Bulletin No.: PIP5198B

Date: 14-Apr-2016

Service Bulletin

INFORMATION

Subject: Instrument Panel Cluster (IPC) Warning Lamps And/Or MIL Are Illuminated Diesel Exhaust Fluid (DEF) Message Displayed Various DTCs Set (Inspect Wiring Harnesses for Chafing)

Models: 2015 Chevrolet Silverado

2015 GMC Sierra

Equipped with 6.6L Duramax™ Diesel Engine RPO LML

This PI was superseded to update Part Information and Recommendation/Instructions. Please discard PIP5198A.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

Condition/Concern

Some customers may comment on any of the following conditions:

A driver information center (DIC) message is displayed.

Instrument panel cluster (IPC) warning lamps are illuminated.

Erratic or fluctuating engine oil pressure gauge.

One or more diesel exhaust fluid (DEF) warning messages are displayed.

The malfunction indicator lamp (MIL) is illuminated.

The engine may crank but not start.

The engine may run rough or misfire.

The technician may observe on a scan tool one or more of the following DTCs set as Current or in History:

DTC	Description
P00CA	Fuel Pressure Regulator 1 High Control Circuit High Voltage
P00C9	Fuel Pressure Regulator 1 High Control Circuit Low Voltage
P00EA	Intake Air Temperature (IAT) Sensor 3 Circuit Low Voltage
P00EB	Intake Air Temperature (IAT) Sensor 3 Circuit High Voltage
P003A	Turbocharger Vane Position Not Learned
P006E	Turbocharger Boost Control Solenoid High Control Circuit Low Voltage
P006F	Turbocharger Boost Control Solenoid High Control Circuit High Voltage
P008F	Engine Coolant Temperature (ECT) – Fuel Temperature Not Plausible

P0045	Turbocharger Boost Control Solenoid Control Circuit
P0047	Turbocharger Boost Control Solenoid Control Circuit Low Voltage
P0048	Turbocharger Boost Control Solenoid Control Circuit High Voltage
P0090	Fuel Pressure Regulator 1 Control Circuit
P0091	Fuel Pressure Regulator 1 Control Circuit Low Voltage
P0092	Fuel Pressure Regulator 1 Control Circuit High Voltage
P0117	Engine Coolant Temperature (ECT) Sensor Circuit Low Voltage
P0118	Engine Coolant Temperature (ECT) Sensor Circuit High Voltage
P0128	Engine Coolant Temperature (ECT) Below Thermostat Temperature
P0182	Fuel Temperature Sensor Circuit Low Voltage
P0183	Fuel Temperature Sensor Circuit High Voltage
P0191	Fuel Rail Pressure Sensor Performance
P0192	Fuel Rail Pressure Sensor Circuit Low Voltage
P0193	Fuel Rail Pressure Sensor Circuit High Voltage
P0202	Cylinder 2 Injector Control Circuit
P0204	Cylinder 4 Injector Control Circuit
P0206	Cylinder 6 Injector Control Circuit
P0208	Cylinder 8 Injector Control Circuit
P0340	Camshaft Position Sensor Circuit
P0403	Exhaust Gas Recirculation (EGR) Motor Control Circuit
P0405	Exhaust Gas Recirculation (EGR) Position Sensor Circuit Low Voltage
P0406	Exhaust Gas Recirculation (EGR) Position Sensor Circuit High Voltage
P046C	Exhaust Gas Recirculation (EGR) Position Sensor Performance
P049D	Exhaust Gas Recirculation (EGR) Position Not Learned
P0489	Exhaust Gas Recirculation (EGR) Motor Control Circuit 1 Low Voltage
P0490	Exhaust Gas Recirculation (EGR) Motor Control Circuit 1 High Voltage
P0522	Engine Oil Pressure Sensor Circuit Low Voltage

