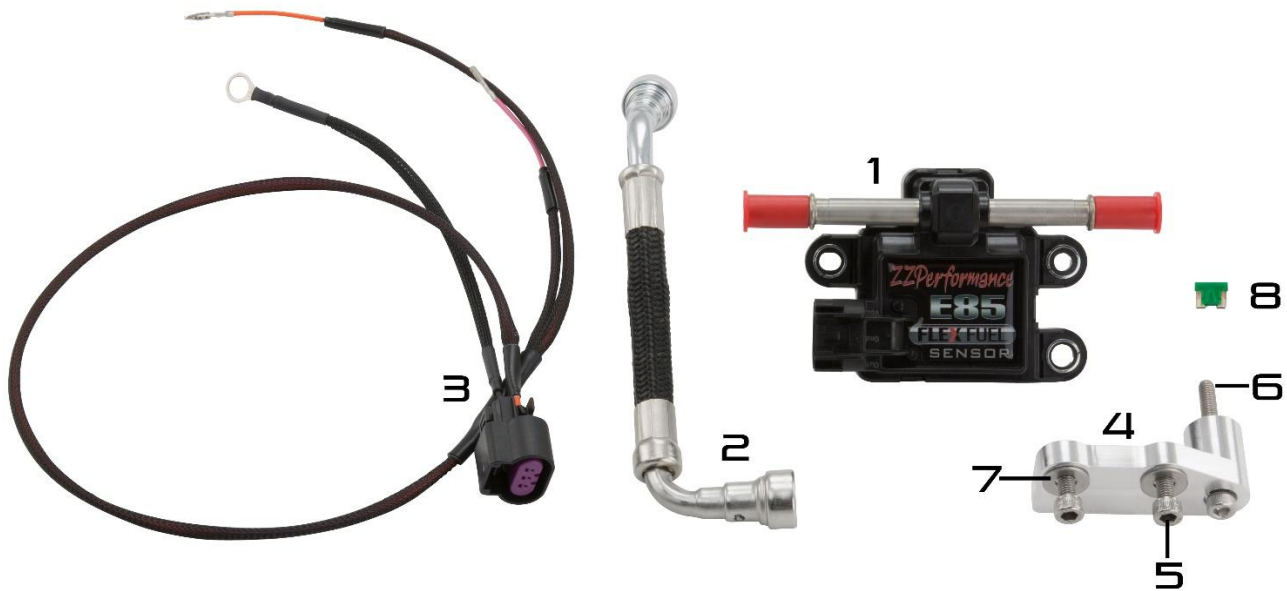


**ZZPERFORMANCE**

**Installation Instructions**

LTG E-85 Flex Fuel Conversion Kit  
ATS/Camaro 2.0 Turbo



**Estimated Installation Time: 2 hours**

**Installation Difficulty: 2/5**

#### **Kit Contents:**

1. Ehtanol sensor
2. Fuel line
3. Sensor harness
4. Sensor bracket
5. 6mm screw
6. 6mm screw
7. 6mm washer
8. Fuse
9. Add-a-circuit

#### **Tools Needed:**

- Ratchet
- Extension
- 13mm socket
- 10mm socket
- 8mm socket
- 5mm allen socket
- Small flat blade screwdriver
- Small pick tool
- Needle nose pliers
- Fuel line disconnect tool
- T-30 torx bit
- Wire stripper

### STEP ONE: Disconnect negative battery cable.



- Battery access panel is located in the driver side trunk compartment

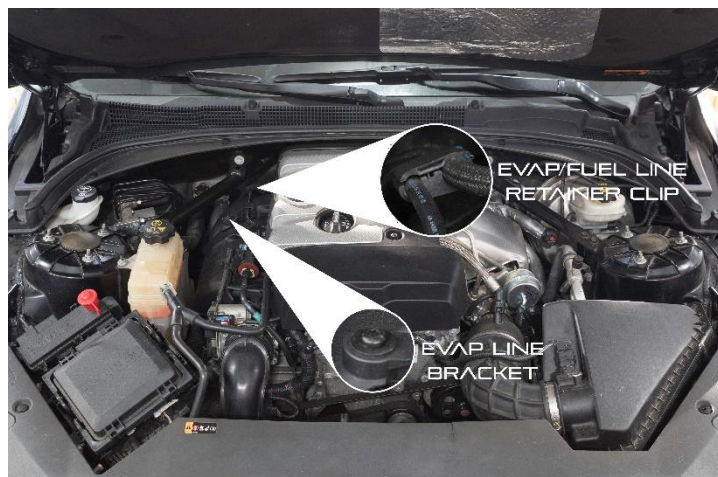
### STEP TWO:

- Remove plastic engine cover by taking off the oil fill cap and removing the T-30 torx screw. Depending on your year/make/model it may be a 10mm bolt



### STEP THREE:

- Remove the evap line bracket and evap line/fuel feed line bracket. You will not be reusing the evap/fuel feed line bracket.



