

6th Gen Camaro SS Flex Fuel installation Guide

Contents

- Vehicle specific wire harness
- OEM GM flex fuel composition sensor
- Vehicle specific fuel line adapter and or hose assembly (depending on kit version)

Tools required for installation

- Fuel line disconnect tool (3/8" or 10mm) available at most part stores
- 5/8" open ended wrench
- Small needle nose pliers and or small tweezers
- Pick tool of very small screw driver
- Flat head screw driver
- Dielectric grease or silicon lubricant

****Professional Installation strongly recommended; SMG will NOT warranty damage caused by DIY installation. ****

Before we begin, take note that we are working with sensitive automotive electronics and fuel systems, it is always recommended to disconnect the negative battery terminal prior to starting any work.

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Fuel Connection

1. Our Kits are all designed to be “plug and play”, you will not have to make any splices or permanent changes to your fuel lines.
2. Locate the fuel rail to hardline connection for your application. Pics Below should help you locate the correct spot. Remove the retaining clip if any and set aside.



3. If you disconnected the battery like suggested above, there should be minimal fuel pressure build up, but some may spray. Have a rag ready and using the fuel disconnect tool, separate the hard and flexible lines.
4. Clean up any spilled fuel and then grab the sensor / adapter / hose included with your kit.
5. Assemble the sensor to the hose if not already done and clip the sensor assembly into place between the fuel rail or hardline and the OEM flex line. (see pics below).



6. If your kit includes black aluminum adapters, the end cap unscrews and slides over the OEM hardline or rail. Replace the cap behind the fuel line lip and snug just hand tight using that 5/8” wrench from the tool list above (do not drop this cap as we do not have replacements readily available and charge \$10 plus shipping to send you a new one). If you have a simple flex hose, no caps come in your kit.
7. Reattach any factory retaining clips if you removed them and you have now finished the fuel side of the installation.

Wire Connection

1. Your kit was designed to be “plug and play” that means no extra fuses need to be installed, no wire splices etc. our connections plug into your OEM harness, work and look like factory parts.
2. Locate the nearest ignition coil to the recently installed flex sensor. Disconnect the OEM Plug from the coil, and insert our harness inline between the coil and your OEM harness. Make sure you seat the plugs completely; you may hear or feel a slight click as the connectors lock into place. Dabbing a small bit of the dielectric grease referenced above onto the plugs and around the weather tight seals will make it easy to assemble and disconnect down the road.



3. You should be left with one plug that can be connected to the flex sensor (if not already) and the white signal wire that will be routed to your PCM
4. Next, we'll route the white signal wire safely away from moving parts and heat sources to the PCM.
5. Our kits have a handy replaceable weather tight connector to aid in an easier install, as well as in the event you need to remove the kit for service or other work. You can disconnect it during the installation to make it easier to route.
6. Once you've located the PCM, remove the **X1** connector (has a blue cap on the face) and move the connector/harness towards you to allow you to disassembly the connector.
7. Remove the protective covers as show below and locate the pin mentioned below.
8. Your car uses pin **38**. Use the images below to make sure you have the correct hole, it should be empty, other than a possible plastic plug you will need to remove. If you find a wire installed already, you have either the wrong connector or the wrong hole. Double check. (this is the #1 reason we get calls, as people assume, they have it correct and wonder why their kit doesn't work).



9. Once you have the absolute correct pin hole located remove the plastic plug with either a tweezers or push it out from the front with your pick if there is one and prep the hole.
10. We suggest a small pic tool dipped in the dielectric grease, poked through the hole to make sure the connector is lubed. There is a small membrane in the hole that makes it water tight, you want to stretch it out just enough that the terminal slides through easily. It will go back to normal size and seal the wire after a short time.
11. The terminal and wire you are working with here are very thin, we use 100% oxygen free copper wire to ensure the absolute best signal transfer so the wire is very pliable. That makes it less than ideal for poking through tight holes. Do not try to simply force it in dry, it will bend, it will frustrate you and there is an easier way.
12. Again, take some of that dielectric lube and dap a bit on the little terminal you will be poking through the pcm connector and then grasp the wire just behind the terminal with a small needle nose or tweezers and carefully push it through the lubricated hole in the connector.
13. Once you have the terminal through, line it up so it's facing the same way as the rest of the terminals in line in the connector. Slide it flush and replace the protective cover over the terminals. If you have a small zip tie handy, its good practice to zip tie the wire to the rest of the bundle to help secure it.
14. Replace the rest of the covers if you have them and re attach the connector at the pcm, if you disconnected the white wire from the kit, you can route and reattach it now.
15. Secure any loose wires, and replace any parts removed to install the kit.
16. Reconnect your battery, start car and check for leaks and or misfires if either exist, turn off and double check work.

That's it. Your car will not even know the sensor is there at all until you have it turned on in the tune so go get tuned and fill up with some corn. (Be sure not to use e85 until you have been tuned and instructed to do so by your tuner).

As a leader in the Flex Fuel Industry, SMG has developed proprietary testing equipment to ensure only top-quality kits leave our facility to the end user.

So, before your kit gets boxed and shipped off to you, SMG tests not just the harness for continuity, positive crimps and connections, but we also test the sensor itself. Before it leaves our facility, we ensure it will work flawlessly. That gives us the confidence to offer a lifetime warranty to the original purchaser on all of our flex kits.

No other flex kit available offers the same. We even cover GM's sensor for life (they only cover it for 12 months.) ****This warranty DOES NOT cover faulty installation, nor damage from DIY Installers.**

