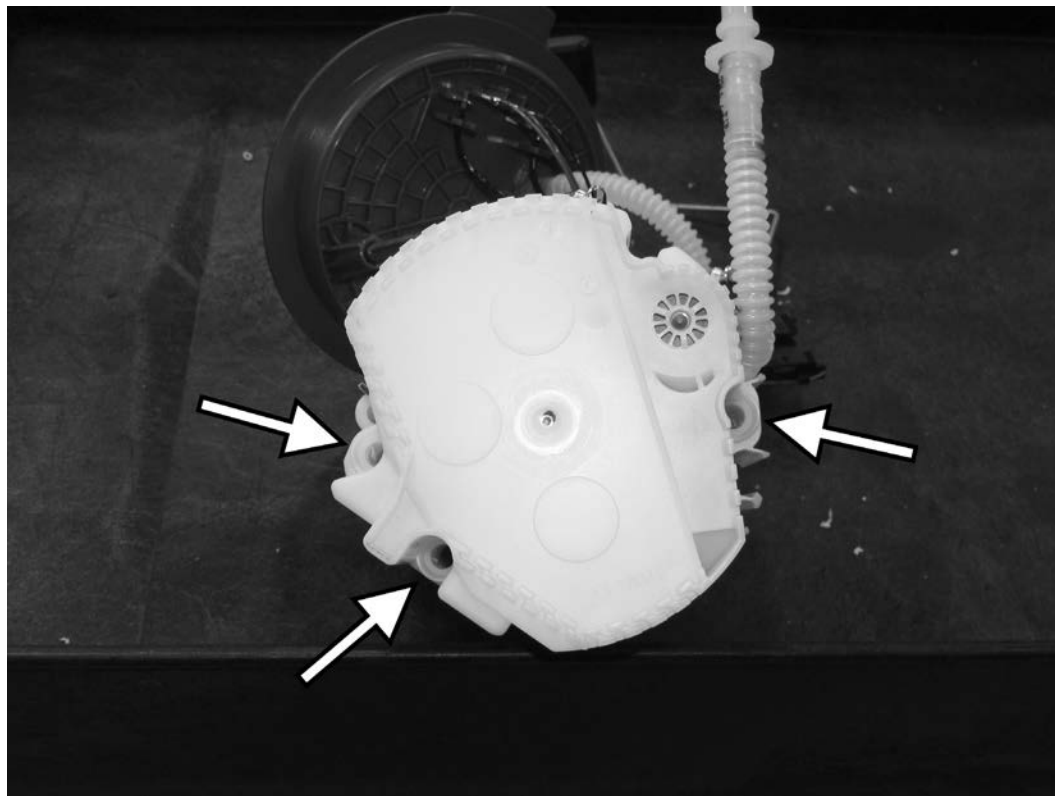
15) Locate the other hole just next to the hole drilled in the previous step. Again with a high drill speed, slowly drill all the way through this hole with the 6.5mm drill bit. This hole is only supported by one support tab, so be careful not to let the drill bit “bite” and break the entire mount out of the pump basket.

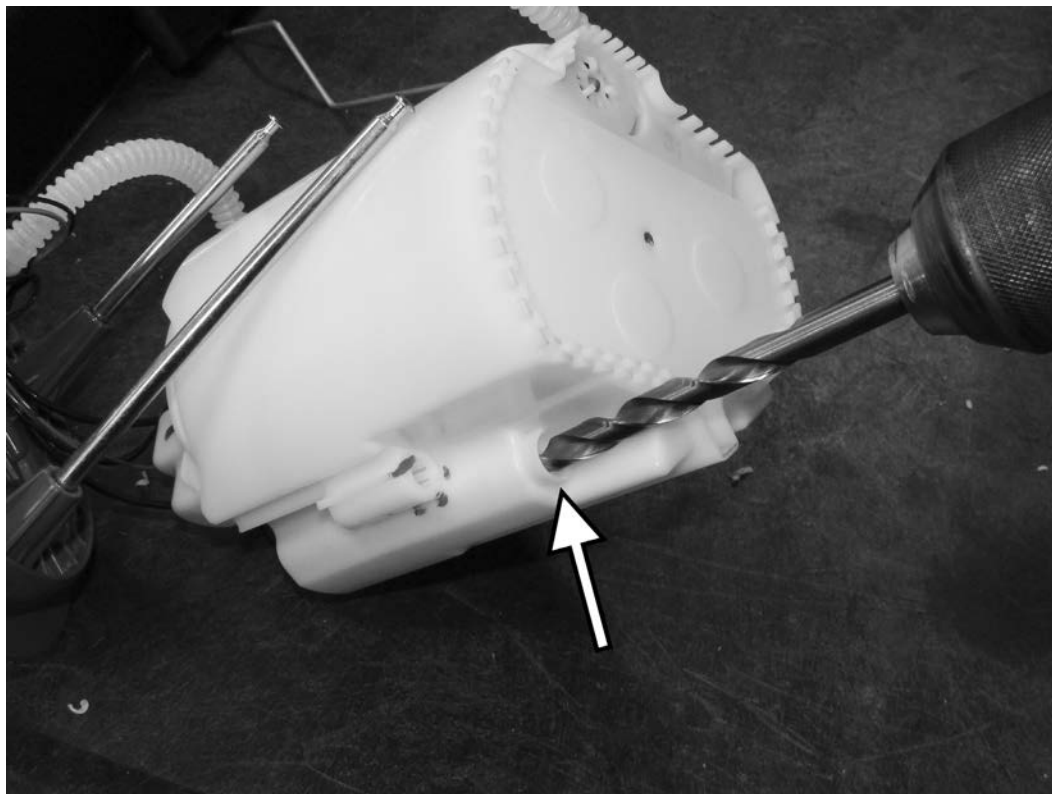




16) Locate the last mounting hole on the opposite side of the two holes just drilled. Drill this hole all the way through carefully with the 6.5mm drill bit.

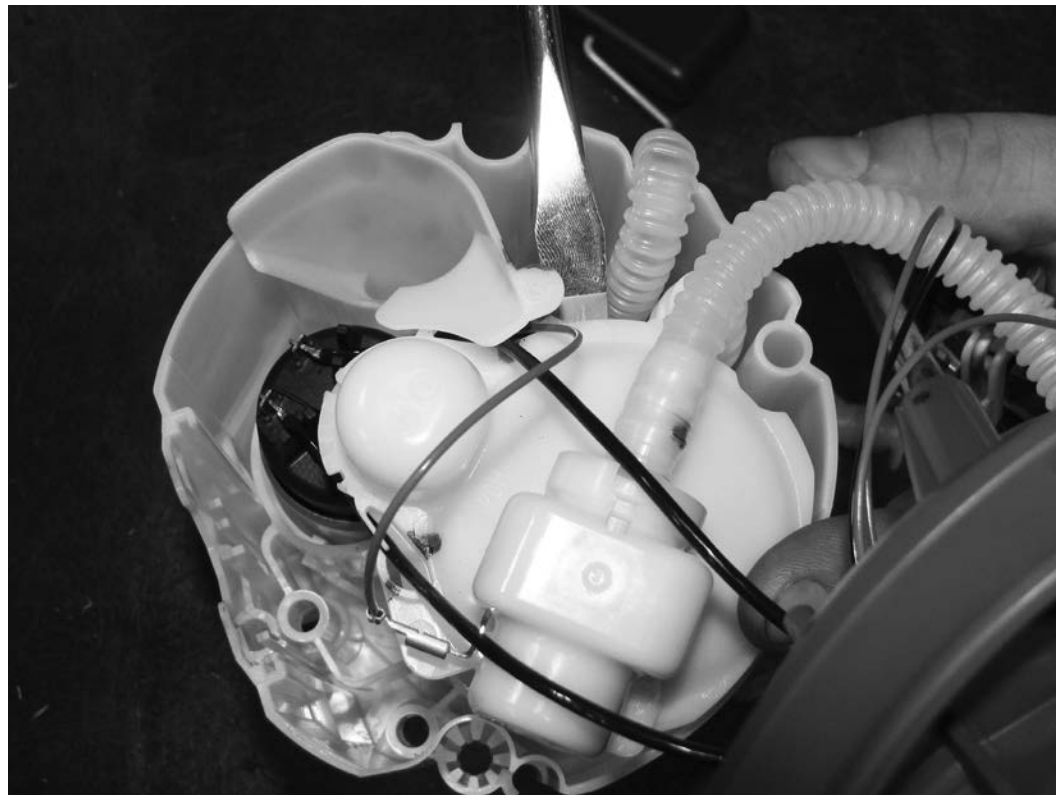
17) Flip the entire pump basket over, and locate the bottom of the three holes that were just drilled from the top. You will be trying to separate where the inner plastic structure of the pump basket is plastic welded to the outer housing of the pump basket.





18) Using the 8mm drill bit, drill these three holes from the bottom side. You should only need to drill to a depth of about 3mm in order to reach and drill through the plastic welding. If you drill too deep, you will drill into the thin part of the mount of the inner plastic structure, and you will break the mounting holes off of the support tabs.

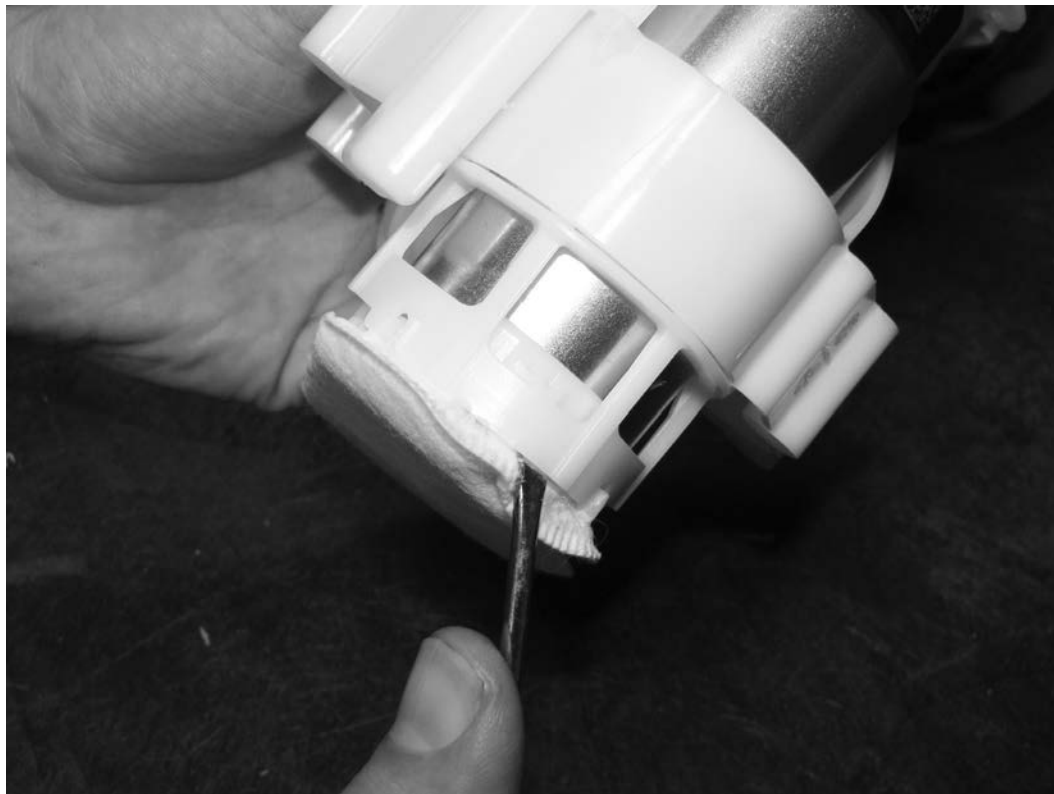
19) Carefully use a screwdriver to help pry the inner plastic structure of the pump basket from the outer pump basket. Most of the plastic welding has been drilled through with the 6.5mm and 8mm drilling operations, but a small section still remains. It may be necessary to slightly enlarge the 8mm holes.





20) Using a small screwdriver, carefully pry both sides of the fuel pump sock away from the fuel pump assembly.

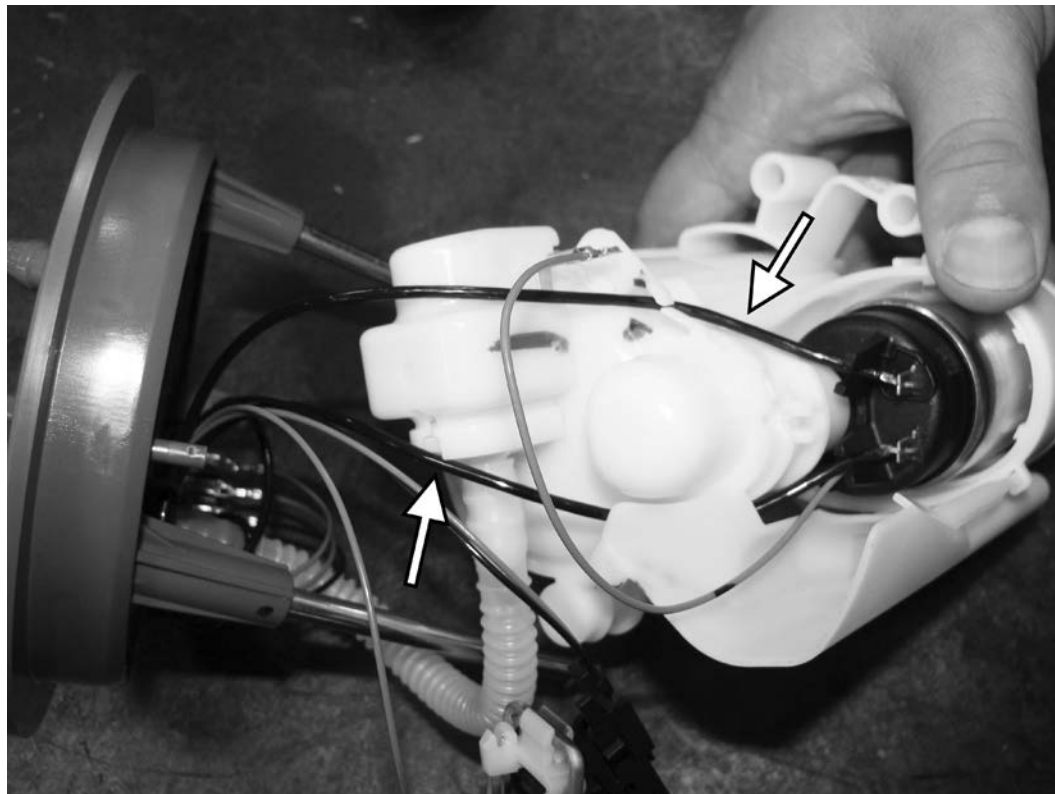
21) Once the two sides of the fuel pump sock are separated, remove the front tab holding the sock to the fuel pump, and remove the pump sock.

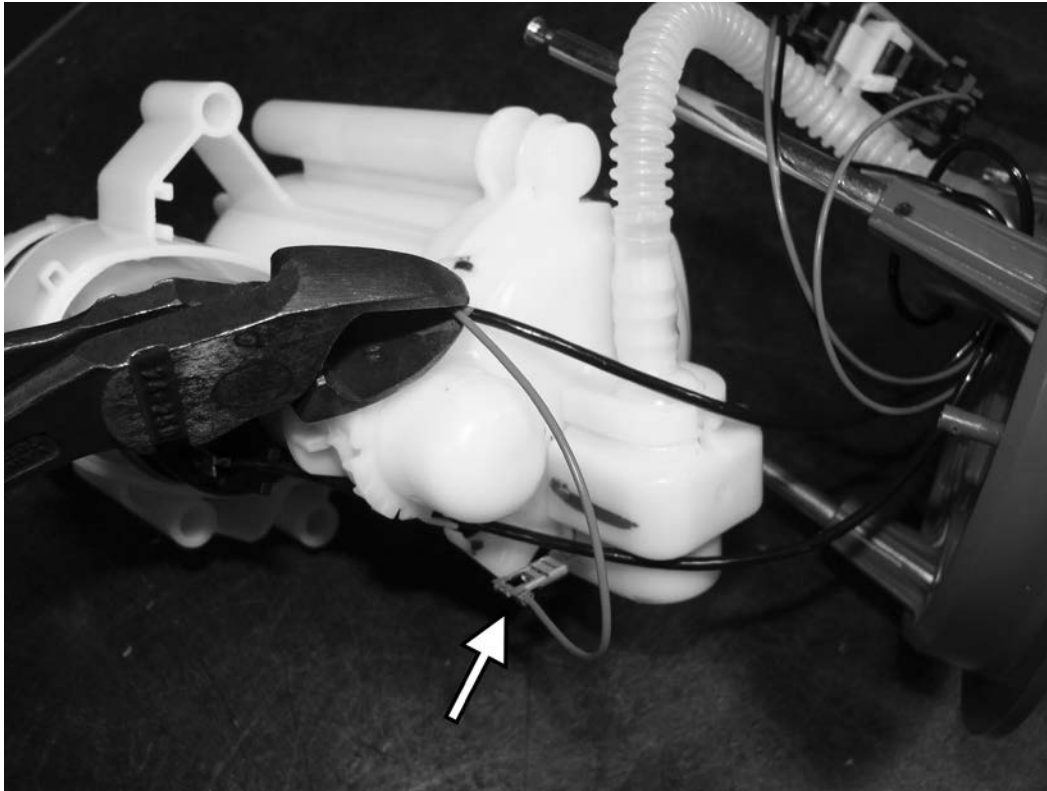




22) Locate and identify the wires inside the pump assembly based off of the markings on the pump top. The AWD pumps have two separate electrical connectors, but the same connections are present.

23) Find the wire coming off the EKP+ terminal and cut this wire close to the actual fuel pump, leaving a long wire off of the pump top. Locate the EKP- wire and cut this about 2-3 inches wire closer to the pump top.

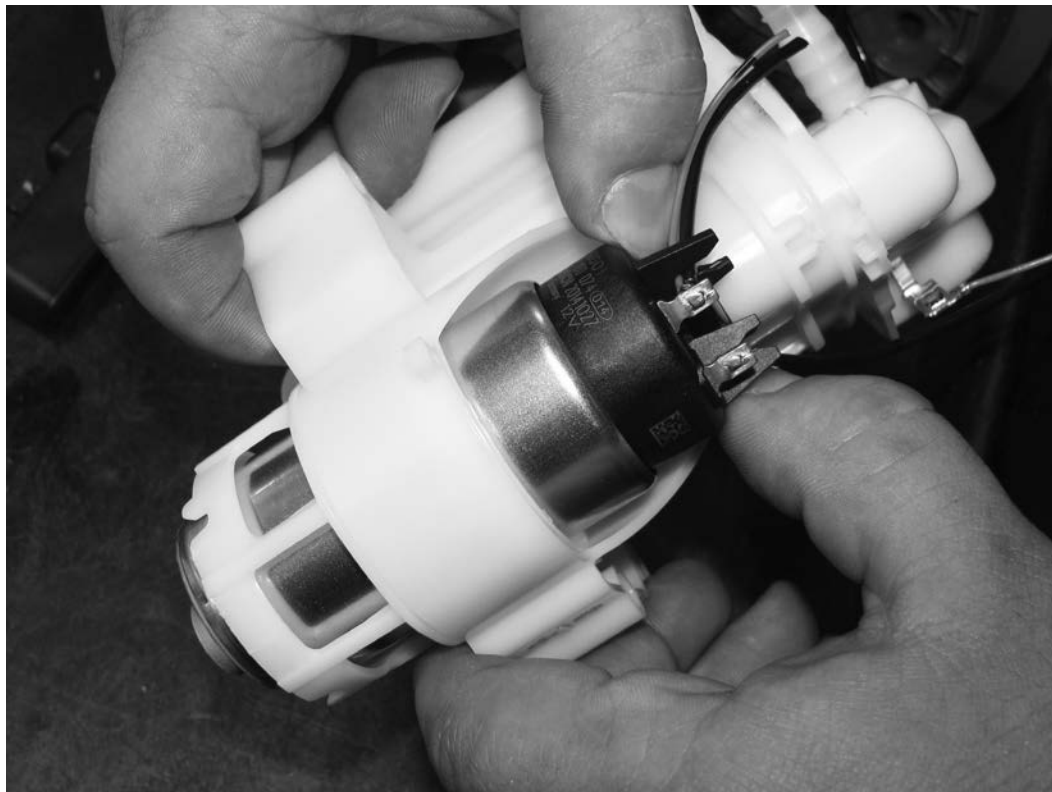




24) Locate the red wire that has a spade connector down near the top of the actual fuel pump. Cut this wire about four inches from the spade terminal.

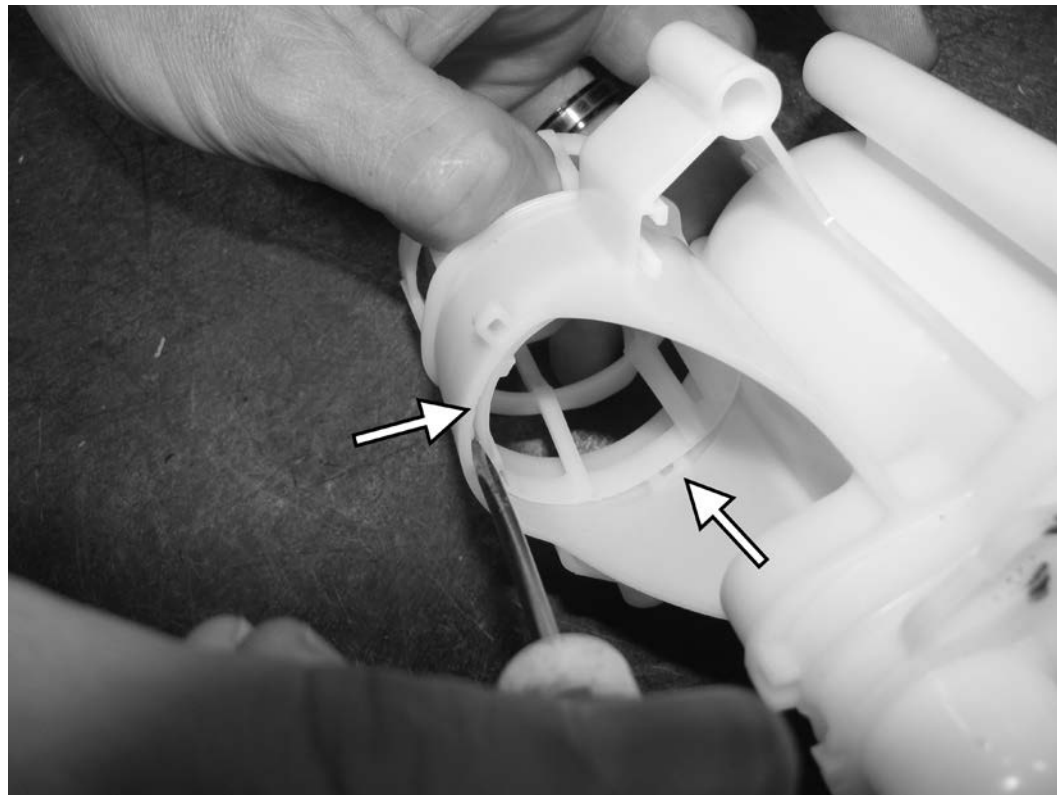
25) Remove the plastic chamber that is sitting next to the fuel pump by lifting on the locking tab near the bottom of the chamber and lifting the chamber away from the base of the fuel pump.

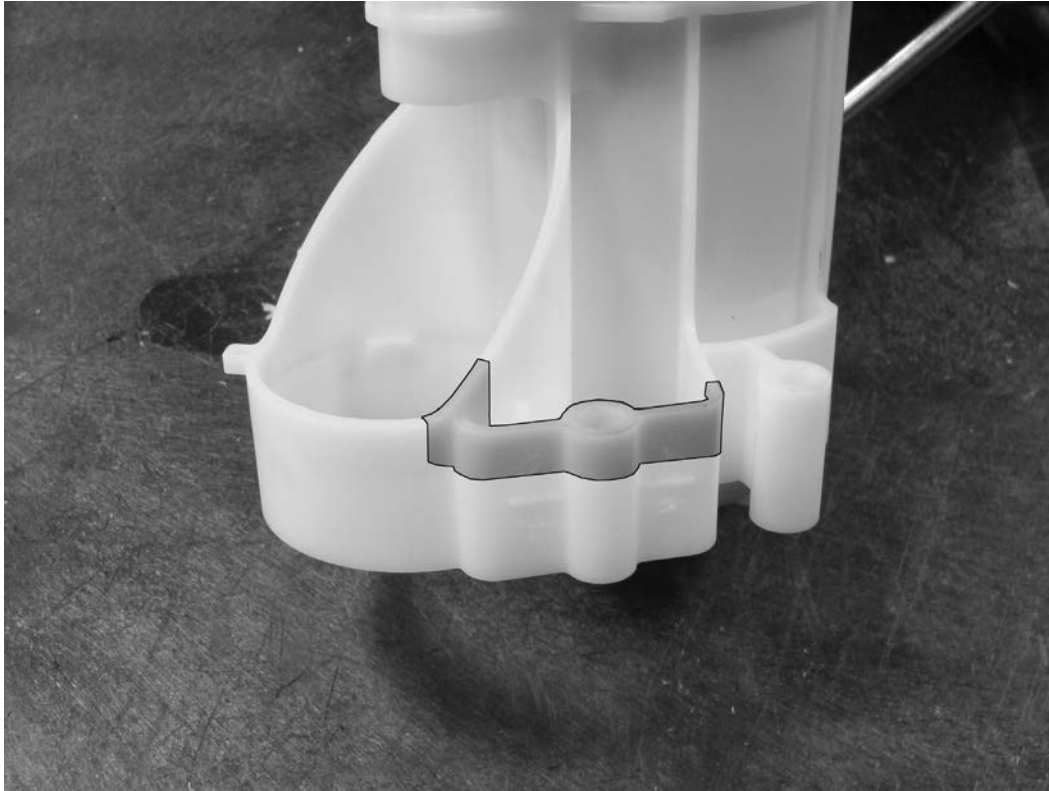




26) Push the actual fuel pump out of the assembly by pushing it down and out of the plastic housing.

27) Using a small screwdriver, pop up the three small tabs holding the stock fuel pump spacer to pump housing. Remove the stock pump spacer and discard.

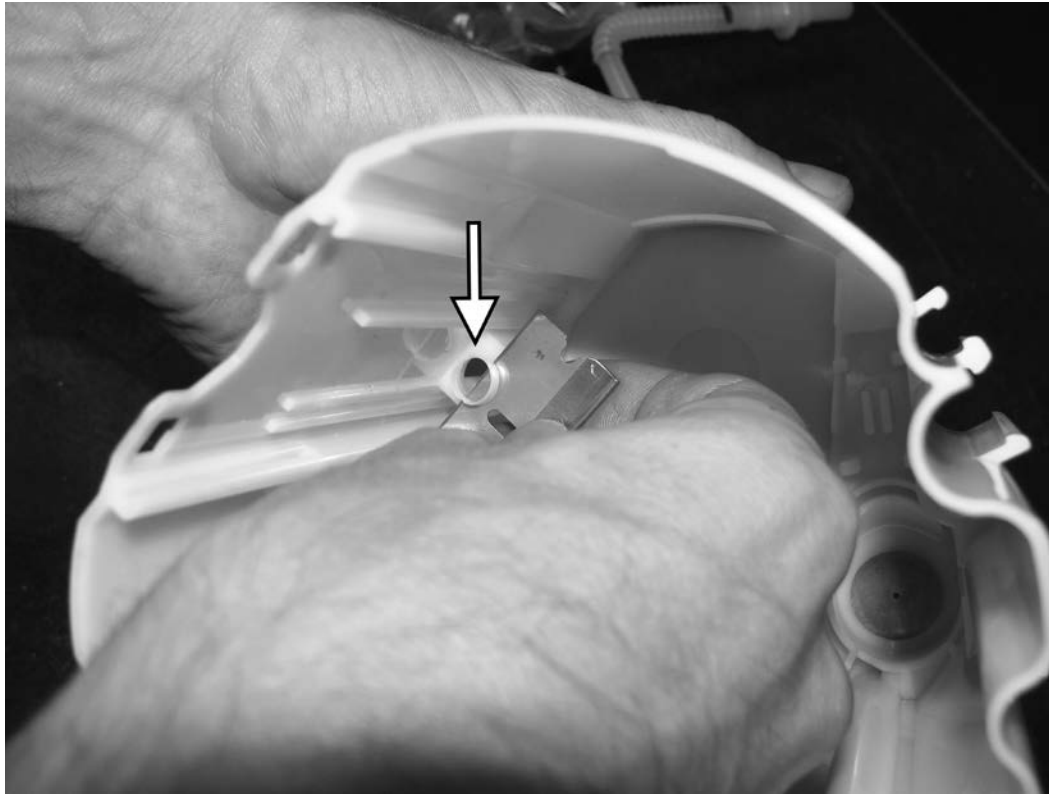




28) Cut 5-6mm off of the side of the pump housing as shown marked.

