Flex Fuel System

Please contact us at sales@wtftuned.com with any additional questions

Installation instructions:

All fittings and adapters are pre-tightened onto the flex sensor and hose ends. Please do not use any thread tape or sealant with this system as all connections are sealed by o-ring or flare union.

Please refer to the instructions from FlexConverter.com below, and note the additional modification required to the 3/8" EFI fuel pump outlet connection as described at the end of this document (Appendix A).

Installation of the FlexConverter.com EVOX Flex Fuel Package is a simple 15-20min procedure. All of the components of the kit install at the rear of the car and maintain a plug-and-play affair with no necessary wiring or fuel system fabrication.

Recommended Tools/Materials:

- Jack/Jack stands or car lift
- Meduim sized flat head screwdriver
- Flashlight
- 2-3 Zipties
- Side cutting pliers (to trim zip ties)
- Metal pick (to remove clip from fuel tank pressure sensor)
- 11/16" or 18 mm wrench
- 5/8" or 16 mm wrench

Step 1: *Remove the rear passenger seat*
This is a tool-less procedure and needs only a sharp upward tug at the front of the rear seat edge at the left and right side retaining tabs. Then pull the cushion forward and remove seat belt clips before finally removing the cushion from the vehicle.

This youtube video may help (skip to 4:20) - EVOX Rear Passenger Seat Removal

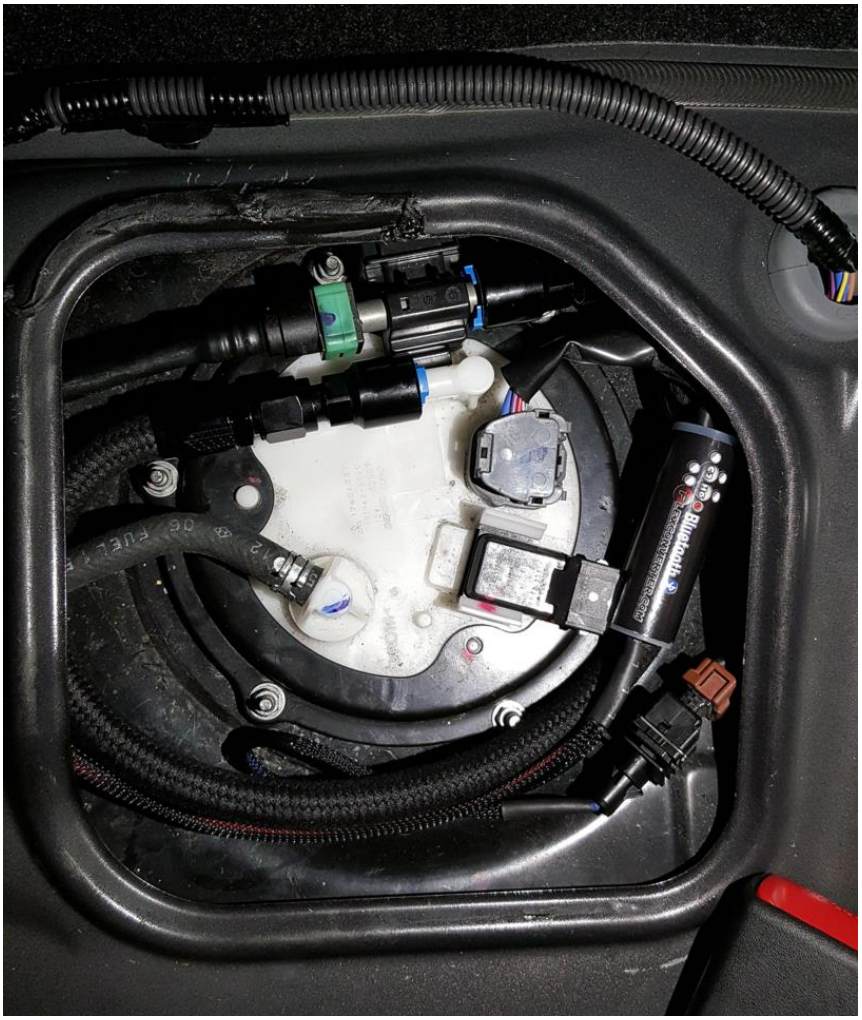
Step 2: *Pry driver side fuel sending unit cover upward and remove harness clip from front edge*
The fuel sending unit cover is attached to the chassis with an adhesive silicone gum. Simply pry the cover upward with a flat head screwdriver and pull upward on the cover to detach it from the chassis sheet metal. You may also want to un-clip the harness from the front of the cover so you can completely move it out of the way.