#### STEP FOUR:

- Disconnect the fuel feed line from the fuel rail. First, remove the fuel line retainer clip, then disconnect the fuel line with a fuel line disconnect tool as shown.



#### STEP FIVE:

- Once the line is removed, route the line as shown in the photo.



#### STEP SIX:

- Next, mount the E-85 sensor to the supplied bracket and mount the assembly to the intake manifold. Now, attach the fuel feed line and supplied fuel line to the sensor and fuel rail. The sensor install is complete. We will move onto the sensor wiring now.





#### STEP SEVEN:



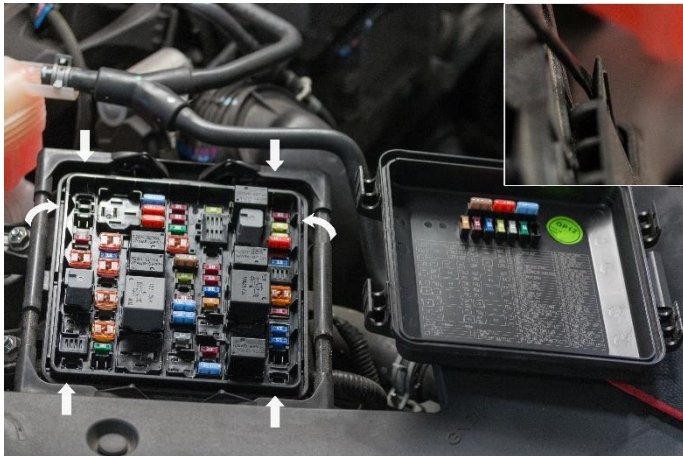
- Remove the fuse block cover and auxiliary block cover (ATS only).
- **Camaro installation does not require the removal of the fuse box, unless needed to access the PCM connector. Camaro customers will use step twenty (3) for the orange wire and add-a-circuit installation. Look ahead if clarification is needed.**

#### STEP EIGHT:

- Remove the auxiliary block fasteners then remove from the vehicle.



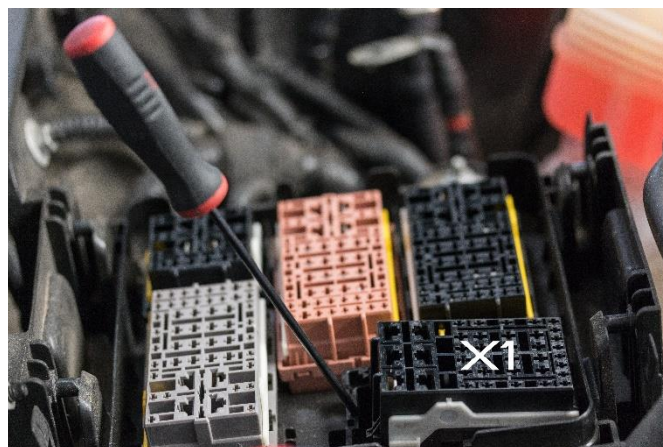
#### STEP NINE:



- Next, remove the fuse block. At every vertical arrow shown in the picture there is a release tab. You must pull up on the handle as you release these. There is a magnified picture to help you identify the tab.
- If working on a 2016+ Camaro you may leave the fuse box in place if you can adequately access the X3 connector.

#### STEP TEN:

- Once the fuse block is removed you must remove the plugs from the fuse block tray. As shown in the picture use a small pick or flat blade screwdriver to unlock the plug from the holder. You will not need a lot of pressure to unlock them. **Do not pry up on the plug. They slide to the side before you are able to remove them.**



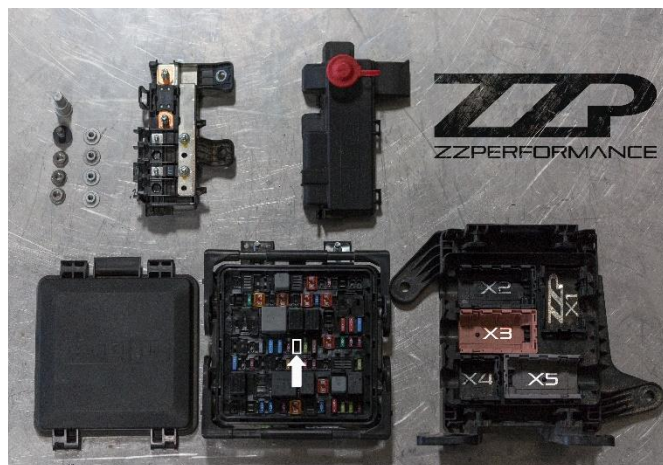
#### STEP ELEVEN:

- Now remove the fuse block holder.