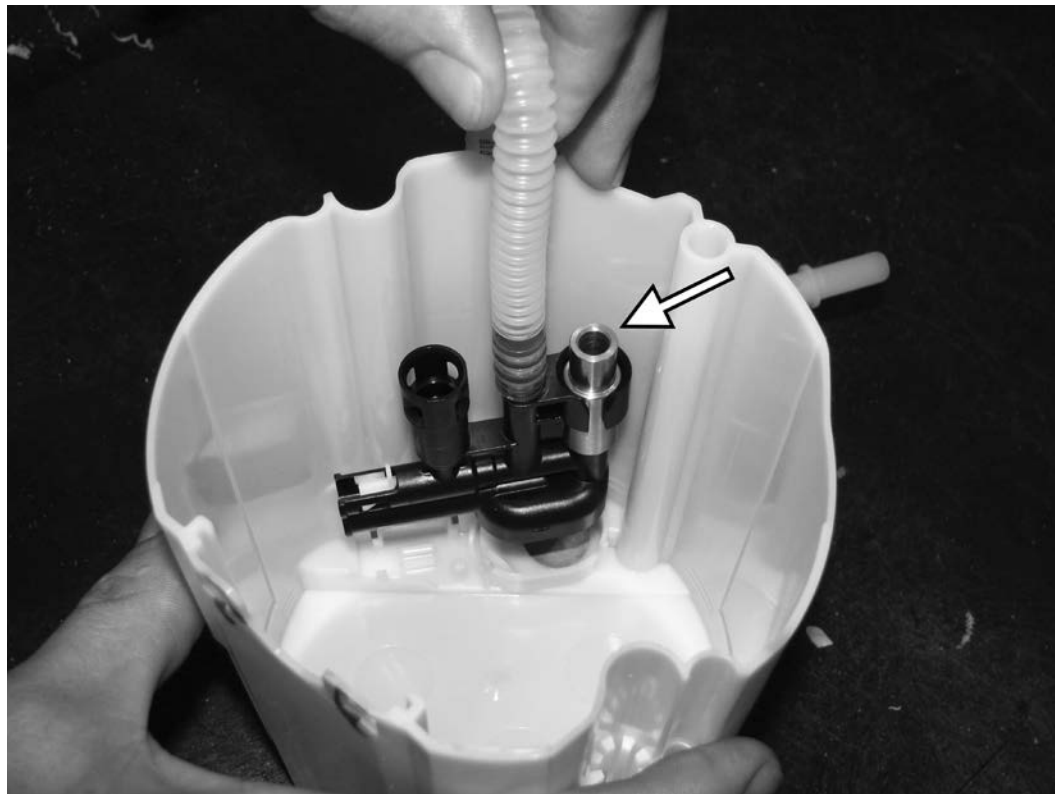
29) Remove the siphon tube assembly from inside the stock pump basket. Angle the siphon tube to the side to separate it from the pump basket.

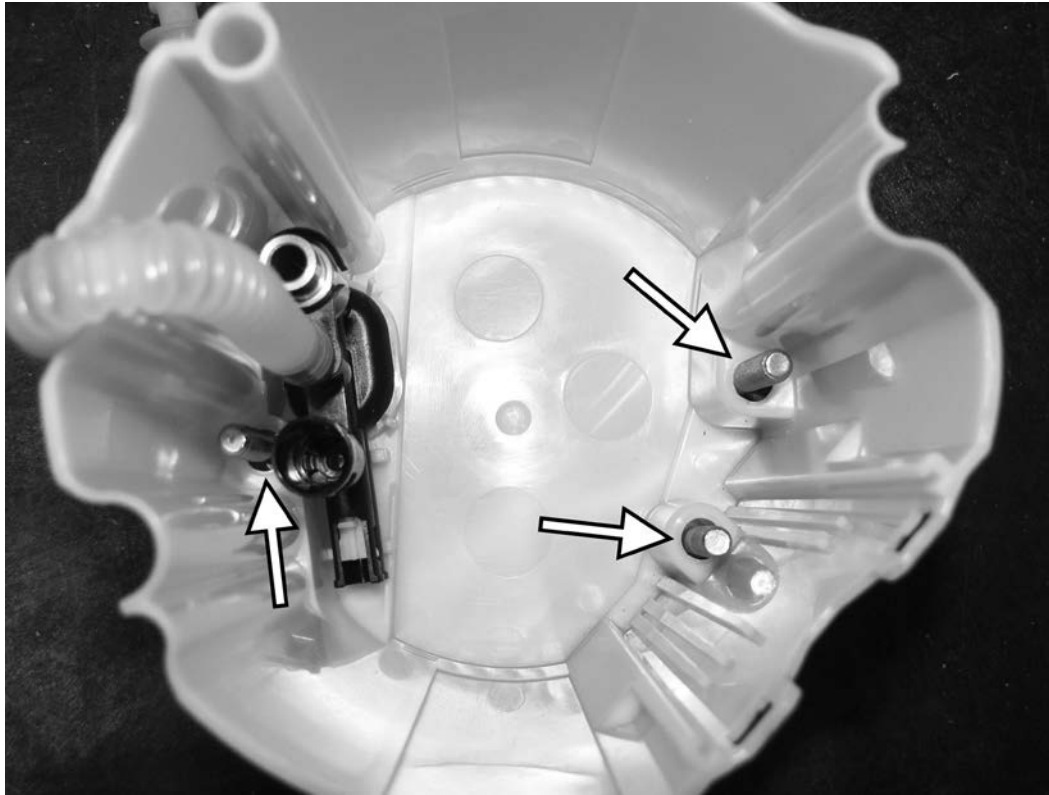




30) Using a sharp razor blade, remove any excess flashing from inside the pump basket around the three previously drilled holes. Cut the excess flashing off so the hole is flat to the flat embossed portion of the pump basket. Clean any excess plastic shavings out of the pump basket.

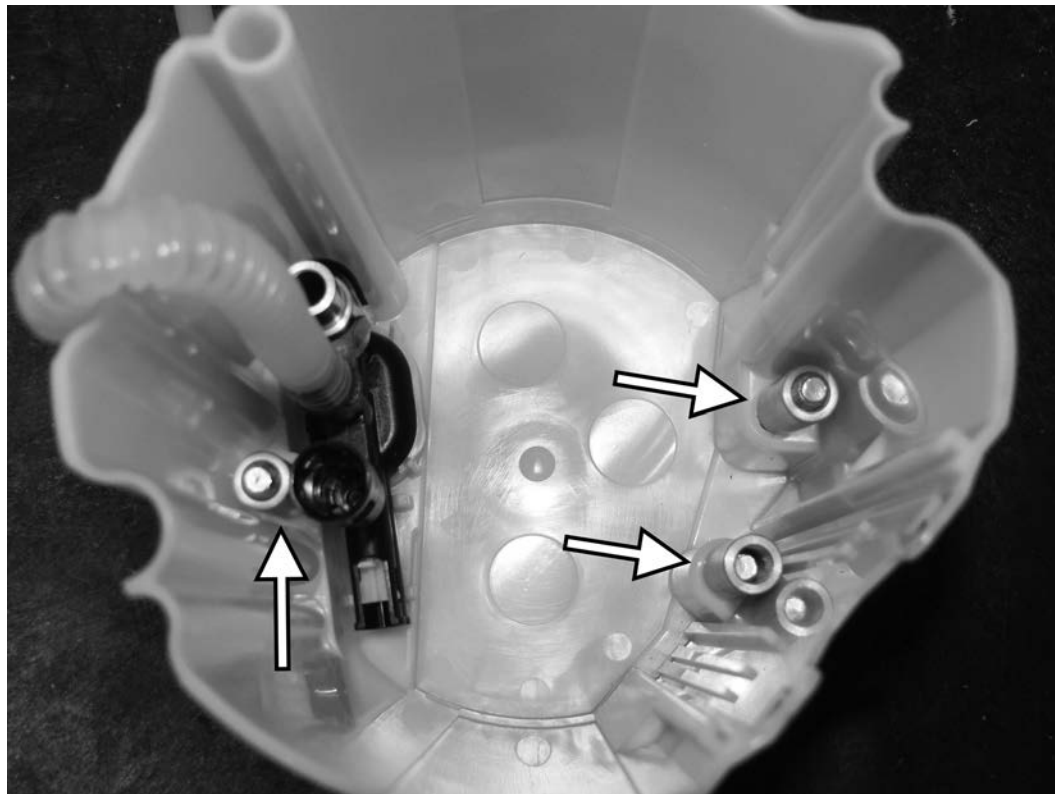
31) Locate and install the APR siphon tube adapter. This is the one, longest spacer supplied by APR, and press fits onto the siphon tube as shown. Reinstall the siphon tube in the pump basket.

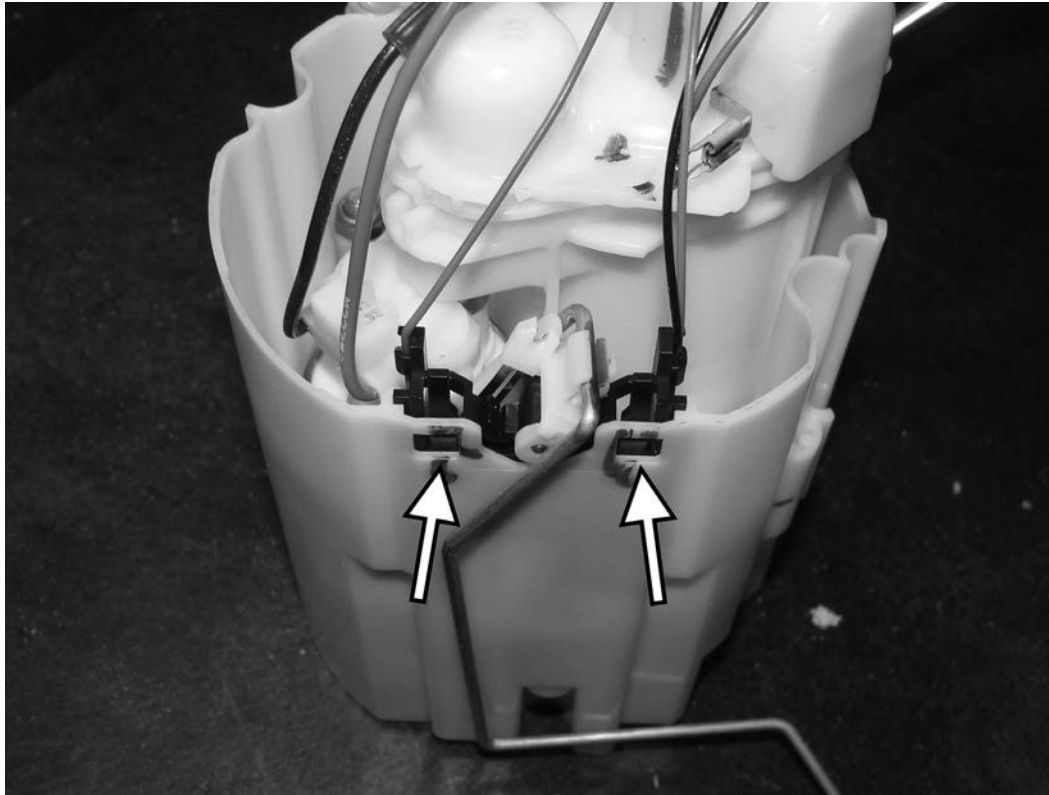




32) Locate the three supplied bolts with fuel pump spacer kit. From underneath the pump basket, place all three bolts into the three previously drilled hole locations. The one short bolt goes under where the fuel level sensor mounts.

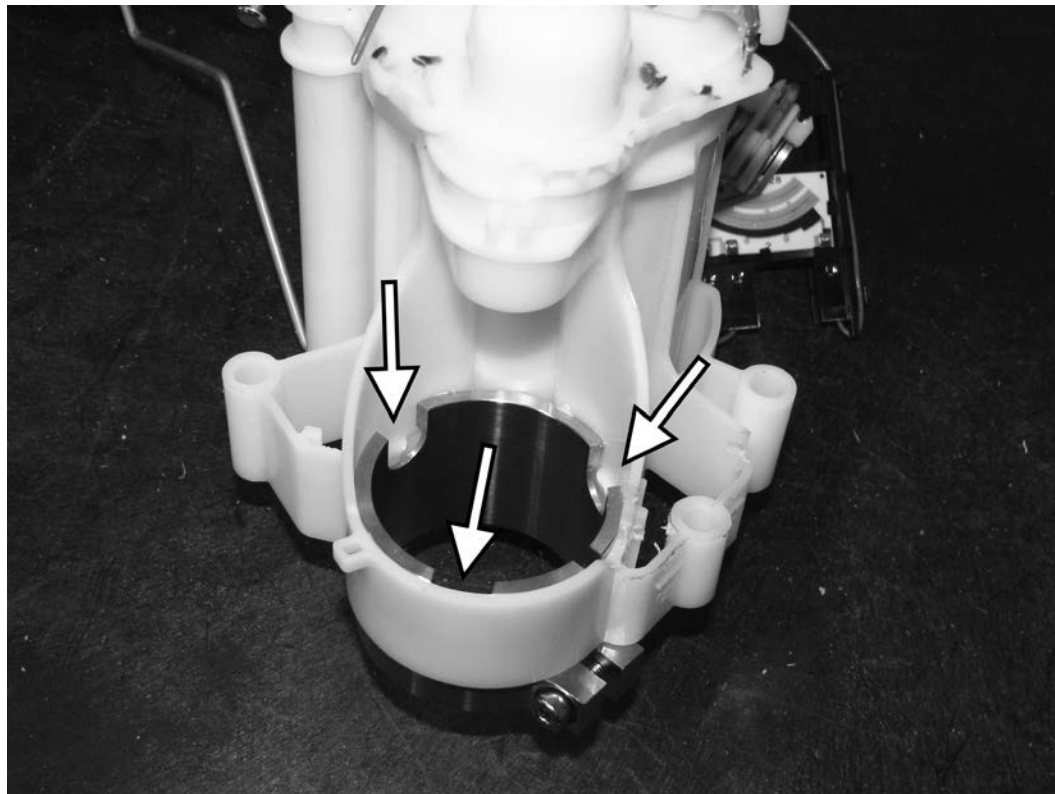
33) Place the three APR spacers that are the same length on the previously installed bolts inside the pump basket.

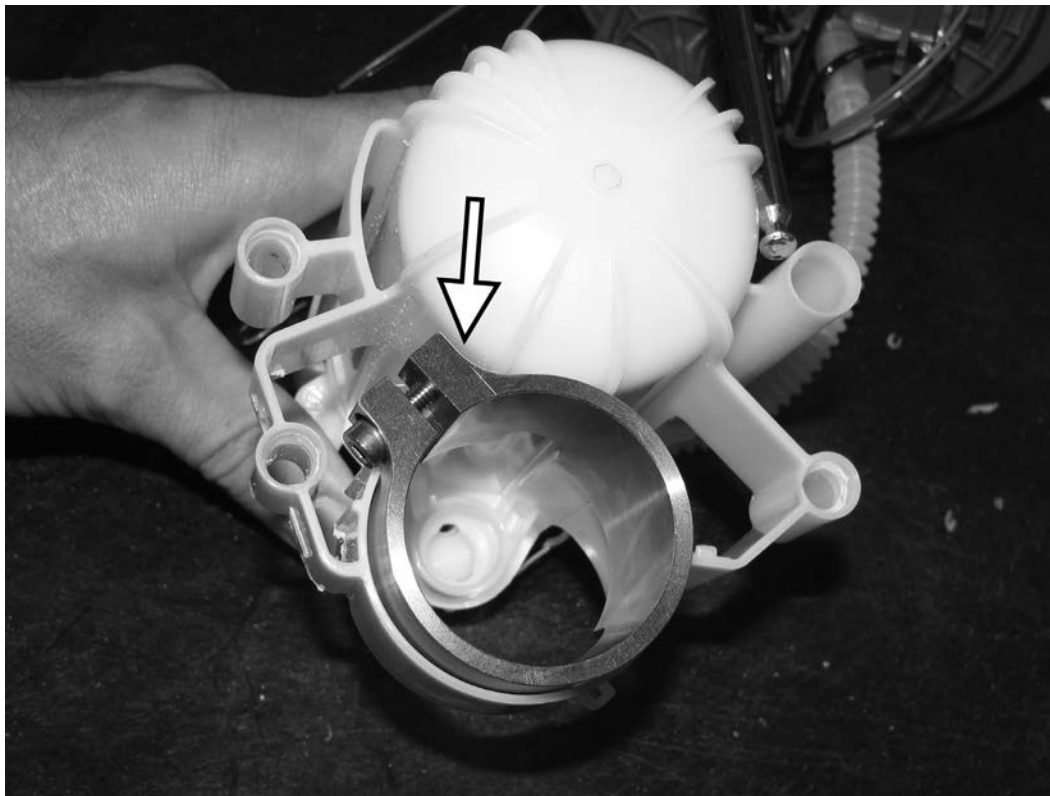




34) Loosely place the inner pump housing back in the outer pump basket. The inner pump housing should now be sitting higher than stock on the previously installed APR pump spacers. Clip the fuel level sensor back into place. If the sensor does not snap back to its original mounting tabs, you will need to trim more of the plastic as seen on step 29. Once the level sensor fits in the correct mounting tabs, remove the level sensor and the inner pump housing.

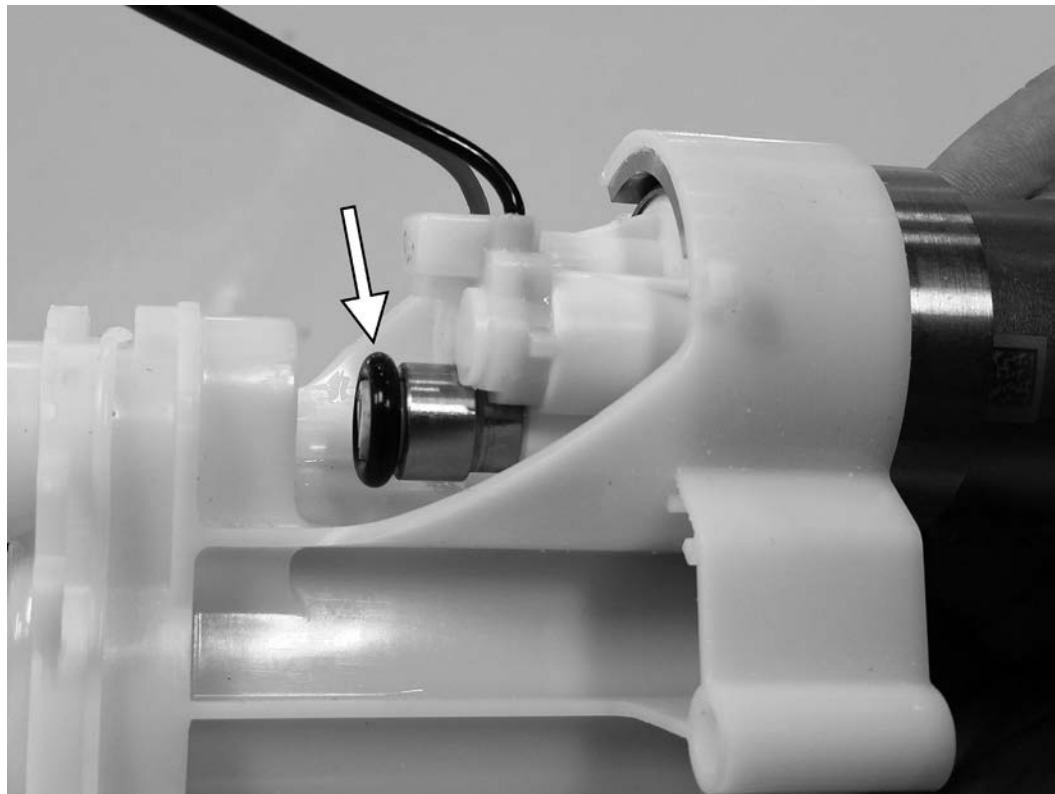
35) Loosely install the supplied screw into the APR pump spacer. Insert the APR pump spacer into the inner pump housing from beneath. Ensure that the three notches in the pump housing align with the notches in the APR pump spacer.





36) Rotate the APR pump spacer in the inner pump housing clockwise, until the screw for the pump spacer is almost touching the fuel filter housing. Make sure not to rotate the spacer so much that when the pump is installed and the screw is tightened that the screw will not pierce the side of the fuel filter.

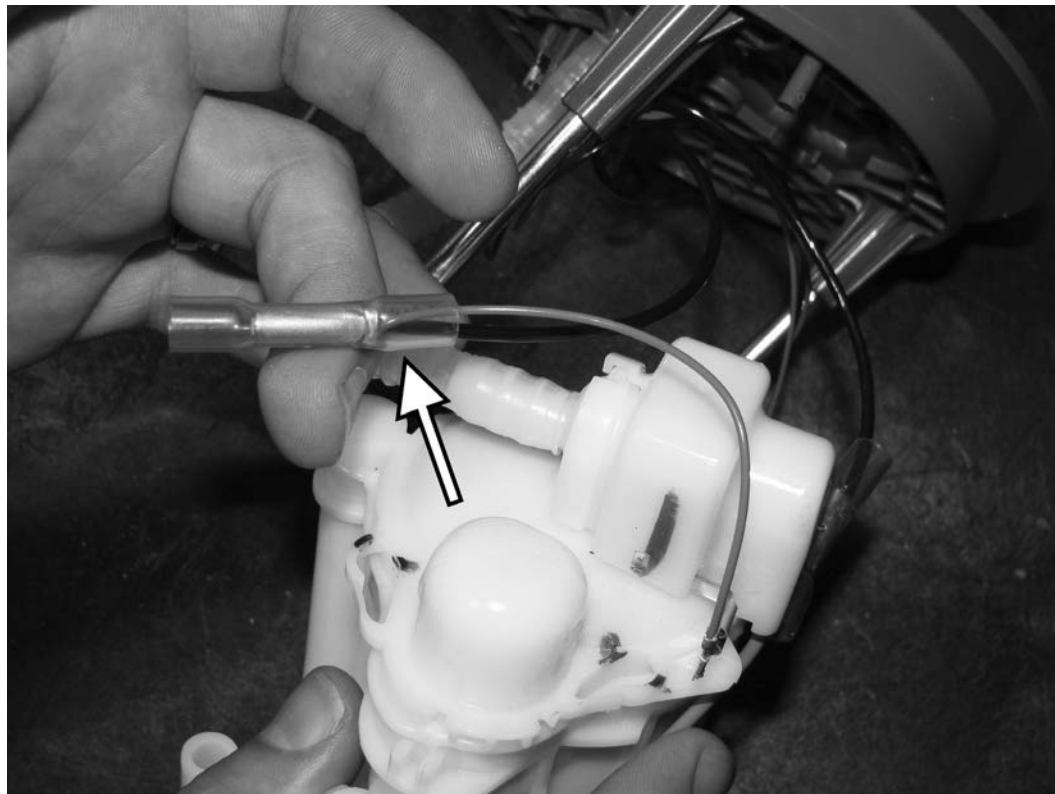
37) Install the supplied pump outlet adapter on the top of the APR fuel pump and push all the way down. Lubricate and install the o-ring onto the end of the pump outlet. Slide the APR pump, electrical connector first, up into the APR pump spacer. Push the pump up so that the o-ring goes inside the hole in the inner pump housing. Tighten the 3mm allen screw on the APR pump spacer to secure the pump in place. Finally, snap the new, supplied fuel pump sock onto the bottom of the APR pump.

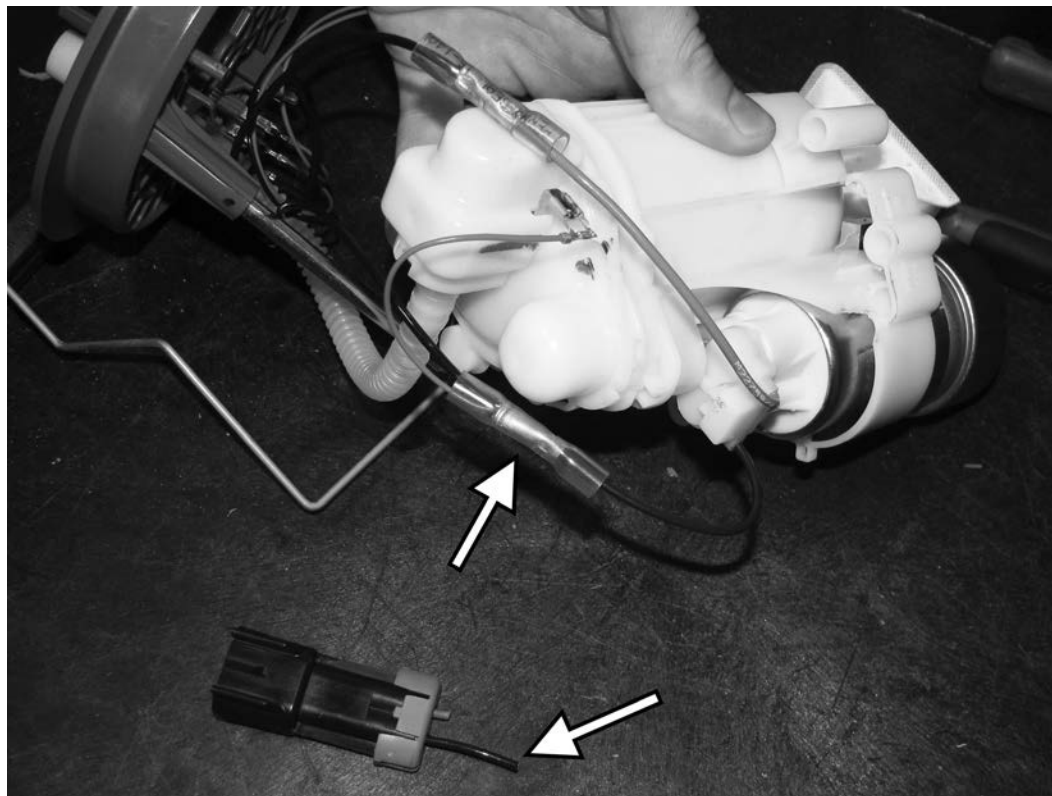




38) Cut the red wire on the APR pump right at the electrical connector attached to the pump. Locate the previously cut, shorter wire that is labeled on the fuel pump top as EKP+. Strip the ends of both wires and connect the red wire from the APR pump with the black wire labeled EKP+ with one of the supplied crimp connectors.

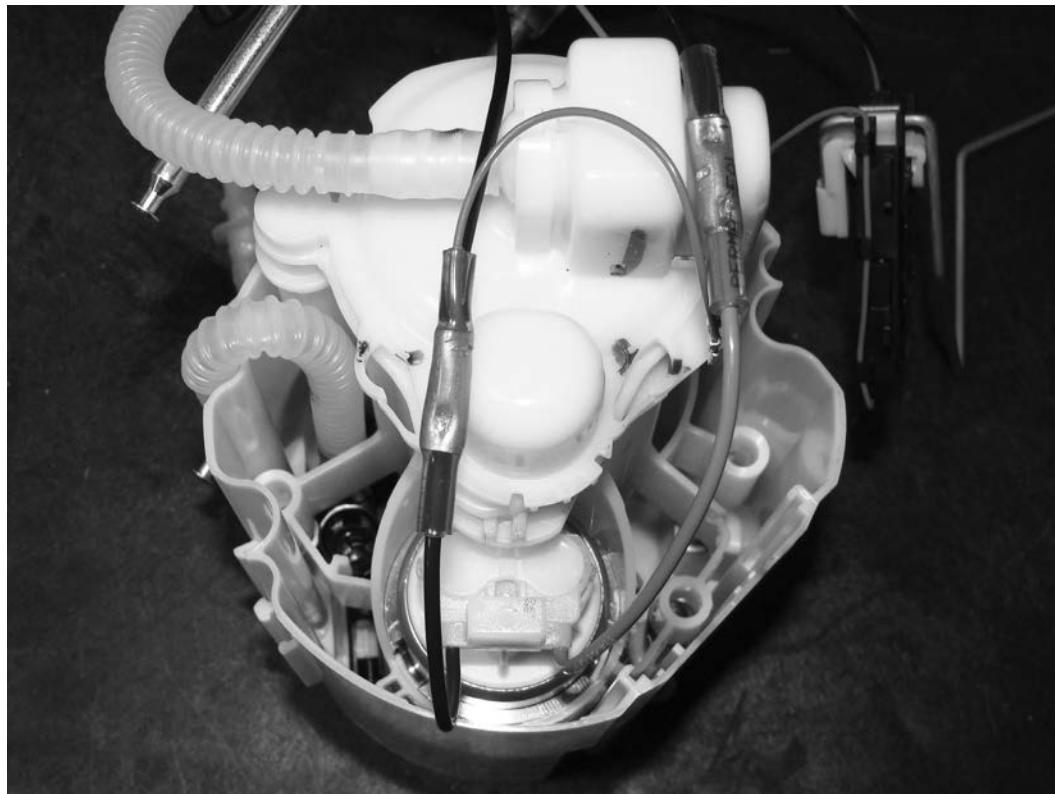
39) Locate the previously cut red wire with a spade connector on the top of the fuel filter housing. Locate the previously cut, longer black wire that is labeled on the fuel pump top as EKP-. Strip the ends of both wires, twist the wires together, and insert into one side of the other supplied crimp connector.

