

P250A: ENGINE OIL LEVEL SENSOR CIRCUIT

OVERVIEW

Severity	:	High
DIY Difficulty Level	:	Intermediate
Repair Cost	:	\$121-\$160
Can I Still Drive?	:	Yes

What Does The P250A Code Mean?

OBD-II trouble code P250A and related codes [P250B](#), [P250C](#), [P250D](#), [P250E](#), and [P250F](#) are associated with the engine oil level sensor circuit. This circuit is also known as the oil level safety circuit.

The purpose of the engine oil level sensor circuit is to monitor the engine oil level and oil pressure to ensure the internal engine components are receiving the appropriate amount of lubrication. The engine oil level sensor is mounted to or inside the engine oil pan in most circumstances and the exact location is vehicle specific. This process incorporates various components to accomplish based on the configuration of the oil supply system.

When the PCM detects improper voltage or resistance within the engine oil level sensor circuit, code P250A will be set and the check engine light, service engine soon light or both may be illuminated. In some circumstances, the PCM may shut the engine down to prevent internal engine component damage.

What Are The Symptoms Of The P250A Code?

Symptoms of a P250A trouble code may include:

- Engine may not start
- Low oil pressure gauge reading
- Service engine soon light illuminated

- Check engine light illuminated

What Are The Potential Causes Of The P250A Code?

Causes for this P250A code may include:

- Defective oil level sensor
- Dirty or clogged oil pressure sensor
- Low engine oil level
- Engine oil level too high
- Faulty or damaged wiring
- Corroded, damaged or loose connector
- Defective fuse or fuse-able link (If applicable)
- Defective PCM

How Can You Fix The P250A Code?

The first step in the troubleshooting process for any malfunction is to research the Technical Service Bulletins (TSB's) for the specific vehicle by year, model and power plant. In some circumstances, this can save a lot of time in the long run by pointing you in the right direction.

The second step is to check the condition of the engine oil and confirm it is serviced to the appropriate level. Then locate all components associated with the engine oil level sensor circuit and look for obvious physical damage. Based on the specific vehicle, this circuit may incorporate several components including the oil pressure sensor, switches, fault indicators, an oil pressure gauge and the PCM. Perform a thorough visual inspection to check the associated wiring for obvious defects such as scraping, rubbing, bare wires, or burn spots.

Next is to check the connectors and connections for security, corrosion and damaged pins. This process must include all wiring connectors and connections to all components including the PCM. Consult the specific tech data for the vehicle to verify the configuration of the oil level safety circuit and see if a fuse or fuse-able link is incorporated into the circuit.

Advanced Steps

The advanced steps become very vehicle specific and require the appropriate advanced equipment to perform accurately. These procedures require a digital multi meter and the specific technical references for the vehicle. In this situation, an oil pressure gauge may facilitate the troubleshooting process.

Voltage Checks

The reference voltage and the acceptable ranges may vary based on the specific vehicle and the

circuit configuration. Specific technical data will include troubleshooting charts and the appropriate sequence to follow assisting you with an accurate diagnosis.

If this process identifies the absence of a power source or ground, continuity testing may be required to check the integrity of the wiring, connectors and other components. Continuity tests should always be performed with the power removed from the circuit and the normal readings for wiring and connections should be 0 ohms of resistance. Resistance or no continuity is an indication of faulty wiring that is open or shorted and must be repaired or replaced. A continuity test from the PCM to the frame will confirm the serviceability level of ground straps and ground wires. The presence of resistance is an indication of a loose connection or possible corrosion.

Severity Description

The severity of this code is severe and requires immediate attention. Insufficient lubrication or oil pressure can cause permanent damage to internal engine components very rapidly.

Reference Sources

[P250A Engine Oil Level Sensor Circuit](#), OBD-Codes.