

DIVISIONX

SN95 Dual Pump Return Style Fuel Hat *Installation Instructions*

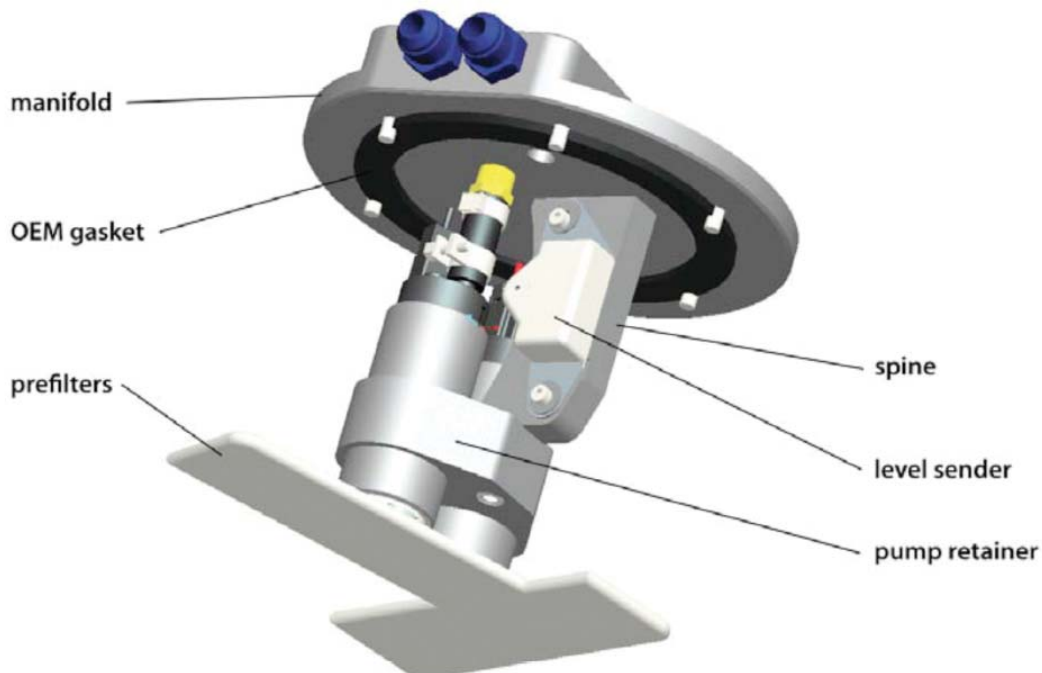
PLEASE READ INSTRUCTIONS CAREFULLY BEFORE YOU BEING INSTALLATION

NOTE: Due to the sensitive nature of this product and the possibility of installation error, we recommend this product for off-road use only.

Before starting, please exercise all safety precautions with any tools, chemicals and other devices that you use during the installation. If you encounter any unfamiliar tasks during the process, we recommend that you allow an experienced professional to complete the installation. This product requires a thorough understanding of all components of a high performance fuel system to implement and install correctly. By attempting to install this product, divisionX does not accept responsibility for personal injury or property damage.

This system supports the use of Walbro GSS342 pumps, Aeromotive Stealth 340lph pumps, divisionX Stryker 340lph pumps or the Walbro 400lph pumps. In order to use any of these pumps, however, they must have adequate power, wiring and plumbing to operate properly. These requirements may vary drastically depending on the particular application and may require addition parts to complete installation.

Please reference the diagram below during installation for terminology:



DANGER DANGER DANGER DANGER DANGER DANGER DANGER DANGER

- Gasoline and gasoline vapors are hazardous to your health and safety. Exercise extreme caution by wearing eye protection and working in a well ventilated area. Ensure that all sources of flame or spark are eliminated from the work area while vapors are present.
- Your fuel lines are under pressure. Please exercise extreme care when relieving the pressure.
- Gasoline soaked rags may catch fire when stored in confined areas EVEN WITHOUT exposure to spark. Allow gas soaked rags to dry in a well ventilated area before disposal.
- At all times during installation and testing, keep an appropriate fire extinguishing device available.