Step 3: *Detach stock fuel line from sending unit*

Detach the stock fuel pressure line from the sending unit. This is as easy as prying the green retaining clip upward (and removing it if you desire), then wiggle the fuel line off the sending unit barb. Be careful as the fuel system likely still has pressure and can spray a small amount of fuel out as you remove the line.

Step 4: *Un-clip fuel tank pressure differential sensor*
The fuel tank pressure differential sensor is the 3-wire black sensor on top of the fuel sending unit. This input to the ECU will be used for ethanol content monitoring to allow the flex fuel operation of your tune. It has a metal wire retaining clip that must be removed prior to unplugging the harness. This is best removed with a metal pick, be careful not to break the top plastic retaining tab for the clip. Once the retaining clip has been removed you can easily remove the harness connector from the sensor.

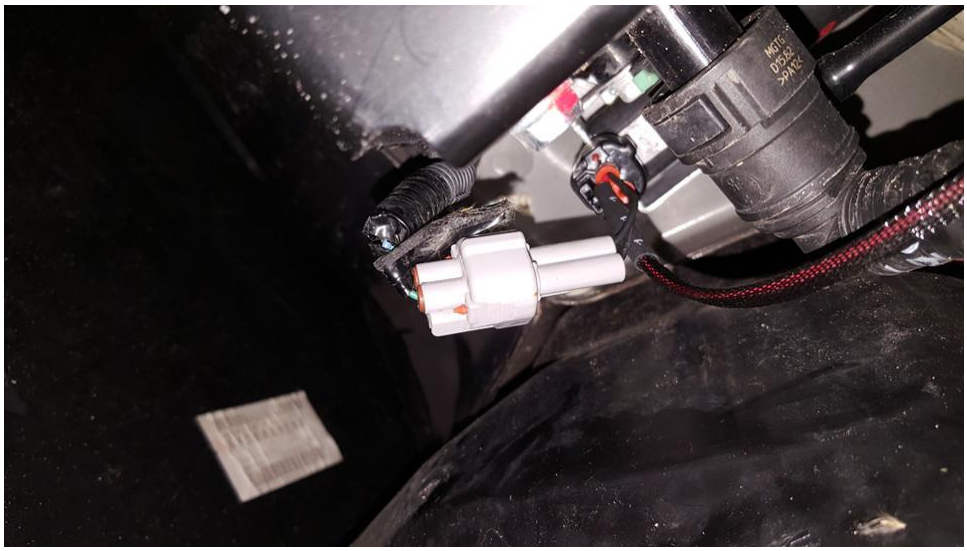
Step 5: *Install ethanol sensor and connect fuel lines (WTF Specific Instructions)*
Keep in mind that all hose ends and adapters are fully pre-assembled for your convenience. Connect the stock fuel line (removed in Step 3) to the left side ethanol sensor barb and re-install the green fuel line retaining clip (it should click snuggly into place). Tuck the sensor neatly under the chassis sheet metal so that it sits on top of the fuel tank and route the BlueFlex ECA to the location shown in the picture below. Route the remaining end of the PTFE fuel line around the sending unit, under the stock return line, and install the quick connect fitting onto the fuel sending unit 3/8" EFI connection. After modifying the housing as described in Appendix A, use an 11/16" wrench (or 18 mm) to tighten the threaded insert into the 3/8" EFI adapter while securing the adapter side with a 5/8" (or 16 mm) wrench. Wrist tight is more than sufficient to secure the connection (the picture below shows clip-on connections, but your kit will have threaded connections as described in these instructions).



Step 6: *Check for fuel leakage*
At this point, the fuel system is intact and should be checked for leaks before proceeding. You can start the vehicle and quickly check for fuel leakage at all connection points of the newly installed hardware. If a leak is found, quickly shut the vehicle off and investigate the cause of leakage.

