

ShopTalk

Tech Tips from a lifetime under the hood.....

DIESEL

Tech Tip: 2011 Duramax High Pressure Pump

If you receive a customer complaint that the truck has 2 new DTC codes (see below for specific Code Numbers) after installing a new High Pressure Fuel Pump (Part#0445-010-807) there is a simple solution to the problem.

DTC Codes Displayed:

P0182-Fuel temperature sensor 1 circuit low.

P00CP-Fuel pressure regulator 1 control circuit low voltage.

The solution is that the Fuel Temperature Sensor #1 and the Fuel Regulator #1 connectors are reversed in their positions. In this condition the Fuel Temp sensor Data could possibly read close to 302 degrees in the Scan Tool data. If the customer realizes the mistake, or after you inform him, and then installs the connectors in the correct position the DTC Code P00CP will clear. However, the DTC Code P0182 may not clear. This indicates a shorted or damaged Fuel Temp Sensor and it will need to be replaced. The GM Part number is 12643002.

The Fuel Temp Sensor #1 is located in the lower corner of the High Pressure Pump and is green in color. The Fuel Temp Sensor #1 connector is a two wire connector and the wire colors are brown/gray and brown/white depending on year model.

Note: The engine will start and run with the connectors reversed and here is the reason. "GM Late Model Fuel Control Strategy" At idle to around 1700 rpm the ECM uses the Fuel Pressure Regulator #2 (located on the end of the fuel rail) to control fuel rail pressure. GM also states that under certain conditions the ECM can use both regulators to control fuel rail pressure.

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