IMPORTANT SERVICE INFORMATION FOR:

- ✓ SERVICE MANAGER
- ✓ SERVICE ADVISOR
- ✓ TECHNICIAN
- ✓ PARTS DEPARTMENT
- ✓ WARRANTY PERSONNEL

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GROUP:
FUEL & EXHAUST

EXHAUST GAS TEMPERATURE (EGT) SENSORS 1 AND 2 – TEST PROCEDURE

AFFECTED VEHICLES

- 2007-2017MY Isuzu N-Series
- 2012-2017MY Isuzu NPR Stripped Chassis
- 2007-2010MY Chevy/GMC W-Series
- 2007-2009MY Isuzu F-Series
- 2007-2009MY Chevy/GMC T/C-Series

Engines Equipped with Diesel Particulate Filter (DPF)

This bulletin supersedes information bulletin IB15-L-001. This bulletin is being updated to revise Model Years. Please discard previous bulletin IB15-L-001.

INFORMATION

An investigation of returned number 1 and 2 EGT sensors to the Warranty Parts Center has identified a common occurrence of sensors being replaced with **"no trouble found" (NTF).**

If any one of the following DTCs are present, perform the service procedure in this bulletin.

DTC	CONDITION
P0545	Sensor 1 Low Voltage
P0546	Sensor 1 Low Voltage
P2032	Sensor 2 Low Voltage
P2033	Sensor 2 Low Voltage
P2080	Sensor 1 does not match up with the ECM pre-determined temperature range
P2084	Sensor 2 does not match up with the ECM pre-determined temperature range
P20E2	Sensors 1 & 2 are not within a specific temperature of each other that the ECM has been predetermined
P2428	Sensor 1 Excessively High Temperature
P244D	Sensor 2 Excessively High Temperature

In order to better service the customer and stop the unnecessary replacement of these sensors, Isuzu has provided the following inspection information to aid the technician in properly diagnosing EGT sensors 1 and 2.

SERVICE PROCEDURE

1. Visually inspect the sensor to ensure it is installed correctly into the DPF housing and that the plug, wiring and terminals are free of damage and corrosion (see Figure 1).
    a. If any deficiencies are found in the system, repair the faulty condition(s) before continuing.
    b. If damage is found to the EGT sensor itself, replace the EGT sensor.

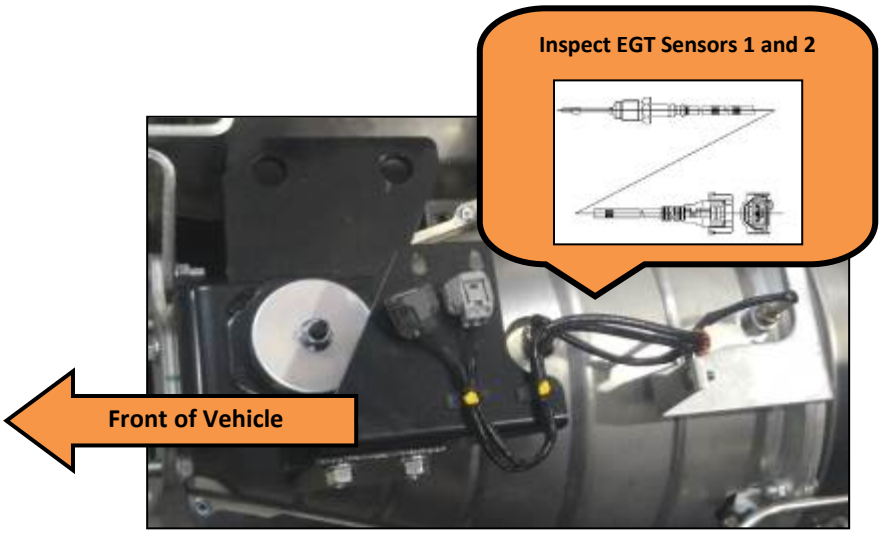

Figure 1 – EGT Sensors 1 & 2

2. Check the sensor's static resistance at ambient temperature (0-50°C/32-122°F) with a Digital Volt/Ohmmeter (DVOM) (see Figure 2). The resistance must be within the 100KΩ~500KΩ range.
    a. If the resistance is above or below this range, replace the EGT temperature sensor.

Figure 2 – EGT Sensor Connector

3. Check the sensor's dynamic resistance by warming the sensor tip by hand or by using a standard 110V heat gun (see Figures 3 through 5). The temperature vs. resistance response is inversely proportional; therefore the resistance value shown on the DVOM should decrease as the sensor is heated (see Figure 6). Stop applying heat if the resistance drops below 1KΩ.
    a. If the sensor resistance decreases when heated, the sensor is working properly and should not be replaced.

b. If the resistance does not decrease with the addition of heat, the sensor is faulty. Replace the EGT temperature sensor.

Figure 3 – 110V Heat Gun

Figure 4 – Correct Heat Gun Application

Figure 5 – Incorrect Heat Gun Application

°C	°F	Ohms
Temperature vs. Resistance Value (Approximate)		
50	122	106000
40	104	137000
30	86	180000
20	68	242000
10	50	330000
0	32	477000

Figure 6 – Temperature vs. Resistance Value Chart