#### STEP TWELVE:

- At this point these are the parts you should have removed from the vehicle.

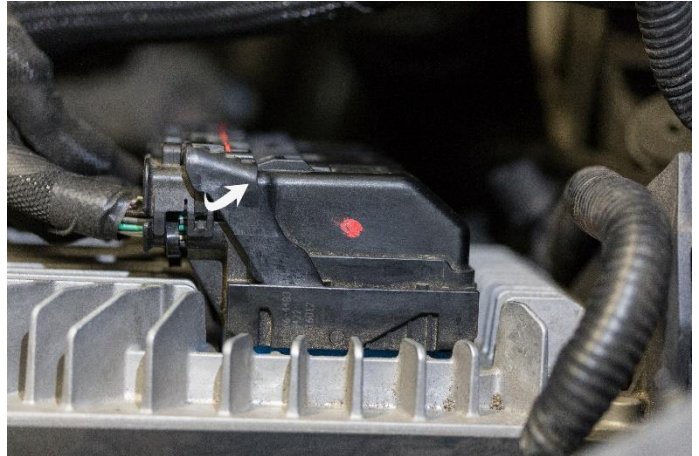




### STEP THIRTEEN:



- Plug in the sensor harness to the ethanol sensor. Attach the harness ground to the screw as shown in the picture below. Route the pink and orange wires between the strut tower and coolant bottle, then toward the ECM. This will ensure the harness reaches without damaging any of the wires from being too tight.



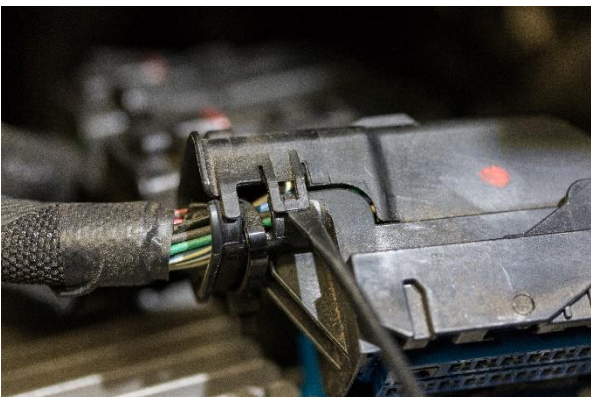
### STEP FOURTEEN:

- Next, unplug the K20 control module X1. The plug is black with blue terminal position assurance. Slide the red lock forward, then press down on the black tab in front of the locking arm and raise the arm as shown in the photo.
- **2016+ cars (ATS and Camaro) will use the X3 connector (circled).**



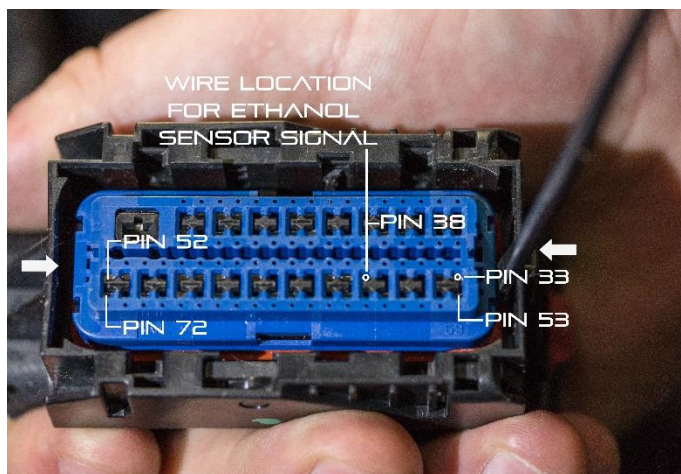
### STEP FIFTEEN:

- Once unplugged, you must remove the cover on the plug to gain access to the wiring inside. Gently lift the plastic ABS as shown in the picture below to remove the cover.