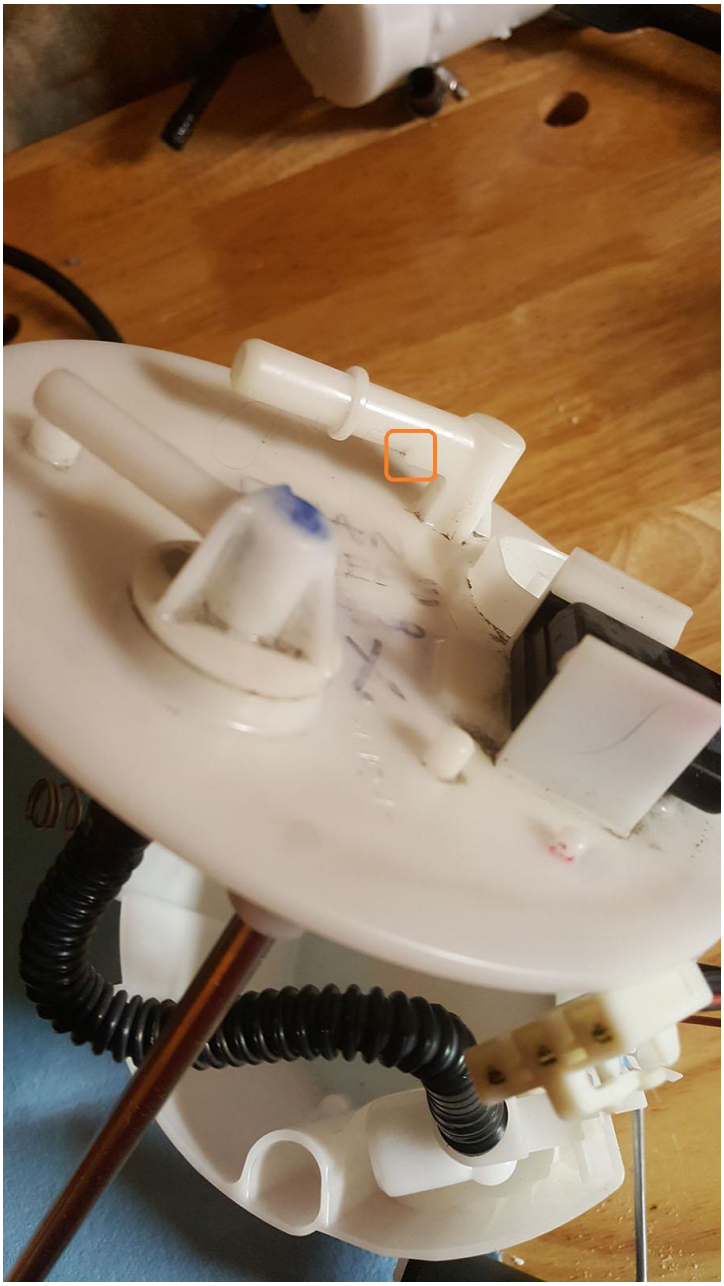
Step 7: *Connect BlueFlex plug-and-play harness connectors*
Now you can connect the BlueFlex plug-and-play connectors to their respective locations. The 3-pin connector must be connected to the harness connector that was previously removed from the fuel tank differential pressure sensor, and the 2-pin connector must be routed to the rear underside of the vehicle.

- Neatly loop the 3-pin BlueFlex harness and connect to the chassis harness, re-install the metal retaining clip and make sure it clips firmly into place. Route the long 2-pin connectors to the ground at the driver side of the fuel tank.
- Raise the car with a jack or car lift and support with jack stands if using a jack.
- Carfully route the 2-pin connector pair along the tank toward the rear of the car. Route over the top of the subframe on the inside of the mounting points (do not route over the rear upper control arm).
- Continue to route the 2-pin connector pair toward the driver side rear bumper area. There will be a black evap canister with a purge solenoid attached.
- Unplug the 2-pin connector from the purge solenoid and connect the female connector of the BlueFlex harness to the solenoid. Then connect the male 2-pin BlueFlex connector to the female chassis harness connector that was removed from the solenoid.
- Use zip ties to secure harness nicely to the chassis, make sure it cannot touch or be touched by any suspension components. Snip excess zip tie lead for clean fitment.



Step 8: *Reinstall fuel sending unit cover and rear seat*
At this point the BlueFlex ECA Flex Fuel kit has been completely installed. You must now re-attach the fuel sending unit cover by simply placing it back on the adhesive gum and pressing downward to secure in place. Attach the harness clip to the sending unit cover if it was un-clipped previously. Now re-install the rear passenger seat by fitting the seat belt clips into place and shoving the retaining tabs firmly back into their receiving grooves in the chassis.

Appendix A: Modification to the 3/8” EFI connection



As shown to the left, you will need to chisel off a small portion of the stock 3/8” EFI connection in order to install the threaded -6 AN adapter. This can be done with mere hand force and a chisel or even a flat-headed screw driver. Only the very edge of the corner circled in orange will need to be removed.