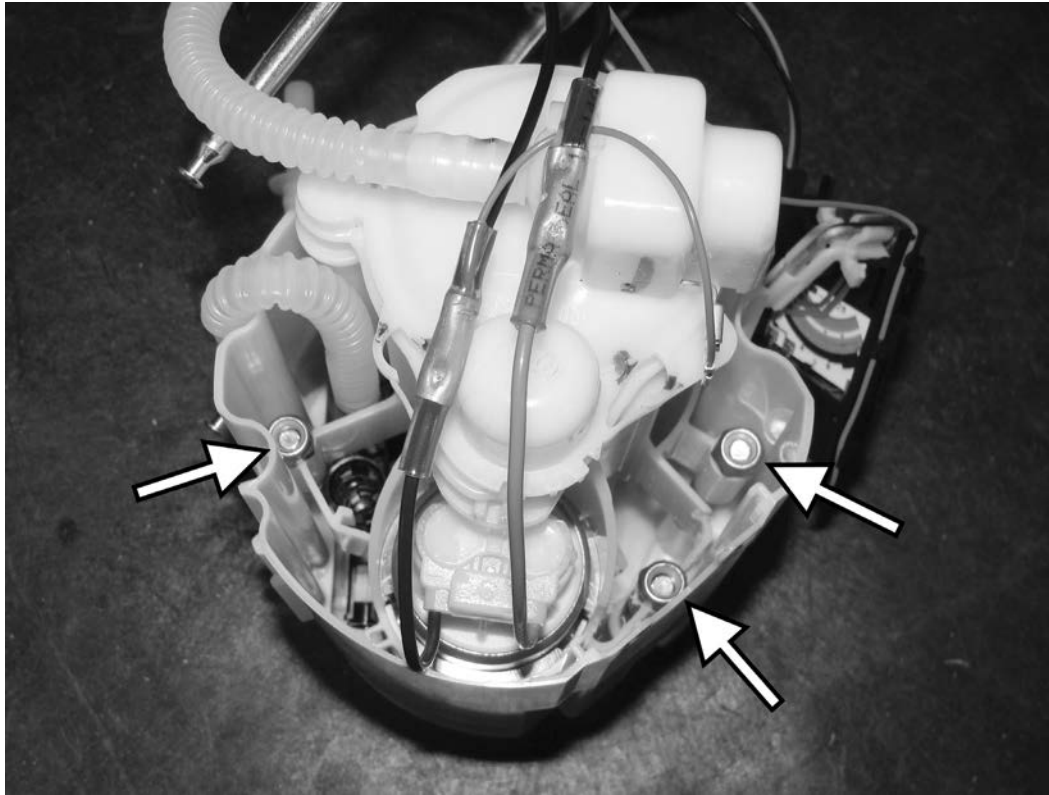




40) Cut the black wire on the APR pump an inch or two away from the electrical connector attached to the pump. Strip this wire and connect to the other side of the crimp connector in the previous step. Use a heat gun to shrink and seal both of the supplied APR crimp connectors. Do NOT use any open flame to seal the connectors, as some residual gasoline can ignite.

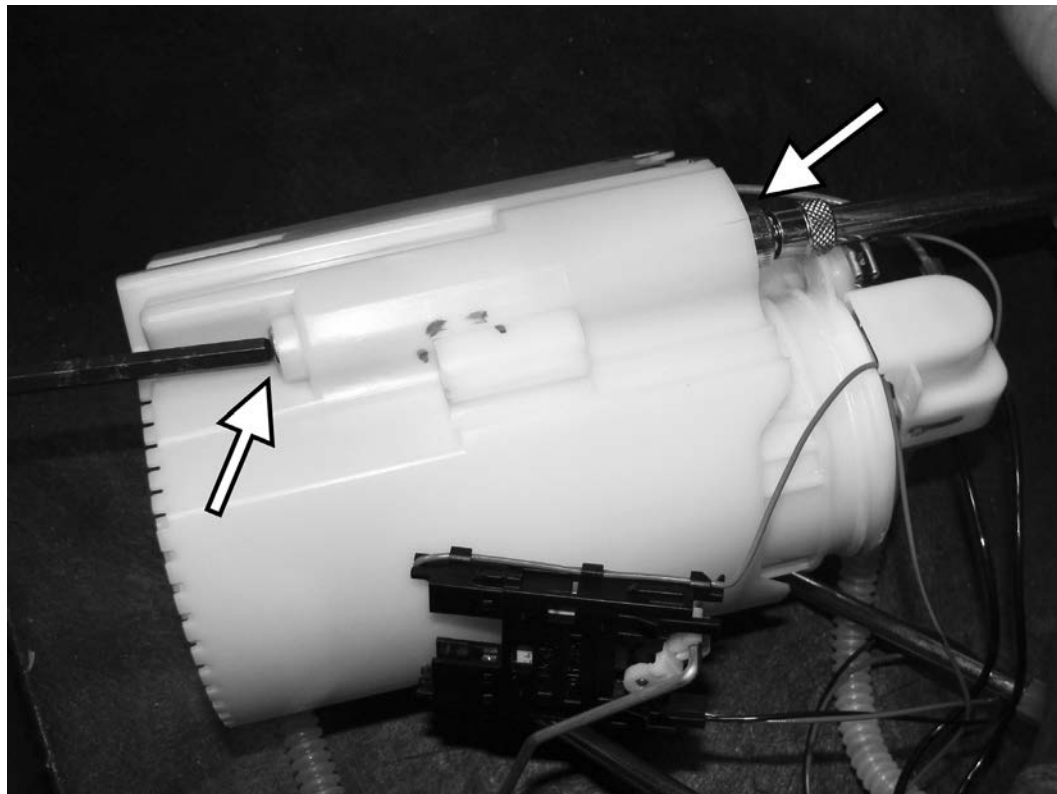
41) Place the new pump assembly into the pump basket, making sure that the APR adapter on the siphon connection inside the pump basket fully seats with the pump assembly. The APR spacers and bolts should still be installed in pump basket, as previously described.

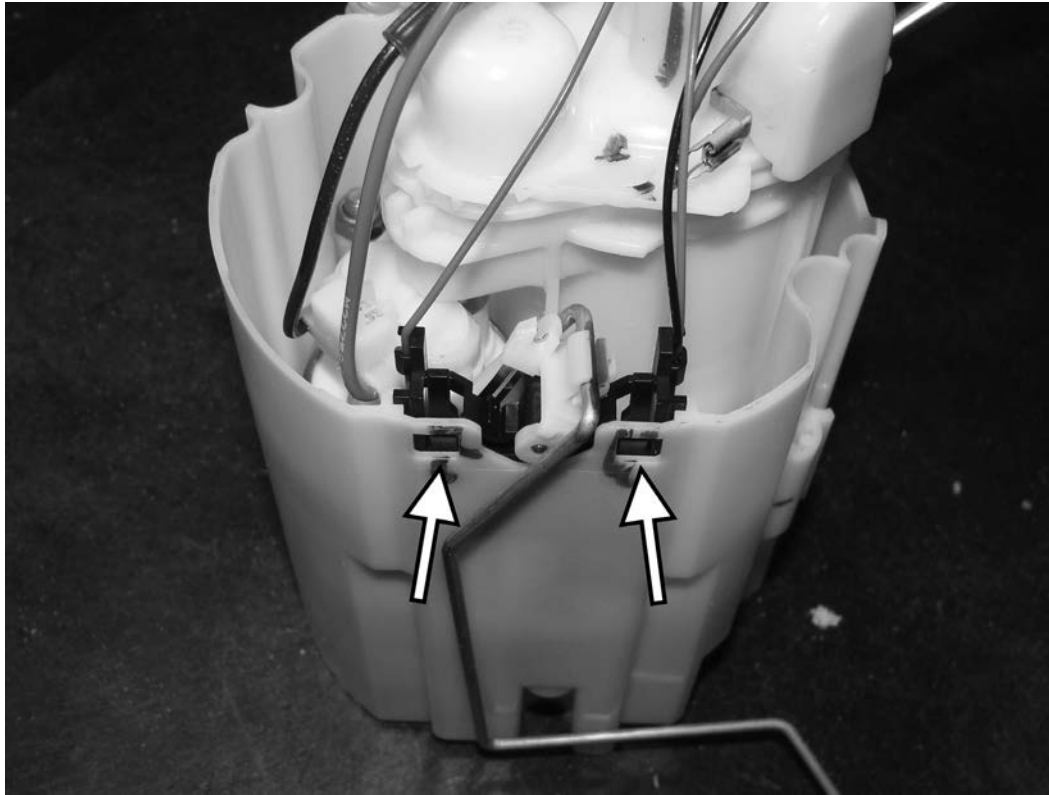




42) Holding each bolt up from underneath, start to thread the supplied nut on each bolt from inside the pump basket.

43) Use a 4mm allen socket on the head of the bolts under the pump basket. Using a 10mm socket inside the pump basket, tighten the nuts to _____.

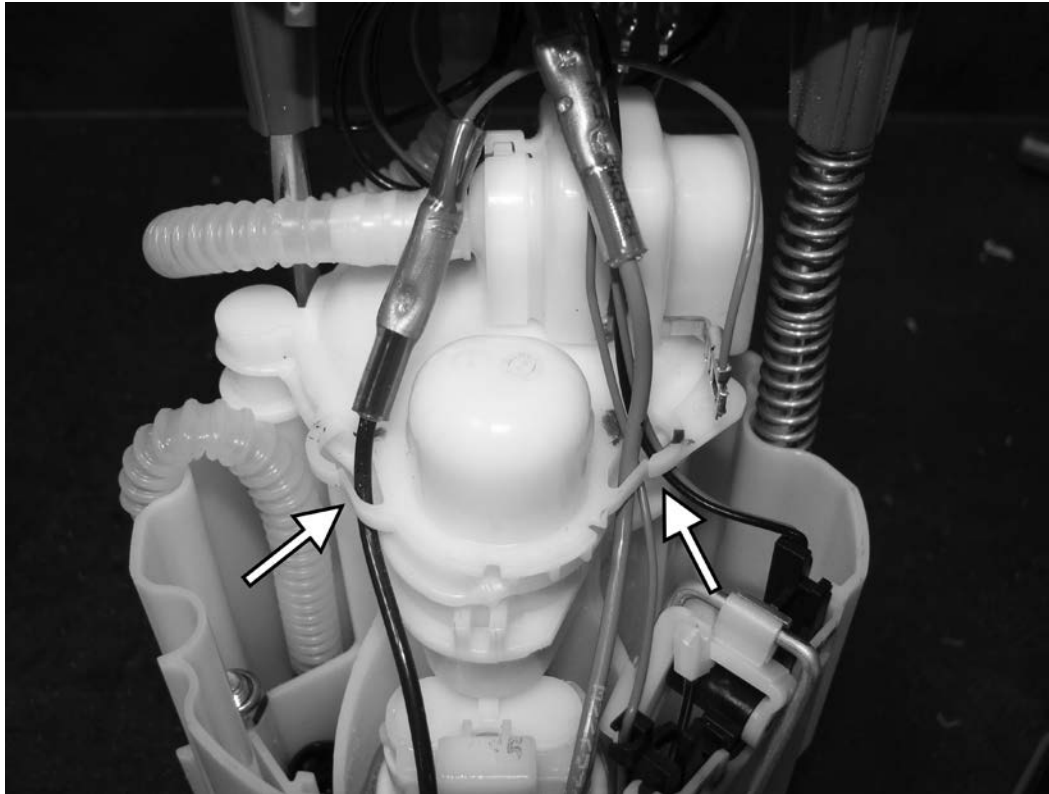




44) Reinstall the fuel level sensor in the pump basket. Again, make sure the level sensor snaps back in the original factory mounting tabs. If it does not, you will need to disassemble the pump and trim more of the inner plastic housing as seen on step 29.

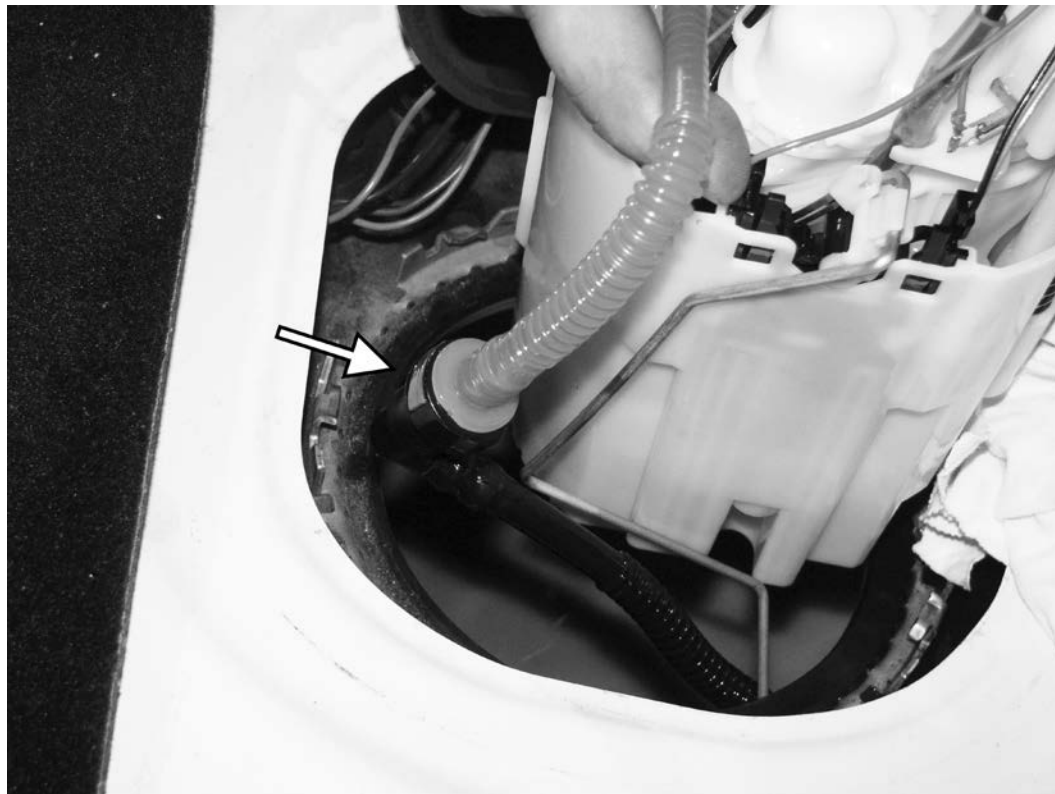
45) Replace the fuel pump top onto the fuel pump basket with the original spring, and reattach the previously removed circlip that holds the top in place.





46) Route all wires into the factory clips on the sides of the inner pump housing.

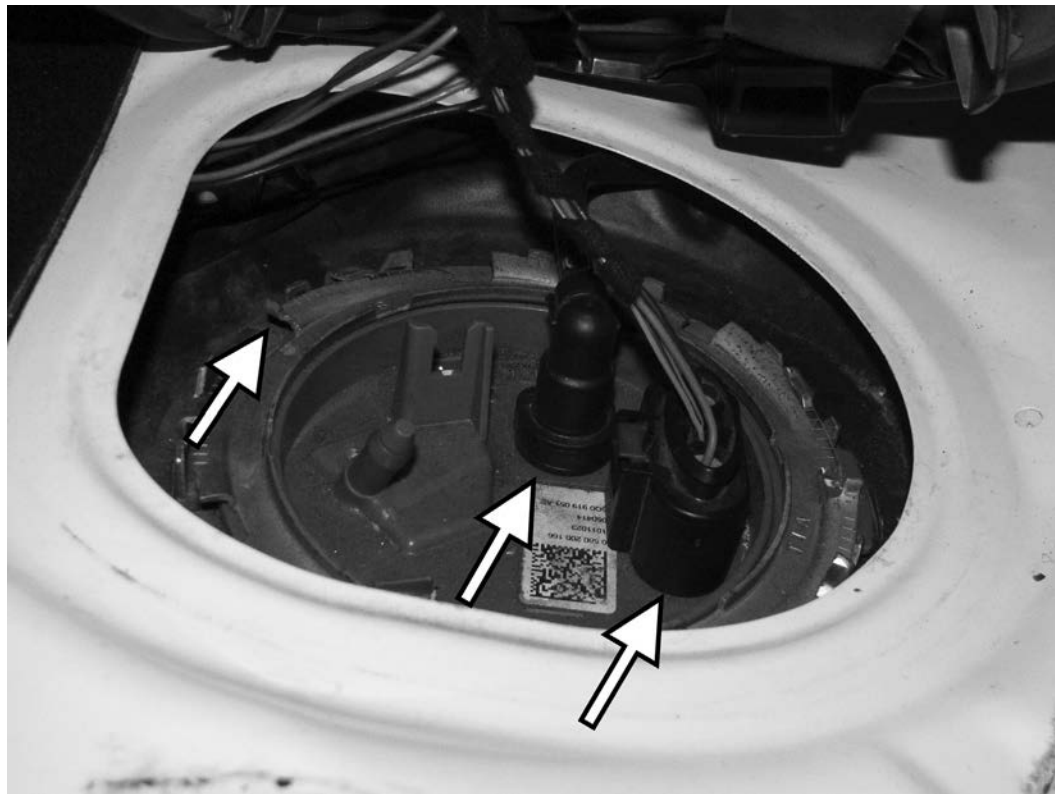
47) Place the fuel pump assembly back in the fuel tank, with the fuel level float going in the tank first. Reconnect the fitting in the tank to the fuel line on the side of the fuel pump basket., and then snap the fuel line back into the groove on the side of the fuel pump basket.





48) Place the factory fuel tank seal around the opening in the fuel tank. Lower the fuel pump assembly slowly into the fuel tank. Finally, carefully push the top of the fuel pump back into the seal being careful not to roll the seal back into the tank.

49) Place the metal fuel pump retaining ring back on the fuel tank. Use a chisel and hammer to tap the ring clockwise until it locks in place on the fuel tank. Finally reconnect the quick disconnect fuel fitting and the electrical connector on the fuel pump top.





50) Replace the fuel pump access cover, making sure the lip of the cover seals against the metal of the floorpan.

51) Reinstall the seat bottom by first placing the back of the seat bottom in the appropriate slots, and then lowering the front of the seat bottom down into the holes in the floorpan. Reinstall the four covers over the child seat locking points.





52) Support the car on a lift or jackstands. Raise the hood and remove the engine cover.

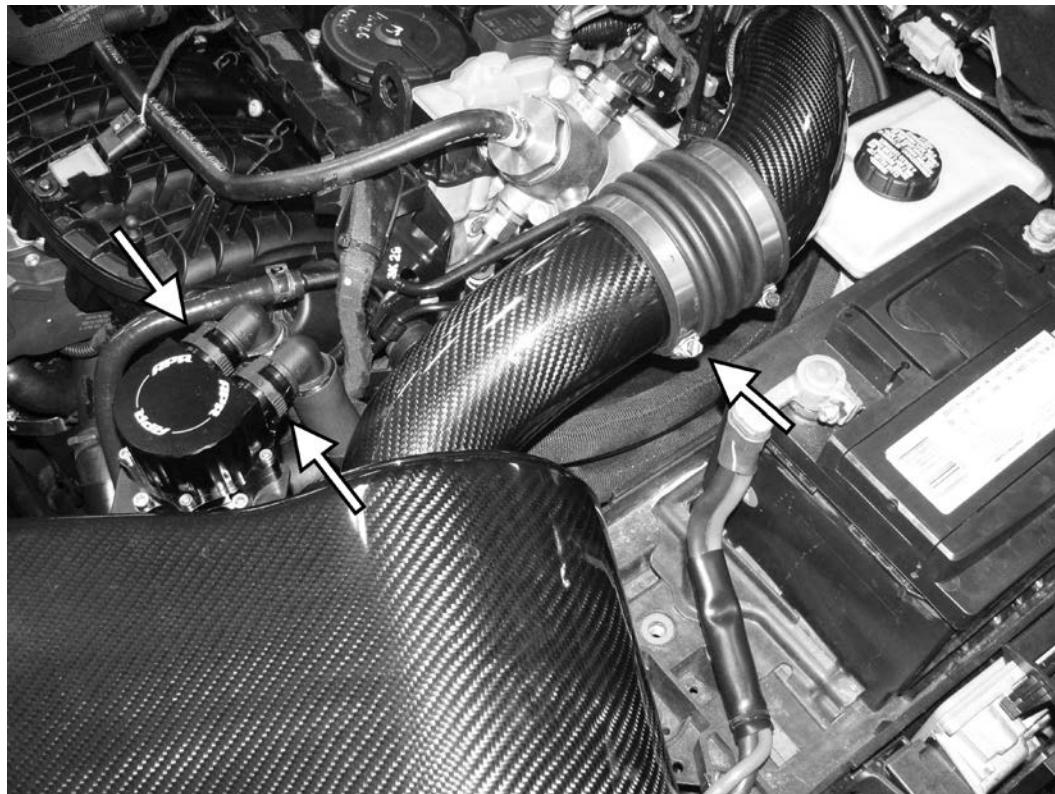
53) Remove the two T30 screws holding the front coolant pipe to the intake manifold.

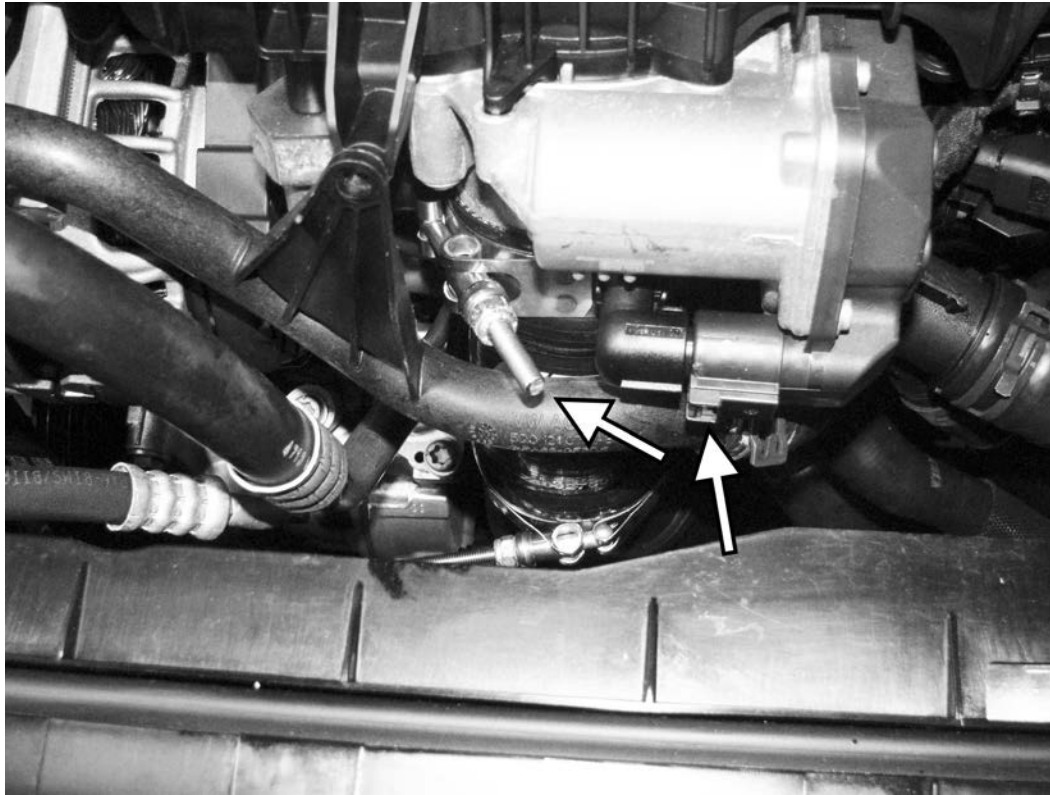




54) Remove the screw holding the APR intake to the back side of the radiator core support. Slide the intake towards the left side of the car to separate it from the core support.

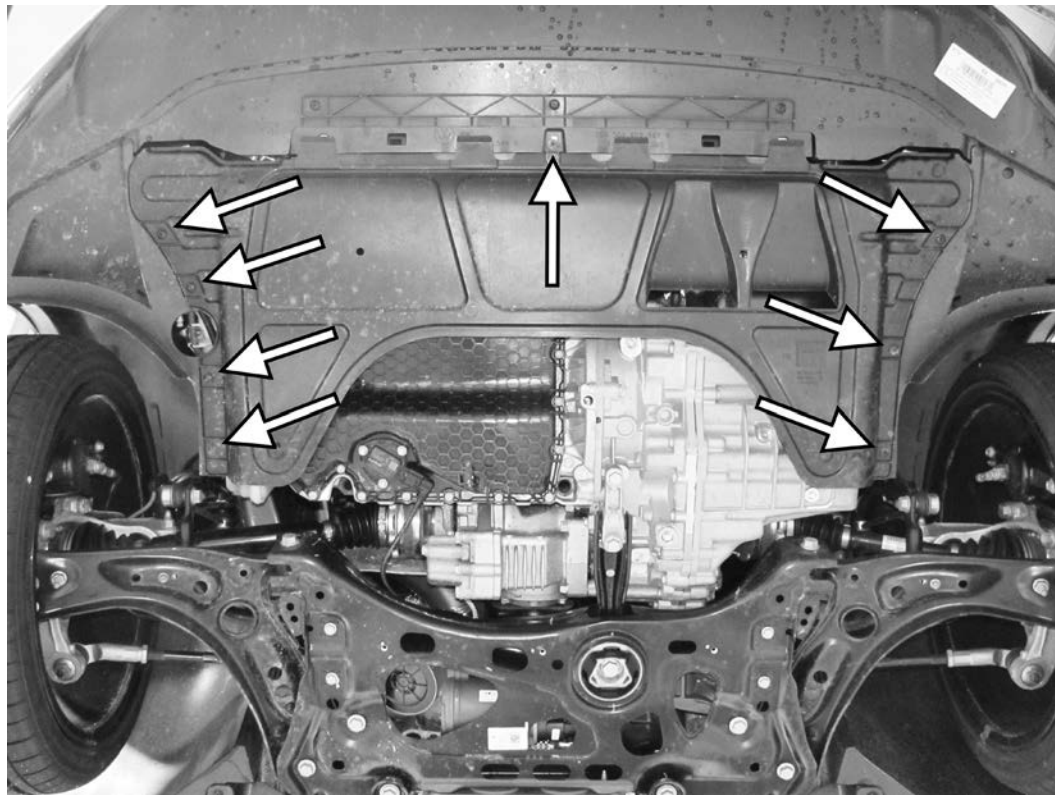
55) Loosen the clamp holding the APR intake to the rear intake pipe. If equipped, disconnect the two fittings from the APR catch can hoses to the APR catch can. Disconnect the vacuum line from the bottom of the APR intake and remove the APR intake with catch can attached from the car.





56) Loosen the upper hose clamp holding the throttle body inlet hose to the throttle body. Disconnect the electrical connector on the throttle body.

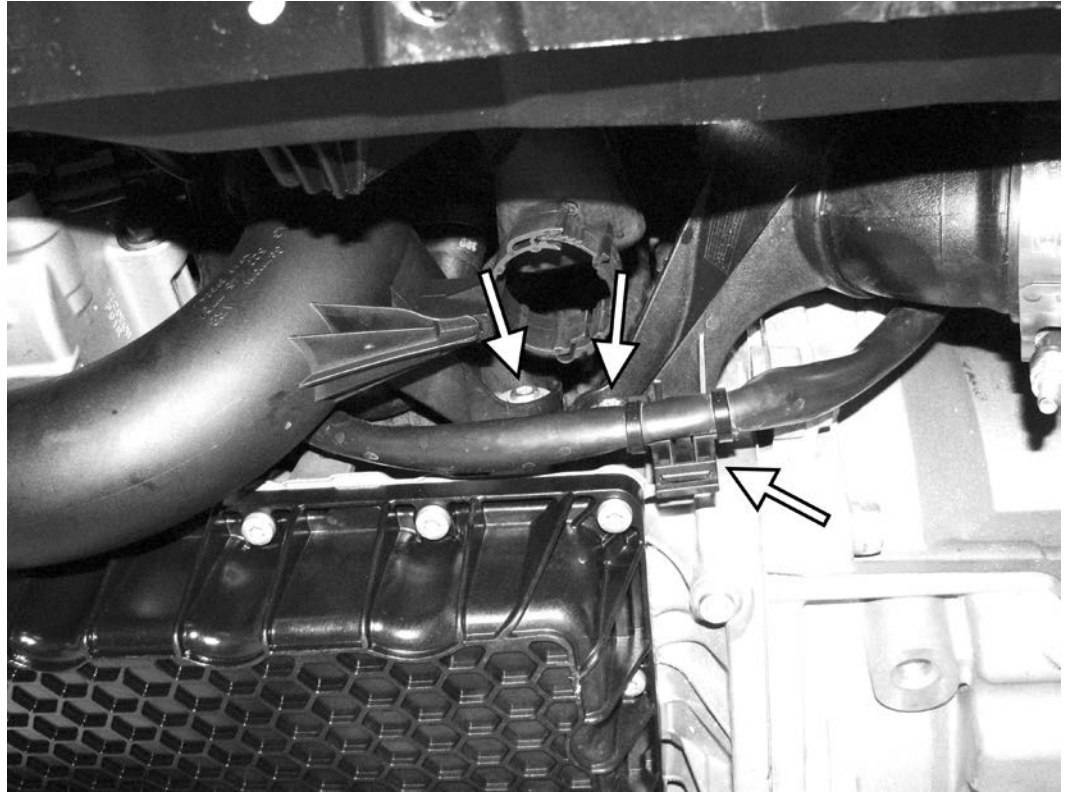
57) Remove the eight T25 screws from the engine belly pan, and remove the belly pan from the car. Note how the belly pan snaps into the lower portion of the front bumper cover.

