



AVO Fuel Pump Fitting Guide

PN# S1B03GFXA001J

Applied Models:

2005-09 Legacy GT, Spec B

2009+ Forester XT

2008+ Impreza WRX & STI



You are now the proud owner of a highly tested and proven AVOTurboworld upgrade kit. While you have made a wise choice in selecting this upgrade kit, below we have some suggestions and procedures for you to follow in ensuring its successful installation.

Tools Required



Metric socket and ratchet set

Flathead screwdriver

Philips head screwdriver

Fuel Pressure gauge

Dremel

	
1 x Fuel pump	1 x plug and connector

A) Orientation

Before grabbing a bunch of wrenches and attacking your car take a moment to

STOP AND THINK

Read these supplied installation instructions thoroughly from start to finish – do you understand all of the mechanical operations required? Are you sure that you can adequately complete all of the mechanical operations required?

Prior to installation, make sure that your car is in excellent mechanical condition and that there are no outstanding faults or problems. This part has been designed to work only with a car that is in good state of repair. Pre-existing problems or faults can result in improper operation and/or failure of your engine. This is your responsibility to ensure. No matter how carefully we design our Parts, this is one area we have no control over and cannot be held responsible.

Installation

ALLOW THE ENGINE TO COOL DOWN COMPLETELY. DISCONNECT THE BATTERY BEFORE STARTING WORK.



Remove the bottom half of the rear seat assembly. Start by pulling the front side up, then the rear should pull out. Lift up the floor covering.

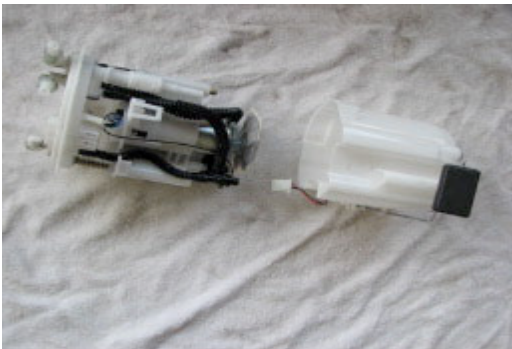
On the right hand side there is a cover held on with 4 self-tapping screws. Remove this cover. Underneath will be the fuel pump assembly.

Unplug the wire harness and move it and the fuel line off to the side. Remove all 8mm bolts around the steel support. Next remove the support itself. The pump will push upwards.



Remove the fuel pump assembly. Be very careful as you do this, as it is full of gasoline. Drain all of the gasoline from the fuel pump assembly that you can at this point.

Move the fuel pump assembly to a clean workbench space.

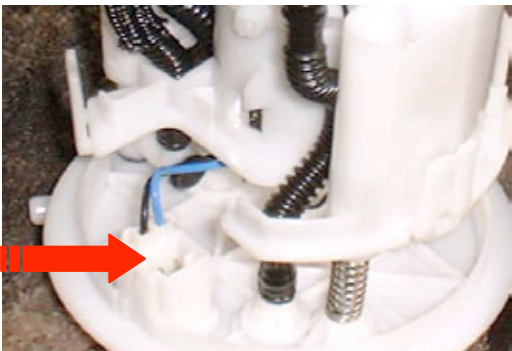


Remove the plastic body assembly. Remove the fuel pump wires and the Level gauge wire from underneath the top of the assembly.

You will need 3 screwdrivers to do this. You will need to lever the tags up, and then pull the lower tank off. Be very careful as you do this, as it will be full of gasoline.

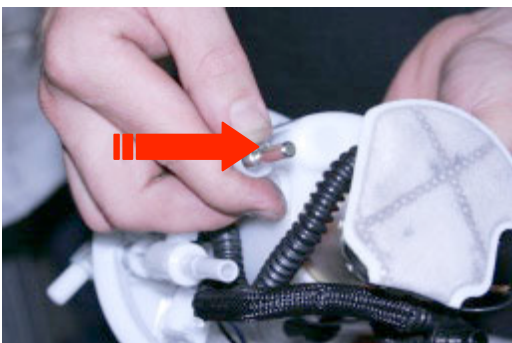
Finish draining all of the gasoline from the fuel pump assembly into an appropriate container.