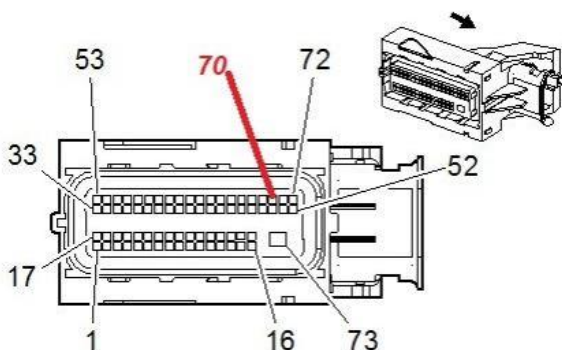
## STEP SIXTEEN:

- Once you have removed the cover, flip the plug over. Remove the blue assurance cover by prying up on each end carefully and evenly. For **2013-2015** cars you will be using pin 38 for the signal wire. The position of pin 38 is shown for reference. You will be adding the pink wire from the ethanol sensor harness to this position.



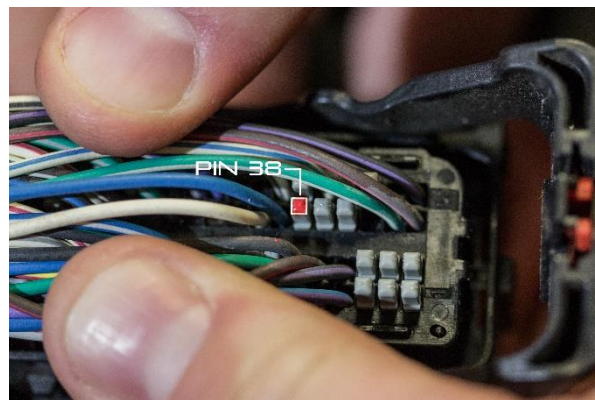
## STEP SEVENTEEN:

- For **2016-Present** cars (ATS and Camaro) you will be using pin 70 on the X3 connector for the signal wire. The position of pin 70 is shown for reference.



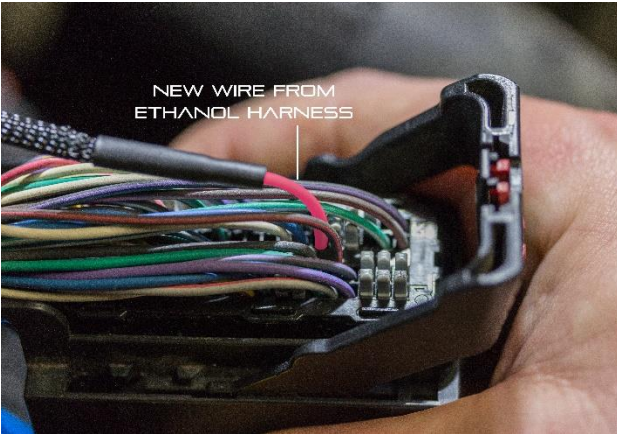
## STEP EIGHTEEN:

- Flip the back over to the wire side and locate the plastic filler pin in position 38 (or 70 depending on your year). Once located, remove the plastic pin.
- Pins will be grey from '13-'15, and blue from '16-present. The pin may also be black on some years/models. If it is black you need to push the pin through rather than pulling it out. We find a 3/32<sup>nd</sup> drill bit works best. You may also need to drill through the plastic if a pin is not present, you will use the aforementioned 3/32<sup>nd</sup> drill bit.