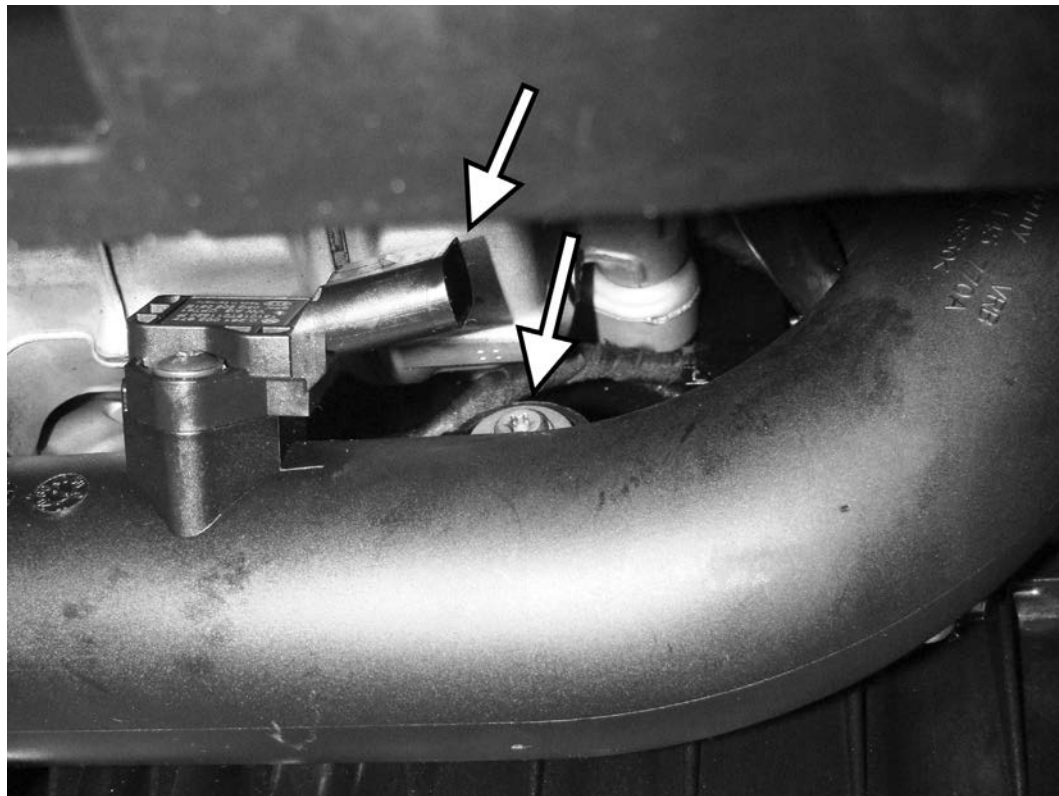




58) Underneath the car, separate the lower radiator hose from the clamp holding it to the front of the engine.

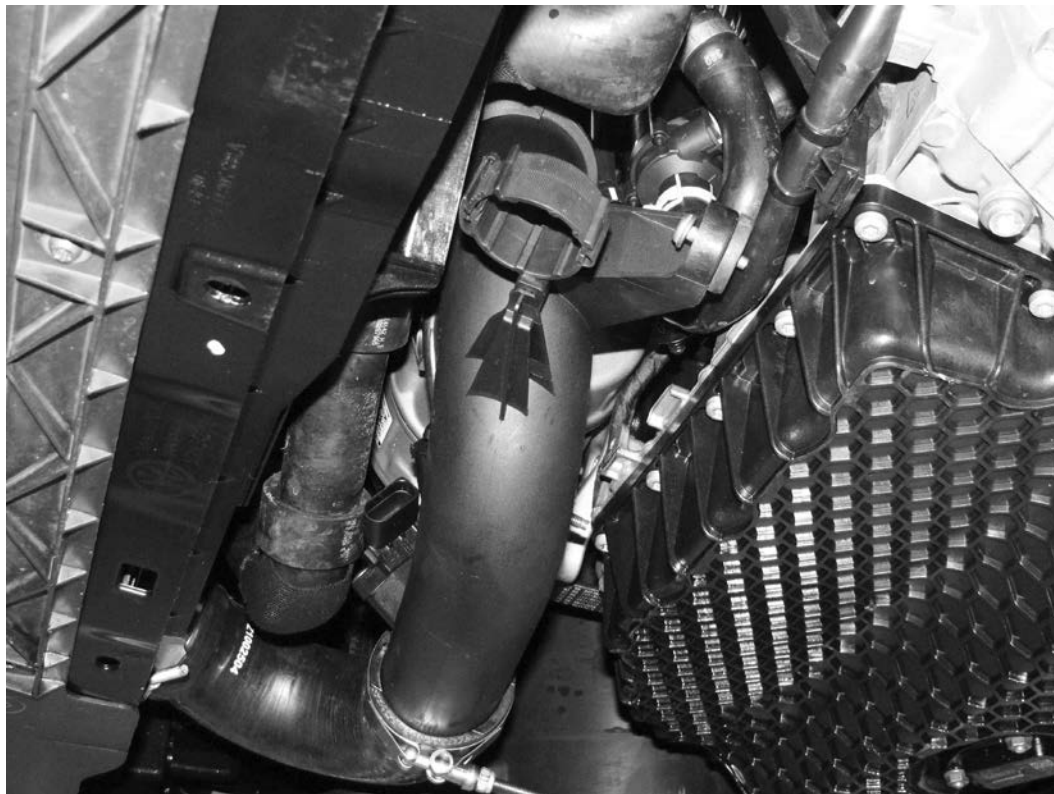
59) Remove the one T30 screw holding the throttle body inlet pipe to the engine block. Also remove the one T30 screw holding the turbo outlet pipe to the engine block. Unclip and separate any wiring harnesses that are connected to the turbo outlet pipe.





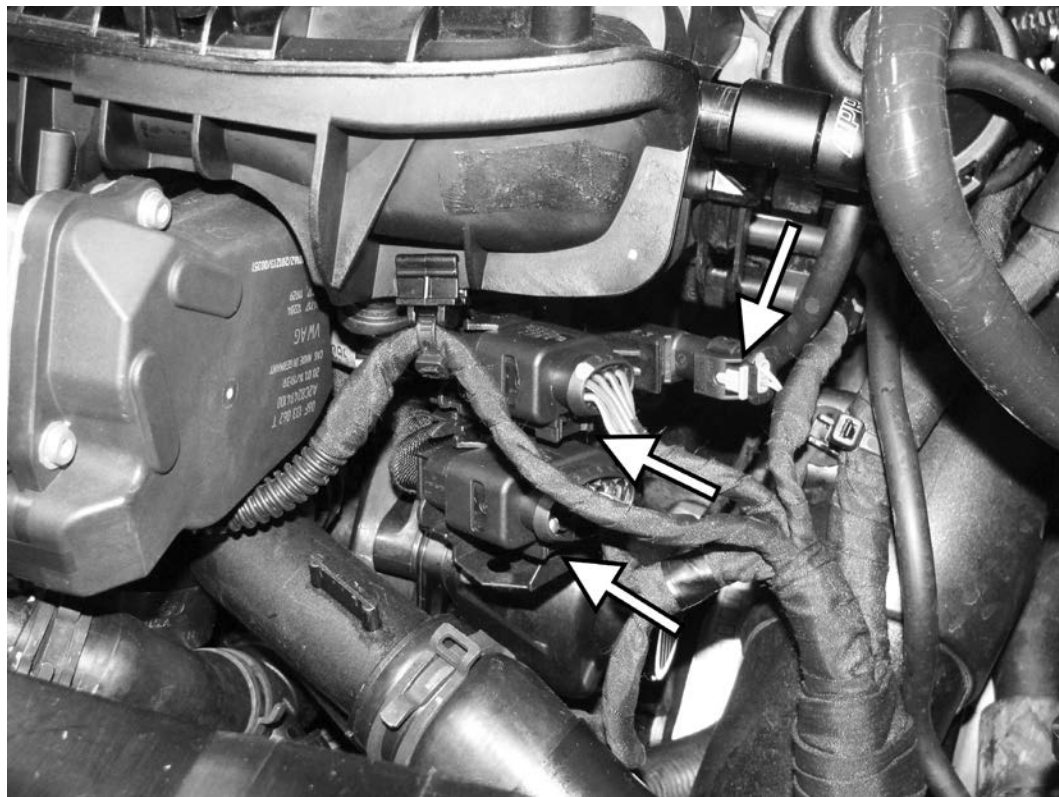
60) Disconnect the electrical connector to the MAP sensor on the throttle body inlet pipe. Remove the second T30 screw holding the throttle body inlet pipe to the engine block.

61) Pulling the throttle body hose off the throttle body, lower the throttle body hose and throttle body inlet pipe down about four inches from the intake manifold.



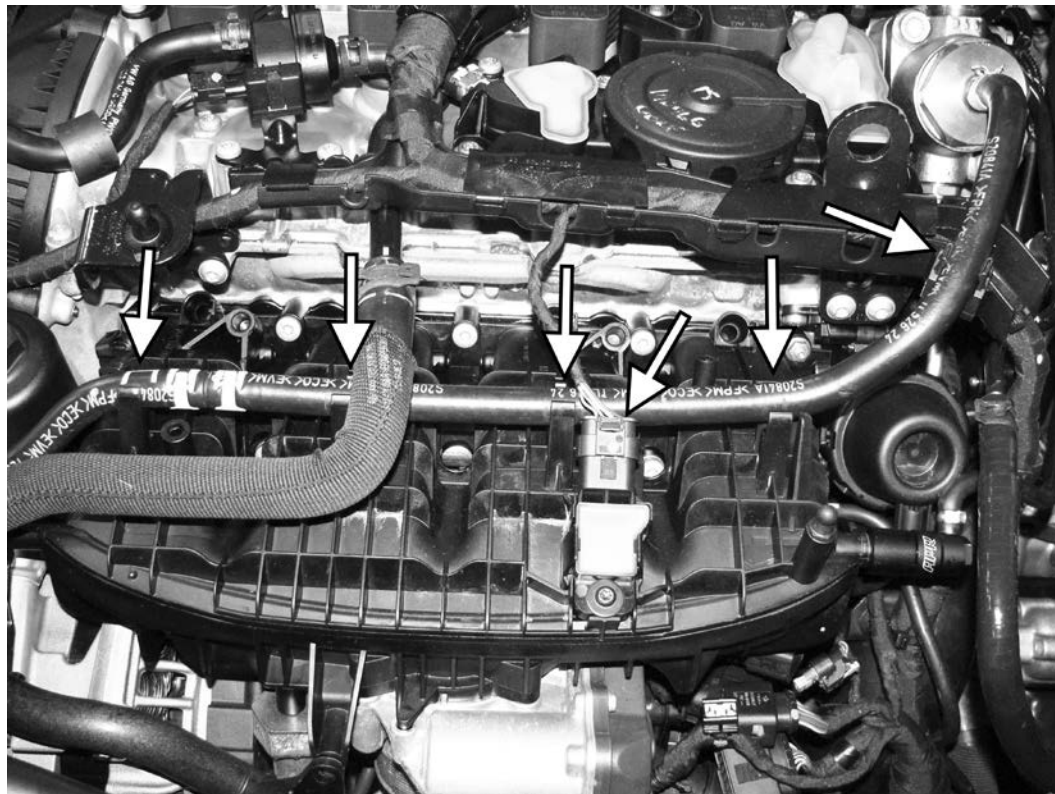
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62) Disconnect the three electrical connectors from the left side of the intake manifold.

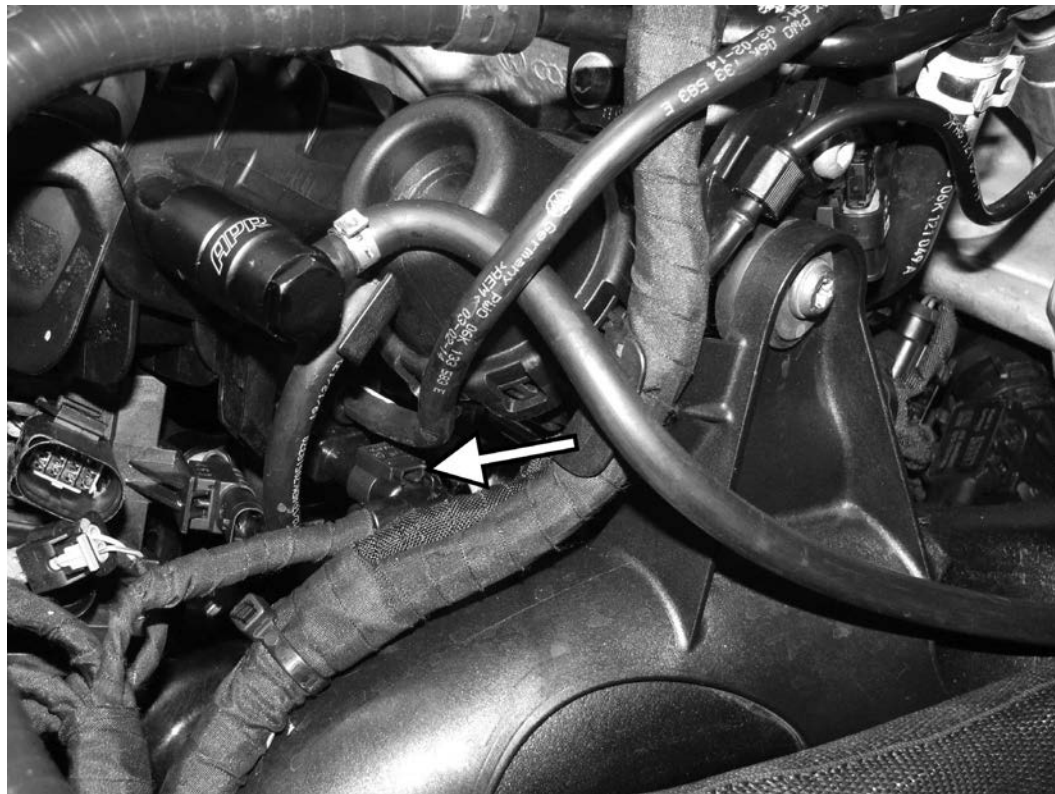
63) Separate the fuel feed line from the five mounting points along the intake manifold. Disconnect the electrical connector from the MAP sensor on top of the intake manifold.

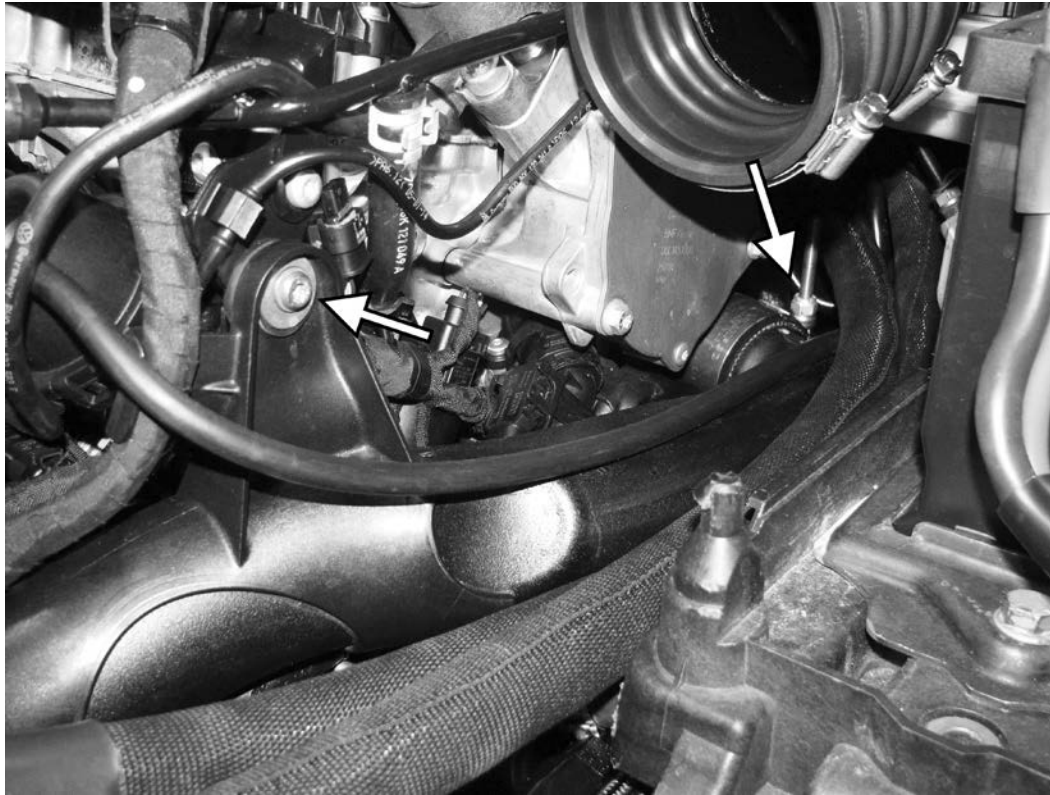




64) Disconnect the electrical connector to the camshaft position sensor located on the left side of the engine, behind the intake manifold runner flap actuator.

65) Disconnect the electrical connector that goes to the intake manifold runner flap actuator control valve on the left side of the intake manifold.





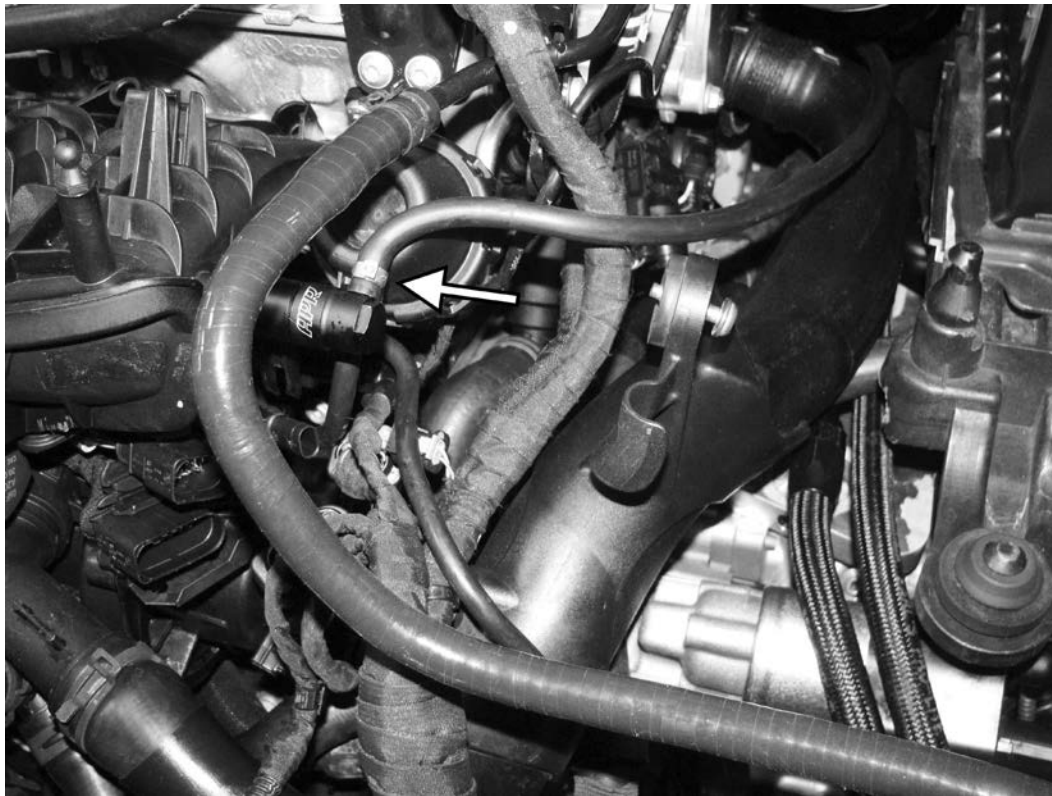
66) Unscrew the T30 screw that holds the turbo outlet pipe to the left side of the engine. Also loosen the clamp from the turbo compressor outlet hose to the turbo outlet pipe. Separate the outlet pipe from the compressor outlet hose.

67) Underneath the car, remove the hose clamp holding the intercooler inlet hose to the turbo outlet pipe, and separate the hose from the pipe.



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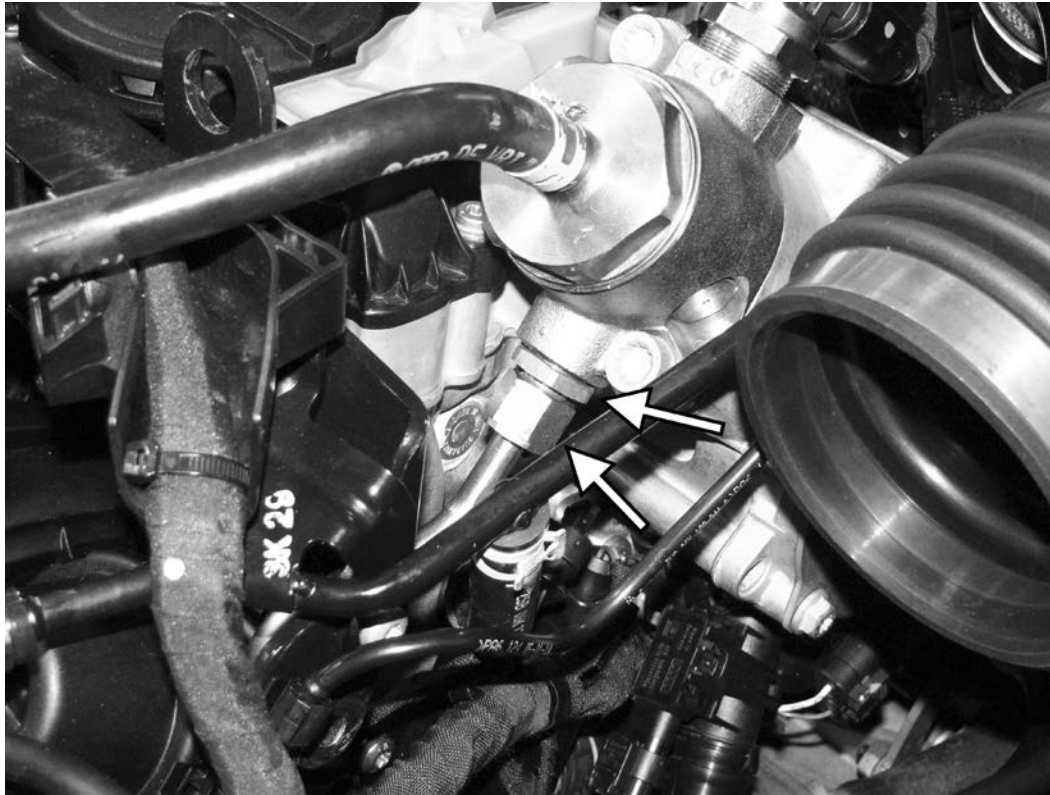
4 8 0 0 U S H W Y 2 8 0 W e s t O p e l i k a A l a b a m a 3 6 8 0 1



68) Carefully loosen the wiring harness from the side of the turbo outlet pipe, and then remove the turbo outlet pipe from the car. If equipped, remove the vacuum line from the APR boost tap.

69) Remove the one T30 screw that holds the high pressure fuel pump (HPFP) line from the pump to the fuel rail.

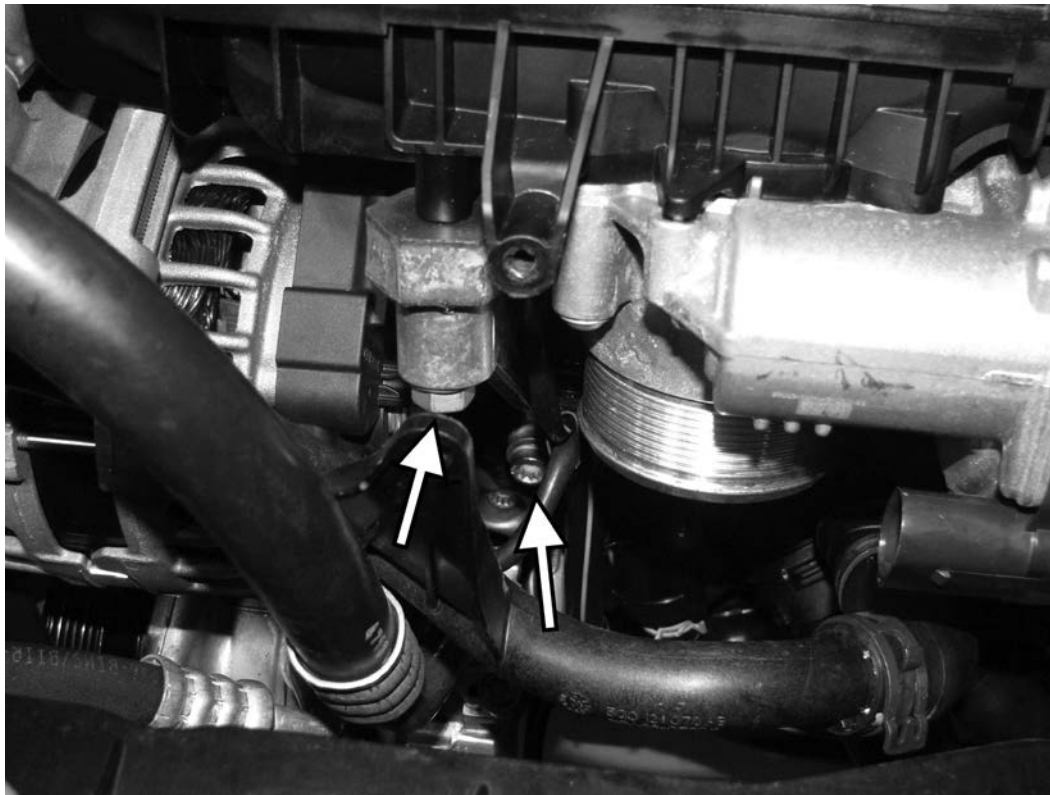




70) Holding the brass fitting in the bottom of the HPFP with a 21mm wrench, use a 17mm wrench to loosen the fuel line from the brass fitting. Use a rag around the connection while breaking the connectin loose to prevent gas from spraying or dripping.

71) Use a 17mm wrench to loosen the other end of the fuel line where it connects to the direct injection fuel rail. Remove both fittings on the fuel line and remove the fuel line from the car.