NOTE: *These are not all-inclusive instructions for upgrading a fuel system. These instructions cover the installation of ONLY the divisionX fuel hat for the SN95 platform. Since the scope of this installation can require a wide range of additional parts, we cannot cover them all in this manual.. However if you have particular questions regarding any aspect of your fuel system, please contact us.*

SPECIALTY ITEMS REQUIRED FOR INSTALLATION:

- Fuel line quick disconnect tool (plastic tool is not adequate)
- 5mm hex key (allen wrench)
- Heat gun (or hair dryer)
- Soldering iron (or high quality weatherproof connectors with crimp tool)
- Split loom wire protector (or similar wire protection product)
- WD40

STEP 1: Prepare the car and work area for installation.

1. Drive car or drain fuel until the fuel level is approximately ¼ tank full. Higher levels of fuel will slosh around, making reinstallation of the tank very difficult.
2. Park car in an area that is well protected from wind, dust, dirt, etc. The intent is to keep blowing debris from entering the exposed fuel system.
3. Set up a ventilation fan to PULL harmful and dangerous gasoline fumes from the work area. Gasoline vapors are heavier than air and will stay close to the ground, so keep this in mind if you are planning to work under the care while supported by jackstands (i.e. running fuel lines, etc)
4. Prepare a clean work area on a workbench for the disassembly of the factory fuel hat and assembly of the divisionX fuel hat.
5. Disconnect only the negative terminal on the battery and position the loose wire so that it cannot accidentally make contact with the battery terminals.
6. Relieve pressure on the fuel system by removing dust and pressing the needle on the Schraeder valve located on the OEM fuel rails.

STEP 2: Remove the fuel tank.

1. There are several techniques to remove the fuel tank depending on whether you are using jackstands or a lift and also whether you are installing fuel line and/or new wires at the same time.
2. As a minimum, you need to lift the back of the car into jackstands to install the fuel hat. You must also lift the front of the car if you are installing wire upgrades and/or routing fuel lines to the engine bay.

CAUTION! CAUTION! CAUTION! CAUTION! CAUTION! CAUTION! CAUTION!
The fuel tank is heavy. Properly support the fuel tank at all times and do not force or manipulate the filler neck or it may be damaged. Distribute weight of the fuel tank evenly. A point load will indent the bottom of the fuel tank and will impair installation of the divisionX fuel hat.

3. Remove the clamp that secures the filler neck. Remove the bolts that secure the straps that pass under the fuel tank. Swing the straps out of the way and the fuel tank may be lowered.

NOTE: The fuel tank does not have to be completely separated from the car. If you are installing our product with the car on jackstands, you may gain adequate clearance to remove the gas tank lid by leaving the fuel filler neck attached to the tank and allowing the tank to drop down on the driver's side.

STEP 3: Remove the OEM fuel tank lid.

1. Disconnect the two electrical connections that attach the fuel hat to the vehicle's wiring harness.
2. Disconnect the fuel line using the fuel line disconnect tool. Be prepared with a shop rag to soak up any spilled gasoline.
3. Clean the area around the fuel tank lid. Ensure that all debris which would enter the fuel tank is removed. The gasoline soaked rags used in Step 3b may be used again for cleaning this area.
4. Remove the 6 bolts which secure the factory installing fuel tank lid.
5. Gently pry upwards on the fuel tank lid to break the seal.
6. Carefully lift the fuel tank lid and reposition to gain access to the fuel level sending arm.

DANGER DANGER DANGER DANGER DANGER DANGER DANGER DANGER
Ensure the immediate work area is especially well ventilated. Removing the fuel level sending arm may require the installer to move his/her head very close to the opening of the fuel tank, which may cause inhalation of gasoline vapors and possible splashing of gasoline in the eyes.

7. Carefully disconnect the fuel level sending arm from the fuel level sender using a pair of small pliers.

CAUTION! CAUTION! CAUTION! CAUTION! CAUTION! CAUTION! CAUTION!
Use extreme care when removing the fuel level sending arm. Apply force gradually and gently in a direction parallel to the arm's shaft, but at a point as close to the plastic clip to make the most effect use of applied force. Many installers break the

plastic on the fuel level sender.