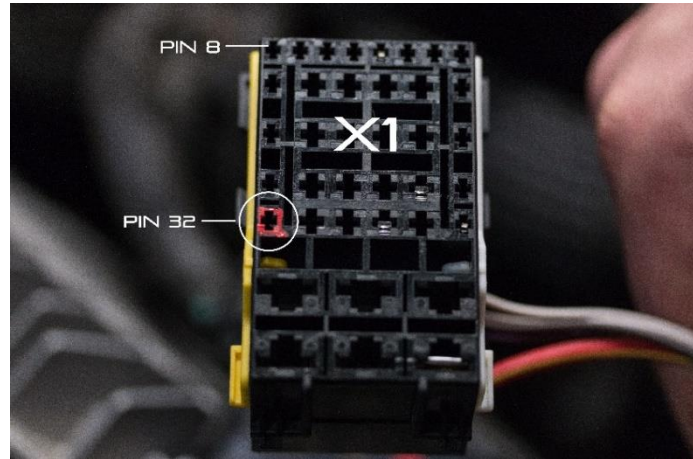




## STEP NINETEEN:

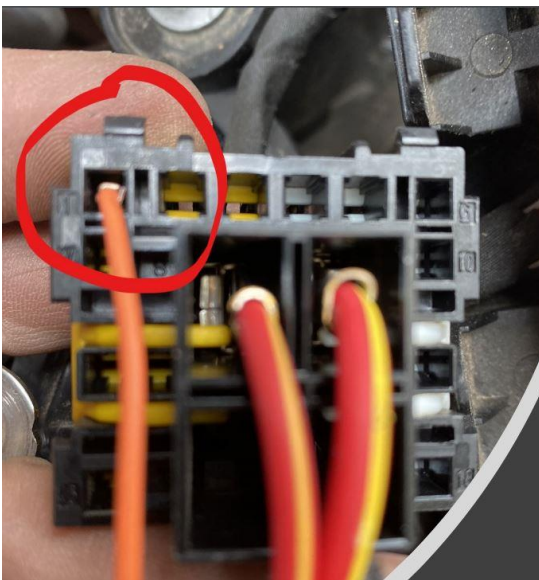
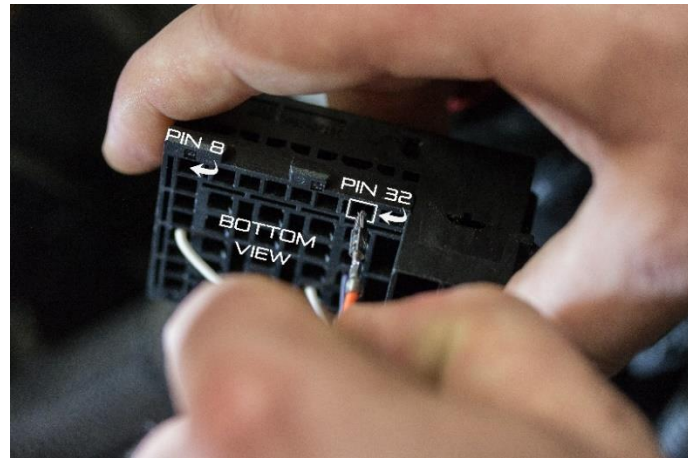


- Install the pink wire from the ethanol sensor harness into pin 38 (or 70 for '16+). Pay attention to the orientation of the other pins so that the new wire/pin will lock into place properly. Reinstall the blue position cover, wire cover and plug the connector back into the ecm.



## STEP TWENTY: Fuse block on 2013-2015 ATS/CTS cars

- Moving on to the fuse block connector wiring. Locate fuse block connector X1. You can refer to steps 10 & 12 for reference. Using a small pick or flat blade screwdriver slide the yellow lock out of the plug. Locate pin location 32 and install the orange wire from the ethanol sensor harness. Both top and bottom views are shown in the picture for reference. Slide the yellow lock back in place once the wire is installed. Route the orange wire in the same direction as the rest of the wires coming out of the X1 connector.



## STEP TWENTY (2): Fuse block on 2016+ ATS

- Moving on to the fuse block connector wiring. Locate fuse block connector X4. It is the only small square block. Using a small pick or flat blade screwdriver slide the yellow lock out of the plug. Locate pin #1 and slide the orange wire through the back side of the connector (same direction as all other wires).

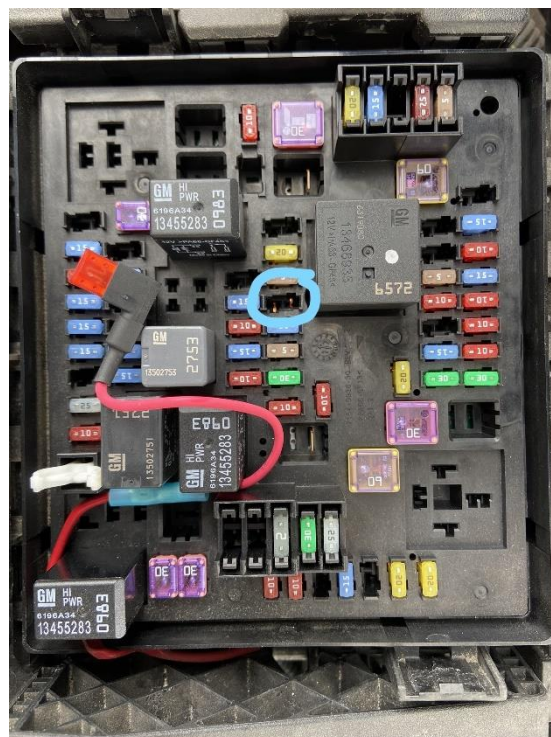
### STEP TWENTY (3): Fuse location for 2016+ Camaro

- For the 2016+ Camaro's you will be using the included add-a-circuit.
- Reassemble the fuse box assembly if you took it apart.