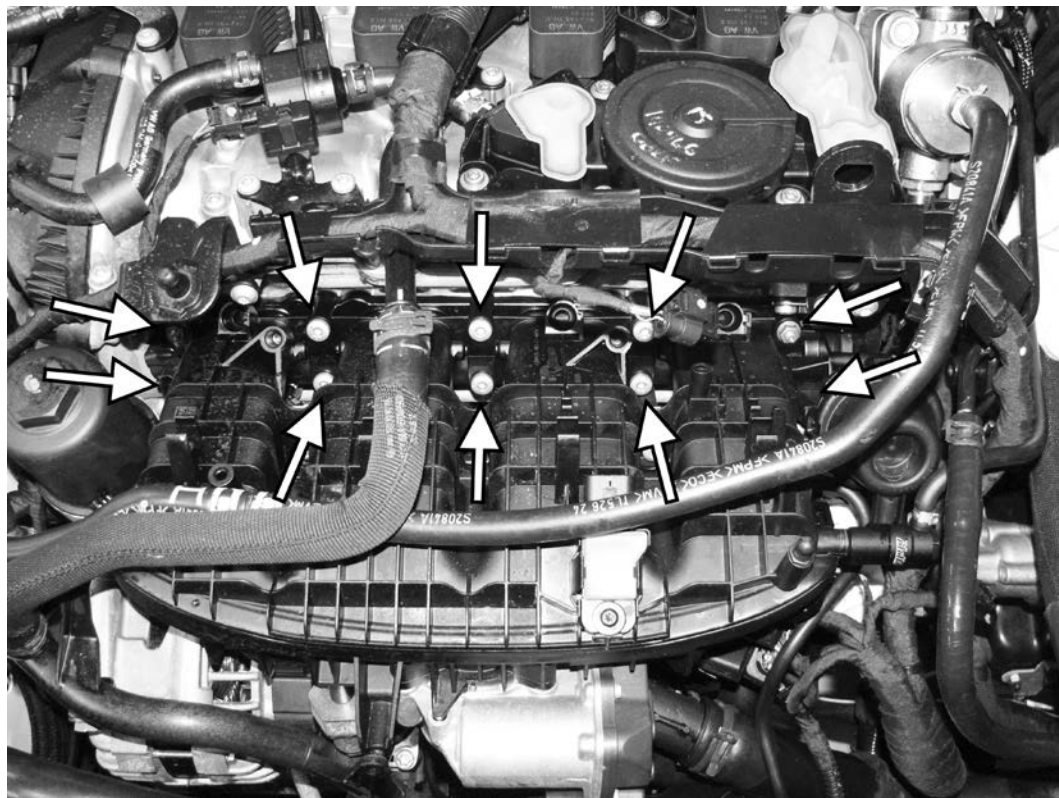




72) Just to the right of the throttle body, loosen the 13mm bolt holding the top side of the intake manifold support bracket. Remove the 10mm triple square bolt from the bottom of the intake manifold support bracket.

73) Disconnect the electrical connector from the intake manifold runner flap position sensor on the right side of the intake manifold.

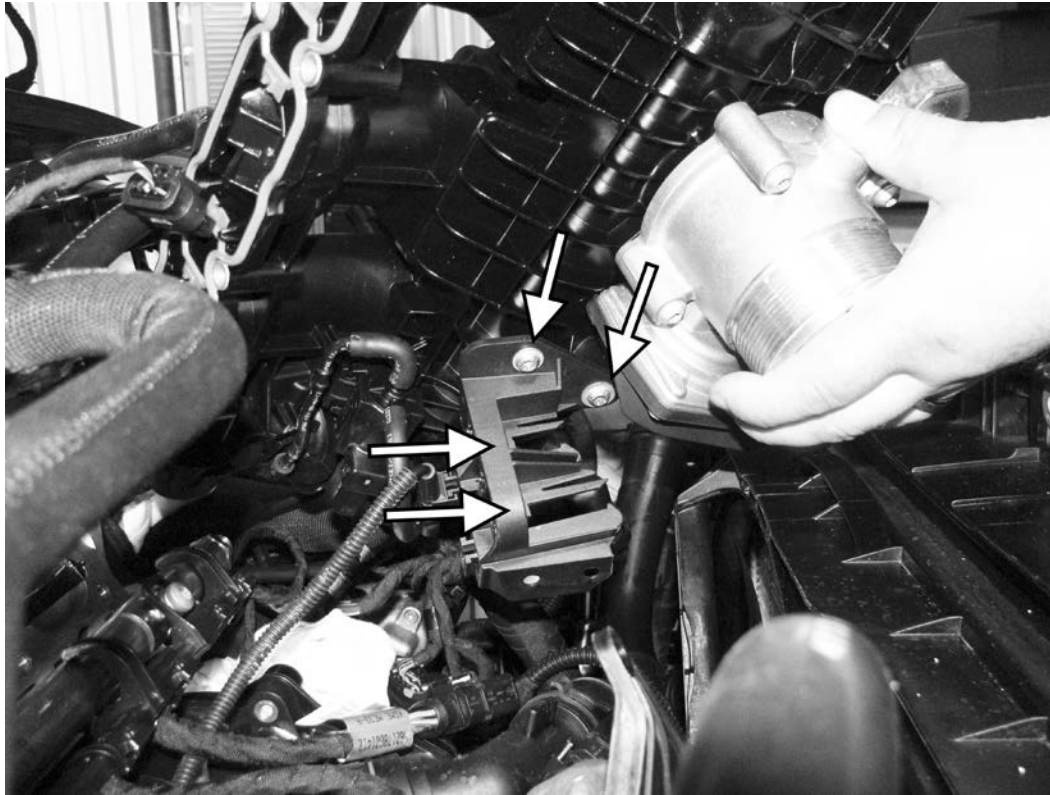




74) Remove the two 10mm nuts from the outer, upper portion of the intake manifold. Then remove the eight T30 bolts holding the intake manifold to the cylinder head.

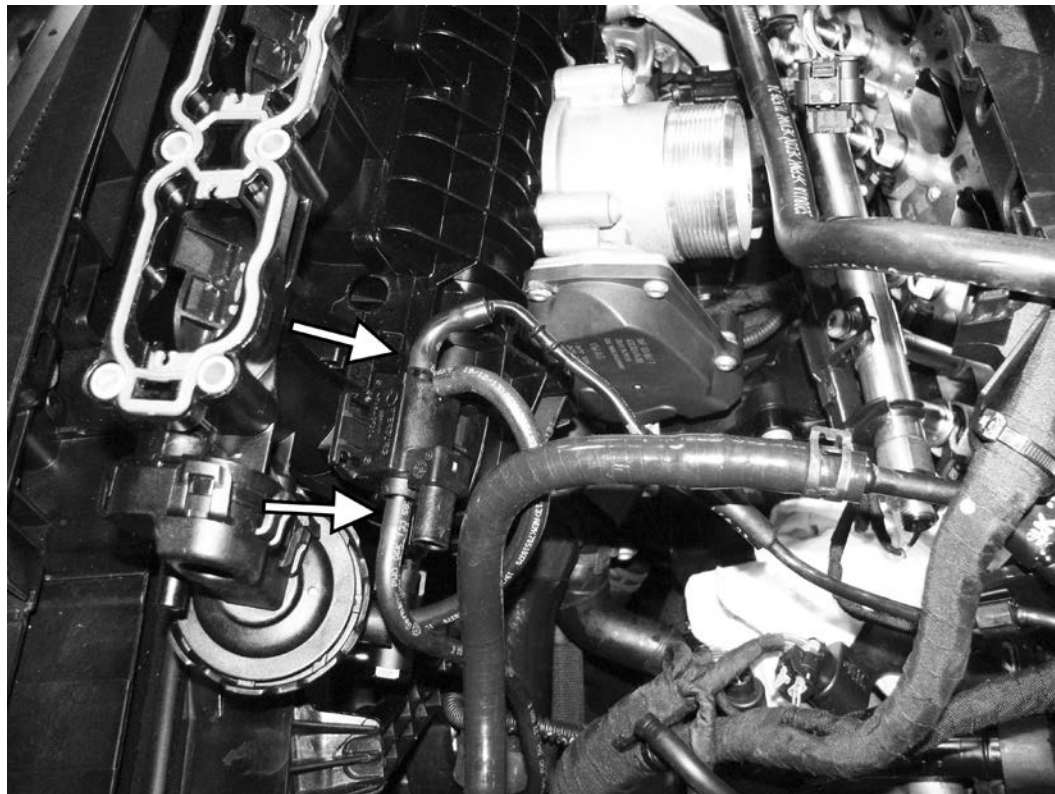
75) Remove the previously loosened 13mm nut from the top of the intake manifold support bracket. Carefully slide the intake manifold away from the cylinder head a few inches.





76) Lift the right side of the intake manifold up in order to access the connections on the bottom of the left side of the intake manifold. Slide the two electrical connectors off of their support bracket, and then remove the two T30 screws holding the bracket to the bottom of the intake manifold.

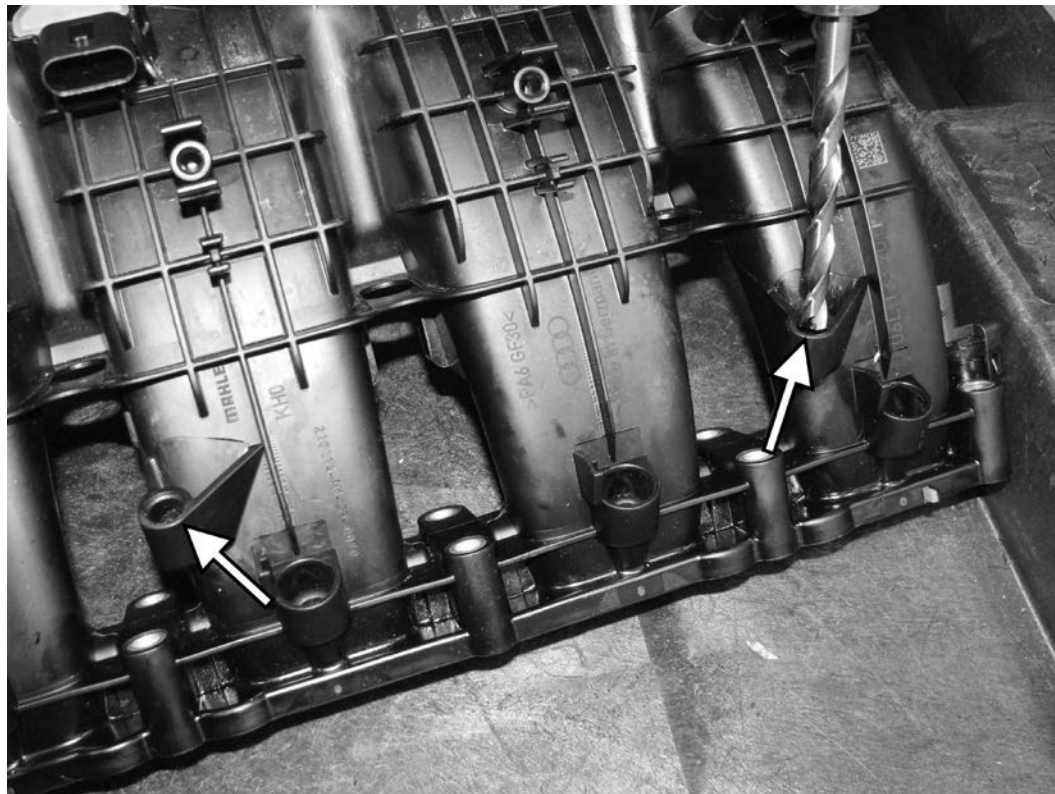
77) Disconnect the vacuum lines from both ends of the intake manifold runner flap actuator control valve. Remove the intake manifold from the car.





78) Place a clean cloth or tape over the intake ports of the cylinder head to keep anything from falling in the engine.

79) On a clean worksurface, use the supplied 9.5mm drill bit to slightly open the two empty holes in the intake manifold. These holes are slightly tapered towards the bottom, and need to be drilled as straight as possible. These holes only need to be drilled about 10mm deep. Do NOT drill deeper than the existing hole depth.

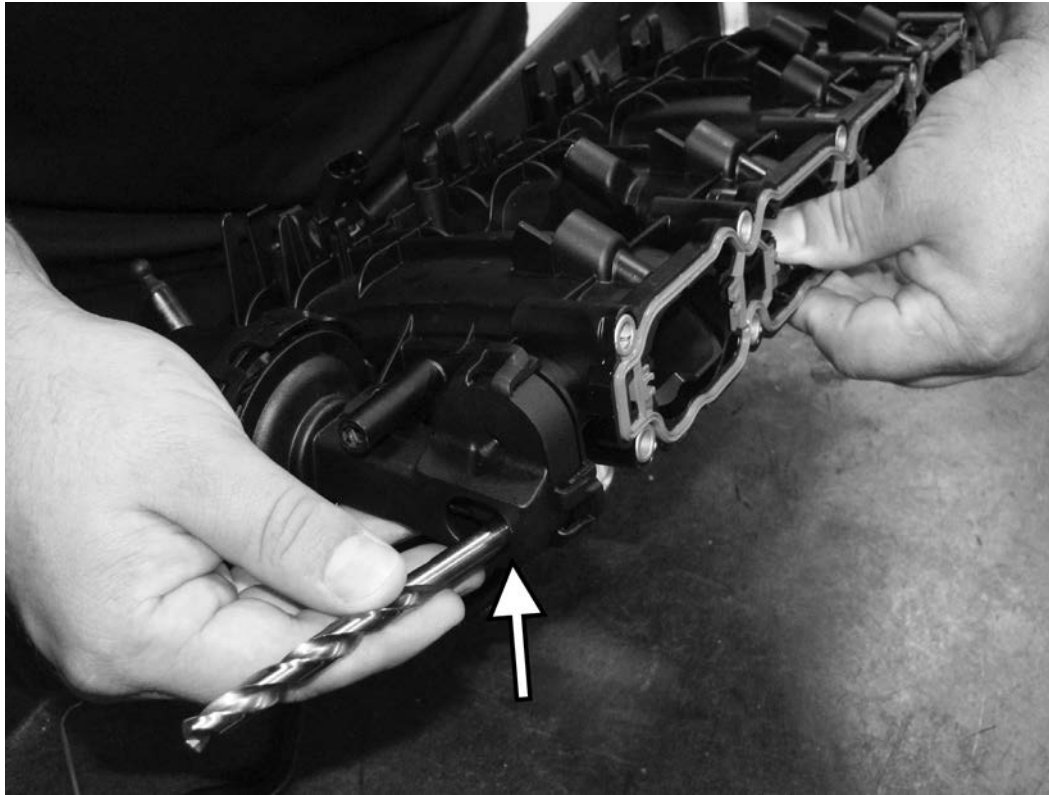




80) Place the supplied threaded inserts onto the previously drilled holes. Loosely thread the supplied stud into the insert at least 10mm. Install the two 10mm nuts all the way down to the top of the insert, and double nut the two nuts together so that you can turn the entire assembly as one.

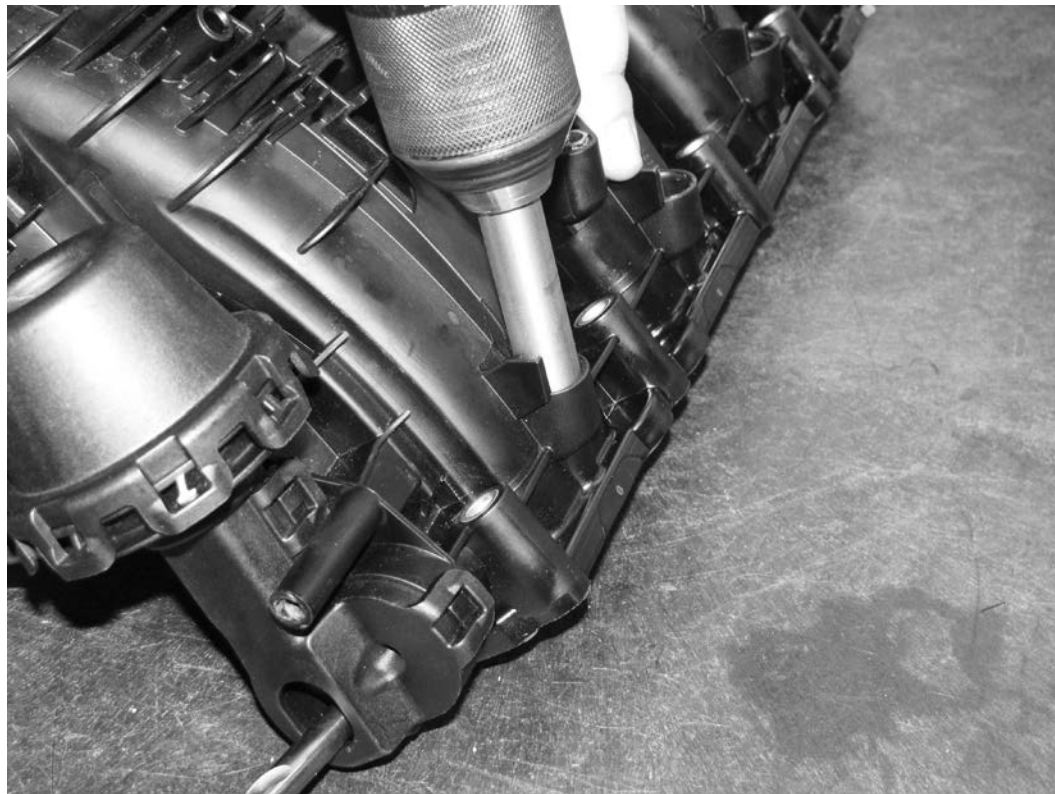
81) After making sure the insert is aligned with the hole in the intake manifold, use a 10mm deep socket to turn the insert and stud assembly down into the intake manifold. Make sure the insert goes in all the way, so that the top of the insert is flush with the top of the hole. Loosen the double nut and remove the two 10mm nuts, leaving the stud behind in the assembly.





82) Hold the runner flaps open, and then use the back end of your 8mm drill bit to hold the runner flap actuator in place. This will keep the runner flaps from accidentally getting drilled while making the holes for the port injectors.

83) Put the APR tool in your drill chuck, and then insert the tool into one of the injector port holes. There is flashing in the bottom of the hole that must be removed before the hole for the fuel injector can be drilled. The APR tool will stop going down in the hole when drilled sufficiently. Disconnect the drill from the APR tool, leaving the APR tool seated in the hole.

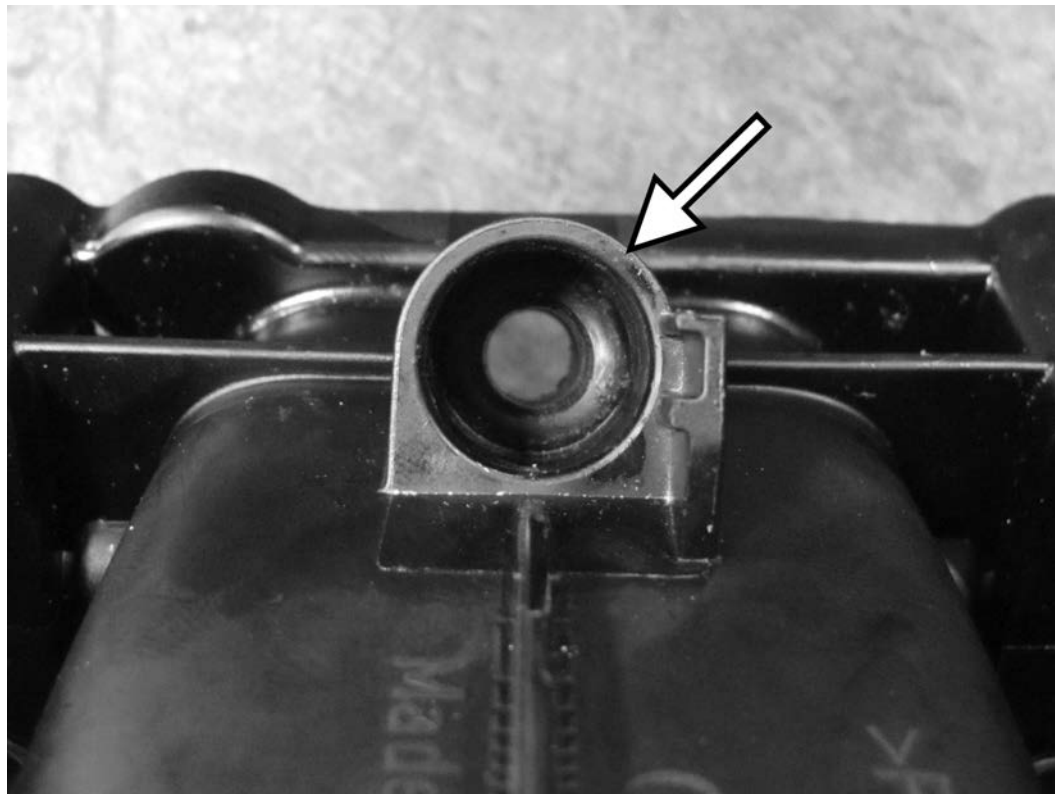




84) Put the supplied 7mm drill bit into the drill chuck, and then drill through the APR tool and the intake manifold. Make sure the tip of the drill bit breaks through the inside of the manifold. The APR tool will help guide the drill bit through the center of the port injection hole.

Repeat steps 84 and 85 to drill the remaining three port injection holes in the intake manifold.

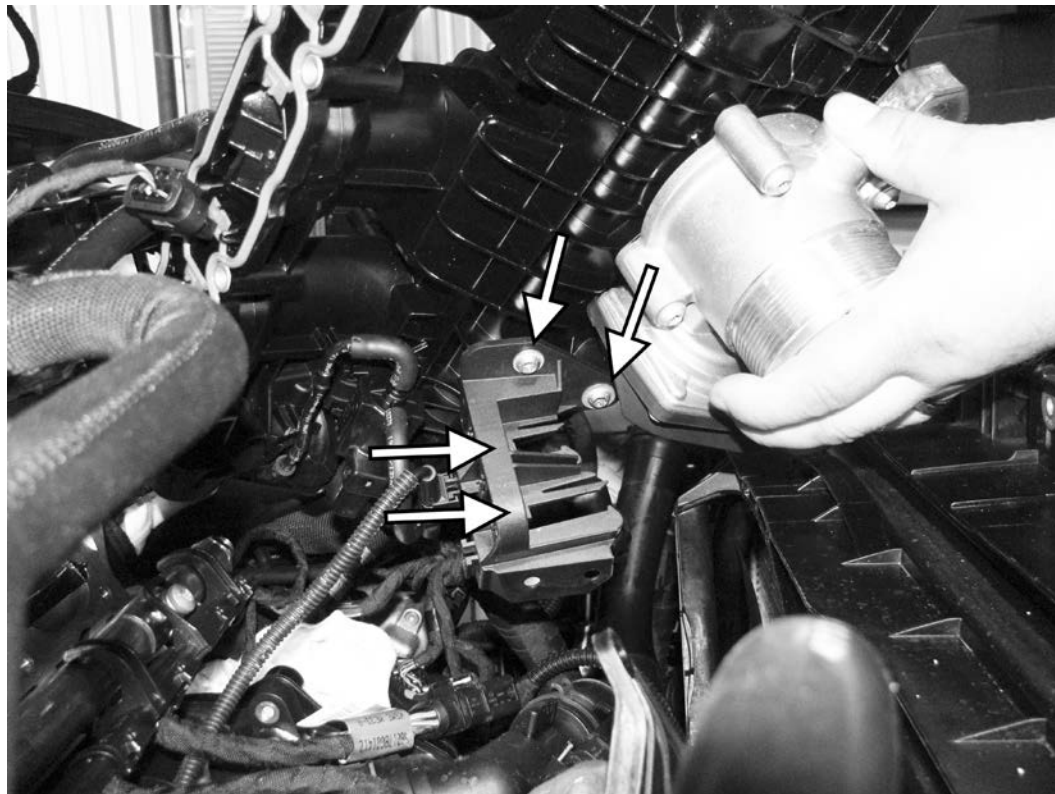
85) When finished drilling, the bottom of the port injection holes should have a relatively smooth finish, and the injector hole should be centered. Clean up any plastic residue or shavings left from making the modifications to the intake manifold. Use a razor blade to debur any uncut shavings from the port injection hole. Remove the 8mm drill bit from the runner flap actuator.





86) Set the intake manifold back in the car and connect the correct vacuum lines to both ends of the intake manifold runner flap actuator control valve.

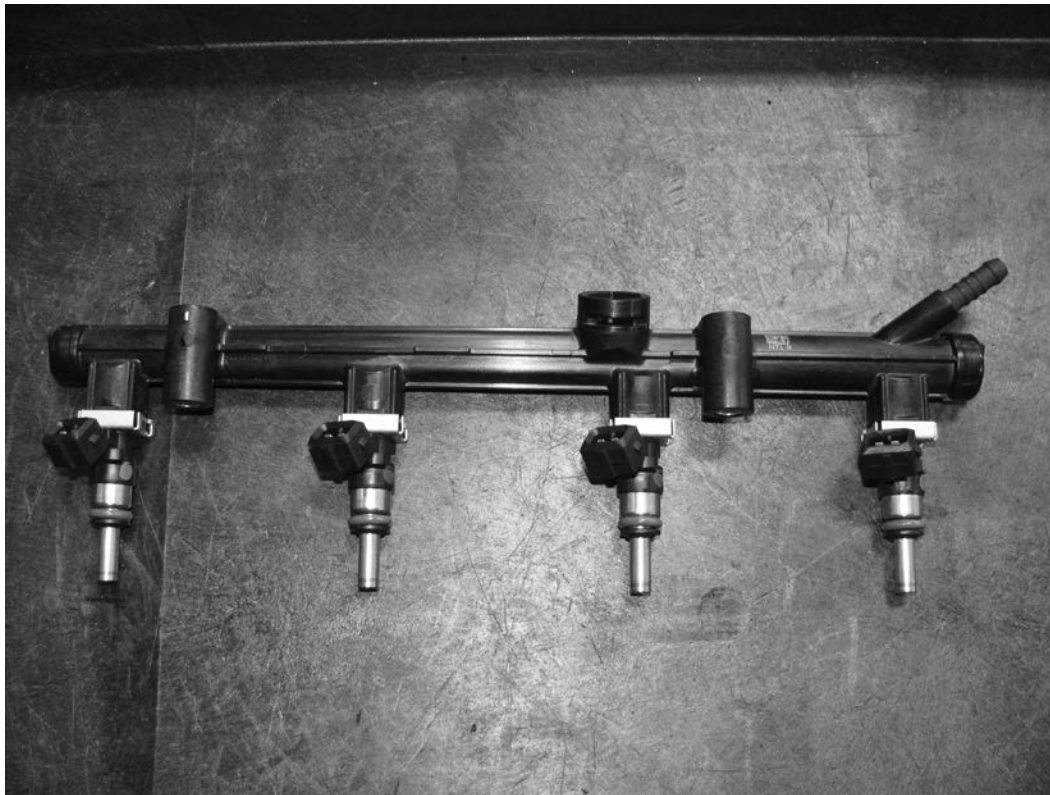
87) Lift the right side of the intake manifold up in order to access the connections on the bottom of the left side of the intake manifold. Install the two T30 screws that hold the electrical connector bracket to the bottom of the intake manifold. Slide the two electrical connectors back onto the support bracket.





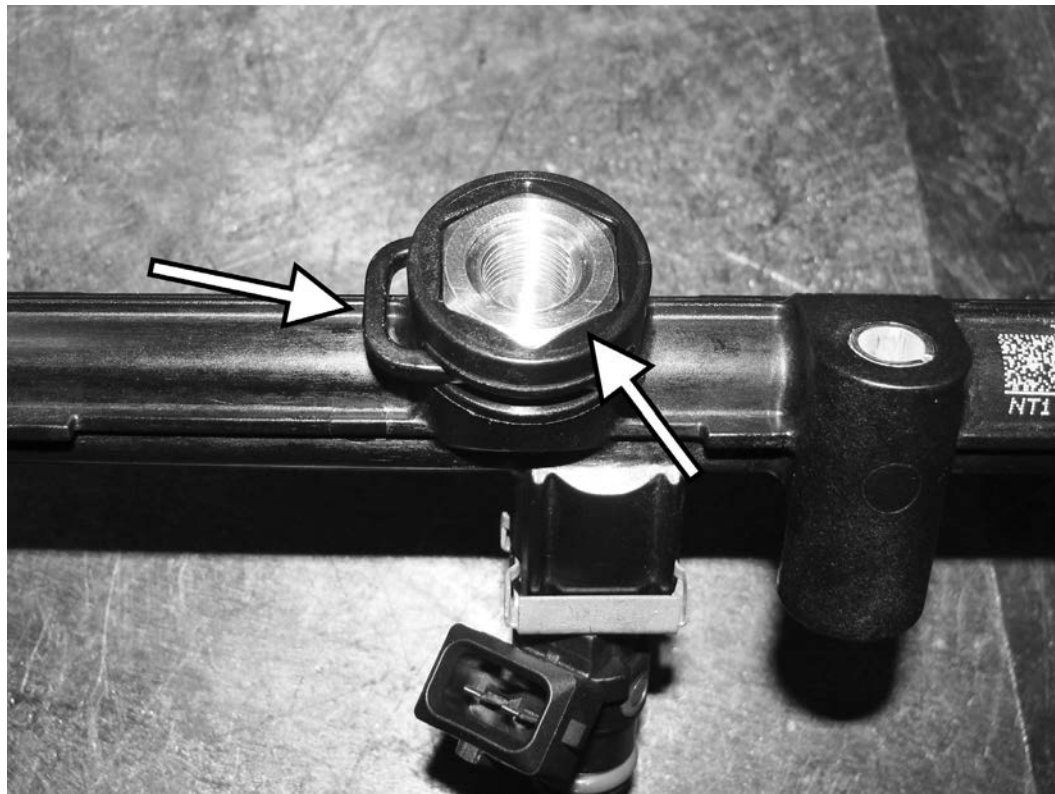
88) Remove the covering you had protecting the intake ports on the cylinder head. Carefully place the intake manifold back towards its mounting location on the cylinder head. It may be necessary to remove the oil filter housing to get the manifold fully in place.