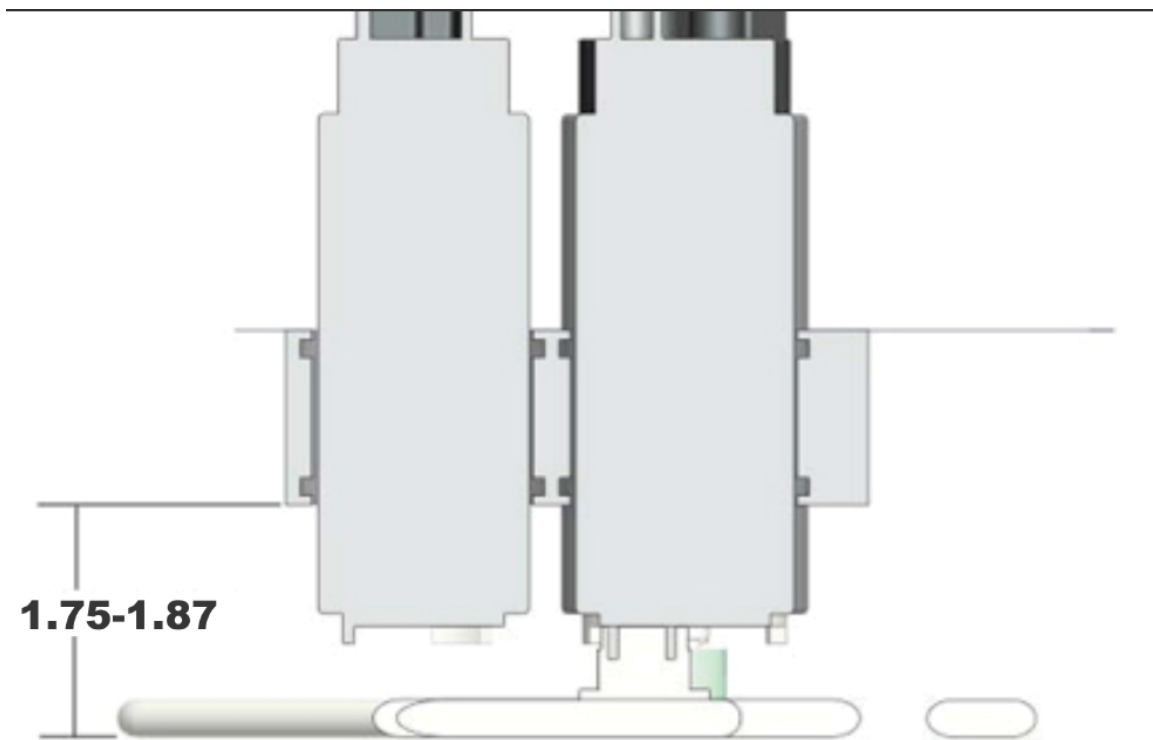
8. Remove the fuel tank lid assembly from the fuel tank and place it on the workbench prepared in Step 1.

STEP 4: Remove required components from the OEM fuel tank lid assembly.

1. Remove the fuel level sending unit from the OEM fuel tank lid. Do NOT dispose of the screw used to connect the ground wire on the fuel level sending unit.
2. Gently remove the black rubber flange seal on the OEM fuel tank lid.
3. Cut the four wires that protrude from the TOP of the OEM fuel tank lid. Leave approximately 3 inches on the wire on the OEM fuel tank lid. The OEM fuel tank lid is not required for the rest of the installation, but these items should be kept nearby for the remaining installation:
 - a. Fuel level sending unit with ground wire screw
 - b. Fuel level sender and arm
 - c. Black rubber flange seal

STEP 5: Prepare the divisionX fuel hat for installation.

1. Cut the four nipples on the black rubber flange seal so that 0.2" (5mm) of each nipple *REMAINS*.
2. Install black rubber flange seal on the bottom of the divisionX fuel hat. Align all four nipples, then press each nipple into the respective hole and ensure that the seal lays flat on the bottom surface of the manifold.
3. Install the fuel level sending unit to the spine. Do not install arm at this time.
4. Connect the black wire to the fuel level sending unit using the OEM supplied screw.
5. Slip supplied shrink wrap tube over the signal wire on the fuel level sending unit (do not heat at this time).
6. Connect the fuel level sending unit signal wire to the male blade terminal on the fuel hat.
7. Slide the shrink wrap tube over the exposed metal connection and heat the shrink wrap until it is secure.
8. Route the wires of the sending unit so that they will not interfere with the fuel level sending arm.
9. Using compressed air, blast out the fuel passages of the manifold to remove any contaminants or debris.
10. Place the assembled fuel hat upside down and drop a supplied hose clamp over each hose.
11. Slip a hose clamp over each hose on the bottom of the manifold.
12. Wet pump retainer o-rings with WD40, align the fuel pump outlets over the 2 exposed manifold inlet hoses and press pumps into position.
13. Install the provided fuel pump pre-filter on the inlet of each fuel pump. Adjust the pump height according to the following illustration:



14. Tighten the two hose clamps. DO NOT overtighten them. Ensure the fuel pumps are secure in the assembly.
15. Connect wires to plugs on the fuel pumps. Ensure the terminals are secure.