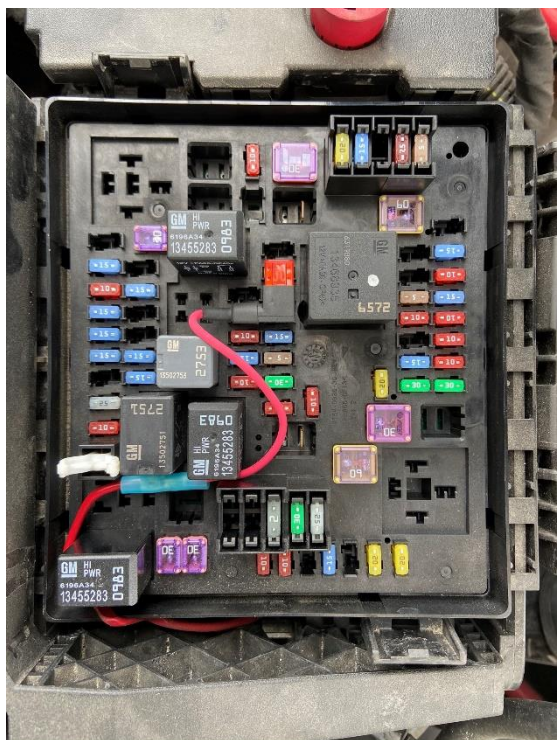
### STEP TWENTY (Continued): Fuse location for Camaro

- You will take the orange wire and snip it at the end just before the pin.
- Take wire strippers and strip about half an inch of sheathing off the wire.
- Roll the wire and insert it into the butt connector on the add-a-circuit.
- Clamp down on the end of the butt connector to secure the wire. Pull on the wire to make sure it does not come loose.



### STEP TWENTY (Continued): Fuse location for Camaro

- Take the 10a fuse out of slot F42 (I/P BODY IGN).
- Insert 10a fuse into add-a-circuit along with the 10a fuse provided in flex fuel kit. Insert into slot F42.
- Reinstall fuse box cover and enjoy!





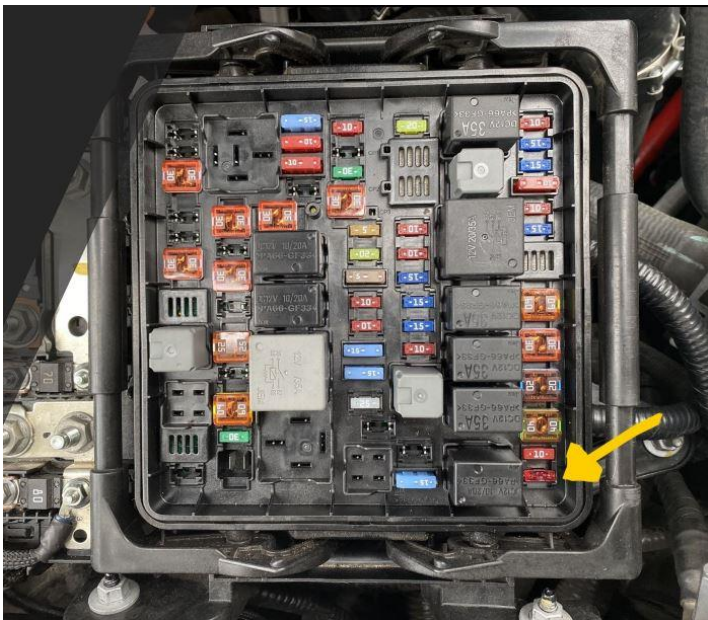
#### STEP TWENTY-ONE:

- You are finished wiring the sensor. Now re-install the fuse block tray and plug in the X1 connector. Be sure the orange wire is routed properly at this time. Re-install all parts in reverse order.



#### STEP TWENTY-TWO: Fuse on 2013-2015 cars

- Once you have re-installed all the parts, you need to install the supplied fuse into the open location in the fuse block. **Without this fuse installed your ethanol sensor will not have power.**



#### STEP TWENTY-TWO (2): Fuse on 2016+ ATS

- Once you have re-installed all the parts, you need to install the supplied fuse into the open location in the fuse block. **Without this fuse installed your ethanol sensor will not have power.**