A black and white photograph of a car engine, viewed from above. The engine is a V6, with the cylinder head and intake manifold visible. Several white arrows point to specific components: two arrows point to the intake manifold on the left; one arrow points to a spark plug on the left; one arrow points to a spark plug in the center; one arrow points to a spark plug on the right; one arrow points to a spark plug on the far right; and one arrow points to a component on the far right, possibly a fuel injector or a sensor. The engine is surrounded by various hoses, wires, and other mechanical parts. The overall image is a close-up, detailed view of the engine's internal components.



90) Lubricate the o-rings on the APR injectors with a silicone lubricant, and install the injectors in the new fuel rail. Install the injector clips from the front (with the barbed fuel rail inlet on the right); there is a flat spot on the fuel rail the clips will sit in when fully engaged.

91) Lubricate and install the supplied o-ring on the brass fuel pressure sensor adapter. Press the adapter into the fuel rail, ensuring the hexagonal adapter sits flush into the fuel rail. Once fully seated, the plastic retaining clip can be installed.

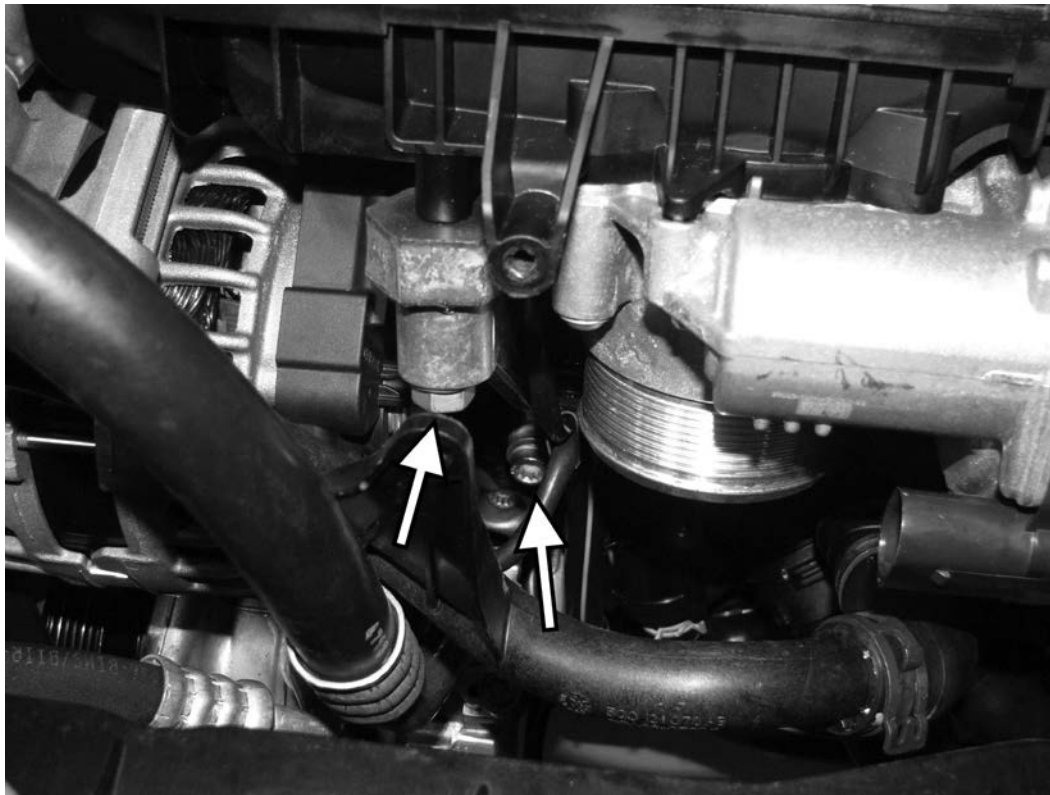




92) Remove the two T30 screws from the coolant pipe on top of the valve cover. Lift up the pipe to create additional room to access the top of the intake manifold.

93) Rotate the fuel injectors on the fuel rail so that the electrical connectors are facing the right side of the car, directly away from the barbed fuel rail inlet. Loosely place the fuel rail assembly in the car, aligning the holes in the fuel rail with the previously installed studs.





94) Loosely reinstall the 10mm triple square bolt holding the bottom of the intake manifold support bracket. Reinstall the 13mm nut to the top of the support bracket and torque to 88 in-lb (10Nm). Then torque the lower 10mm triple square bolt to 177 in-lb (20Nm).

95) After ensuring that the 19mm brass fitting is still tight on the direct injection fuel rail, loosely reinstall both ends of the fuel line that goes between the HPFP and the direct injection fuel rail. Using a 17mm wrench, tighten the lower fitting to the direct injection fuel rail.

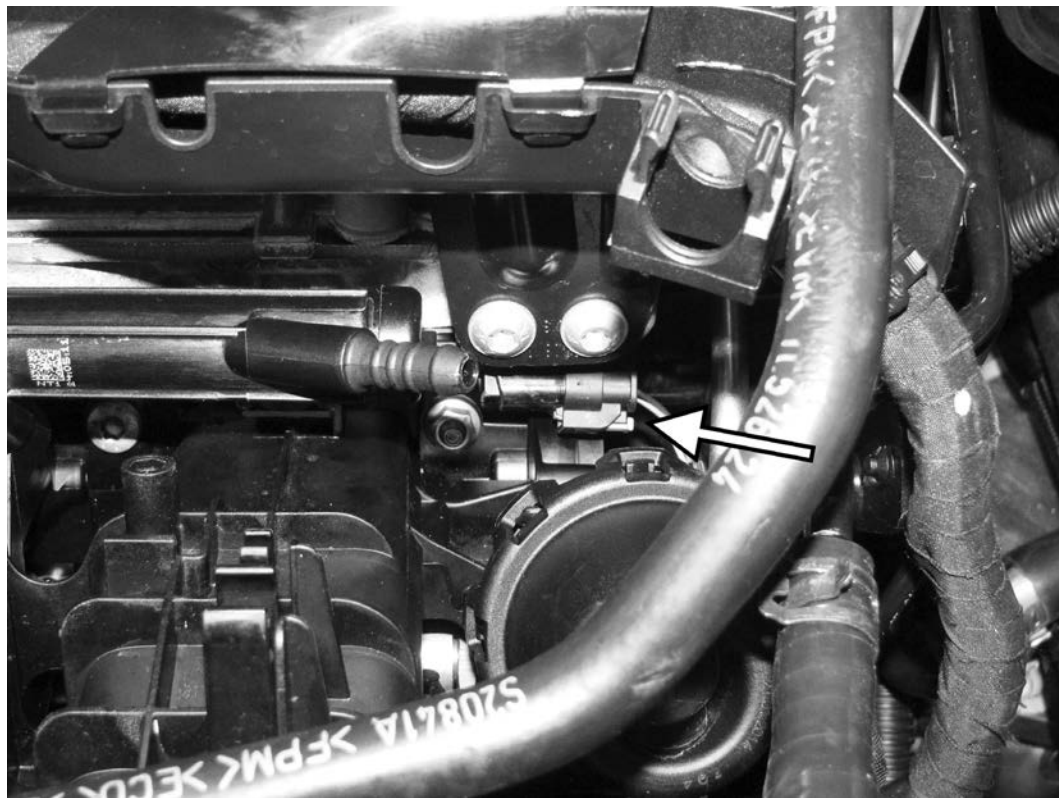




96) Holding the brass fitting in the bottom of the HPFP with a 21mm wrench, use a 17mm wrench to tighten the fuel line to the brass fitting. Also reinstall the one T30 screw that holds the fuel line in place.

97) Reconnect the three electrical connectors on the left side of the intake manifold. Also reconnect the electrical connector that goes to the intake manifold runner flap actuator control valve.





98) Reconnect the electrical connector to the cam position sensor, just above the intake runner flap actuator.

99) On the right side of the intake manifold, connect the factory electrical connector for intake runner flap position sensor to the matching connection on the APR harness, and then plug the APR harness into the intake runner flap sensor. It will be necessary to slightly pull the factory harness out some to connect to the APR harness.

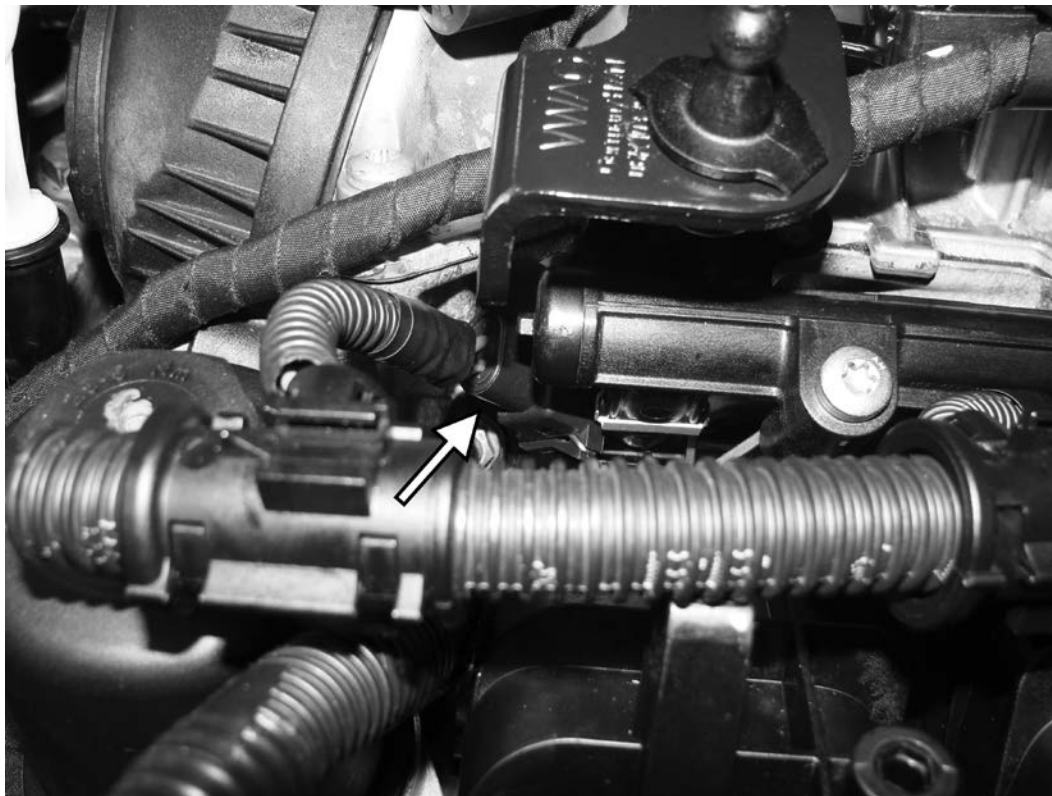




100) Connect the APR harness to port injectors #2, #3, and #4, leaving the #1 (the far right) injector unplugged. Install the fuel pressure sensor in the fuel rail with a 27mm wrench or deep well socket and torque to 132 in-lb (15Nm).

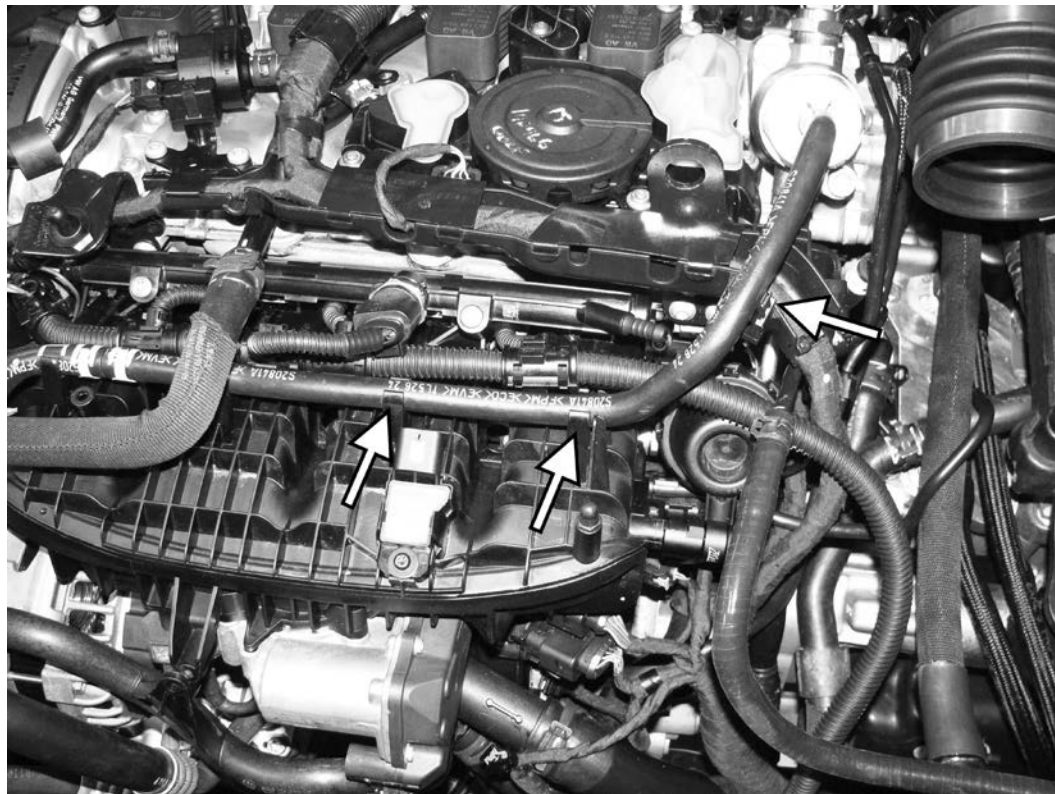
101) After making sure all the injector electrical connectors are facing directly to the right side of the car, push the fuel rail down to full seat it. There are slots in the intake manifold for the raised tabs on the fuel injectors. Install the two 10mm nuts to the studs in the intake manifold and torque to 80 in-lbs (9Nm).

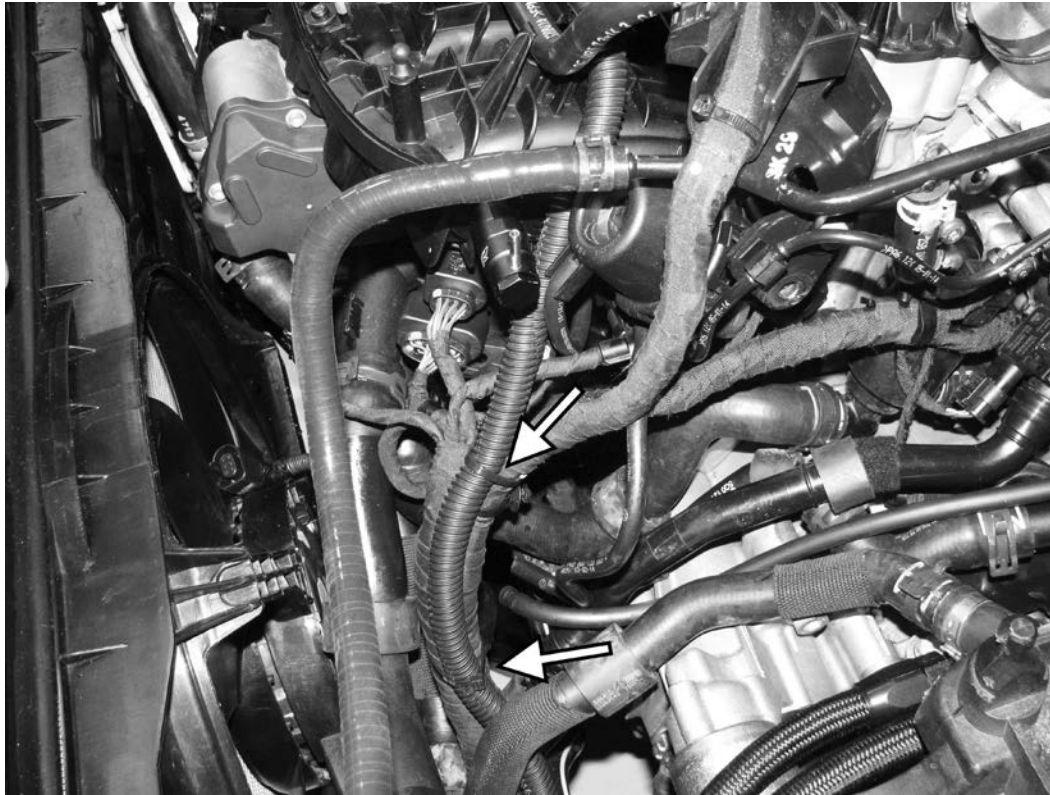




102) Install the electrical connector from the APR harness to the #1 fuel injector. Tuck the wiring for the connection to the intake manifold runner flap position sensor under the intake manifold. Also connect the electrical connector on the APR harness to the fuel pressure sensor on the fuel rail.

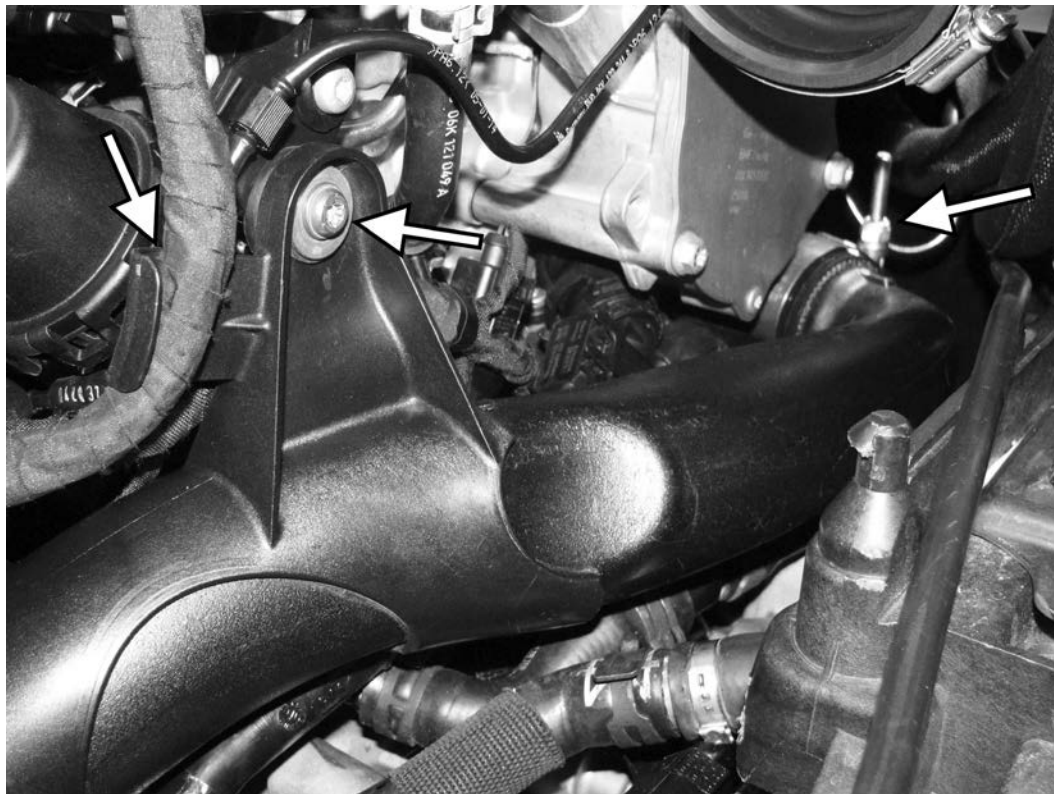
103) Tuck the APR harness behind the raised posts for the factory fuel line. Push the factory fuel hose into the raised posts the hose sits in from the factory. Route the long end of the APR harness roughly along the same path as the factory wiring harness.

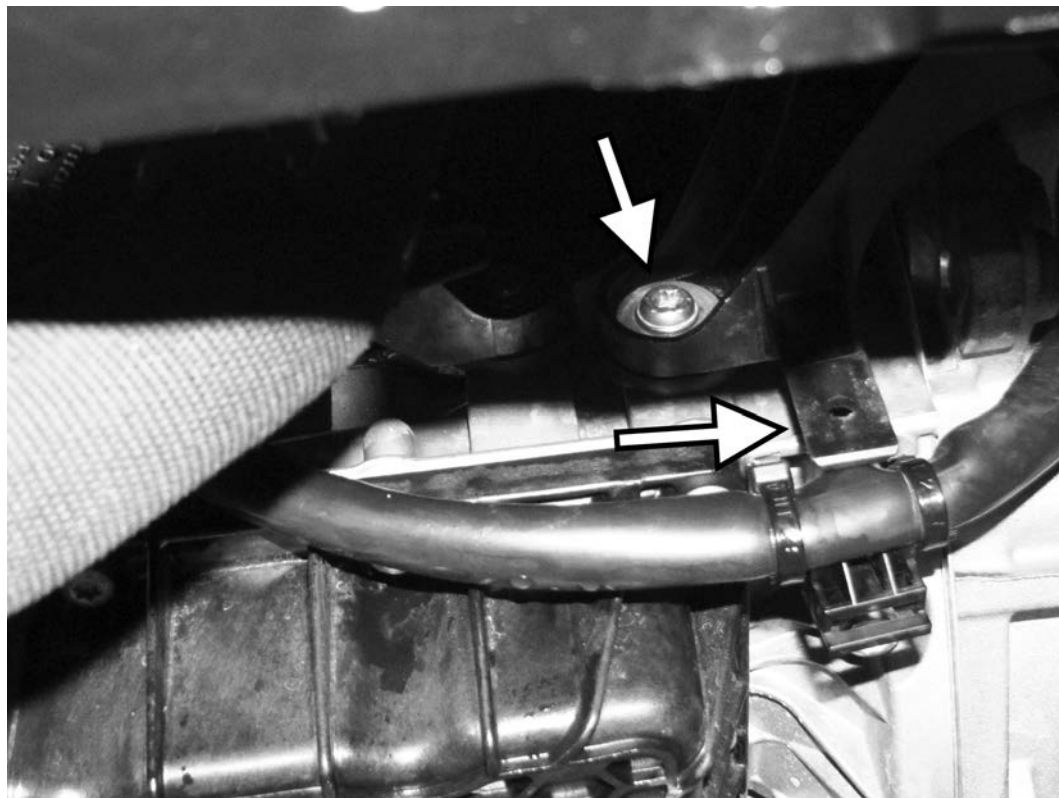




104) Secure the APR harness to the factory wiring harness with the supplied cable ties all the way back over to the engine ECU.

105) Reinstall the factory turbo outlet pipe. Install the factory T30 screw holding the pipe to the engine. Route the factory wiring harness through the raised tab on the side of the turbo outlet pipe. Install the clamp on the compressor outlet hose. If using APR hoses/clamps, torque the clamp to 75 in-lb (8.5Nm).





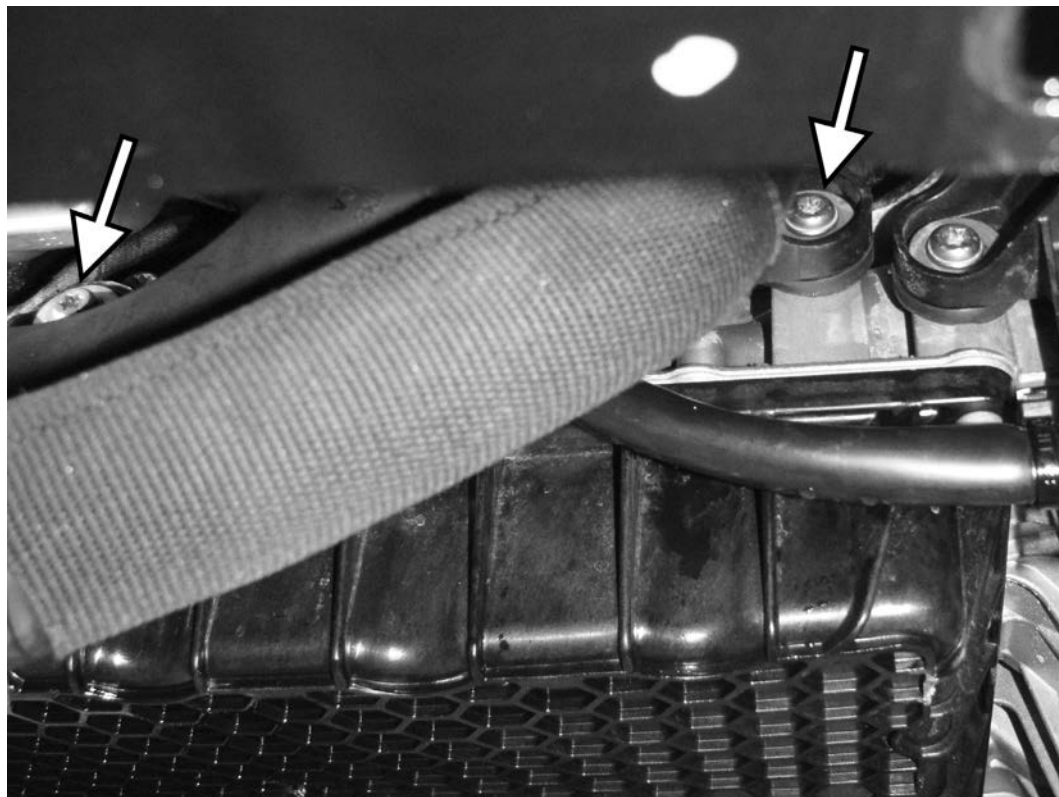
106) Underneath the car, reinstall the T30 screw holding the bottom of the turbo outlet pipe to the engine. Reconnect any wiring harnesses that are connected to the turbo outlet pipe.

107) Reinstall the intercooler inlet to the turbo outlet pipe, and install the hose clamp. If using APR hoses/clamps, torque the clamp to 75 in-lb (8.5Nm).



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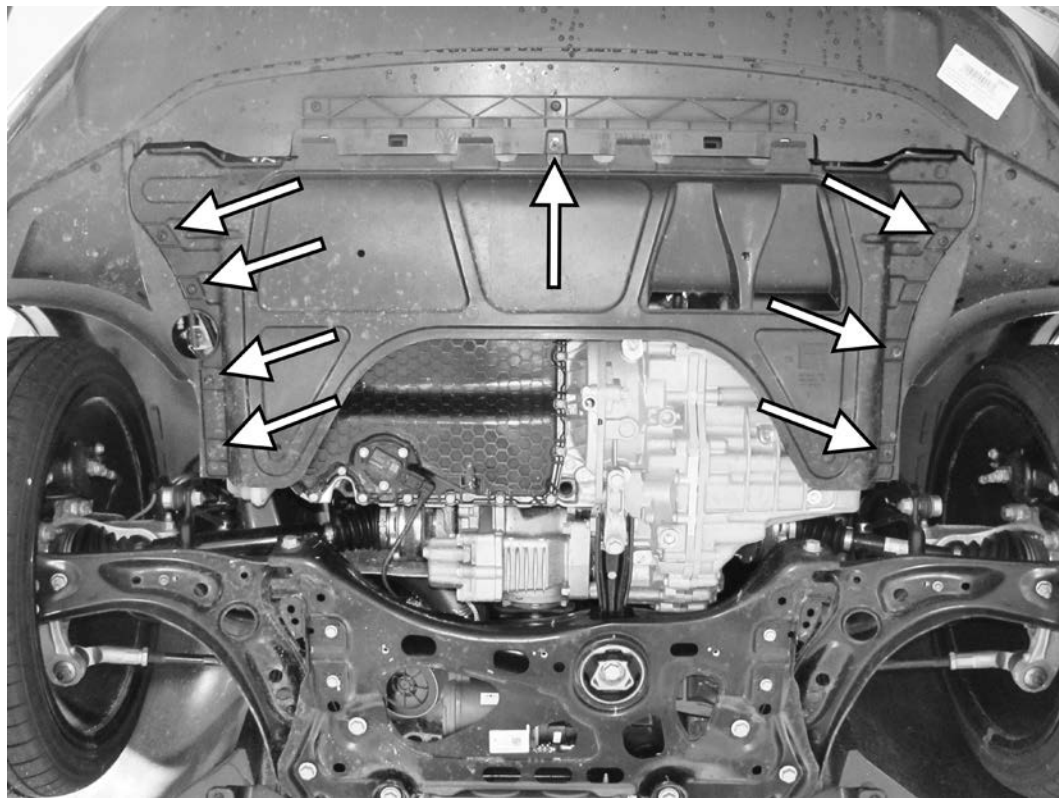
4 8 0 0 U S H W Y 2 8 0 W e s t O p e l i k a A l a b a m a 3 6 8 0 1



108) Push the throttle body inlet pipe up, making sure the throttle body hose goes onto the throttle body. Install the two T30 screws on the inlet pipe to secure it to the engine.

109) Reconnect the clamp holding the lower radiator hose to the front of the engine. Plug the electrical connector back into the MAP sensor on the throttle body inlet pipe.