P0523	Engine Oil Pressure Sensor Circuit High Voltage
P0532	Air Conditioning (A/C) Refrigerant Pressure Sensor Circuit Low Voltage
P0606	Control Module Processor Performance
P0641	5 V Reference 1 Circuit
P0672	Cylinder 2 Glow Plug Control Circuit
P0674	Cylinder 4 Glow Plug Control Circuit
P0676	Cylinder 6 Glow Plug Control Circuit
P0678	Cylinder 8 Glow Plug Control Circuit
P10CF	Charge Air Cooler Temperature - Intake Air Temperature (IAT) Sensor 3 Correlation
P1227	Cylinder 2 Injector Control Circuit Shorted
P1233	Cylinder 4 Injector Control Circuit Shorted
P1239	Cylinder 6 Injector Control Circuit Shorted
P1247	Cylinder 8 Injector Control Circuit Shorted
P125A	Fuel Pressure Regulator 2 High Control Circuit Low Voltage
P125B	Fuel Pressure Regulator 2 High Control circuit High Voltage
P140D	Exhaust Gas Recirculation (EGR) Motor Control Circuit 2 Low Voltage
P140E	Exhaust Gas Recirculation (EGR) Motor Control Circuit 2 High Voltage
P140F	Exhaust Gas Recirculation (EGR) Motor Current Performance
P1407	Exhaust Gas Recirculation (EGR) Motor Control Circuit Shorted
P205B	Reductant Tank Temperature Sensor Performance
P2146	Injector High Control Circuit Group 1
P2155	Injector High Control Circuit Group 4
P2295	Fuel Pressure Regulator 2 Control Circuit Low Voltage
P2296	Fuel Pressure Regulator 2 Control Circuit High Voltage
P2453	Diesel Particulate Filter (DPF) Differential Pressure Sensor Performance
P2564	Turbocharger Vane Position Sensor Circuit Low Voltage
P2565	Turbocharger Vane Position Sensor Circuit High Voltage

P2598	Turbocharger Boost Control Position Performance – Low Position
P2599	Turbocharger Boost Control Position Performance – High Position

Recommendation/Instructions

If any of the symptoms or DTCs described above are found during diagnosis, complete the current SI diagnostic for any symptoms or DTCs found.

Note: This engine wiring harness contains fuel injector circuits. The fuel injector high voltage supply circuit and the high voltage control circuit are both controlled by the ECM. The ECM energizes each fuel injector by grounding the control circuit and supplying each fuel injector with up to 250 V and 20 amps on the voltage supply circuit to activate the Piezo type fuel injectors.

Danger: In order to reduce the risk of personal injury, loss of high voltage isolation to ground and higher system impedance, do not attempt to repair any HV wiring, connector, or terminal that is damaged. High voltage coaxial type cables are not repairable. Never attempt to repair a coaxial type cable. The entire cable/harness or component must be replaced. In order to maintain system integrity and personal safety, never attempt to repair any high voltage wiring, cables, or terminals. Performing this procedure on high voltage circuits may result in serious injury or death.

Danger: Before working on any high voltage fuel injection system, be aware of the following procedures:

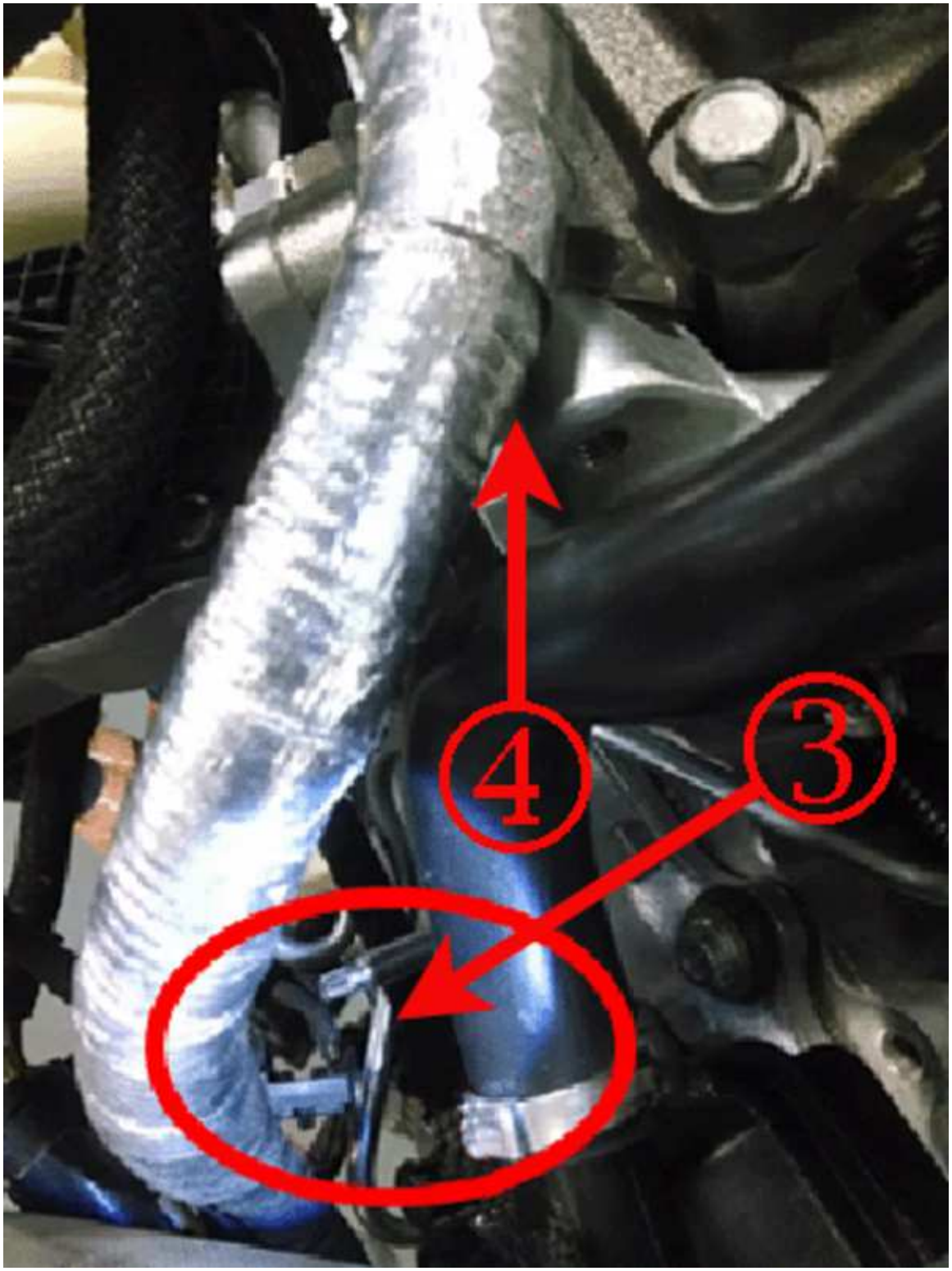
- Do not make contact with the fuel injection harness, engine control module (ECM), or fuel injectors while the ignition is ON or RUN positions.
- Wait 5 minutes after key OFF to allow the electronic control module (ECM) to discharge before attempting to disconnect or test engine control components.
- Do not use the electronic control module (ECM) case as a ground while jump starting.
- Failure to follow the procedure exactly as written may result in serious injury or death.

If the diagnosis does not lead to a resolution or if the symptoms or DTCs are intermittent and cannot be duplicated, check for chafing of the engine wiring harness that is routed near the EGR Valve. The wiring harness has been found chafed on a tab of the EGR Valve metal gasket.

Repair or replace the wiring harness if it is found chafed on the tab of the EGR Valve metal gasket.

It is critical that the wiring harness retainer is fully seated onto the stud on the driver's side rocker cover. This retainer is tied to the harness and is located underneath the charged air cooler (CAC) inlet pipe near the #4 fuel injector. Proper routing and securing of the harness ensures there is clearance between the harness and the EGR valve.

1. Wiring harness retainer fully seated onto the stud on the driver's side rocker cover.
2. Proper clearance between the harness and the EGR valve.



3. Wiring harness retainer NOT fully seated onto the stud on the driver's side rocker cover.
4. IMPROPER clearance between the harness and the EGR valve.

Bend the tab of the EGR gasket over to prevent a re-occurrence.

Refer to parts catalog for replacement parts based on VIN and vehicle content.

Warranty Information

For vehicles repaired under warranty use:

Labor Operation	Description	Labor Time

5430940	Harness Replacement	Use Published Labor Operation Time

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.

WE SUPPORT VOLUNTARY TECHNICIAN CERTIFICATION