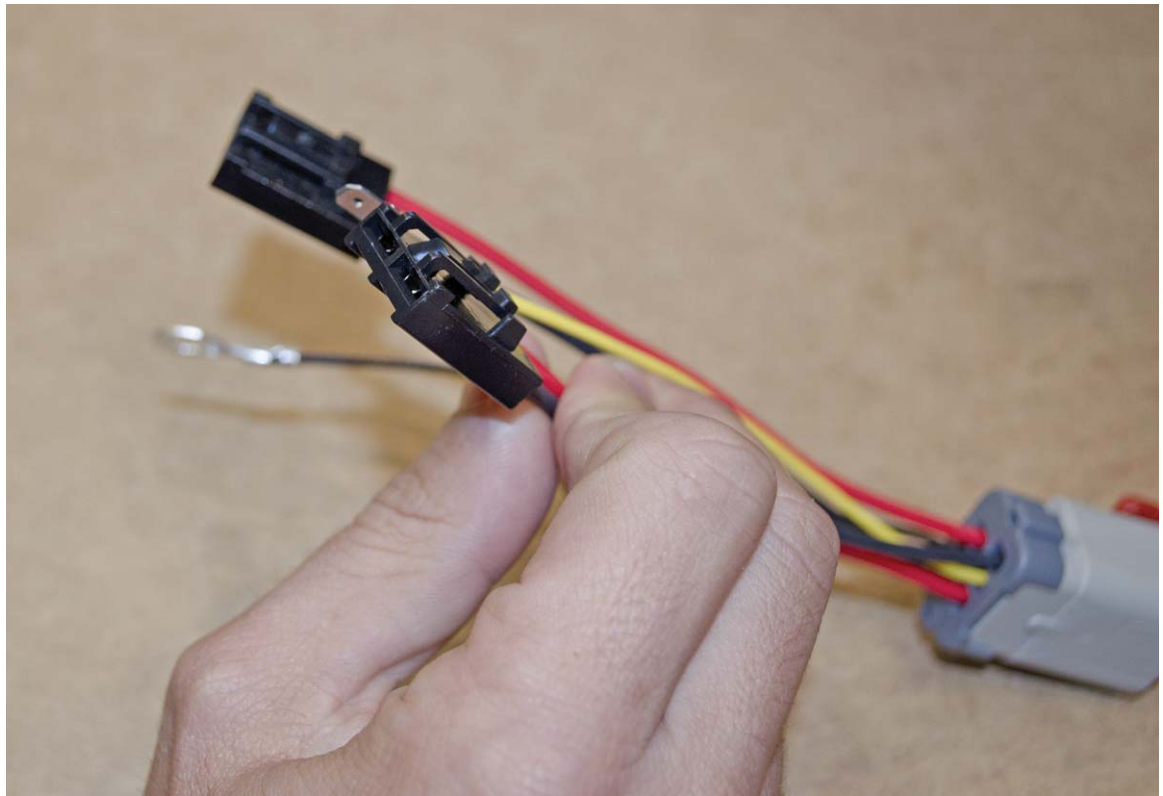
STEP 6: Connect fuel & electrical connections.

1. *IF USING THE SUPPLIED WIRING HARNESS:*
 - a. Plug the 6-pin connector into the 6-pin connector plug into the 6-pin port on the top of the divisionX fuel hat.
 - b. There will be two wires leftover from the wiring harness: a green and a purple wire. Those wires are for the level sender and should connect to the level sender wires on your stock wiring harness.
 - c. The green wire connects to the yellow wire on your stock harness.
 - d. The purple wire connects to the black wire on your stock harness.
2. *IF USING YOUR OWN WIRING OR AN OLDER STYLE HARNESS & THE DX-0045 PIGTAIL CONNECTOR:*
 - a. The 2 large black wires on the pigtail are the ground wires for the fuel pumps.
 - b. The large yellow & orange wires are power wires for the fuel pumps.
 - c. Connect the small black wire to the black wire of the vehicle's wiring that was previously connected to the ground of the fuel level sender of the OEM fuel tank lid. Attach the yellow wire to the yellow wire of the vehicle's wiring harness.