110) Install the belly pan onto the car, making sure the belly pan snaps into the lower portion of the front bumper cover. Secure the belly pan with the eight, original T25 screws.

111) Reattach the electrical connector to the throttle body. Reinstall the clamp holding the throttle body hose to the throttle body. If using APR hoses/clamps, torque the clamp to 75 in-lb (8.5Nm).



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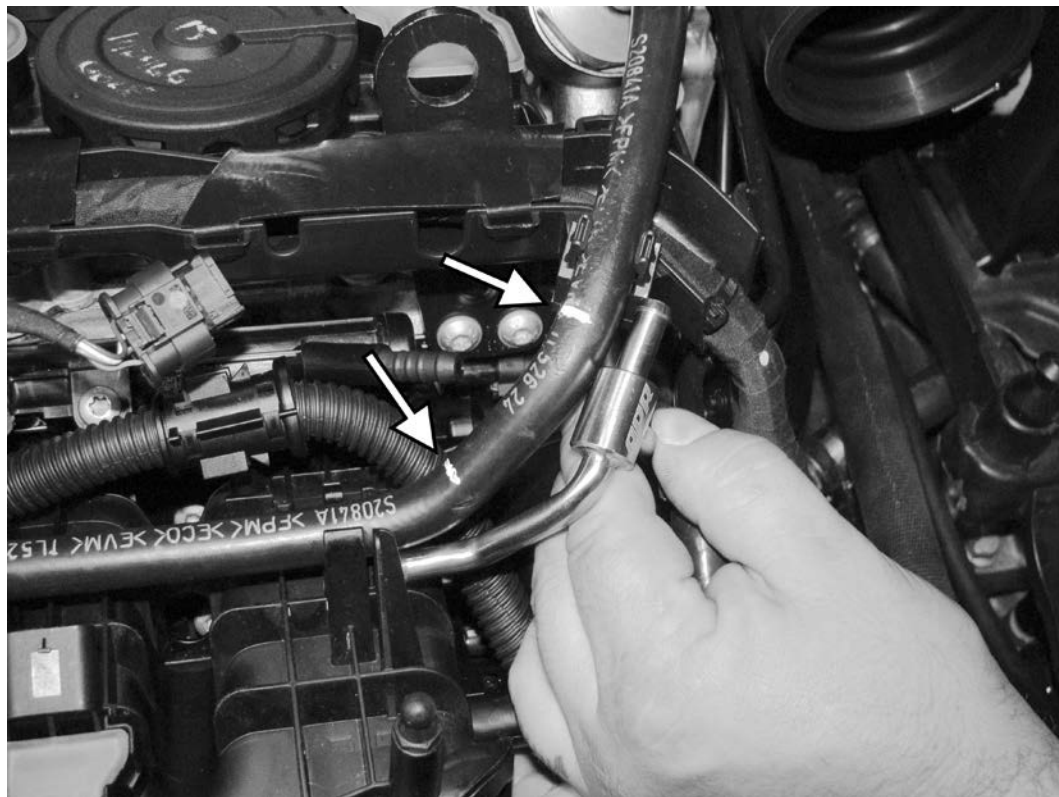
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112) Reinstall the factory coolant pipe to the front of the intake manifold with the two original T30 screws.

113) Install the two T30 screws that hold the coolant pipe to the top of the valve cover.

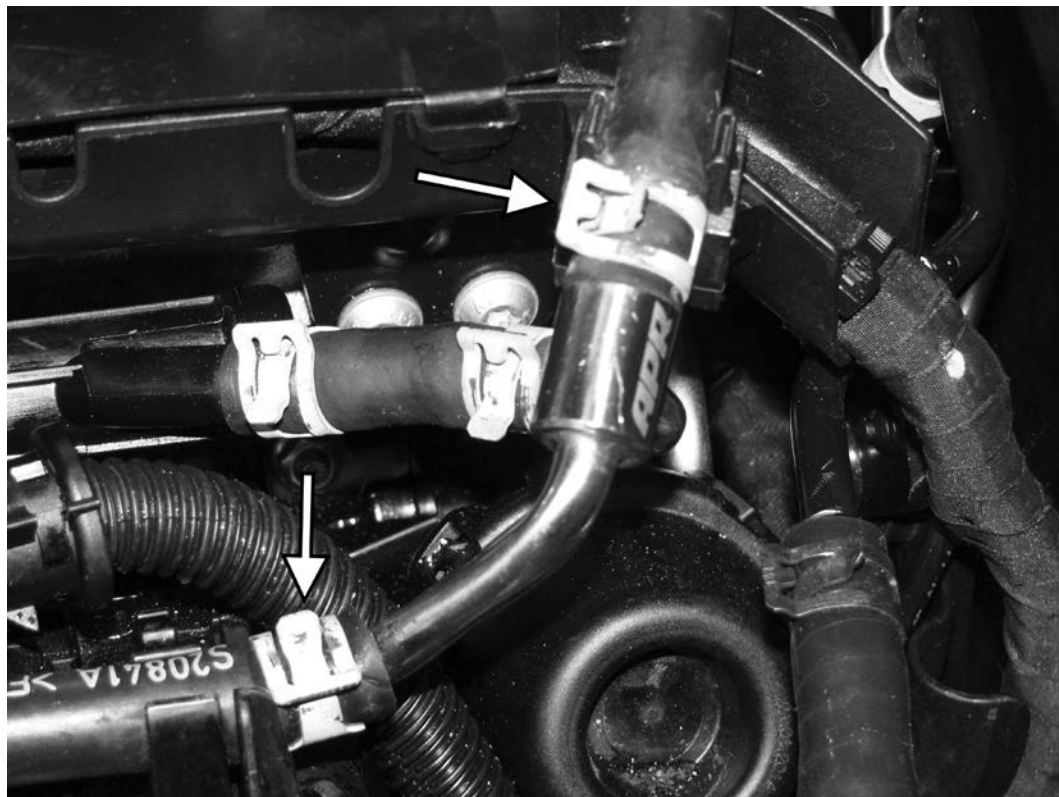




114) Holding the APR fuel tee up next to the factory fuel hose on the left side of the intake manifold. Mark the hose with a paint marker roughly where the tee will need to be installed. Cut the factory hose where you made the paint marks.

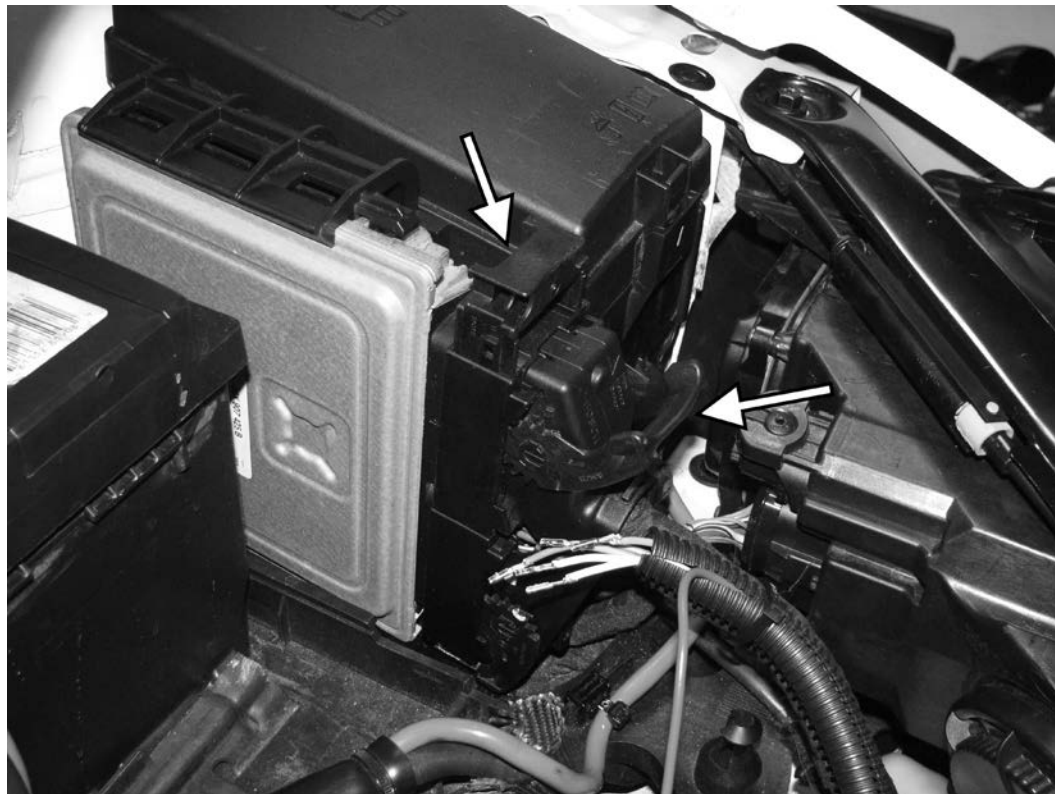
115) Install the supplied fuel line between the side of the APR fuel tee and the barbed fitting on the port injection fuel rail, and secure with the supplied clamps. The supplied fuel line may need to be cut, as the connection between the two pipes should as short as possible. It is easiest to install the clamps on the fuel hose, and then while holding the clamp open, slide the fitting into the hose.

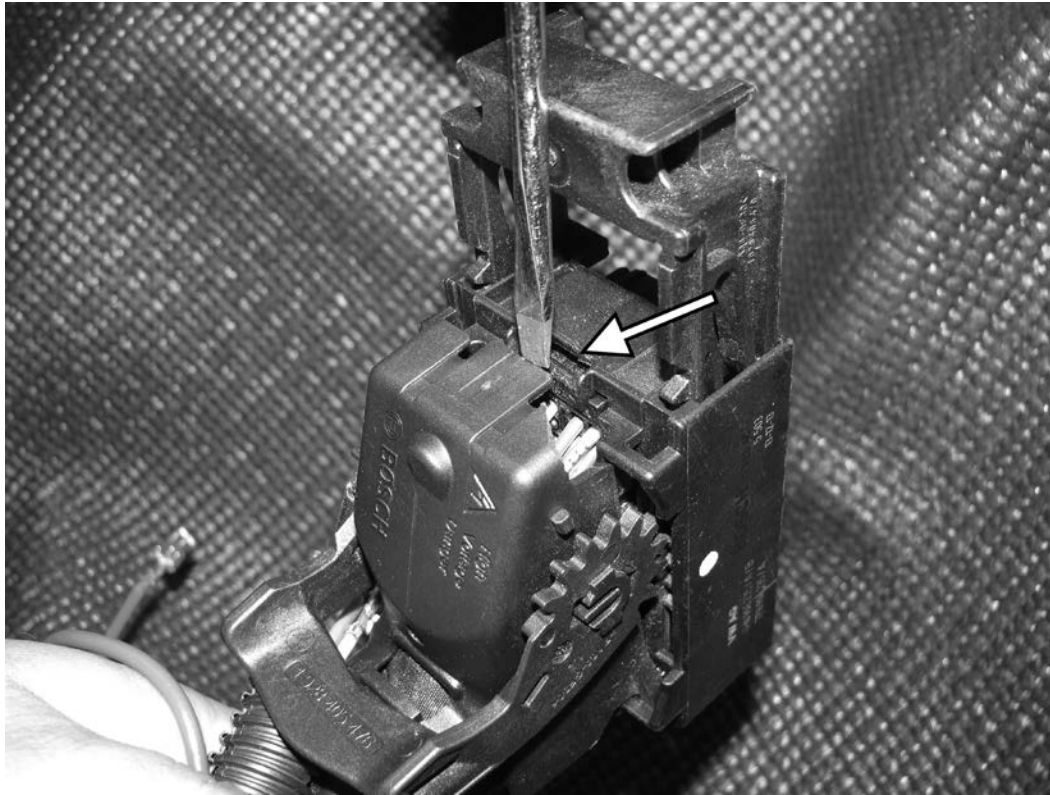




116) Install both ends of the cut factory fuel line onto the APR fuel tee and secure with the supplied hose clamps. The line should then be able to be placed back into the factory hose mounting stands. Plug the electrical connector back into the MAP sensor on top of the intake manifold.

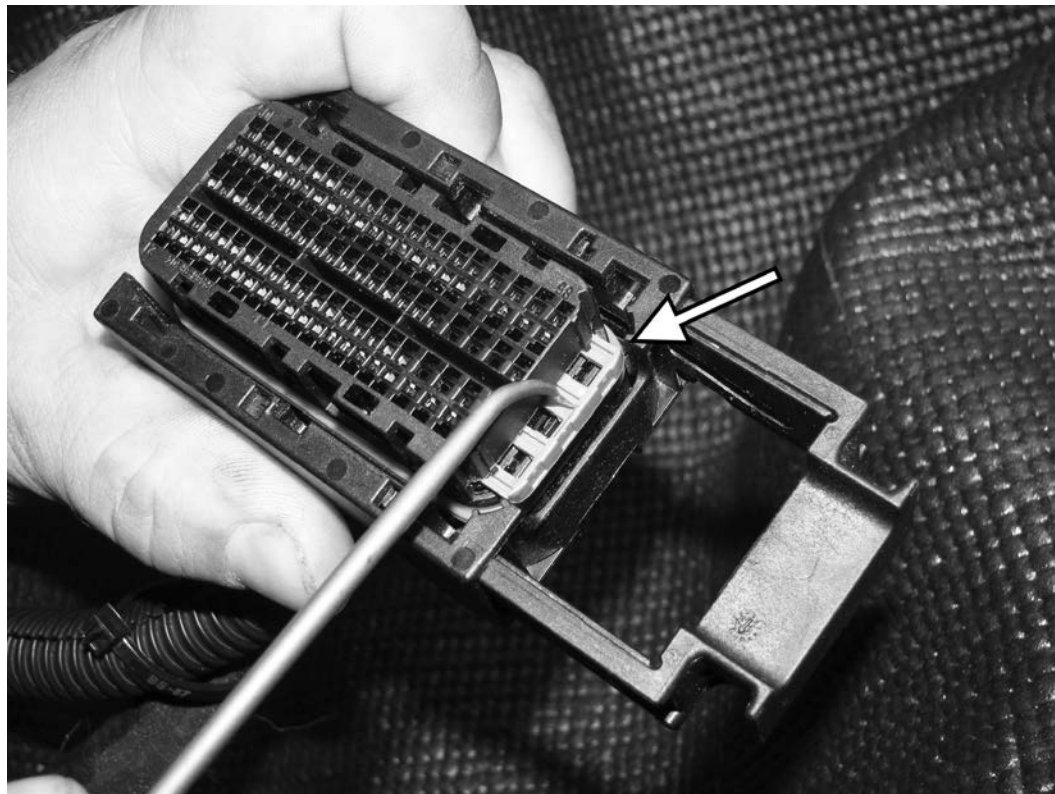
117) Disconnect the 105-pin connector from the engine ECU. This should be the top connector on the ECU. To disconnect, flip the lever on the back of the connector down while lifting up on the tab at the side of the connector.

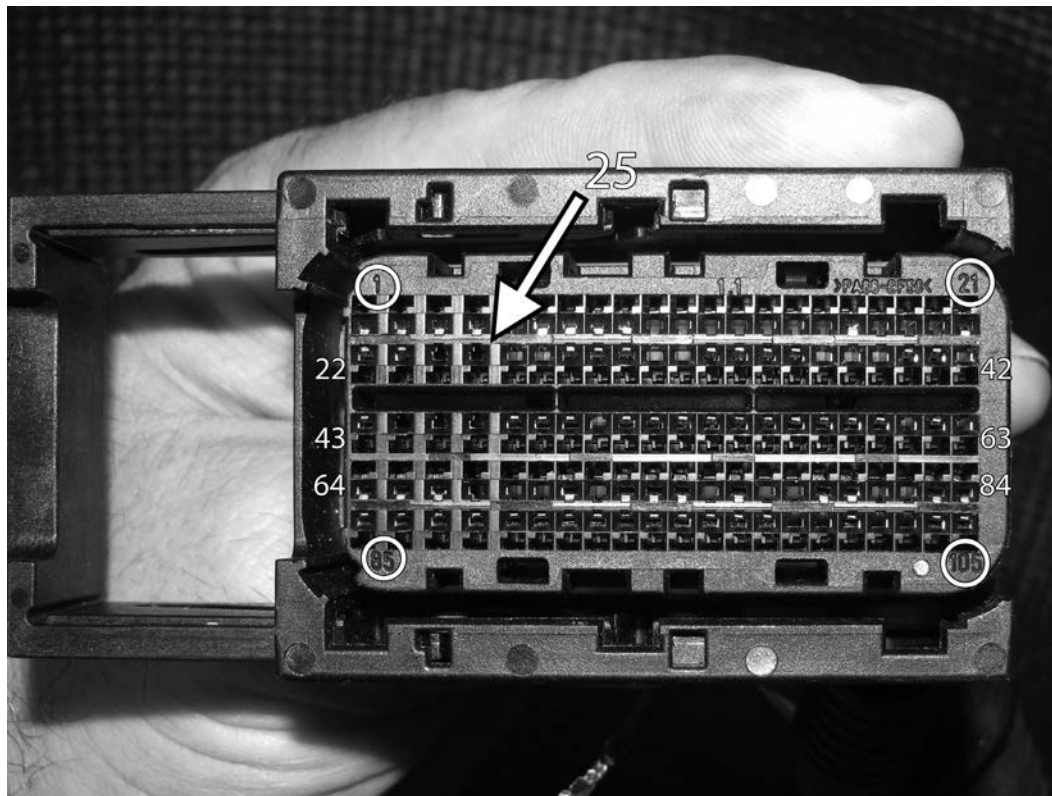




118) Using a small screwdriver and making sure the level on the connector is flipped fully open, pry the back cover and lever off the 105 pin connector.

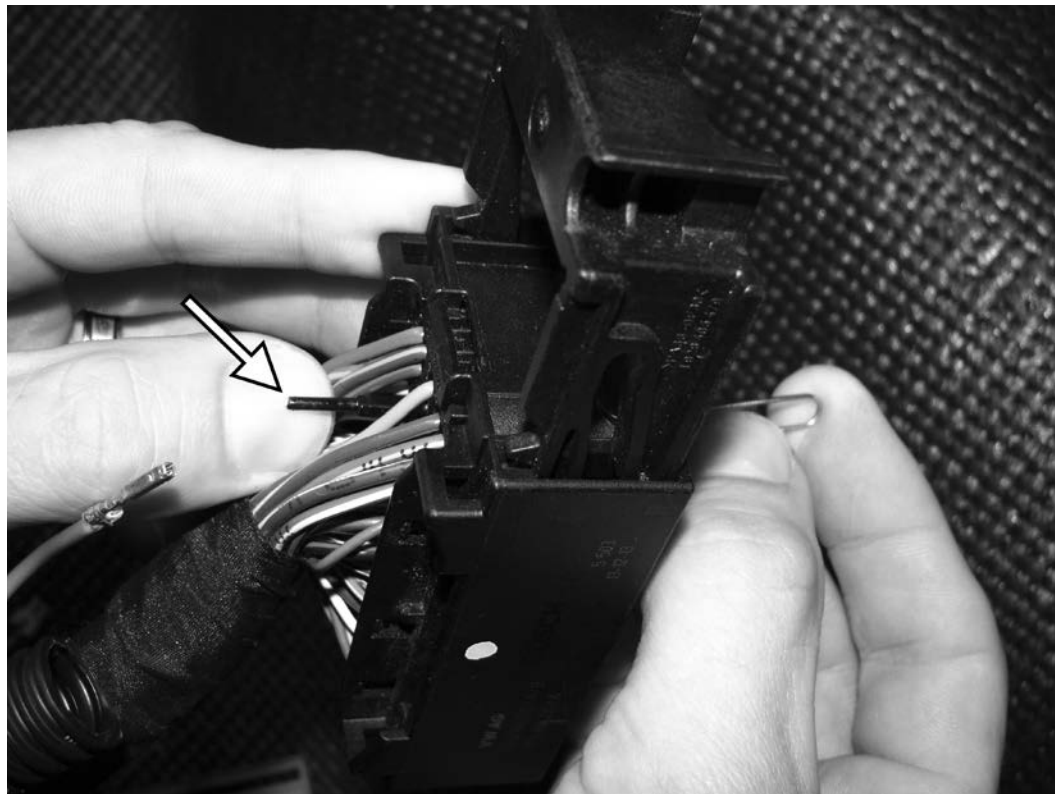
119) Flip the connector over. Using a pick, slide the purple locking tab away from the side of the connector. After noting the orientation of the purple locking tab in the ECU connector, remove the purple locking tab completely. Once the purple tab is removed, do not pull very hard on the wires going into the back of the connector, as they can come loose. Do not attempt to reinstall the ECU connector on the ECU with the locking tab removed.

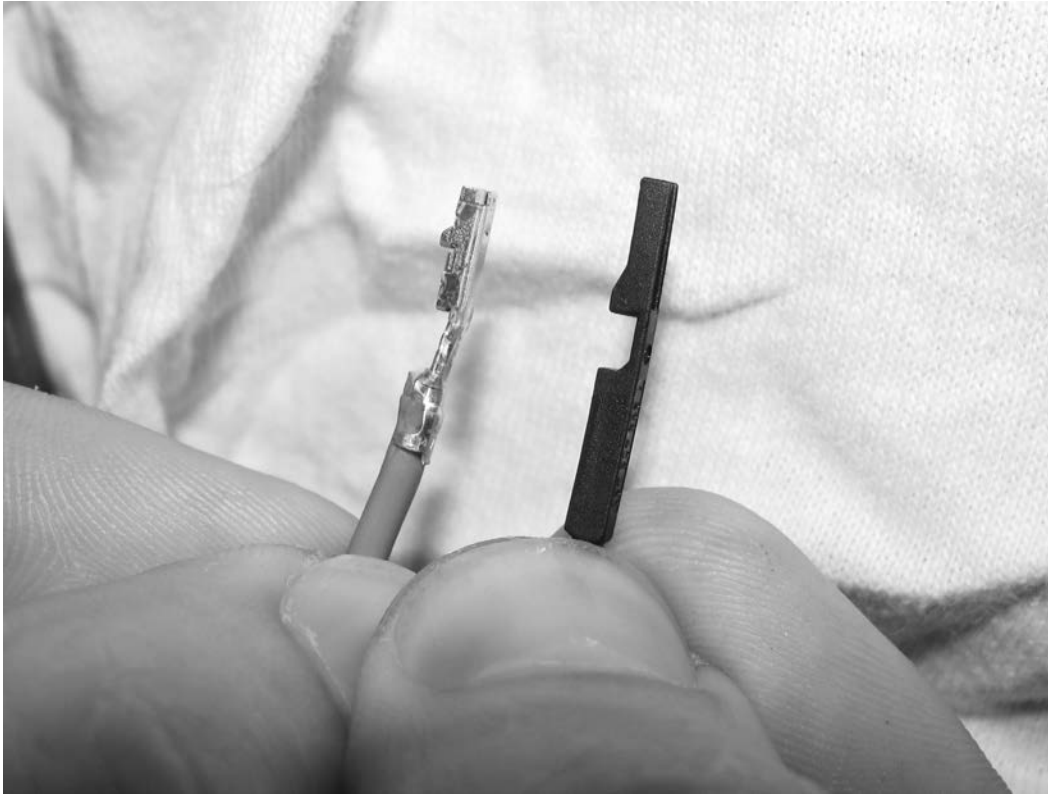




120) Locate pin number 25 from the front side of the connector. Notice how the connector is numbered from right to left, top to bottom.

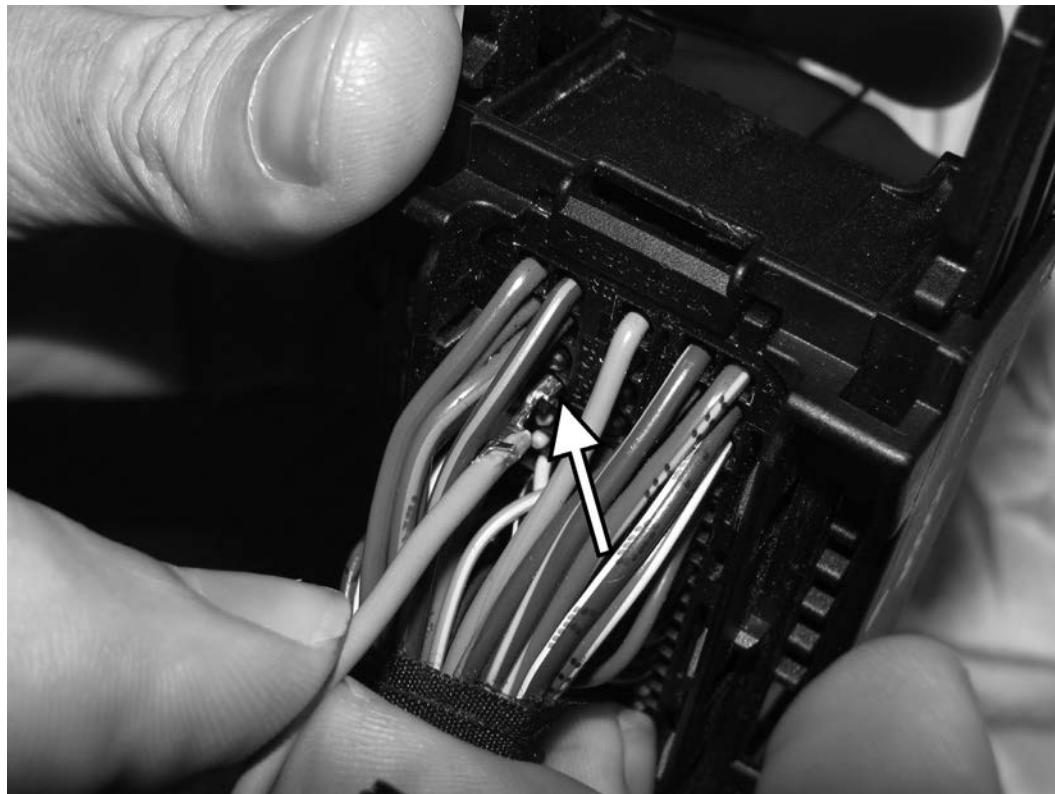
121) From the front side of the connector, push the small, supplied wire into pin number 25. This will push the factory wiring plug out from the back side of the connector. While removing the plug, note the orientation of the plug and how it sits in the connector. Leave the small supplied wire sticking through the connector so that the correct pin can be easily located from the back side of the connector.

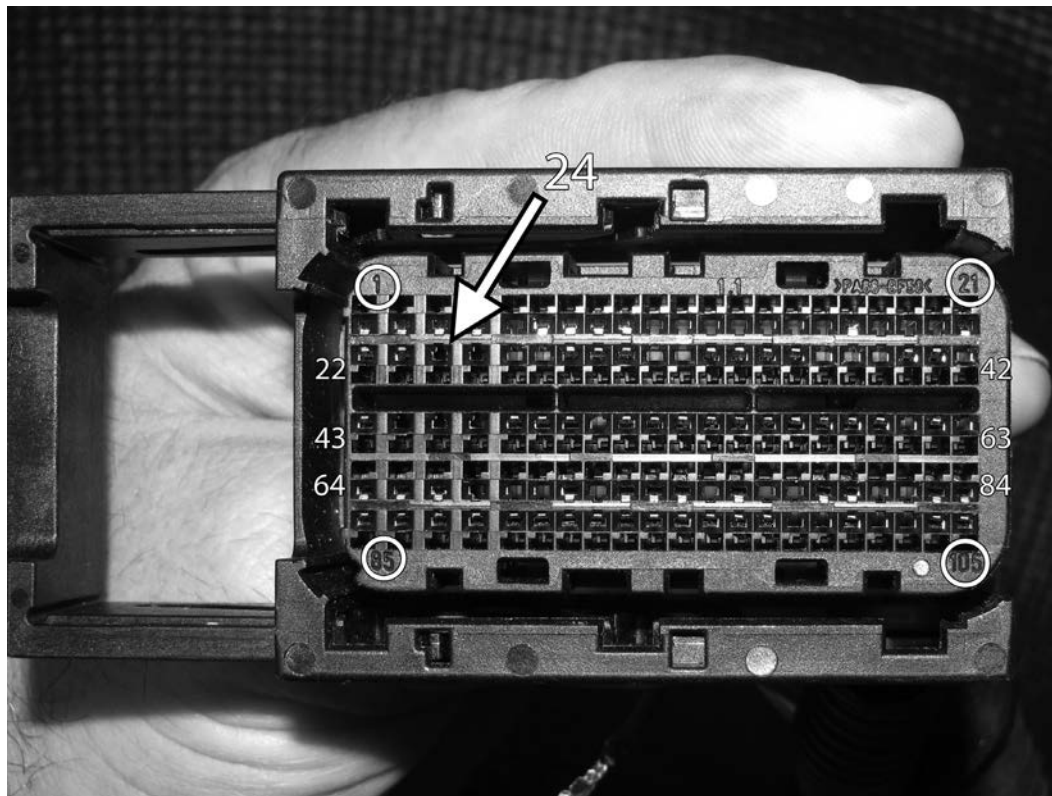




122) Orient the terminal on the green wire of the APR harness the same way as the factory plug that came out of the ECU connector.

