#910-08592 1985-1992 Throttle Body Injection Wiring Harness Installation

**Thank You!**
I want to personally thank you for purchasing a Fuel Injection Connection wiring harness. The staff at Fuel Injection Connection Inc. are continually striving to bring the best value products for your project and budget. Thank you again for your purchase.

**Technical Questions?**
Please send email to Fuelinjectionconnection@gmail.com or go online at fuelinjectionconnection.com if you have any technical questions.

**Quality of Construction**
This harness is constructed using OEM quality wire for superior reliability and long term use. The wire colors are the same as the factory wire colors for car and truck TBI injected engines. The harness will work with almost any of the GM TBI ECMs that do not have the electronic shifting 4L60E or 4L60E transmission, however it will control the torque converter lock up when applicable for the 700R4 and 200R4 transmissions. When using the Camaro, Fire bird or Caprice electronic control module (ECM), the original Vehicle Anti Theft (VATS) will need to be disabled by reprogramming the EPROM. When using the service number 1227747 ECM for truck applications, the VATS is already deleted. The service number 1227747 is also the better performing ECM for all applications of the TBI engine. Delphi connectors are standard on GM original wiring harnesses. We have tried to minimize any splices within the harness but as necessary any splices are woven or mechanically crimped and soldered then they are covered with dual wall heat shrink tubing. There is not glue within the shrink tube that provides extra support and seals the splice from moisture.

**What You Need**
This harness is designed to work with a 1985-1992 style TBI engine and accessory configuration. The 1985-1992 style engine is equipped with the following specific items that may need to be relocated because this harness is designed to (hide) some equipment found on or around the engine:

- You will need to supply 12 Volt ignition power to the coil through the vehicle wiring.
- The 2 wire plug from the coil to the distributor module is used to power up the distributor and provide a coil trigger for spark. This wire should be part of your original wiring or can be purchased separately.
- Small HEI Distributor with Externally Mounted Coil or
- Large cap (internal coil) distributor. It must be fuel injection style with 4 wire feedback to the ECM
- MAP Sensor (located on passenger side of intake manifold and can be moved to the firewall) Part # SU105
- Two Terminal Oil Pressure Switch for 1989 TBI Truck (Part number PS215)
- TBI ECM (GM# 1227747) or equivalent with an EPROM designed for the engine that you are using 5.0 7.4 liter etc.
- ESC or electronic spark control module (located near MAP sensor on intake manifold) will be relocated near the ECM
Installing the Harness

Connecting Ignition Power

Connect the big PINK wire labeled, "Ignition on in run and crank", to an ignition power source that has power with the key in the ON position and in the CRANK position. Be sure your ignition power source can handle 20 amps. It must also provide 12 volts in the ON position and when the key goes to the Crank position. If it does not handle 20 amps or if the voltage drops to 10.5 or lower, you may use a relay (see diagram below).

If Using a Relay

Connect the ignition power from your vehicle (this must supply power with the key in the ON and CRANK position) to the relay's coil high (86), a vehicle ground source to coil low (85), and a battery power source to the relay switch (30). Be sure that the battery power wire can handle 30 amps. If you are unsure, you can run a wire directly from the battery to the relay. Finally, connect the PINK ignition wire in the TPI harness to the relay contact (87). When the relay receives a signal from your vehicle’s ignition source, the coil will switch power from the battery to energize the injectors and ECM ignition power.
**Battery Positive to Power Harness**

Attach the big red wire labeled "Battery Positive to Power Harness" to a power source that has 12 volts all of the time. Battery Power.

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**Ground Wires**

All the ground wires are terminated with two ring terminals and can be bolted to the back of the passenger side head. Also be sure to connect a Ground Strap (not included) from the Negative Battery Terminal to the Vehicle's Frame, a Ground Strap from the Vehicle's Frame to the Engine, and a Ground Strap from the Engine to the Vehicle's Body. If your vehicle is not properly grounded in this way, you will have electrical problems.

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**Fuel Pump**

![Diagram of Fuel Pump Circuit]

The ECM sends a signal to the Fuel Pump Relay to turn on the fuel pump. The GRAY wire labeled "Fuel pump Feed+" must be connected to the positive fuel pump power wire to energize the fuel pump. A typical TBI pump pressure must be able to maintain 15 to 18 PSI.
Brake Switch

The PURPLE wire on the 700R4 transmission plug must be connected to the Brake Switch in your vehicle for proper Torque Converter Lockup operation. The PURPLE wire provides 12v ignition power to the Lockup Solenoid inside the 700R4. When the brake pedal is depressed, the brake switch cuts power to the Lockup Solenoid. Power is restored when the brake pedal is not depressed. It is not required to connect this for the engine to run and drive.

Park/Neutral Safety Switch

A Neutral Safety Switch is a switch that prevents the vehicle from starting unless it is in Park or Neutral. This harness is NOT set up with that feature and YOU are responsible for the Neutral Safety feature of your vehicle.
**Vehicle Speed Sensor**
The Vehicle Speed Sensor connector is included in this harness. However if it doesn't match then you will need to use an existing connector and splice the Brown and the Blk/Wht wires from the ECM labeled "VSS" to a Vehicle Speed Sensor connector.

**Air Conditioning**
The input signal wire for the A/C is included in this harness. This DARK GREEN wire lets the ECM know that the A/C is ON by sending 12v when the A/C is ON. If you are not using A/C, you can ignore this wire.

**Service Engine Soon**

The BROWN wire from the ECM comes out in the multiple wire bundle and is labeled "Service Engine Soon", The brown wire is the light bulb ground. If you provide the bulb and the ignition on power to the bulb, this wire will activate the bulb flashing for trouble codes.
TBI Panel Fuse Locations