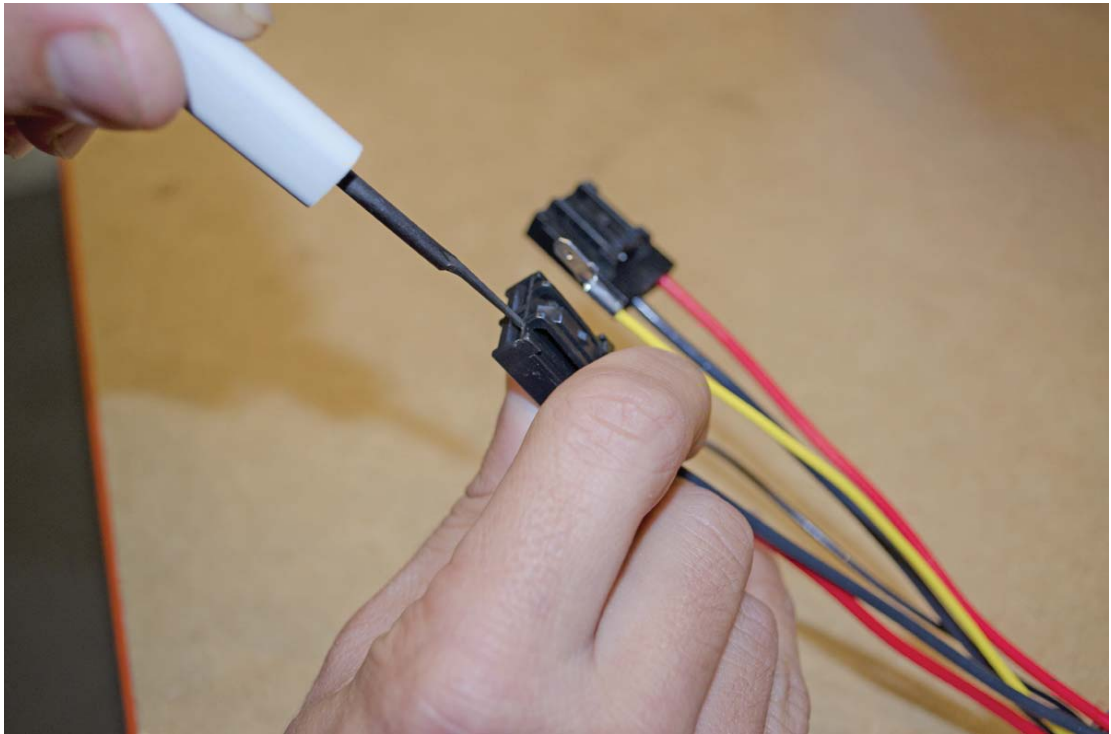
3. Slip a wire protector over the wires that loop over the top of the fuel hat. Ensure all connections are tight, secure and weather resistant. Route the wires so that the wire connections are not pinched when the fuel tank is reinstalled.
4. Attach the fuel lines as appropriate for your installation.

NOTE: IF YOU ARE USING THE 400LPH WALBRO PUMPS, please follow the instructions below to install & connect the wiring to the pumps:

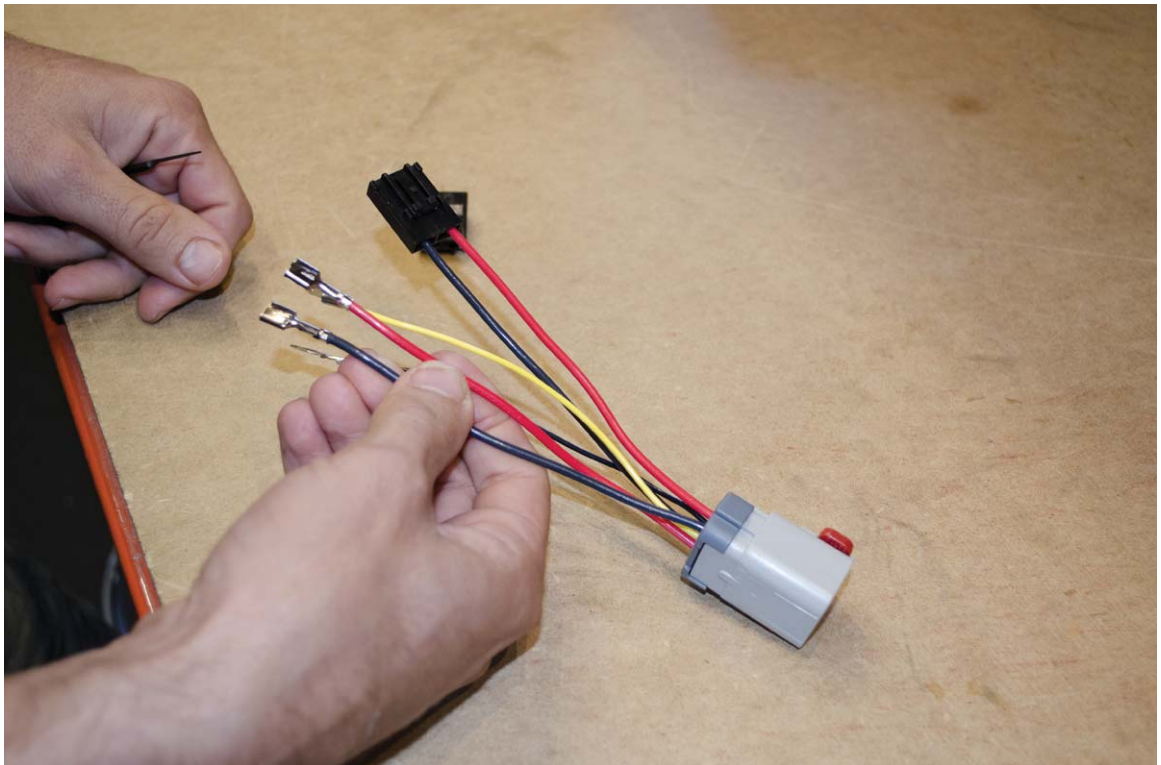
When installing the Walbro 400lph pumps, they do not use the standard Walbro connector that comes already installed on the divisionX fuel hat, and only require the female spade connectors. You will need to de-pin the wire connectors on the hat to remove the black connector housing. Then you will be able to properly install the wires with the female spade connectors onto the 400lph pumps. On the following 2 pages are images of the process of de-pinning the wires from the connector and installing them directly onto the fuel pump. *(Using a de-pinning tool or a small eyeglass repair tool makes this process much easier)*



This is the black connector housing that will need to be removed.



Using a de-pinning tool (or similar) to remove the black housing.



Once the housing is removed, the 2 female connectors will be exposed.



Connect them onto the male connectors which are on the fuel pump.

STEP 7: Install the divisionX fuel hat into the fuel tank.

1. Carefully slip the bottom of the fuel hat assembly into the fuel tank. Allow the fuel pump prefilters to fold up as the assembly is inserted.
2. Reinstall the fuel level sending arm to the fuel level sending unit. Manipulate the assembly as required to accomplish this. It is important to accomplish this step after the bottom of the assembly is past the opening in the fuel tank.
3. Check to make sure the rubber flange seal is still secure and in place on the fuel hat manifold.
4. Lower the fuel hat into place and align the bolt holes. Ensure the outlets are pointing towards the front of the car.
5. Install and tighten the six supplied M6 screws to secure the fuel hat to the fuel tank.

NOTE: *Take note that the two longer screws are used in the thicker section of the manifold. Gradually tighten screws in a cross bolt pattern to evenly apply pressure to the flange seal. If you experience interference, recheck the dimensions from Step 5.13. If interference persists, it is likely the bottom of the fuel tank has been indented. Remove the plastic cover on the fuel tank to assess it.*

STEP 8: Reinstall fuel tank.

1. Before raising the fuel tank, ensure all wires and fuel lines will not be pinched or rubbed when the tank is reinstalled.
2. Reinstall fuel tank in the opposite order of installation.
3. Reconnect negative battery terminal.

STEP 9: Start vehicle & check for leaks.

1. Start the car. Several attempts may be required. Allow car to run for 10 seconds and then shut it off.

NOTE: *Starting the car for the first time after installing the fuel hat may be difficult. The vehicle's ECM may revert to a safe mode after starting with zero fuel pressure, resulting in poor drivability until the ECM is reset.*

2. Check for leaks. Repeat Step 9.1 until all leaks are eliminated.
3. Disconnect negative battery terminal for 10 minutes (resets the ECM).
4. Reconnect the negative battery terminal and restart the car.
5. Take the car for a short drive and continue to monitor for fuel leaks.

CAUTION! CAUTION! CAUTION! CAUTION! CAUTION! CAUTION! CAUTION!

A custom tune from a shop with a reputable tuning record is mandatory to ensure the installation was performed correctly and that all fuel system components are operating correctly.