123) Using the small supplied wire as a guide, insert the green wire into the back side of connection 25 of the ECU connector. Make sure the terminal of the APR harness is oriented the same as the ECU plug. Push the terminal from the APR harness into the back of the ECU connector until it bottoms out and clicks into place.



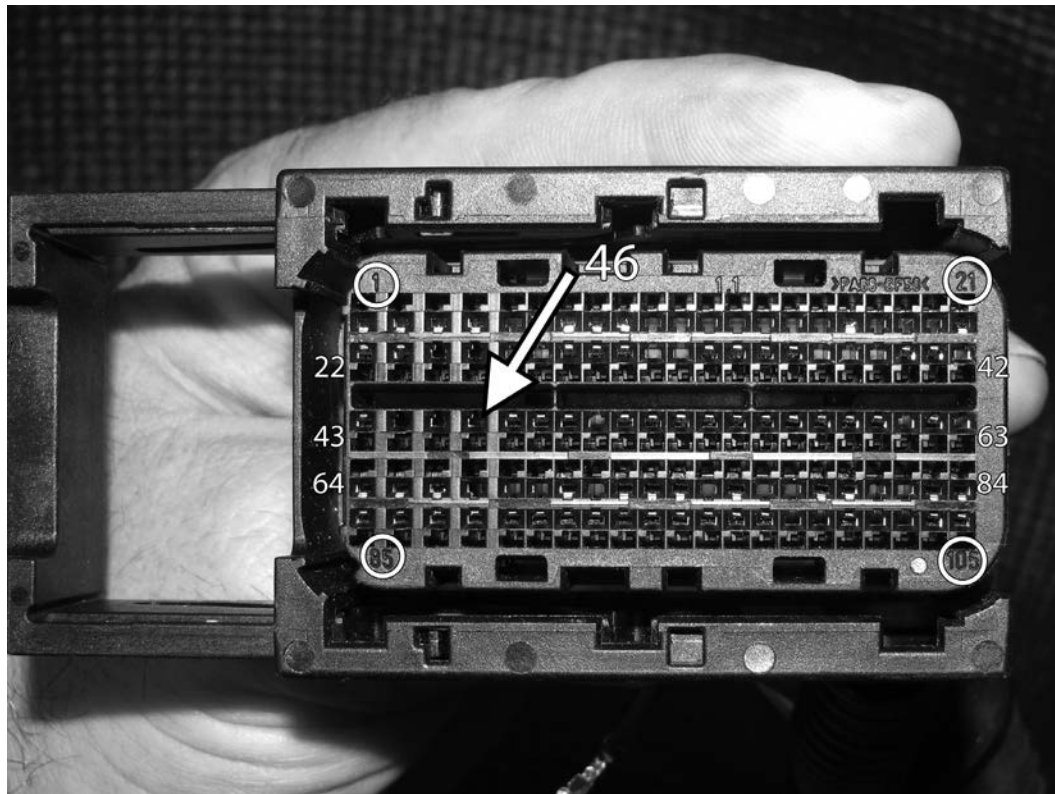


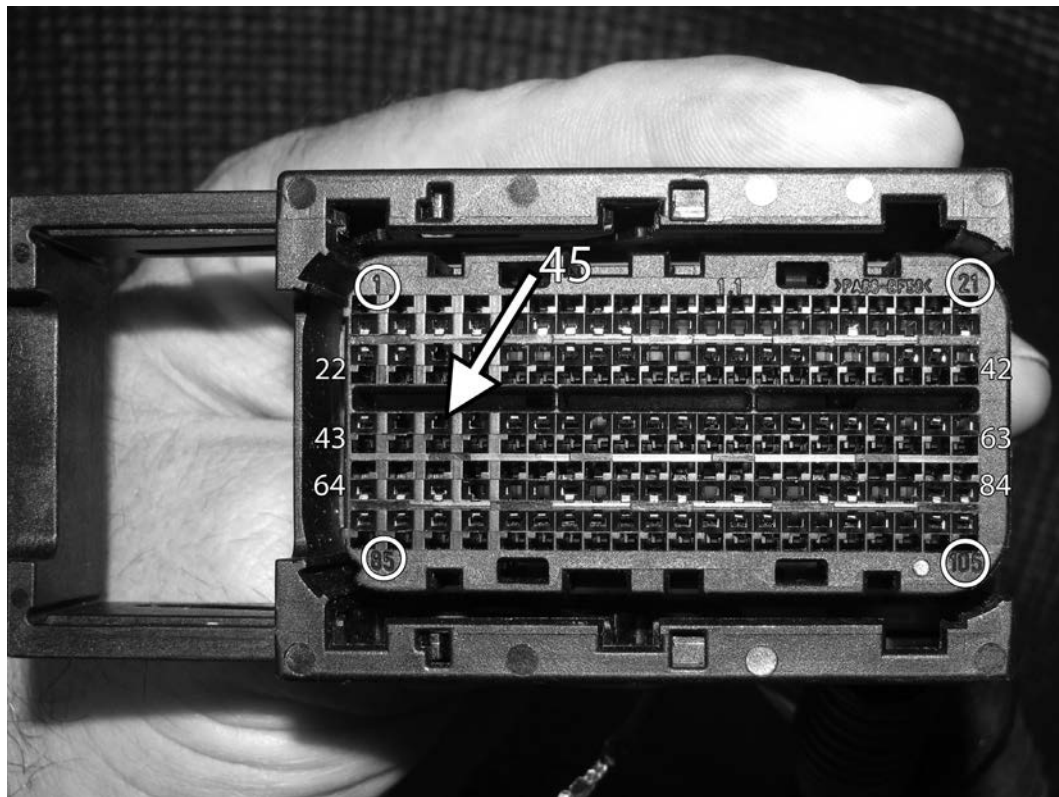
124) Locate pin number 24 from the front side of the connector. Notice how the connector is numbered from right to left, top to bottom.

Repeat steps 122-124 to install the orange wire of the APR harness in pin location 24.

125) Locate pin number 46 from the front side of the connector. Notice how the connector is numbered from right to left, top to bottom.

Repeat steps 122-124 to install the yellow wire of the APR harness in pin location 46.



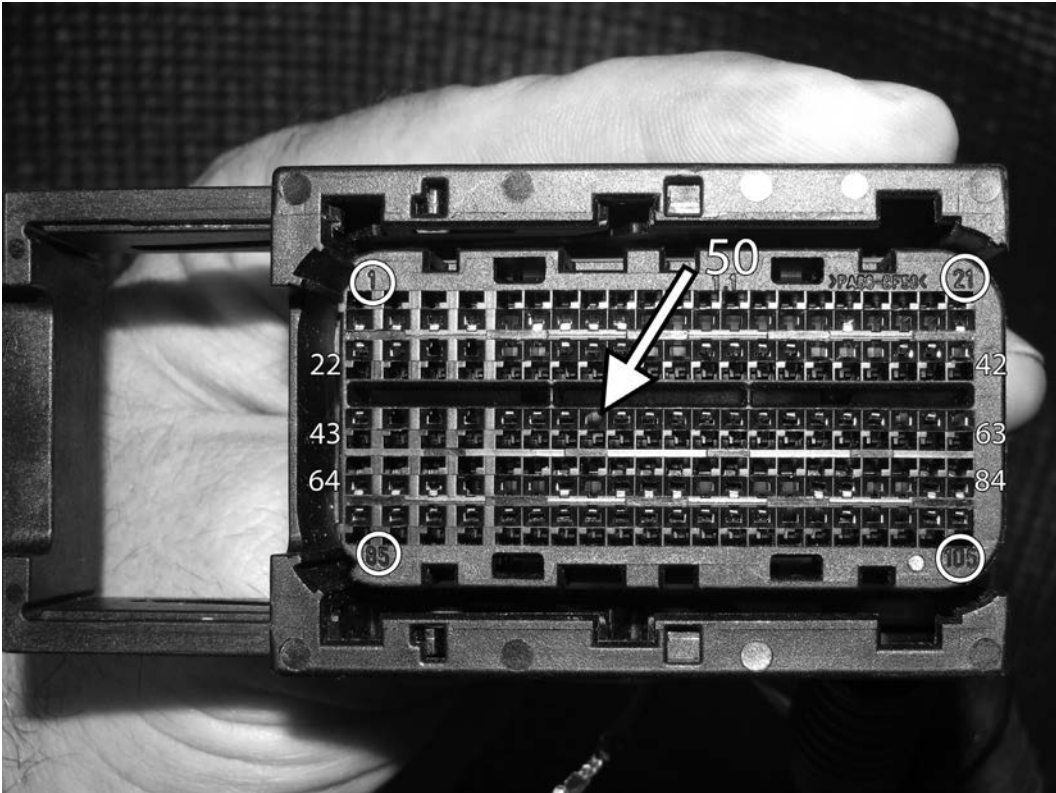


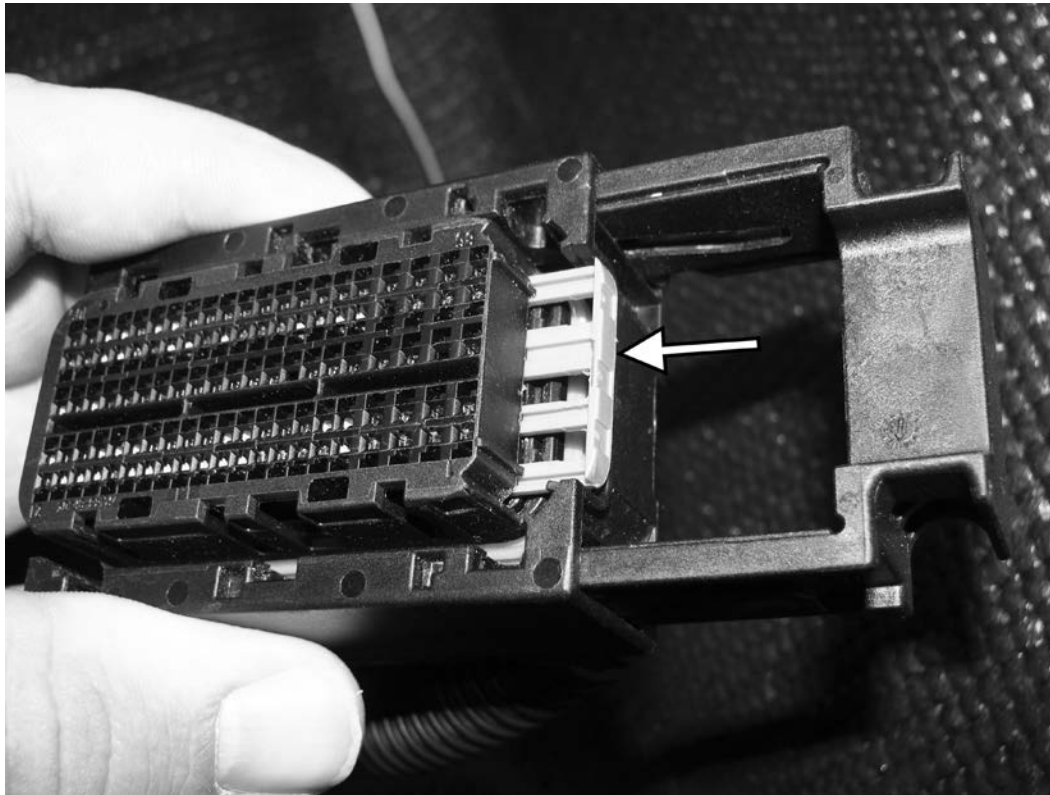
126) Locate pin number 45 from the front side of the connector. Notice how the connector is numbered from right to left, top to bottom.

Repeat steps 122-124 to install the white wire of the APR harness in pin location 45.

127) Locate pin number 50 from the front side of the connector. Notice how the connector is numbered from right to left, top to bottom.

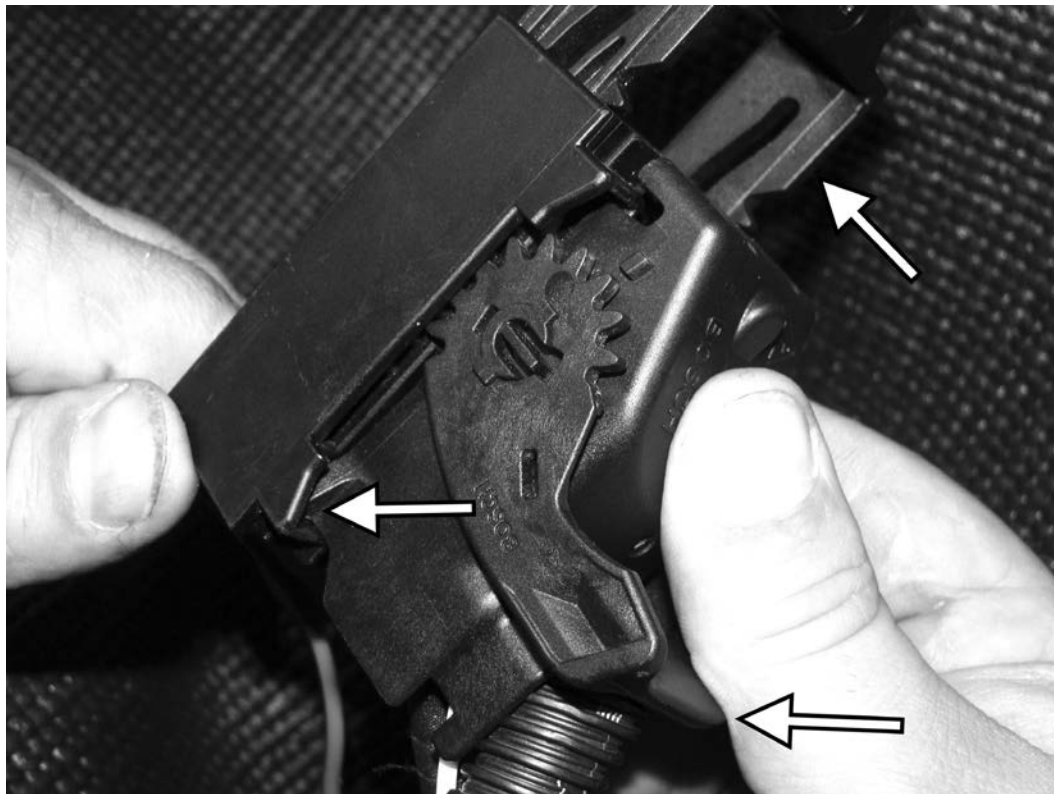
Repeat steps 122-124 to install the blue wire of the APR harness in pin location 50.





128) Reinstall the purple locking tab in the ECU connector, making sure the tab goes back in the same orientation as it was removed. Push the tab in all the way until it locks in place.

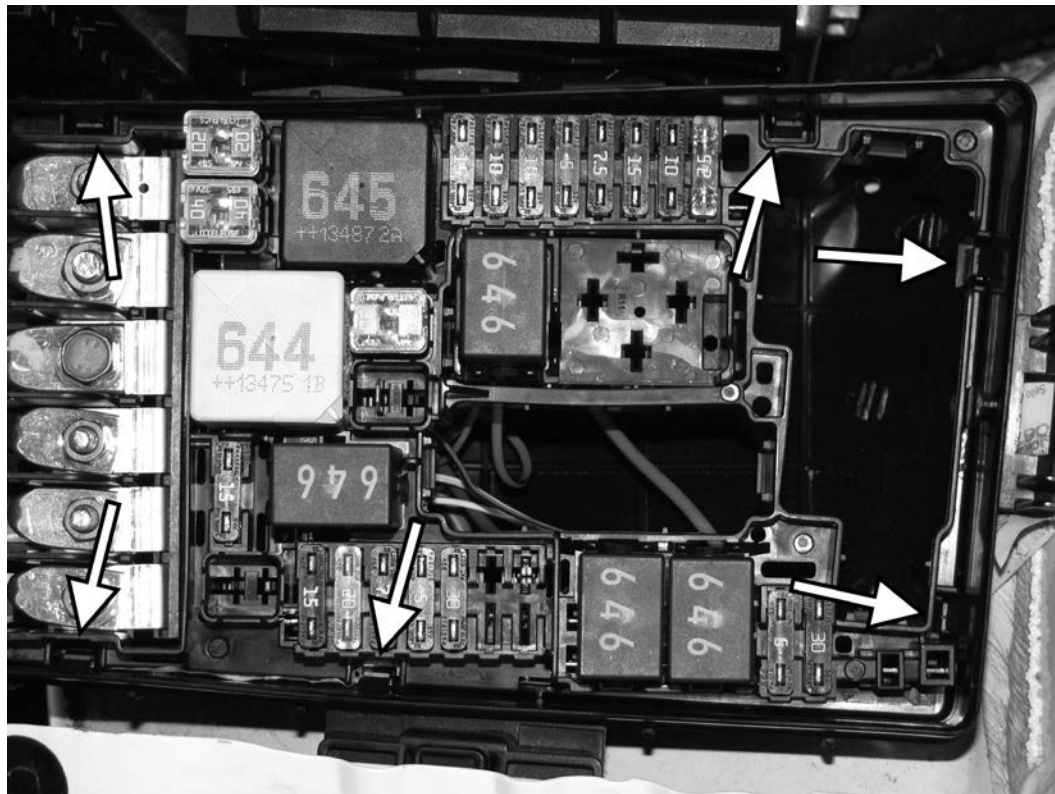
129) With the top slide all the way open, and the lever of the connector back fully open, reinstall the connector back cover. Install the lower tab of the back into the ECU connector, before rotating and locking the tab of the back onto the ECU connector. It may be necessary to trim some of the flex loom from the APR harness back in order to get the cover in place. Finally reconnect the 105 pin connector to the engine ECU, flipping the lever up to lock it in place.





130) Remove the top cover to the underhood fuse box. Pull the holding tab out towards the front of the car, and lift up to remove the front panel of the fuse box.

131) While using upwards force, use a small screwdriver to press in all six tabs holding the fuse plate to the fuse box housing. Lift the fuse plate slightly to help separate it from the fuse box cover.

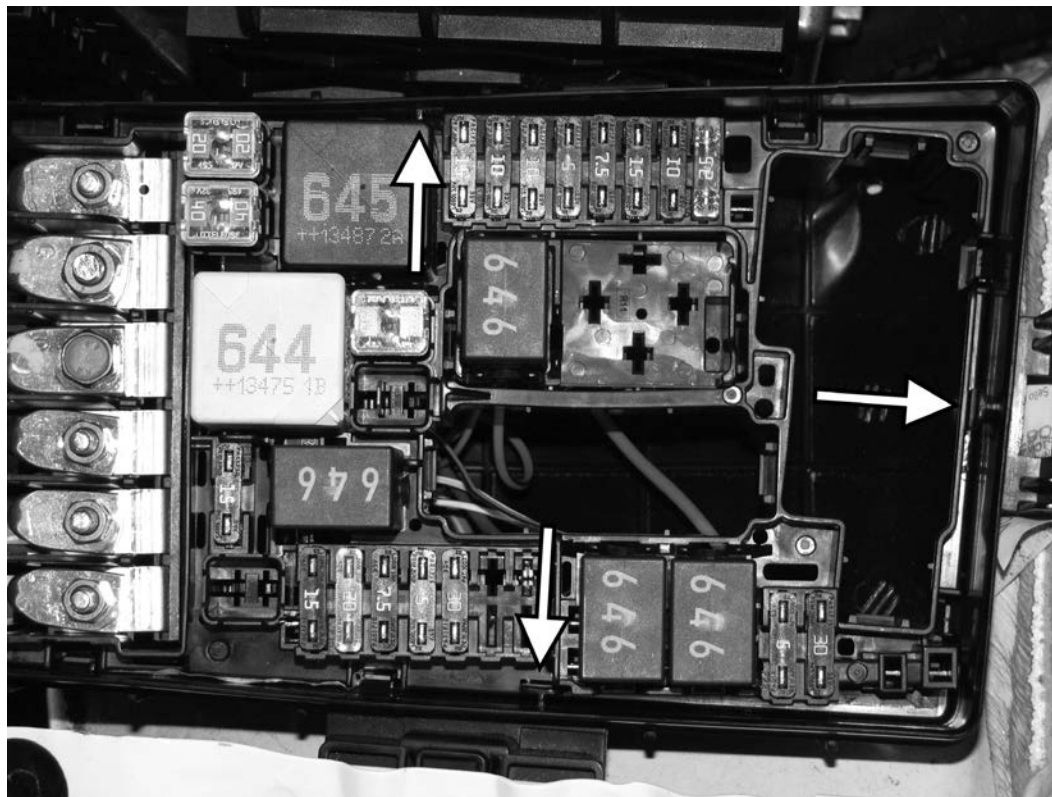




132) Fully lift the fuse plate in order to access the back side of it. Route the red power wire from the APR harness along with the other factory power wires underneath the front of the fuse box. Finally, locate the empty fuse opening, on the left side of the fuse box, at the back of the row of fuses.

133) Lift up the fuse plate and insert the power terminal on the APR harness into the back side of the fuse plate, in the only empty hole on the rear fuse of that row. The terminal will snap in place when fully seated.





134) Lower the fuse plate back into the fuse box, making sure the three alignment tabs in the fuse plate lock into the tabs on the fuse box. Push the plate down fully until all six tabs on the fuse box lock to the fuse plate. Install the supplied 20A fuse into the empty slot the APR harness was installed into.

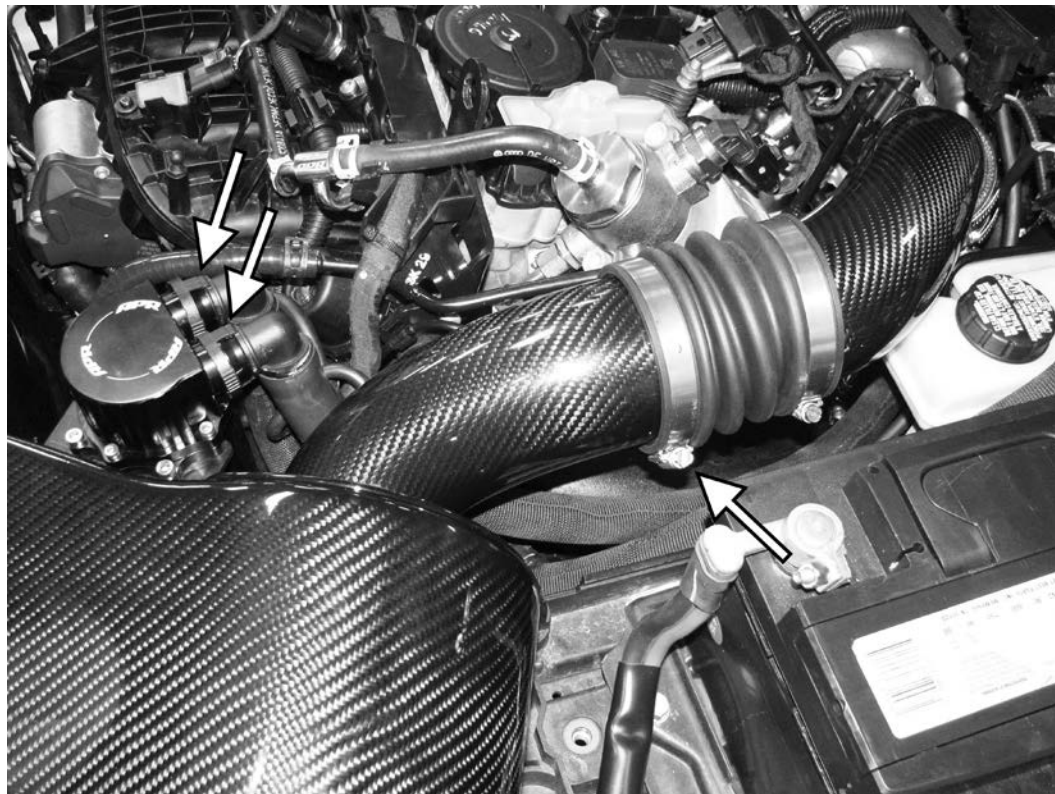
135) Install the front plate of the fuse box back in its original location, and then reinstall the underhood fuse box cover.





136) Install the APR intake back to the front of the core support by sliding the left side of the intake into the slot on the core support. Then install the original screw into the right tab on the intake to support it.

137) Install the APR intake into the rear intake pipe, and secure with the hose clamp. Connect the vacuum line to the bottom of the APR intake. If equipped, connect the two fittings from the APR catch can hoses to the APR catch can. If equipped, connect the vacuum line to the APR boost tap.



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138) Reconnect the negative battery terminal and secure the 10mm nut holding it in place.

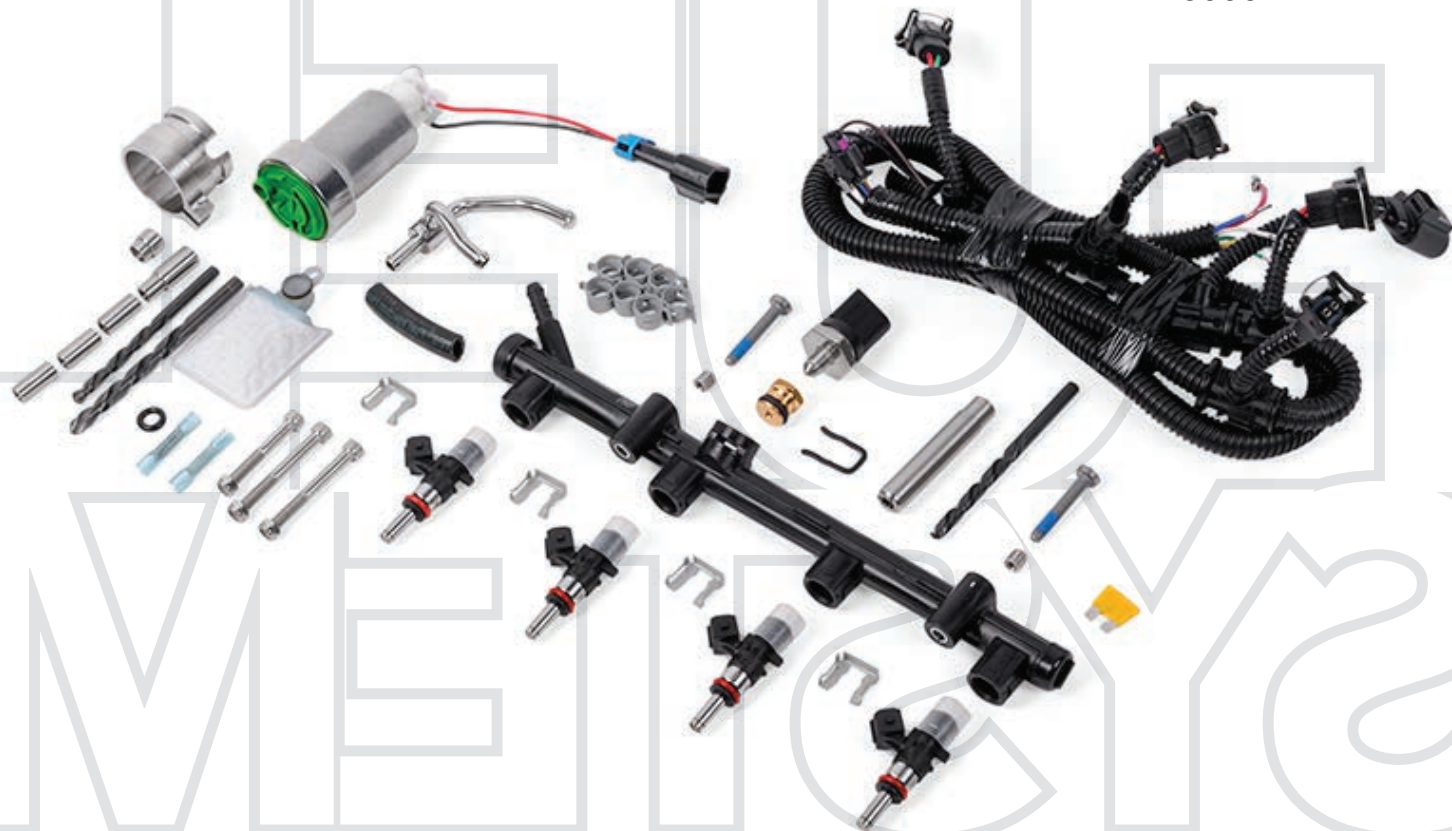
Verify the low side fuel pressure. Using VAG-Com, go to Engine > Measuring blocks. With the engine off, check the measuring block labeled "Fuel low pressure; actual value".

The reading should be anything other than 0.0 bar and 100 bar (unplug the sensor and verify the max value). Then start the car and let it idle, the reading should be 5.0 bar +/- .5 bar.

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#LT10009



APR

INSTALLATION INSTRUCTIONS
S.O.T. EA88 GEN 3 FUELING SYSTEM