Take care not to break the clips during this process!



Now unclip the fuel pump wires from underneath the top of the assembly.

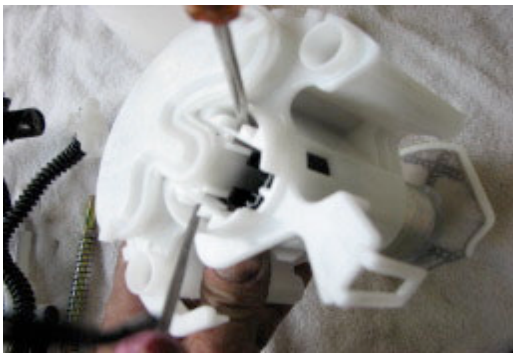
Remove the plastic fuel return lines as well. This is necessary to pull the top part of the fuel pump assembly apart.



Remove the small C-clip that is on the spring shaft. This will give you access to the head of the pump. Take care not to lose the C-clip!

Remove the plastic body of the fuel pump.

Disconnect the wiring harness plug on the top of the fuel pump from the pump itself.



To remove the fuel pump from the assembly, you will need a small screwdriver. You will need to spread the two tabs at the bottom apart, then pull the fuel pump out from the plastic assembly. Having another set of hands would help here.

It is a very tight fit!

Take care not to break the clips!

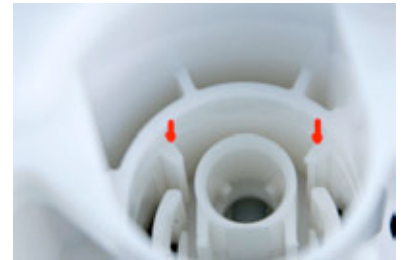


You will need to remove the 3 tangs to allow the AVO fuel pump to fit in to the body. You can do this with a blade or a dremel. They need to be dremeled or cut down as shown to the right. This is so that the tabs on the new AVO pump can reach to the appropriate slots inside the pump assembly.

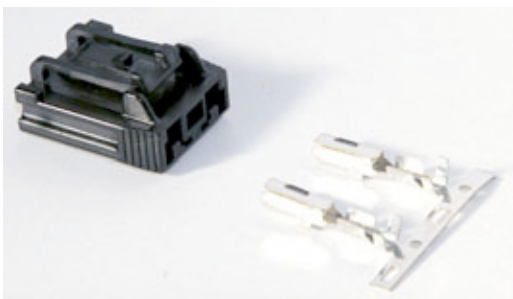
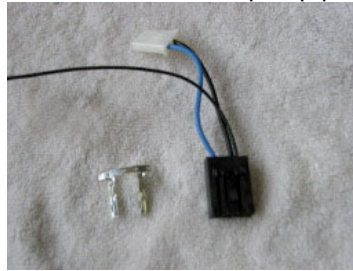


You will need to remove these 2 tangs to allow the AVO fuel pump to fit into the body. You can do this with a blade or a dremel.

NOTE: Make sure that you clean all the excess shavings away by washing in a wash tank and blowing it out with some compressed air!



You will need to change the electrical plug to the Fuel pump to match the new AVO pump plug.



The parts necessary to replace the plug are shown on the left. On the left is the new male plug, and on the right are the two connectors that need to go inside it after the wires are soldered on.



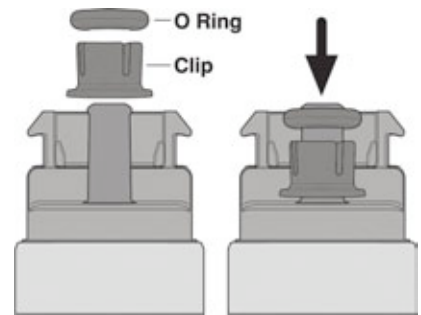
Cut the two wires from the old plug as close to the back of the plug as possible. Strip the ends off the wires, and solder them to the new pin connectors.



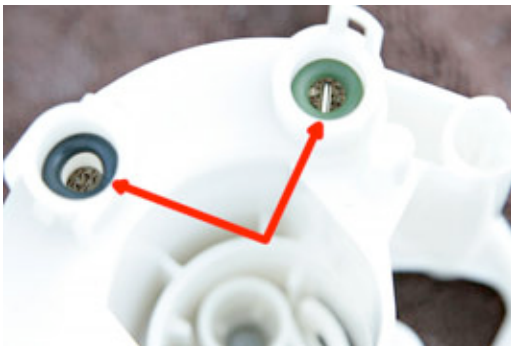
Then place the new connectors into the plug, which is used to plug into the pump assembly itself. The Blue wire goes to the + (Positive) on the pump. The Black wire goes to the - (Negative) on the pump.



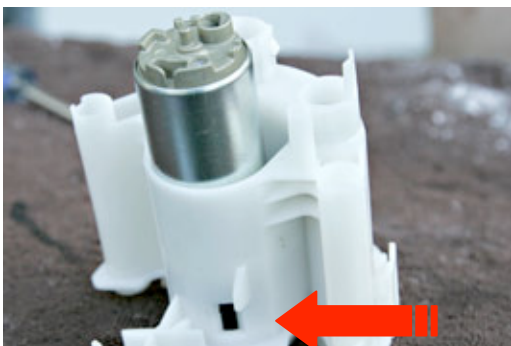
Fit the AVO pump into the assembly body. Make sure that the O-ring is properly sealed to the pump! Most problems with installation are because of improperly sealed O-rings. You can use a little bit of Vaseline on the O-ring to install it, as it is a very tight fit getting it back into the body.



NOTE: This O-ring must be seated straight!

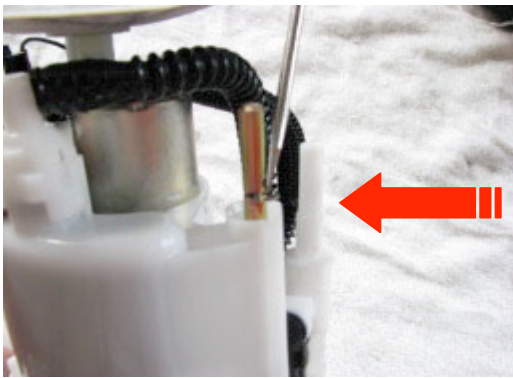


Do not forget that there is an O-ring on the return lines as well.



Push the AVO fuel pump in the plastic body making sure the tabs click in to place. Fit the modified electric plug wires to the fuel pump, and then the level gauge. Take care not to break the fuel pump filter!

If it does not click into place, you may need to dremel the inner tabs down a little further.



Put the assembly body back together. **Do not forget** the springs and the C clip. Fit the base of the pump - it is a tight fit.

Refit the pump assembly back to your vehicle. Make sure the seal is in the right position. Tighten the nuts up evenly. Take care not to drop the nuts into the fuel tank area!

Refit the fuel line and the fuel pump harness.

Now fit your Fuel Pressure Gauge to the fuel pressure line on the left hand side of the engine bay. Reconnect the battery and start the car. **Use the fuel pressure gauge to check for leaks!** The fuel pressure at Idle should be 3.0 bar (43.5psi).

Fit the cover back over the pump assembly. Remove the fuel pressure gauge from the fuel pressure line on the left hand side of the engine bay. Replace the rear seat.

Note: After completion and removing your tools, double check for leaks and any loose fittings. Correct if necessary. In order to maintain the reliability of your AVOTurboworld upgrade part, you should inspect all components during the recommended engine servicing schedules; and rectify or replace any damaged components as necessary.

Job Done-Enjoy your car!

NOTE! – If in any doubt over the operation or installation of your parts, contact AVOTurboworld, or the dealer you purchased it from for advice and assistance in troubleshooting your questions.